

TEST A

## Time 30 minutes 20 Questions

1. Mr. Janeck: I don't believe Stevenson will win the election for governor. Few voters are willing to elect a businessman with no political experience to such a responsible public office.
- Ms. Siuzdak: You're wrong. The experience of running a major corporation is a valuable preparation for the task of running a state government.
- M. Siuzdak's response shows that she has interpreted Mr. Janeck's remark to imply which of the following?
- (A) Mr. Janeck considers Stevenson unqualified for the office of governor.
- (B) No candidate without political experience has ever been elected governor of a state.
- (C) Mr. Janeck believes that political leadership and business leadership are closely analogous.
- (D) A career spent in the pursuit of profit can be an impediment to one's ability to run a state government fairly.
- (E) Voters generally overestimate the value of political experience when selecting a candidate.
2. Which of the following best completes the passage below?
- One tax-reform proposal that has gained increasing support in recent years is the flat tax, which would impose a uniform tax rate on incomes at every level. Opponents of the flat tax say that a progressive tax system, which levies a higher rate of taxes on higher-income taxpayers, is fairer, placing the greater burden on those better able to bear it. However, the present crazy quilt of tax deductions, exemptions, credits, and loopholes benefits primarily the high-income taxpayer, who is consequently able to reduce his or her effective tax rate, often to a level below that paid by the lower-income taxpayer. Therefore, \_\_\_\_\_
- (A) higher-income taxpayers are likely to lend their support to the flat-tax proposal now being considered by Congress
- (B) a flat-tax system that allowed no deductions or exemptions would substantially increase actual government revenues
- (C) the lower-income taxpayer might well be penalized by the institution of a flat-tax system in this country
- (D) the progressive nature of our present tax system is more illusory than real
- (E) the flat tax would actually be fairer to the lower-income taxpayer than any progressive tax system could be
3. As part of our program to halt the influx of illegal immigrants, the administration is proposing the creation of a national identity card. The card would be available only to U.S. citizens and to registered aliens, and all persons would be required to

produce the card before they could be given a job. Of course, such a system holds the potential, however slight, for the abuse of civil liberties. Therefore, all personal information gathered through this system would be held strictly confidential, to be released only by authorized personnel under appropriate circumstances. Those who are in compliance with U.S. laws would have nothing to fear from the identity card system.

In evaluating the above proposal, a person concerned about the misuse of confidential information would be most interested in having the author clarify the meaning of which of the following phrases?

- (A) “all persons” (line 5)
- (B) “however slight” (line 7)
- (C) “civil liberties” (line 8)
- (D) “appropriate circumstances” (line 11)
- (E) “U.S. laws” (line 2)

4. At one time, European and Japanese companies tried to imitate their American rivals. Today, American appliance manufacturers import European scientists to lead their research staffs; American automakers design cars that mimic the styling of German, Italian, and French imports; and American electronics firms boast in their advertising of “Japanese-style” devotion to quality and reliability. In the world of high technology, America has lost the battle for international prestige.

Each of the following statements, if true, would help to support the claim above EXCEPT:

- (A) An American camera company claims in its promotional literature to produce cameras “as fine as the best Swiss imports.”
- (B) An American maker of stereo components designs its products to resemble those of a popular Japanese firm.
- (C) An American manufacturer of video games uses a brand name chosen because it sounds like a Japanese word.
- (D) An American maker of televisions studies German-made televisions in order to adopt German manufacturing techniques.
- (E) An American maker of frozen foods advertises its dinners as “Real European-style entrees prepared by fine French and Italian chefs.”

5. Johnson is on firm ground when he asserts that the early editors of Dickinson’s poetry often distorted her intentions. Yet Johnson’s own, more faithful, text is still guilty of its own forms of distortion. To standardize Dickinson’s often indecipherable handwritten punctuation by the use of the dash is to render permanent a casual mode of poetic phrasing that Dickinson surely never expected to see in print. It implies that Dickinson chose the dash as her typical mark of punctuation when, in fact, she apparently never made any definitive choice at all.

Which of the following best summarizes the author’s main point?

- (A) Although Johnson is right in criticizing Dickinson’s early editors for their

- distortion of her work, his own text is guilty of equally serious distortions.
- (B) Johnson's use of the dash in his text of Dickinson's poetry misleads readers about the poet's intentions.
- (C) Because Dickinson never expected her poetry to be published, virtually any attempt at editing it must run counter to her intentions.
- (D) Although Johnson's attempt to produce a more faithful text of Dickinson's poetry is well-meaning, his study of the material lacks sufficient thoroughness.
- (E) Dickinson's editors, including Johnson, have failed to deal adequately with the problem of deciphering Dickinson's handwritten manuscripts.
6. A law requiring companies to offer employees unpaid time off to care for their children will harm the economic competitiveness of our nation's businesses. Companies must be free to set their own employment policies without mandated parental-leave regulations.
- Which of the following, if true, would most seriously weaken the conclusion of the argument above?
- (A) A parental-leave law will serve to strengthen the family as a social institution in this country.
- (B) Many businesses in this country already offer employees some form of parental leave.
- (C) Some of the countries with the most economically competitive businesses have strong parental-leave regulations.
- (D) Only companies with one hundred or more employees would be subject to the proposed parental-leave law.
- (E) In most polls, a majority of citizens say they favor passage of a parental-leave law.
7. If A, then B.  
If B, then C.  
If C, then D.
- If all of the statements above are true, which of the following must also be true?
- (A) If D, then A.
- (B) If not B, then not C.
- (C) If not D, then not A.
- (D) If D, then E.
- (E) If not A, then not D.
8. Dear Applicant:
- Thank you for your application. Unfortunately, we are unable to offer you a position in our local government office for the summer. As you know, funding for summer jobs is limited, and it is impossible for us to offer jobs to all those

who want them. Consequently, we are forced to reject many highly qualified applicants.

Which of the following can be inferred from the letter?

- (A) The number of applicants for summer jobs in the government office exceeded the number of summer jobs available.
- (B) The applicant who received the letter was considered highly qualified.
- (C) Very little funding was available for summer jobs in the government office.
- (D) The application of the person who received the letter was considered carefully before being rejected.
- (E) Most of those who applied for summer jobs were considered qualified for the available positions.

9. Studies of fatal automobile accidents reveal that, in the majority of cases in which one occupant of an automobile is killed while another survives, it is the passenger, not the driver, who is killed. It is ironic that the innocent passenger should suffer for the driver's carelessness, while the driver often suffers only minor injuries or none at all.

Which of the following is an assumption underlying the reasoning in the passage above?

- (A) In most fatal automobile accidents, the driver of a car in which an occupant is killed is at fault.
- (B) Drivers of automobiles are rarely killed in auto accidents.
- (C) Most deaths in fatal automobile accidents are suffered by occupants of cars rather than by pedestrians.
- (D) Auto safety experts should increase their efforts to provide protection for those in the passenger seats of automobiles.
- (E) Automobile passengers sometimes play a contributing role in causing auto accidents.

*Questions 10-11 are based on the following*

As one who has always believed that truth is our nation's surest weapon in the propaganda war against our foes, I am distressed by reports of "disinformation" campaigns by American intelligence agents in Western Europe. In a disinformation campaign, untruths are disseminated through gullible local journalists in order to damage the interests of our enemies and protect our own. Those who defend this practice say that lying is necessary to counter Soviet disinformation campaigns aimed at damaging America's political interests. These apologists contend that one must fight fire with fire. I would point out to the apologists that the fire department finds water more effective.

10. The author of the passage above bases his conclusion on which of the following?
- (A) A circular definition of "disinformation"
  - (B) An example of the ineffectiveness of lying as a weapon in the propaganda

war

- (C) An analogy between truth and water
  - (D) An appeal to the authority of the fire department
  - (E) An attack on the character of American intelligence agents in Western Europe
11. The author's main point is that
- (A) although disinformation campaigns may be effective, they are unacceptable on ethical grounds
  - (B) America's moral standing in the world depends on its adherence to the truth
  - (C) the temporary political gains produced by disinformation campaigns generally give way to long-term losses
  - (D) Soviet disinformation campaigns have done little to damage America's standing in Europe
  - (E) disinformation campaigns do not effectively serve the political interests of the United States
12. Are you still reading the other newspaper in town? Did you know that the *Daily Bugle* is owned by an out-of-town business syndicate that couldn't care less about the people of Gotham City? Read the *Daily Clarion*, the only *real* voice of the people of Gotham City!
- Which of the following most directly refutes the argument raised in the advertisement above?
- (A) Over half of the advertising revenues of the *Daily Clarion* come from firms whose headquarters are located outside of Gotham City.
  - (B) The *Daily Clarion* usually devotes more of its pages to out-of-town news than does the *Daily Bugle*.
  - (C) Nearly 40 percent of the readers of the *Daily Clarion* reside outside the limits of Gotham City.
  - (D) The editor-in-chief and all the other members of the editorial staff of the *Daily Bugle* have lived and worked in Gotham City for ten years or more.
  - (E) The *Daily Bugle* has been published in Gotham City for a longer time than has the *Daily Clarion*.

Questions 13-14 are based on the following.

The earth's resources are being depleted much too fast. To correct this, the United States must keep its resource consumption at present levels for many years to come.

13. The argument above depends on which of the following assumptions?
- (A) Per capita resource consumption in the United States is at an all-time high.
  - (B) The United States wastes resources.
  - (C) The United States uses more resources than any other country.
  - (D) The United States imports most of the resources it uses.



(E) Curbing U.S. resource consumption will significantly retard world resource depletion.

14. Which of the following, if true, would most strengthen the argument above?

(A) New resource deposits are constantly being discovered.

(B) The United States consumes one-third of all resources used in the world.

(C) Other countries need economic development more than the United States does.

(D) Other countries have agreed to hold their resource consumption at present levels.

(E) The United States has been conserving resources for several years.

15. Alba: I don't intend to vote for Senator Frank in the next election. She is not a strong supporter of the war against crime.

Tam: But Senator Frank sponsored the latest anticrime law passed by the Senate.

Alba: If Senator Frank sponsored it, it can't be a very strong anticrime law.

Which of the following identifies the most serious logical flaw in Alba's reasoning?

(A) The facts she presents do not support her conclusion that Senator Frank is soft on crime.

(B) She assumes without proof that crime is the most important issue in the upcoming election.

(C) She argues in a circle, using an unsupported assertion to dismiss conflicting evidence.

(D) She attacks Senator Frank on personal grounds rather than on his merit as a political leader.

(E) In deciding not to vote for Senator Frank, she fails to consider issues other than crime.

16. Which of the following best completes the passage below?

the most serious flaw in television's coverage of election campaigns is its tendency to focus on the horse-race side of politics—that is, to concentrate on the question “Who's winning?” at the expense of substantive coverage of the issues and the candidates' positions on them. The endless interviews with campaign managers, discussions of campaign strategies, and, especially, the obsession with opinion polls have surrounded elections with the atmosphere of a football game or a prizefight. To reform this situation, a first step might well be\_\_\_\_\_

(A) a shortening of the length of election campaigns to a period of six weeks

(B) a stringent limit on campaign spending

(C) a reduction in the television coverage of opinion polls during election campaigns

(D) the publication and distribution of voter-education literature to inform the

public about each candidate's position on the major issues

(E) a limit on the length and number of political advertisements broadcast on television

17. With Proposition 13, if you bought your house 11 years ago for \$75,000, your property tax would be approximately \$914 a year (1 percent of \$75,000 increased by 2 percent each year for 11 years); and if your neighbor bought an identical house next door to you for \$200,000 this year, his tax would be \$2,000 (1 percent of \$200,000). Without Proposition 13, both you and your neighbor would pay \$6,000 a year in property taxes (3 percent of \$200,000).

Which of the following is the conclusion for which the author most likely is arguing in the passage above?

- (A) Proposition 13 is unconstitutional because it imposes an unequal tax on properties of equal value.
- (B) If Proposition 13 is repealed, every homeowner is likely to experience a substantial increase in property taxes.
- (C) By preventing inflation from driving up property values, Proposition 13 has saved homeowners thousands of dollars in property taxes.
- (D) If Proposition 13 is not repealed, identical properties will continue to be taxed at different rates.
- (E) Proposition 13 has benefited some homeowners more than others.

*Questions 18-19 are based on the following.*

At an enormous research cost, a leading chemical company has developed a manufacturing process for converting wood fibers into a plastic. According to the company, this new plastic can be used for, among other things, the hulls of small sailboats. But what does the company think sailboat hulls used to be made of? Surely the mania for high technology can scarcely go further than this.

18. The author's opinion of the manufacturing process described in the passage is based primarily on the fact that
- (A) plastic is unlikely to be durable enough for high-quality sailboat hulls
- (B) the research costs of developing the process outweigh any savings possible from the use of the plastic
- (C) a small sailboat is not normally regarded as a high-tech product
- (D) hulls for small sailboats can be made from wood without converting it into plastic
- (E) many other spheres of human activity are in far greater need of technological research
19. Which of the following, if true, would most seriously weaken the author's conclusion?
- (A) The plastic produced by the process is considerably lighter, stronger, and

more watertight than wood.

- (B) The wood used in producing the plastic is itself in increasingly short supply.
- (C) The cost of the manufacturing process of the plastic increases the cost of producing a sailboat hull by 10 to 15 percent.
- (D) Much of the cost of the research that developed the new process will be written off for tax purposes by the chemical company.
- (E) The development of the new plastic is expected to help make the chemical company an important supplier of boat-building materials.

20. A young man eager to become a master swordsman journeyed to the home of the greatest teacher of swordsmanship in the kingdom. He asked the teacher, "How quickly can you teach me to be a master swordsman?" The old teacher replied, "It will take ten years." Unsatisfied, the young man asked, "What if I am willing to work night and day, every day of the year?" the teacher replied, "In that case, it will take twenty years."

The teacher's main point is that an important quality of a master swordsman is

- (A) humility
- (B) willingness to work hard
- (C) respect for one's elders
- (D) patience
- (E) determination

### TEST B

**Time 30 minutes 20 Questions**

1. Below is an excerpt from a letter that was sent by the chairman of a corporation to the stockholders.

A number of charges have been raised against me, some serious, some trivial. Individuals seeking to control the corporation for their own purposes have demanded my resignation. Remember that no court of law in any state has found me guilty of any criminal offense whatsoever. In the American tradition, as you know, an individual is considered innocent until proven guilty. Furthermore, as the corporation's unbroken six-year record of growth will show, my conduct of my official duties as chairman has only helped enhance the success of the corporation, and so benefited every stockholder.

Which of the following can be properly inferred from the excerpt?

- (A) The chairman believes that all those who have demanded his resignation are motivated by desire to control the corporation for their own purposes.
- (B) Any misdeeds that the chairman may have committed were motivated by his desire to enhance the success of the corporation.
- (C) The chairman is innocent of any criminal offense.
- (D) The corporation has expanded steadily over the past six years.



- (E) Any legal proceedings against the chairman have resulted in his acquittal.
2. In the years since the city of London imposed strict air-pollution regulations on local industry, the number of bird species seen in and around London has increased dramatically. Similar air-pollution rules should be imposed in other major cities.
- Each of the following is an assumption made in the argument above EXCEPT:
- (A) In most major cities, air-pollution problems are caused almost entirely by local industry.
- (B) Air-pollution regulations on industry have a significant impact on the quality of the air.
- (C) The air-pollution problems of other major cities are basically similar to those once suffered by London.
- (D) An increase in the number of bird species in and around a city is desirable.
- (E) The increased sightings of bird species in and around London reflect an actual increase in the number of species in the area.

3. Which of the following best completes the passage below?

In opposing government regulation of business, conservatives often appeal to the Jeffersonian ideal of limited government, expressing the wish that government would “get off the backs of the American people.” Yet, paradoxically, many of these same conservatives address questions of private morality, such as those dealing with sexual behavior, by calling for\_\_\_\_\_

- (A) a return to the restrictive sexual morality of the Victorian era
- (B) a strengthening of the role of the family in setting moral norms for society
- (C) a limitation on the amount of sexually provocative material appearing in books, movies, and television shows
- (D) greater freedom for individuals to choose their own way of handling sexual issues
- (E) an increased governmental role in the regulation and control of private sexual behavior

Questions 4-5 are based on the following:

In an experiment, two different types of recorded music were played for neonates in adjacent nurseries in a hospital. In nursery A, classical music was played; in nursery B, rock music was played. After two weeks, it was found that the babies in nursery A cried less, suffered fewer minor ailments, and gained more weight than did the babies in nursery B.

4. In evaluating the validity of the conclusion suggested by the experiment above, it would be most important to know which of the following?
- (A) The musical preferences of the parents of the two groups of newborns
- (B) Whether the newborns in both nurseries were equally healthy and happy at

the start of the experiment

- (C) Whether loud rock music can damage the hearing of newborns
- (D) What the average weight of the neonates was before and after the experiment
- (E) Whether the music was played in the nurseries at all times or only at certain times

5. Which of the following additional experimental data would support the hypothesis that classical music is beneficial to the development of newborn?
- (A) The neonates in a nursery where no music was played fared better than those in nursery B.
  - (B) Nursery A contained 15 percent more premature babies than nursery B.
  - (C) The newborns in nursery A cried less, suffered fewer minor ailments, and gained more weight than did newborns in a nursery with no music.
  - (D) The music played in nursery A was louder than that played in nursery B.
  - (E) The ratio of nurses to newborns in nursery B was 1 to 4; in nursery A, it was 1 to 6.
6. The ancient city of Cephessa was not buried by an eruption of Mt. Amnos in A.D. 310, as some believe. The eruption in the year 310 damaged the city, but it did not destroy it. Cephessa survived for another century before it finally met its destruction in another eruption around A.D. 415.

Which of the following, if true, would most strengthen the author's claim that the city of Cephessa was not buried by the eruption of Mt. Amnos in A.D. 310?

- (A) The city of Cephessa is mentioned in a historical work known to have been written in A.D. 400.
  - (B) Coins bearing the image of an emperor who lived around A.D. 410 have been discovered in the ruins of Cephessa, which were preserved by the cinders and ashes that buried the city.
  - (C) Geological evidence shows that the eruption of Mt. Amnos in A.D. 415 deposited a 10-foot-thick layer of lava on the city of Cephessa.
  - (D) Artworks from the city of Cephessa have been found in the ruins of another city known to have been destroyed in A.D. 420.
  - (E) A historical work written in A.D. 430 refers to the eruption of Mt. Amnos in A.D. 415.
7. June is taller than Kristin.  
Letty is taller than Maria.  
Maria is shorter than Nancy.  
Kristin and Nancy are exactly the same height.  
If the information above is true, which of the following must also be true?
- (A) Letty is taller than Nancy.
  - (B) Letty is taller than June.

- (C) Kristin is shorter than Letty.
- (D) June is taller than Maria.
- (E) Kristin is shorter than Maria.

8. Current farm policy is institutionalized penalization of consumers. It increases food prices for middle- and low-income families and costs the taxpayer billions of dollars a year.

Which of the following statements, if true, would provide support for the author's claims above?

- I. Farm subsidies amount to roughly \$20 billion a year in federal payouts and \$12 billion more in higher food prices.
- II. According to a study by the Department of Agriculture, each \$1 of benefits provided to farmers for ethanol production costs consumers and taxpayers \$4.
- III. The average full-time farmers have an average net worth of over \$300,000.

- (A) I only
- (B) II only
- (C) III only
- (D) I and II only
- (E) I, II, and III

9. Reva: Using extraneous incentives to get teenagers to change their attitude toward school and schoolwork won't work. Take the program in West Virginia, for instance, where they tried to reduce their dropout rate by revoking the driving licenses of kids who left school. The program failed miserably.

Anne: It's true that the West Virginia program failed, but many schools have devised incentive programs that have been very successful in improving attendance and reducing discipline problems.

According to Anne, the weak point in Reva's claim is that it

- (A) fails to consider the possibility that the majority of potential dropouts in West Virginia do not have driving licenses
- (B) doesn't provide any exact figures for the dropout rate in West Virginia before and during the program
- (C) ignores a substantial body of evidence showing that parents and employers have been using extrinsic incentives with positive results for years
- (D) assumes that a positive incentive—a prize or a reward—will be no more effective than a negative incentive, like the revoking of a driving license
- (E) is based on a single example, the incentive program in West Virginia, which may not be typical

10. In many surveys, American consumers have expressed a willingness to spend up to 10 percent more for products that are ecologically sound. Encouraged by such

surveys, Bleach-O Corporation promoted a new laundry detergent, Bleach-O Green, as safer for the environment. Bleach-O Green cost 5 percent more than typical detergents. After one year, Bleach-O Green had failed to capture a significant share of the detergent market and was withdrawn from sale.

Which of the following questions is LEAST likely to be relevant in determining the reasons for the failure of Bleach-O Green?

- (A) How effective as a detergent was Bleach-O Green?
- (B) How many other detergents on the market were promoted as safe for the environment?
- (C) How much more did Bleach-O Green cost to manufacture than ordinary detergents?
- (D) To what extent did consumers accept the validity of Bleach-O Green advertised and promoted to consumers?
- (E) How effectively was Bleach-O Green advertised and promoted to consumers?

11. The burden of maintaining the U.S. highway system falls disproportionately on the trucking industry. Trucks represent only about 10 percent of the vehicles on U.S. roads. Yet road use taxes assessed on trucks amount to almost half the taxes paid for highway upkeep and repair.

Which of the following, if true, would most weaken the argument above?

- (A) The trucking industry has enjoyed record after-tax profits in three of the past four years.
- (B) Because of their weight, trucks cause over 50 percent of the damage sustained by highway surfaces each year.
- (C) Without an economically viable trucking industry, the cost of goods in the United States would rise significantly.
- (D) Road use taxes paid by trucking companies have decreased by 3 percent over the past five years.
- (E) Due to years of neglect, U.S. highways today are badly in need of major repairs and rebuilding.

12. The upcoming presidential election in the West African republic of Ganelon is of grave concern to the U.S. State Department. Ganelon presently has strong political and military ties to the United States. However, the Socialist party is widely expected to win the election, leading to fears that Ganelon will soon break away from the pro-American bloc and adopt a nonaligned or openly anti-American stance.

Which of the following is an assumption made in the passage above?

- (A) A Socialist party government in Ganelon is more likely to oppose the United States than is a non-Socialist party government.
- (B) The people of the United States recognize their nation's interest in the

political stability of West Africa.

- (C) A weakening of U.S. political ties with Ganelon could have serious consequences for U.S. relations with other African nations.
- (D) The Socialist party leaders in Ganelon believe that their nation's interests would best be served by an alliance with anti-American forces.
- (E) The Socialist party will win the upcoming election in Ganelon.

13. No nation can long survive unless its people are united by a common tongue. For proof, we need only consider Canada, which is being torn asunder by conflicts between French-speaking Quebec and the other provinces, which are dominated by English speakers.

Which of the following, if true, most effectively challenges the author's conclusion?

- (A) Conflicts over language have led to violent clashes between the Basque-speaking minority in Spain and the Spanish-speaking majority.
- (B) Proposals to declare English the official language of the United States have met with resistance from members of Hispanic and other minority groups.
- (C) Economic and political differences, along with linguistic ones, have contributed to the provincial conflicts in Canada.
- (D) The public of India, in existence since 1948, has a population that speaks hundreds of different, though related, languages.
- (E) Switzerland has survived for nearly a thousand years as a home for speakers of three different languages.

14. As an experienced labor organizer and the former head of one of the nation's most powerful labor unions, Grayson is an excellent choice to chair the new council on business-labor relations.

Which of the following, if true, would most strengthen the conclusion above?

- (A) The new council must have the support of the nation's labor leaders if it is to succeed.
- (B) During his years as a labor leader, Grayson established a record of good relations with business leaders.
- (C) The chair of the new council must be a person who can communicate directly with the leaders of the nation's largest labor unions.
- (D) Most of the other members of the new council will be representatives of business management interests.
- (E) An understanding of the needs and problems of labor is the only qualification necessary for the job of chairing the new council.

15. In the effort to fire a Civil Service employee, his or her manager may have to spend up to \$100,000 of tax money. Since Civil Service employees know how hard it is to fire them, they tend to loaf. This explains in large part why the government is so inefficient.



It can be properly inferred on the basis of the statements above that the author believes which of the following?

- I. Too much job security can have a negative influence on workers.
- II. More government workers should be fired.
- III. Most government workers are Civil Service employees.

- (A) I only
- (B) I and III only
- (C) II only
- (D) I, II, and III
- (E) III only

16. Some commentators complain that a “litigation explosion” in the past decade has led to unreasonably high costs for U.S. businesses by encouraging more product liability suits against manufacturers. However, these complaints are based mainly on myth. Statistics show that the number of successful product liability suits has remained almost the same, and the average sum awarded in damages has grown no faster than the inflation rate.

Which of the following, if true, would most weaken the argument above?

- (A) The number of unsuccessful suits has skyrocketed, imposing huge new legal expenses on businesses.
- (B) Several of the largest awards ever made in product liability cases occurred within the last two years.
- (C) The rise of the consumer movement has encouraged citizens to seek legal redress for product flaws.
- (D) Lawyers often undertake product liability cases on a contingency basis, so their payment is based on the size of the damages awarded.
- (E) Juries often award damages in product liability suits out of emotional sympathy for an injured consumer.

17. Ronald: According to my analysis of the national economy, housing prices should not increase during the next six months unless interest rates drop significantly.

Mark: I disagree. One year ago, when interest rates last fell significantly, housing prices did not increase at all.

It can be inferred from the conversation above that Mark has interpreted Ronald’s statement to mean that

- (A) housing prices will rise only if interest rates fall
- (B) if interest rates fall, housing prices must rise
- (C) interest rates and housing prices tend to rise and fall together
- (D) interest rates are the only significant economic factor affecting housing prices
- (E) interest rates are likely to fall significantly in the next six months

18. It's time we stopped searching for new statistics to suggest that we are not spending enough on education. In fact, education spending increased 30 percent overall during the last decade.

Which of the following, if true, would most weaken the argument above?

- (A) Despite increased spending on education, enrollment in our elementary and secondary schools declined about 4 percent during the last ten years.
  - (B) Our spending on gasoline increased more than 100 percent during the last decade.
  - (C) When adjusted for inflation, our per-pupil expenditure on education this year is less than it was ten years ago.
  - (D) Eleven other economically developed nations spend more on education than we do.
  - (E) The achievement levels of our students have been declining steadily since 1960, and the last decade produced no reversal in this trend.
19. The U.S. census is not perfect: thousands of Americans probably go uncounted. However, the basic statistical portrait of the nation painted by the census is accurate. Certainly some of the poor go uncounted, particularly the homeless; but some of the rich go uncounted as well, because they are often abroad or traveling between one residence and another.
- Which of the following is an assumption on which the argument above depends?
- (A) Both the rich and the poor have personal and economic reasons to avoid being counted by the census.
  - (B) All Americans may reasonably be classified as either poor or rich.
  - (C) The percentage of poor Americans uncounted by the census is close to the percentage of rich Americans uncounted.
  - (D) The number of homeless Americans is approximately equal to the number of rich Americans.
  - (E) The primary purpose of the census is to analyze the economic status of the American population.

20. Which of the following best completes the passage below?

In today's pluralistic society, textbook publishers find themselves in an increasingly uncomfortable position. Since the schools are regarded as a repository of society's moral and cultural values, each group within society wishes to prevent any material that offends its own values from appearing in textbooks. As a result, stance on an issue is certain to run afoul of one group or another. And since textbook publishers must rely on community goodwill to sell their books, it is inevitable that\_\_\_\_\_

- (A) fewer and fewer publishers will be willing to enter the financially uncertain textbook industry
- (B) the ethical and moral content of textbooks will become increasingly neutral

and bland

- (C) more and more pressure groups will arise that seek to influence the content of textbooks
- (D) the government will be forced to intervene in the increasingly rancorous debate over the content of textbooks
- (E) school boards, teachers, and principals will find it nearly impossible to choose among the variety of textbooks being offered

### TEST C

**Time 30 minutes 20 Questions**

*Questions 1-2 are based on the following.*

We have heard a good deal in recent years about the declining importance of the two major political parties. It is the mass media, we are told, that decide the outcome of elections, not the power of the parties. But it is worth noting that no independent or third-party candidate has won any important election in recent years, and in the last nationwide campaign, the two major parties raised and spent more money than ever before in support of their candidates and platforms. It seems clear that reports of the imminent demise of the two-party system are premature at best.

1. Which of the following is an assumption made in the argument above?
  - (A) The amount of money raised and spent by a political party is one valid criterion for judging the influence of the party.
  - (B) A significant increase in the number of third-party candidates would be evidence of a decline in the importance of the two major parties.
  - (C) The two-party system has contributed significantly to the stability of the American political structure.
  - (D) The mass media tend to favor an independent or third-party candidate over a candidate from one of the two major parties.
  - (E) The mass media are relatively unimportant in deciding the outcome of most elections.
2. Which of the following, if true, would most strengthen the argument above?
  - (A) The percentage of voters registered as independents is higher today than ever before.
  - (B) In a recent presidential campaign, for the first time ever, an independent candidate was invited to appear in a televised debate with the major-party candidates.
  - (C) Every current member of the U.S. Senate was elected as the candidate of one of the two major parties.
  - (D) In a recent opinion poll, most voters stated that a candidate's party affiliation was an insignificant factor in judging his or her fitness for office.
  - (E) In the last four years, the outcome of several statewide elections has been

determined by the strength of the third-party vote.

3. Psychologists conducted a series of experiments to test the effect upon schoolchildren of violence in films. In the first experiment, grammar school children were shown a film that included scenes of a male teenager engaging in violent acts against others, such as punching, pushing, and kicking. During a free-play session following the film viewing, 42 percent of the children were observed to engage in one or more violent acts similar to those in the film. In a second experiment, a different group of children was shown a similar film featuring a female teenager. Only 14 percent of the children were observed behaving violently afterward. The psychologists concluded that children are more likely to imitate violent behavior on film when a male model is shown than when a female model is shown.

Which of the following, if true, would most seriously weaken the psychologists' conclusion?

- (A) In both experiments, the victims of the filmed violence included both males and females.
  - (B) In the second experiment, 28 percent of the children appeared upset during the viewing the violent film scenes.
  - (C) The first group included 19 male students and 20 female students; the second group included 20 male students and 21 female students.
  - (D) In the first group, 58 percent of the children appeared bored during the showing of the film, and 12 percent fell asleep.
  - (E) The percentage of children known to have discipline problems prior to the experiment was greater in the first group than in the second group.
4. Mainline Airways was bought by its employees six years ago. Three years ago, Mainline hired QualiCo Advertising Agency to handle its promotions and advertising division. Today Mainline's profits are over 20 percent higher than they were five years ago and 10 percent higher than they were three years ago. Employee ownership and a good advertising agency have combined to make Mainline more profitable.

Which of the following best describes the weak point in the argument above?

- (A) It fails to establish a causal connection between the change in ownership at Mainline Airways and the hiring of QualiCo, on the one hand, and the rise in Mainline's profits, on the other.
  - (B) It presents no evidence showing that employee-owned airlines are any more profitable than other airlines.
  - (C) It assumes that the profits of Mainline Airways will continue to rise.
  - (D) It gives no exact figures for the current profits of Mainline Airways.
  - (E) It fails to explain how the profits of Mainline Airways are calculated.
5. At many colleges today, regulations have been imposed that forbid the use in

speech or print of language that “offends” or “insults” the members of any group, especially women and racial, ethnic, and religious minorities. Although these regulations are defended in the name of “democracy,” they restrict freedom of speech and the press in a way that opposes the true spirit of democracy.

The argument above attempts to prove its case primarily by

- (A) impugning the credentials of an opponent
- (B) providing examples that support a theoretical principle
- (C) taking advantage of inconsistencies in the definition of “democracy”
- (D) revealing a contradiction in an opposing point of view
- (E) appealing to the patriotic feelings of its audience

6. In 1980, a Danish ten-øre coin minted in 1747 was sold at auction for \$8,000. Eleanor Bixby owns another Danish ten-øre coin minted in 1747. When she puts it on the market next week, it will fetch a price over \$18,000.

Which of the following, if true, would most weaken the conclusion drawn above?

- (A) Since 1980, the average price for rare coins has increased by over 150 percent.
- (B) There are only four coins like the one in question in the entire world.
- (C) Since 1980, the consumer price index has risen by over 150 percent.
- (D) In 1986, a previously unknown cache of one hundred coins just like the one in question was found.
- (E) Thirty prominent, wealthy coin collectors are expected to bid for Bixby’s coin.

7. Merco has been in business longer than Nolen. Inc, Olean Industries was founded years before the Potter Company, and the Potter Company was started years after the Quarles Corporation. Nolen, Inc., and the Quarles Corporation were founded in the same year.

If the information above is true, which of the following must also be true?

- (A) Olean Industries has been in business for more years than Merco.
- (B) Olean Industries has been in business for more years than the Quarles Corporation.
- (C) Nolen, Inc., has not been in business for as many years as Olean Industries.
- (D) Merco has been in business for more years than the Potter Company.
- (E) Nolen, Inc., has not been in business for as many years as the Potter Company.

8. Which of the following best completes the passage below?

A primary factor in perpetuating the low salaries of women workers has been their segregation in the so-called pink-collar occupations, such as nursing, teaching, library science, and secretarial work. Partly because these jobs have



traditionally been held by women, their salary levels have been depressed, and, despite increased attempts to unionize these workers in recent years, their pay continues to lag. Moreover, although a large percentage of women than ever before are now entering and remaining in the job market, most continue to gravitate toward the pink-collar fields, despite the lower salaries. It seems clear, therefore, that if the average salaries of women workers are to approach those of men, \_\_\_\_\_

- (A) labor unions must redouble their efforts to improve the lot of working women
- (B) society's perception of pink-collar jobs as less important and less demanding than other jobs must be changed
- (C) more men must be encouraged to enter fields traditionally occupied by women
- (D) the number of jobs in the pink-collar fields relative to the size of the work force as a whole must be markedly increased
- (E) more women must enter occupations other than those traditionally reserved for them

9. Determining the authenticity of purported pre-Columbian artifacts is never easy. Carbon-14 dating of these artifacts is often impossible due to contamination by radioactive palladium (which occurs naturally in the soils of Central and South America). However, historians and anthropologists have evolved two reliable criteria, which, utilized in combination, have proven effective for dating these artifacts. First, because authentic pre-Columbian artifacts characteristically occur in a coarse, granular matrix that is shifted by major earthquakes, they often exhibit the unique scratch patterns known as *gridding*. In addition, true pre-Columbian artifacts show a darkening in surface color that is caused by centuries of exposure to the minute amounts of magnesium in the soil of the Americas. The criteria above would be LEAST useful in judging the authenticity of which of the following?

- (A) An ax head of black obsidian, unearthed from a kitchen midden
- (B) A pottery bowl with a red ocher design, found in the ruins of a temple
- (C) A set of gold ear weights, ornamented with jasper pendants
- (D) A black feather cape from a king's burial vault
- (E) A multicolored woven sash found near the gravesite of a slave

Questions 10-11 are based on the following.

From time to time, the press indulges in outbursts of indignation over the use of false or misleading information by the U.S. government in support of its policies and programs. No one endorses needless deception. But consider this historical analogy. It is known that Christopher Columbus, on his first voyage to the New World, deliberately falsified the log to show a shorter sailing distance for each day out than the ships had actually traveled. In this way, Columbus was able to convince his

skeptical sailors that they had not sailed past the point at which they expected to find the shores of India. Without this deception, Columbus's sailors might well have mutinied, and the New World might never have been discovered.

10. The author of the passage above assumes each of the following EXCEPT:
- (A) Government deception of the press is often motivated by worthy objectives.
  - (B) Without government deception, popular support for worthwhile government policies and programs might well fade.
  - (C) Attacks on the government by the press are often politically motivated.
  - (D) Deception for deception's sake should not be condoned.
  - (E) A greater good may sometimes require acceptance of a lesser evil.
11. Which of the following is the main weakness of the historical analogy drawn in the passage above?
- (A) The sailors in Columbus's crew never knew that they had been deceived, while government deception is generally uncovered by the press.
  - (B) A ship's log is a record intended mainly for use by the captain, while press reports are generally disseminated for use by the public at large.
  - (C) The members of a ship's crew are selected by the captain of the ship, while those who work in the press are self-selected.
  - (D) The crew of a ship is responsible for the success of a voyage, while the press is not responsible for the use others make of the factual information it publishes.
  - (E) In a democracy, the people are expected to participate in the nation's political decision making, while the members of a ship's crew are expected simply to obey the orders of the captain.
12. Which of the following best completes the passage below?
- Monarch butterflies, whose average life span is nine months, migrate from the midwestern United States to selected forests outside Mexico City. It takes at least three generations of monarchs to make the journey, so the great-great-grandchildren who finally arrive in the Mexican forests have never been there before. Yet they return to the same trees their forebears left. Scientists theorize that monarchs, like homing pigeons, map their routes according to the earth's electromagnetic fields. As a first step in testing this theory, lepidopterists plan to install a low-voltage transmitter inside one grove of "butterfly trees" in the Mexican forests. If the butterflies are either especially attracted to the grove with the transmitter or especially repelled by it, lepidopterists will have evidence that\_\_\_\_\_
- (A) monarch butterflies have brains, however minuscule
  - (B) monarch butterflies are sensitive to electricity
  - (C) low-voltage electricity can affect butterflies, whether positively or adversely
  - (D) monarchs map their routes according to the earth's electromagnetic fields

(E) monarchs communicate in intergenerationally via electromagnetic fields

13. In general, a professional athlete is offered a million-dollar contract only if he or she has just completed an unusually successful season. However, a study shows that an athlete signing such a contract usually suffers a decline in performance the following season. This study supports the theory that a million-dollar contract tends to weaken an athlete's desire to excel by diminishing his or her economic incentive.

Which of the following, if true, would most strengthen the conclusion drawn above?

- (A) On the average, athletes whose contracts call for relatively small salaries with possible bonuses for outstanding achievement perform better than other athletes.
- (B) Athletes are generally offered million-dollar contracts mainly because of the increased ticket sales and other revenues they generate.
- (C) Many professional athletes have careers marked by year-to-year fluctuations in their overall levels of performance.
- (D) On the average, higher-salaried athletes tend to have longer and more successful professional careers than do lower-salaried athletes.
- (E) Six of the ten leading batters in the National League this season signed million-dollar contracts during the off-season.

14. Dr. A: The new influenza vaccine is useless at best and possibly dangerous. I would never use it on a patient.

Dr. B: But three studies published in the *Journal of Medical Associates* have rated that vaccine as unusually effective.

Dr. A: The studies must have been faulty because the vaccine is worthless.

In which of the following is the reasoning most similar to that of Dr. A?

- (A) Three of my patients have been harmed by that vaccine during the past three weeks, so the vaccine is unsafe.
- (B) Jerrold Jersey recommends this milk, and I don't trust Jerrold Jersey, so I won't buy this milk.
- (C) Wingzz tennis balls perform best because they are far more effective than any other tennis balls.
- (D) I'm buying Vim Vitamins. Doctors recommend them more often than they recommend any other vitamins, so Vim Vitamins must be good.
- (E) Since University of Muldoon graduates score about 20 percent higher than average on the GMAT, Sheila Lee, a University of Muldoon graduate, will score about 20 percent higher than average when she takes the GMAT.

15. Bill: Smoke-detecting fire alarms can save lives. I believe that every apartment in this city should be required by law to be equipped with a smoke detector.

Joe: I disagree with your proposal. Smoke detectors are just as important for

safety in private houses as they are in apartment.

From this exchange, it can be inferred that Joe has interpreted Bill's statement to mean that

- (A) the city should be responsible for providing smoke detectors for apartments
- (B) residences outside the city should not be equipped with smoke detectors
- (C) only apartments should be equipped with smoke detectors
- (D) the risk of fire is not as great in private houses as it is in apartments
- (E) the rate of death by fire is unusually high in the city in question

16. In 1986, the city of Los Diablos had 20 days on which air pollution reached unhealthful amounts and a smog alert was put into effect. In early 1987, new air pollution control measures were enacted, but the city had smog alerts on 31 days that year and on 39 days the following year. In 1989, however, the number of smog alerts in Los Diablos dropped to sixteen. The main air pollutants in Los Diablos are ozone and carbon monoxide, and since 1986 the levels of both have been monitored by gas spectrography.

Which of the following statements, assuming that each is true, would be LEAST helpful in explaining the air pollution levels in Los Diablos between 1986 and 1989?

- (A) The 1987 air pollution control measures enacted in Los Diablos were put into effect in November of 1988.
  - (B) In December of 1988 a new and far more accurate gas spectrometer was invented.
  - (C) In February of 1989, the Pollution Control Board of Los Diablos revised the scale used to determine the amount of air pollution considered unhealthful.
  - (D) In 1988 the mayor of Los Diablos was found to have accepted large campaign donations from local industries and to have exempted those same industries from air pollution control measures.
  - (E) Excess ozone and carbon monoxide require a minimum of two years to break down naturally in the atmosphere above a given area.
17. In a marketing study, consumers were given two unlabeled cartons of laundry detergent. One carton was bright green and yellow; the other was drab brown and gray. After using the detergent in the two cartons for one month, 83 percent of the consumers in the study reported that the detergent in the bright green and yellow carton cleaned better. This study shows that packaging has a significant impact on consumers' judgment of the effectiveness of a laundry detergent.
- Which of the following, if true, would most strengthen the conclusion drawn in the marketing study?
- (A) The detergent in the bright carton contained bleach crystals; the detergent in the drab carton did not.
  - (B) The detergents in the two cartons were the same.

- (C) The detergents in the two cartons were different, but they had both been laboratory tested.
- (D) The detergent in the drab carton was a popular name brand; the detergent in the bright carton was generic.
- (E) The detergent in the drab carton was generic; the detergent in the bright carton was a popular name brand.
18. Don's, a chain of supermarkets, has entered into an agreement in which Rose Computers will sell Don's an unlimited number of its least expensive PC's at one-fourth the regular wholesale price. In return, Don's has agreed to purchase all of its scanners and other electronic information-processing equipment from Rose or from Omicron, Rose Computers' parent company, for the next ten years. Don's will offer a Rose PC free to any school that turns in Don's register receipts totaling \$100,000 within the next six months. The vice-president in charge of advertising for Don's expects that the computer giveaway will obviate the need for a massive new advertising campaign for the next six months and that Don's can make up the expenditures for the PC's by writing them off its income taxes as charitable donations.
- The plans formulated by Don's assume each of the following EXCEPT:
- (A) The prices that Rose or Omicron charges Don's for information-processing equipment over the next ten years will be lower than those charged by other companies.
- (B) The tax laws will not be changed to exclude or lessen the value of charitable donations as tax write-offs.
- (C) Schools will be sufficiently attracted by Don's computer giveaway offer that teachers will urge students to shop at Don's.
- (D) Rose will be able to supply Don's with a sufficient number of PC's to meet the demand generated by schools that collect Don's receipts totaling \$100,000.
- (E) The effect of the computer giveaway offer on Don's business will be comparable to that of a major advertising campaign.
19. Manufacturers of household appliances are still urging the public to purchase food processors. The various manufacturers' advertisements all point out that the prices of these appliances are now lower than ever and that each food processor comes with a lifetime service warranty. In addition, many manufacturers offer sizable rebates to customers who purchase food processors within a given time period. With these incentives, the advertisements contend, people can hardly afford not to purchase food processors.
- Which answer choice is a logically prior issue that the manufacturers' advertisements fail to address?
- (A) Whether the cost of repairs to the food processors over the years will cancel out the savings currently being offered



- (B) Whether potential customers have enough uses for food processors to justify purchasing them
- (C) Whether the heads of the companies manufacturing food processors own food processors themselves
- (D) Whether the food processors currently being advertised will be outdated within the next five years
- (E) Whether accessories and replacement parts will be readily available at retail outlets
20. Since the invention of digital readout, machine designers have rushed to replace conventional dials and gauges with digital units. Yet the digital gauge has drawbacks in some situations. Since it presents an exact numeric value, it must be decoded and analyzed by a human operator; its meaning cannot be read in an instantaneous scanning. An analog dial or gauge can be marked with red to alert the operator when a value is entering a danger zone; a digital gauge cannot. And it is difficult to tell whether a digital readout is increasing or decreasing over time, while the up or down movement of a pointer on an analog gauge can be quickly and easily observed.
- The author of the passage above would probably recommend the use of digital gauge in cases when
- I. warning of a sudden rise or fall in value is needed
- II. an operator must read and interpret several gauges within a few seconds
- III. a precise numeric value is essential
- (A) I only
- (B) III only
- (C) I and III only
- (D) II and III only
- (E) I, II, and III

TEST D

Time 30 minutes 20 Questions

1. Contrary to the statements of labor leaders, the central economic problem facing America today is not the distribution of wealth. It is productivity. With the productivity of U.S. industry stagnant, or even declining slightly, the economic pie is no longer growing. Labor leaders, of course, point to what they consider an unfair distribution of the slices of pie to justify their demands for further increases in wages and benefits. And in the past, when the pie was still growing, management could afford to acquiesce. No longer. Until productivity resumes its growth, there can be no justification for further increases in the compensation of workers.
- Which of the following statements by a labor leader focuses on the logical weakness in the argument above?

- (A) Although the economic pie is no longer growing, the portion of the pie allocated to American workers remains unjustly small.
  - (B) If management fails to accommodate the demands of workers, labor leaders will be forced to call strikes that will cripple the operation of industry.
  - (C) Although productivity is stagnant, the U.S. population is growing, so that the absolute size of the economic pie continues to grow as well.
  - (D) As a labor leader, I can be concerned only with the needs of working people, not with the problems faced by management.
  - (E) The stagnation of U.S. industry has been caused largely by factors—such as foreign competition—beyond the control of American workers.
2. Freud's theories of the workings of the mind, while brilliant for their day, were formulated before most of this century's great advances in neurophysiology and biochemistry. Today, we have a far deeper understanding of the biological components of thought, emotion, and behavior than was dreamed of eighty years ago. It would be foolish to continue parroting Freud's psychological theories as if these advances had never occurred.

It can be inferred from the passage above that the author would be most likely to favor

- (A) the abandonment of most of Freud's theories
  - (B) a greater reliance on biological rather than psychological explanations of behavior
  - (C) a critical reexamination of Freud's place in the history of psychology
  - (D) a reexamination of Freud's theories in the light of contemporary biology
  - (E) increased financial support for studies in neurophysiology and biochemistry
3. To avoid a hostile takeover attempt, the board of directors of Wellco, Inc., a provider of life and health insurance, planned to take out large loans and use them to purchase a publishing company, a chocolate factory, and a nationwide chain of movie theaters. The directors anticipated that these purchases initially would plunge the corporation deep into debt, rendering it unattractive to those who wanted to take it over, but that steadily rising insurance rates would allow the company to pay off the debt within five years. Meanwhile, revenues from the three new businesses would enable the corporation as a whole to continue to meet its increased operating expenses. Ultimately, according to the directors' plan, the diversification would strengthen the corporation by varying the sources and schedules of its annual revenues.

Which of the following, assuming that all are equally possible, would most enhance the chances of the plan's success?

- (A) A widespread drought decreases the availability of cacao beans, from which chocolate is manufactured, driving up chocolate prices worldwide.
- (B) New government regulations require a 30 percent across-the-board rate rollback of all insurance companies, to begin immediately and to be

completed within a five-year period.

- (C) Congress enacts a statute, effective after six months, making it illegal for any parent not to carry health insurance coverage for his or her child.
- (D) Large-screen televisions drop dramatically in price due to surprise alterations in trade barriers with Japan; movie theater attendance dwindles as a consequence.
- (E) A new, inexpensive process is discovered for making paper pulp, and paper prices fall to 60 percent of their former level.

4. In 1981, for the first time in over two decades, the average scores of high school students on standardized math and English tests did not decline. During the same year, millions of American students enjoyed their first exposure to the new world of the microcomputer, whether in schools, video arcades, or other settings. The conclusion is clear: far from stultifying the intellectual capacities of students, exposure to computers can actually enhance them.

The most serious weakness of the argument above is its failure to

- (A) discuss the underlying causes of the twenty-year decline in students' test scores
- (B) cite specific figures documenting the increases in test scores
- (C) distinguish among the various types of computer being used by high school students
- (D) define the intellectual capacities tested by the standardized math and English tests referred to
- (E) explain exactly how high school students' abilities on math and English tests could have been enhanced by exposure to computers

Questions 5-6 are based on the following.

Although its purpose is laudable, the exclusionary rule, which forbids a court to consider evidence seized in violation of the defendant's constitutional rights, has unduly hampered law-enforcement efforts. Even when the rights violation was a minor or purely technical one, turning on a detail of procedure rather than on the abrogation of some fundamental liberty, and even when it has been clear that the police officers were acting in good faith, the evidence obtained has been considered tainted under this rule and may not even be introduced. In consequence, defendants who were undoubtedly guilty have been set free, perhaps to steal, rape, or murder again.

5. The author of the passage above assumes all of the following EXCEPT:
- (A) The constitutional rights of criminal defendants should be protected.
  - (B) Most cases in which the exclusionary rule has been invoked have involved purely technical violations of constitutional principles.
  - (C) The number of cases whose outcome has been affected by the exclusionary rule is significant.

- (D) Some of the defendants set free under the exclusionary rule have been guilty of serious criminal offenses.
- (E) Merely technical violations of the rules concerning evidence should be treated differently from deliberate assaults upon human rights.
6. It can be inferred from the passage that the author would most likely endorse which of the following proposals?
- (A) Change of the exclusionary rule to admit evidence obtained by police officers acting in good faith
- (B) A constitutional amendment curtailing some of the protections traditionally afforded those accused of a crime
- (C) A statute limiting the application of the exclusionary rule to cases involving minor criminal offenses
- (D) Change of the exclusionary rule to allow any evidence, no matter how obtained, to be introduced in court
- (E) A constitutional amendment allowing police officers to obtain vital evidence by any means necessary when in pursuit of a known criminal
7. The postal service is badly mismanaged. Forty years ago, first-class letter delivery cost only three cents. Since then, the price has increased nearly tenfold, with an actual decrease in the speed and reliability of service.
- Each of the following statements, if true, would tend to weaken the argument above EXCEPT:
- (A) The volume of mail handled by the postal service has increased dramatically over the last forty years.
- (B) Unprecedented increases in the cost of fuel for trucks and planes have put severe upward pressures on postal delivery costs.
- (C) Private delivery services usually charge more than does the postal service for comparable delivery charges.
- (D) The average delivery time for a first-class letter four decades ago was actually slightly longer than it is today.
- (E) The average level of consumer prices overall has increased more than 300 percent over the last forty years.
8. When the government of a nation announced recently that a leader of the nation's political opposition had died of a mysterious illness in prison, few seasoned observers of the regime were surprised. As the police captain in an old movie remarked when asked about the condition of a prisoner, "We're trying to decide whether he committed suicide or died trying to escape."
- The statements above invite which of the following conclusions?
- (A) The opposition leader was probably killed trying to escape from prison.
- (B) The opposition leader may not be dead at all.
- (C) It is unlikely that the head of the regime knows the true cause of the

opposition leader's death.

(D) The opposition leader probably killed himself.

(E) The regime very likely was responsible for the death of the opposition leader.

*Questions 9-10 are based on the following.*

In the industrialized nations, the last century has witnessed a shortening of the average workday from twelve hours or longer to less than eight hours. Mindful of this enormous increase in leisure time over the past century, many people assume that the same trend has obtained throughout history, and that, therefore, prehistoric humans must have labored incessantly for their very survival.

We cannot, of course, directly test this assumption. However, a study of primitive peoples of today suggests a different conclusion. The Mbuti of central Africa, for instance, spend only a few hours each day in hunting, gathering, and tending to other economic necessities. The rest of their time is spent as they choose. The implication is that the short workday is not peculiar to industrialized societies. Rather, both the extended workday of 1880 and the shorter workday of today are products of different stages of the continuing process of industrialization.

9. Which of the following inferences about industrialization is best supported by the passage above?
- (A) People in advanced industrialized societies have more leisure time than those in nonindustrialized societies.
  - (B) An average workday of twelve hours or more is peculiar to economies in the early stages of industrialization.
  - (C) Industrialization involves a trade-off between tedious, monotonous jobs and the benefits of increased leisure.
  - (D) It is likely that the extended workday of an industrializing country will eventually be shortened.
  - (E) As industrialization progresses, people tend to look for self-fulfillment in leisure rather than work.
10. Which of the following, if true, would most greatly strengthen the argument made in the passage above?
- (A) In recent decades, the economy of the Mbuti has been markedly affected by the encroachment of modern civilization.
  - (B) The life-style of the Mbuti is similar to that of prehistoric humans.
  - (C) The Mbuti have no words in their language to express the distinction between work activities and leisure activities.
  - (D) The workday of a European peasant in medieval times averaged between eleven and fifteen hours.
  - (E) The members of the Shaklik tribe in central Asia have an average workday of ten to twelve hours.



11. Gloria: Those who advocate tuition tax credits for parents whose children attend private schools maintain that people making no use of a government service should not be forced to pay for it. Yet those who choose to buy bottled water rather than drink water from the local supply are not therefore exempt from paying taxes to maintain the local water supply.

Roger: Your argument is illogical. Children are required by law to attend school. Since school attendance is a matter not of choice, but of legal requirement, it is unfair for the government to force some parents to pay for it twice.

Which of the following responses by Gloria would best refute Roger's charge that her argument is illogical?

- (A) Although drinking water is not required by law, it is necessary for all people, and therefore my analogy is appropriate.
- (B) Those who can afford the tuition at a high-priced private school can well bear the same tax burden as those whose children attend public schools.
- (C) If tuition tax credits are granted, the tax burden on parents who choose public schools will rise to an intolerable level.
- (D) The law does not say that parents must send their children to private schools, only that the children must attend some kind of school, whether public or private.
- (E) Both bottled water and private schools are luxury items, and it is unfair that some citizens should be able to afford them while others cannot.

Questions 12-13 are based on the following.

Since the passage of the state's Clean Air Act ten years ago, the level of industrial pollutants in the air has fallen by an average of 18 percent. This suggests that the restrictions on industry embodied in the act have worked effectively. However, during the same period the state has also suffered through a period of economic decline. The number of businesses in the state has fallen by 10 percent, and the number of workers employed has fallen by 12 percent. It is probable that the business decline, rather than the regulations in the act, is responsible for at least half of the decline in the pollution.

12. Which of following is an assumption made in the passage above?
- (A) Most businesses in the state have obeyed the regulations embodied in the Clean Air Act.
  - (B) The economic decline of the state can be attributed, in part, to the effects of the Clean Air Act.
  - (C) The amount of air pollution in a given area is likely to be proportional to the number of businesses and workers active in that area.
  - (D) The restrictions on business activity in other states are less stringent than are those embodied in the Clean Air Act.
  - (E) The Clean Air Act has been only very slightly successful in achieving the goal of reduced air pollution.

13. Which of the following, if true, would most seriously weaken the conclusion drawn in the passage above?
- (A) During the last ten years, economic conditions in the nation as a whole have been worse than those within the state.
  - (B) Amendments to the Clean Air Act that were enacted six years ago have substantially strengthened its restrictions on industrial air pollution.
  - (C) Of the businesses that ceased operating in the state during the last ten years, only 5 percent were engaged in air-polluting industries.
  - (D) Several large corporations left the state during the last ten years partly in order to avoid compliance with the Clean Air Act.
  - (E) Due to its small budget, the state office charged with enforcement of the Clean Air Act has prosecuted only two violators of the law since its passage.
14. A nutritionist studying the effects of massive doses of vitamin C found that of a group of 600 people who regularly took 1,500 mg of vitamin C daily for a year, fewer than 9 percent suffered serious cases of flu; of a group of 600 people who took 250 mg of vitamin C (the standard recommended daily allowance) daily for a year, 34 percent suffered at least one serious case of flu; and of a group of 600 people who took no vitamin C for a year (other than that found in the foods in a balanced diet), 32 percent suffered at least one serious case of flu.
- Which of the following hypotheses is best supported by the evidence above?
- (A) The effectiveness of vitamin C in preventing serious cases of flu increases in direct proportion to the amount of vitamin C taken.
  - (B) Vitamin C is helpful in preventing disease.
  - (C) Doses of vitamin C that exceed the standard recommended daily allowance by 500 percent will reduce the incidence of serious cases of flu by 25 percent.
  - (D) Massive doses of vitamin C can help to prevent serious case of flu.
  - (E) A balanced diet contains less than 250 mg of vitamin C.
15. Susan: Those who oppose experimentation on animals do not properly value the preservation of human life. Although animal suffering is unfortunate, it is justifiable if it can lead to cures for human ailments.
- Melvin: But much animal experimentation involves testing of ordinary consumer products such as soaps, dyes, and cosmetics.
- Susan: These experiments are justifiable on the same grounds, since cleanliness, convenience, and beauty are worthwhile human values deserving of support.
- Which of the following is the best statement of the logical flaw in Susan's argument?
- (A) Her claim that animal experimentation is justifiable if it supports human values contradicts her claim that such experimentation is justifiable only if it leads to cures for human ailments.

- (B) She places a higher value on human cleanliness, convenience, and beauty than she does on the preservation of animal life.
- (C) She uses the word “value” in two different senses.
- (D) She assumes that all ordinary consumer products aid in the preservation of human life.
- (E) She fails to show how mere support for human values actually preserves human lives.

16. Which of the following best completes the passage below?

As long as savings deposits are insured by the government, depositors will have no incentive to evaluate the financial strength of a savings bank. Yield alone will influence their choice of bank. To attract deposits, banks will be forced to offer the highest possible interest rates. And since paying higher rates inevitably strains the financial strength of a bank, \_\_\_\_\_

- (A) the government will be forced to impose limitations on interest rates
- (B) deposit insurance will ultimately lead to the financial weakening of many banks
- (C) savers will be forced to choose between deposit insurance and higher interest rates
- (D) deposits will tend to go to the banks with the greatest financial strength
- (E) bank profits will tend to rise to ever-higher levels

17. Every painting hanging in the Hoular Gallery is by a French painter. No painting in the Hoular Gallery is by a Vorticist. Only Vorticists use acrylic monochromes in their works.

If the information above is true, which of the following must also be true?

- (A) No French painters are Vorticists.
- (B) All Vorticists use acrylic monochromes in their works.
- (C) Some French painters do not use acrylic monochromes in their works.
- (D) No French painters use acrylic monochromes in their works.
- (E) All French painters who use acrylics use acrylic monochromes in their works.

18. We commonly speak of aesthetic judgments as subjective, and in the short term they are, since critics often disagree about the value of a particular contemporary work of art. But over time, the subjective element disappears. When works of art have continued to delight audiences for centuries, as have the paintings of Michelangelo, the music of Bach, and the plays of Shakespeare, we can objectively call them great.

The statements above best support which of the following conclusions?

- (A) When Michelangelo, Bach, and Shakespeare were alive, critics disagreed about the value of their work.
- (B) The value of a contemporary work of art cannot be objectively measured.

- (C) The reputation of a work of art often fluctuates greatly from one generation to the next.
- (D) The mere fact that a work of art has endured for centuries does not establish its greatness.
- (E) If critics agree about the value of a particular cotemporary work of art, then the work can objectively be called great.
19. Since the 55-mile-per-hour speed limit was mandated on our highways, both money and human lives have been saved.
- All of the following, if true, would strengthen the claim above EXCEPT:
- (A) Most highway users find that travel times are not appreciably lengthened by the 55-mile-per-hour speed limit.
- (B) Highway driving at 55 miles per hour or less is more fuel-efficient than high-speed driving.
- (C) Nearly all highway safety experts agree that more accidents occur at speeds over 55 miles per hour than at lower speeds.
- (D) The percentage of fatalities occurring in highway accidents at speeds greater than 55 miles per hour is higher than that for low-speed accidents.
- (E) Automobiles last longer and require fewer repairs when driven at consistently lower speeds.
20. The city council will certainly vote to approve the new downtown redevelopment plan, despite the objections of environmentalists. After all, most of the campaign contributions received by members of the city council come from real estate development firms, which stand to benefit from the plan.
- Which of the following statements, if true, would most weaken the argument above?
- (A) Several members of the city council receive sizable campaign contributions from environmental lobbying groups.
- (B) Members of the city council are required to report the size and source of each campaign contribution they receive.
- (C) Not every real estate development firm in the city will be able to participate in, and profit from, the new downtown redevelopment plan.
- (D) The members of the city council have often voted in ways that are opposed to the interests of their campaign contributors.
- (E) Some environmentalists have stated that the new downtown redevelopment plan might be environmentally sound if certain minor modifications are made.

### TEST I

#### 30 Minutes 20 Questions

1. A mail order company recently had a big jump in clothing sales after hiring a copywriter and a graphic artist to give its clothing catalog a magazinelike format

designed to appeal to a more upscale clientele. The company is now planning to launch a housewares catalog using the same concept.

The company's plan assumes that

- (A) other housewares catalogs with magazinelike formats do not already exist
- (B) an upscale clientele would be interested in a housewares catalog
- (C) the same copywriter and graphic artist could be employed for both the clothing and housewares catalogs
- (D) a magazinelike format requires a copywriter and a graphic artist
- (E) customers to whom the old clothing catalog appealed would continue to make purchases from catalogs with the new format

2. Civic Leader: The high cancer rate among our citizens is the result of hazardous material produced at your plant.

Board of Directors: Our statistics show that rates of cancer are high throughout the valley in which the plant is situated because local wells that supply drinking water are polluted, not because of the plant.

Which of the following, if true, most seriously weakens the board's claims?

- (A) The statistics do not differentiate between types of cancer.
- (B) Nearby communities have not changed the sources of their drinking water.
- (C) Cancer-causing chemicals used at the plant are discharged into a nearby river and find their way into local wells.
- (D) The plant both uses and produces chemicals that have been shown to cause cancer.
- (E) Some of the pollutants cited by the board as contaminating the local wells have been present in the wells for decades.

3. Economies in which a high percentage of resources are invested in research and development show greater growth in the long run than do those in which resources are channeled into consumption. Japanese workers spend a higher percentage of their income investing in research and development than do American workers.

To grow as fast as Japan has in the past three decades, the United States must change the tax code in order to encourage savings and investment and discourage debt.

Which of the following, if true, tends to weaken the argument?

- (A) Japanese research is more focused on consumers than is research by American firms.
- (B) Class mobility, highly valued in American culture, is encouraged by a growing rather than a stagnant economy.
- (C) Studies have shown that countries with high consumption rates prosper in the short run.
- (D) Proposed changes to the tax code could involve strict limits on the



deductability of interest, and increased allowance for research.

- (E) Because a decreasing percentage of the United States is under 40, an age when savings are traditionally low, the savings rate will increase without changes to the tax code.

4. Television programming experts maintain that with each 1% increase in the prime-time ratings of a television station there is a 3.5% increase in the number of people who watch its evening news program. However, in the last ten years at Channel NTR, there was only one year of extremely high prime-time ratings and during that year, fewer people than ever watched Channel NTR's evening news program.

Which of the following conclusions can properly be drawn from the statements above?

- (A) When a news program has good ratings, the channel as a whole will have good ratings.  
(B) The programming experts neglected to consider daytime news programs.  
(C) The year of high ratings at NTR was a result of two hit shows which were subsequently canceled because of contractual problems.  
(D) The ten-year period in question is not representative of normal viewing patterns.  
(E) Prime-time ratings are not the only factor affecting how many people watch an evening news program.

5. The people who are least likely to be audited by the Internal Revenue Service this year are those who have been audited since 1985 and who were found to have made no mistakes in filing their returns during that audit.

Of the following people, who is MOST likely to be audited by the IRS?

- (A) A person who was audited in 1986 but was not found to have made any mistakes in filing his return.  
(B) A person who was audited in 1986 and whose lawyer corrected several mistakes in the tax return prior to the filing deadline.  
(C) A person whose spouse was convicted of tax fraud in 1987, who was then audited and found to have made no mistakes.  
(D) A person who was last audited in 1984, and had no mistakes uncovered by the IRS during that audit.  
(E) A person who was audited in each of the past five years, but was found to have made no mistakes in any of the filings.

6. James's grade point average puts him in the top third of the graduating class of college A. Nestor is in the top tenth of the same class. Elizabeth had the same grade point average as Nestor. Nancy has a lower grade point average than Elizabeth.

If the information above is true, which of the following must also be true?

- (A) James has a higher grade point average than Elizabeth.
  - (B) James has a higher grade point average than Nancy.
  - (C) Nestor has a higher grade point average than Nancy.
  - (D) Elizabeth and Nancy both have a higher grade point average than James.
  - (E) Nestor and James both have a higher grade point average than Nancy.
7. Whenever a major airplane accident occurs, there is a dramatic increase in the number of airplane mishaps reported, a phenomenon that may last for as long as a few months after the accident. Airline officials assert that the publicity given the gruesomeness of major airplane accidents focuses media attention on the airline industry and the increase in the number of reported accidents is caused by an increase in the number of news sources covering airline accident, not by an increase in the number of accidents.
- Which of the following, if true, would seriously weaken the assertions of the airline officials?
- (A) The publicity surrounding airline accidents is largely limited to the country in which the crash occurred.
  - (B) Airline accidents tend to occur far more often during certain peak travel months.
  - (C) News organizations do not have any guidelines to help them decide how severe or how close an accident must be for it to receive coverage.
  - (D) Airplane accidents receive coverage by news sources only when the news sources find it advantageous to do so.
  - (E) Studies by government regulations show that the number of airplane flight miles remains relatively constant from month to month.

Questions 8-9 are based on the following.

Investing in real estate would be a profitable venture at this time. A survey in House magazine revealed that 85% of the magazine's readers are planning to buy a second home over the next few years. A study of the real estate industry, however, revealed that the current supply of homes could only provide for 65% of that demand each year.

8. Which of the following, if true, reveals a weakness in the evidence cited above?
- (A) Real estate is a highly labor-intensive business.
  - (B) Home builders are not evenly distributed across the country.
  - (C) The number of people who want second homes has been increasing each year for the past ten years.
  - (D) Readers of House magazine are more likely than most people to want second homes.
  - (E) House magazine includes articles about owning a second home as well as articles about building a second home.

9. Which of the following, if true, would undermine the validity of the investment advice in the paragraph above?
- (A) Some home owners are satisfied with only one home.
  - (B) About half of the people who buy homes are investing in their first home.
  - (C) About half of the people who buy homes have to take out a mortgage to do so.
  - (D) Only a quarter of the homes that are built are sold within the first two weeks.
  - (E) Only a quarter of those who claim that they want a second home actually end up purchasing one.
10. Traffic safety experts predict that the installation of newly designed air bags in all cars in the United States would reduce the average number of fatalities per traffic accident by 30 percent. In order to save lives, the Department of Transportation (DOT) is considering requiring automobile manufacturers to install air bags of this design in all cars produced after 1998.
- Which of the following, if true, represents the strongest challenge to the DOT's proposal?
- (A) Air bags of the new design are more given to being inadvertently triggered, an occurrence that can sometimes result in fatal traffic accidents.
  - (B) The DOT is planning to require automobile manufacturers to produce these air bags according to very strict specifications.
  - (C) After installing air bags in new cars, automobile manufacturers will experience an increase in sales.
  - (D) The proposed air bag installation program will adversely affect the resale of cars manufactured prior to 1998.
  - (E) As production costs increase, the profits of many domestic automobile dealers show a marked decrease.
11. A private bus company gained greater profits and provided bus service to the area at lower fares by running buses more frequently and stimulating greater ridership. Hoping to continue these financial trends, the company plans to replace all older buses with new, larger buses, including some double-decker buses,.
- The plan of the bus company as described above assumes all of the following EXCEPT
- (A) the demand for bus service in the company's area of service will increase in the future
  - (B) increased efficiency and revenues will compensate for any new expenses the company incurs
  - (C) the new buses will be sufficiently reliable to ensure the company a net financial gain once they are in place
  - (D) driving the new buses will be no more difficult than driving the buses they are to replace

- (E) the larger, double-decker buses will not face obstacles such as height and weight restrictions in the bus company's area of service
12. A newly discovered disease is thought to be caused by a certain bacterium. However, recently released data notes that the bacterium thrives in the presence of a certain virus, implying that it is actually the virus that causes the new disease. Which of the following pieces of evidence would most support the data's implication?
- (A) In the absence of the virus, the disease has been observed to follow infection by the bacterium.
- (B) The virus has been shown to aid the growth of bacterium, a process which often leads to the onset of the disease.
- (C) The virus alone has been observed in many cases of the disease.
- (D) In cases where the disease does not develop, infection by the bacterium is usually preceded by infection by the virus.
- (E) Onset of the disease usually follows infection by both the virus and the bacterium.
13. A sociologist recently studied two sets of teenagers. The members of one set spent 10 or more hours per week watching violent television programs, and the members of the other set spent 2 hours or less per week watching violent television programs. A significantly greater proportion of the teenagers in the former group exhibited aggressive behavior during the period of the study. The sociologists reasoned that the prolonged exposure to television violence caused the aggressive behavior. Which of the following, if true, of the teenagers in the study, provides the strongest challenge to the sociologist's conclusion?
- (A) Some teenagers who watched more than 10 hours of violent television programming per week behaved less aggressively than others in the same group of teenagers.
- (B) Some teenagers who watched 2 hours of violent television programming per week did not behave aggressively.
- (C) Some teenagers voluntarily stopped watching violent television programs after being victims of violence.
- (D) Some teenagers watched violent television programs alone, while others did so in groups.
- (E) Many of the teenagers in the first group exhibited aggressive behavior before the study began.
14. Because of a recent drought in Florida during the orange-growing season, the price of oranges this season will be three times the usual price. This will drive up the cost of producing orange juice and thus push up the price of orange juice for the consumer.

Which of the following, if true, most seriously weakens the argument above?

- (A) The recent drought was not as severe as scientists predicted.
- (B) States other than Florida also supply oranges to orange juice manufacturers.
- (C) Other ingredients are used in the production of orange juice.
- (D) Last year the price of oranges was actually lower than the average price over the past ten years.
- (E) The price of oranges will eventually be \$0.48 per crate.

*Questions 15-16 are based on the following.*

Local phone companies have monopolies on phone service within their areas. Cable television can be transmitted via the wires that are already in place and owned by the phone companies. Cable television companies argue that if the telephone companies were to offer cable service, these telephone companies would have an unfair advantage, because their cable transmissions could be subsidized by the profits of their monopolies on phone service.

15. Which of the following, if true, would ease the cable companies' fear of unfair competition?
- (A) In order to use existing telephone wire, telephone companies would need to modernize their operations, a process so expensive it would virtually wipe out all profit from their monopoly for the foreseeable future.
  - (B) If a phone company were to offer cable service within a particular area, it would have a monopoly within that area.
  - (C) The cost of television service, whether provided by cable or telephone companies, scales; that is, the total cost of transmission rises only marginally as more homes are added to the network.
  - (D) Cable programming that offers more channels is already available through satellite dish, but the initial cost of the dish is extremely high.
  - (E) Cable television will never be able to compete with the burgeoning video rental industry, especially as more homes now have video cassette recorders than ever did before.
16. On the basis of the information provided in the passage above, which of the following questions can be answered?
- (A) Are phone companies as efficient as cable companies in providing reliable and inexpensive service?
  - (B) If phone companies were allowed to provide cable service, would they want to do so?
  - (C) Do the cable companies believe that the local phone companies make a profit on phone service?
  - (D) Are local phone companies forbidden to offer cable service?
  - (E) Is it expected that phone companies will have a monopoly on cable service?



17. In the past year, there has been a large drop in the number of new cars sold, due to harsh economic conditions in the marketplace and high taxes. At the same time, the average price paid for a new car has risen dramatically.

Which of the following, if true, best explains the increase in the average price of a new car?

- (A) The price of used cars has climbed steadily over the past ten years.
  - (B) There will be a tax reduction later in the year which is expected to aid moderate and low income families.
  - (C) The market for expensive car has been unaffected by the current economic conditions.
  - (D) Economic conditions are expected to get significantly worse before the end of the year.
  - (E) Low demand for trucks and vans has led to lower production in the factories.
18. Critics of sales seminars run by outside consultants point out that since 1987, revenues of vacuum cleaner companies whose employees attended consultant-led seminars were lower than revenues of vacuum cleaner companies whose employees did not attend such seminars. The critics charge that for vacuum cleaner companies, the sales seminars are ill conceived and a waste of money.
- Which of the following, if true, is the most effective challenge to the critics of sales seminars?
- (A) Those vacuum cleaner companies whose sales were highest prior to 1987 are the only companies that did not send employees to the seminars.
  - (B) Vacuum cleaner companies that have sent employees to sales seminars since 1987 experienced a greater drop in sales than they had prior to 1987.
  - (C) The cost of vacuum cleaner sales seminars run by outside consultants has risen dramatically since 1987.
  - (D) The poor design of vacuum cleaner sales seminars is not the only reason for their ineffectiveness.
  - (E) Since 1987, sales of vacuum cleaners have risen twenty percent.

19. Informed people generally assimilate information from several divergent sources before coming to an opinion. However, most popular news organizations view foreign affairs solely through the eyes of our State Department. In reporting the political crisis in foreign country B, news organizations must endeavor to find alternative sources of information.

Which of the following inferences can be drawn from the argument above?

- (A) To the degree that a news source gives an account of another country that mirrors that of our State Department, that reporting is suspect.
- (B) To protect their integrity, news media should avoid the influence of State Department releases in their coverage of foreign affairs.
- (C) Reporting that is not influenced by the State Department is usually more

accurate than are other accounts.

- (D) The alternative sources of information mentioned in the passage would probably not share the same views as the State Department.
- (E) A report cannot be seen as influenced by the State Department if it accurately depicts the events in a foreign country.

20. A light bulb company produces 2,000 light bulbs per week. The manager wants to ensure that standards of quality remain constant from week to week. The manager, therefore, claims that out of 2,000 light bulbs produced per week, 500 light bulbs are rejected.

Of the following, the best criticism of the manager's plan is that the plan assumes that

- (A) light bulb manufacturers cannot accept all light bulbs that produced
- (B) the overall quality of the light bulbs would not be improved if the total number of light bulbs produced were reduced
- (C) each light bulb that is reviewed is worthy of being reviewed
- (D) it is difficult to judge the quality of a light bulb
- (E) the 1,500 light bulbs that are accepted will be of the same quality from week to week

## TEST II

### 30 Minutes 20 Questions

1. For over fifty years, the ocean-freight industry worked to make ocean freighters faster and to lower their fuel consumption. Despite considerable success, the economics of the industry grew worse, until the industry was almost dead. What was wrong was an incongruity between assumptions and realities. The real costs came, not from time spent at sea, but from time spent in port during loading and unloading.

Which of the following actions would be most likely to lead to a solution of the problem faced by the ocean-freight industry, as it is analyzed in the passage?

- (A) Developing a ship's engine that runs on a cheaper type of fuel than that traditionally used by ocean freighters
- (B) Developing a ship with accessible cargo compartments that can be mechanically loaded and unloaded very rapidly
- (C) Developing a ship whose freight capacity relative to the ship's total volume is much larger than that of any existing ship
- (D) Implementing a system to ensure that ocean freighters are loaded to capacity whenever they leave a port
- (E) Implementing a marketing plan that focuses on routes that are known to be least threatened by unfavorable weather, thus permitting rapid trips and reliable arrival times

2. The increased concentration of salt in the bay, which is the result of recent

drought and high temperatures, will cause many fish to die. Shrimp, however, can tolerate high salt levels; the shrimp industry will not, therefore, be hurt by the increased concentration of salt.

Which of the following statements, if true, would weaken the argument above?

- (A) Some fish will migrate to areas that have lower concentrations of salt.
- (B) Lack of rainfall for extended periods of time lowers the water level of bays.
- (C) The organisms on which young shrimp feed cannot survive in such salty waters.
- (D) Increased water temperature often causes shrimp to multiply more quickly.
- (E) Shrimp are more abundant in areas of the bay that are sparsely populated by fish.

3. Currently people in the United States eat, on the average, 1,431 pounds of food per year, 35 pounds more than in 1980. This increase is, at least in part, because people between the ages of 15 and 64 have accounted for an increasing share of the population.

Which of the following can be properly inferred from the passage above?

- (A) More than half of the current population of the United States is between the ages of 15 and 64.
- (B) The population has risen since 1980.
- (C) Children below the age of 15 require, on the average, more food than do people over the age of 64.
- (D) Before 1980 children below the age of 15 outnumbered people between the ages of 15 and 64.
- (E) Individuals between the ages of 15 and 64 consume, on the average, more food than do those younger or older.

4. Each increase of 1 percent in real disposable personal income per capita will increase the share of the electorate for an incumbent by about 2.2 percentage points, other things being equal. Since 1952 there has been a decline in real disposable income during only one presidential election year. The incumbent lost that election.

Which of the following conclusions can be properly drawn from the statements above?

- (A) When an incumbent runs for office, he or she is likely to win.
- (B) Political parties should take care to put forth a candidate who seems prosperous.
- (C) Presidential candidates should put their greatest efforts into improving their public image.
- (D) Because a presidential campaign requires the expenditure of large amounts of money, it frequently impoverishes a candidate and his or her supporters.
- (E) The outcome of a presidential election is substantially affected by factors

other than the ideological positions of the candidates.

5. According to an independent computer-industry analyst, the new Regent microcomputer is of high quality, is fast, and costs less than any currently existing competing model. It is reasonable to conclude, therefore, as the manufacturer's prospectus does, that the Regent will quickly establish itself as a fast-selling, low-priced alternative to currently available microcomputers.

Which of the following, if true, would LEAST weaken the argument above?

- (A) Many retailers already carry one or more low-priced microcomputer models and are disinclined to carry another.
  - (B) Several faster and lower-priced models of microcomputers will soon be introduced by other computer manufacturers.
  - (C) The Regent Corporation's microcomputer can be used in conjunction with higher-priced microcomputers manufactured by other companies.
  - (D) Most of those individuals and companies that could be expected to make up the potential market for the Regent microcomputer have already filled their microcomputer needs.
  - (E) The independent computer-industry analyst whose assessment was incorporated in the prospectus has used measures of quality that are not universally accepted by the computer-buying public.
6. Which of the following is the most logical completion of the passage below?
- Many companies have been pushing for a three-week extension of daylight saving time, which would mean that the sun would continue to set an hour later during the fall months. The owners of a chain of convenience stores, for example, expect to gain \$15 million a year in additional sales, mostly from people who tend to\_\_\_\_\_
- (A) stay away from these stores after dark
  - (B) stay outdoors during the fall months
  - (C) spend more money in the fall
  - (D) spend less money in the fall
  - (E) shop at these stores when they are pressed for time
7. Recent evidence appears to contradict earlier findings that suggested that those who are physically fit cope better with stressful real-life events. Of a group of healthy women, those randomly assigned to a ten-week program of aerobic exercises performed no better in laboratory tests simulating stressful situations than did the subgroup assigned to a program without exercise.
- Which of the following, if true, provides evidence for determining whether physical fitness makes one react better to stress?
- (A) Superior reaction to laboratory stress situations was found to be more prevalent among women than among men.
  - (B) Healthy men, after training six months in weight lifting, encountered fewer

potentially stressful situations in the subsequent six months.

- (C) Subjects following a regimen during which they perfected their skills in a variety of relaxation techniques found that their lives seemed calmer after they began the regimen.
- (D) College students with previous high levels of stressful life events showed a markedly reduced reaction to such events after training in aerobics for six months.
- (E) Subjects with a high level of self-esteem more often engaged in physical-fitness regimens than did a control group of subjects with average levels of self-esteem.

Questions 8-9 are based on the following.

Now is an excellent time to invest in the catering business. A survey conducted by Weddings magazine found that 70 percent of the magazine's readers want a catered wedding reception. An analysis of the catering industry, however, shows that the current number of caterers can serve only 55 percent of the weddings likely to occur each year.

- 8. Which of the following, if true, reveals a weakness in the evidence cited above?
  - (A) Catering is a highly labor-intensive business.
  - (B) Caterers are not evenly distributed across the country.
  - (C) The number of weddings with catered receptions has been growing each year for the past five years.
  - (D) Readers of Weddings magazine are more likely than most people to want a catered reception.
  - (E) Weddings magazine includes both articles about catered receptions and articles about preparing food oneself for one's wedding reception.
- 9. Which of the following, if true, would undermine the validity of the investment advice in the paragraph above?
  - (A) The average wedding reception involves between 50 and 100 guests.
  - (B) Approximately a quarter of all weddings take place without a reception.
  - (C) Approximately a quarter of all weddings and their associated receptions are paid for by the couples themselves.
  - (D) Only half of all catered wedding receptions include sit-down meals.
  - (E) Only half of those who say they want a catered wedding reception actually have one.
- 10. The Commerce Department recently put limits on machine-tool imports from two countries whose exports of machine tools into the United States have been substantial. As a result of these restrictions, analysts predict that domestic sales of machine tools manufactured in the United States are bound to rise considerably, starting in the very near future.



Which of the following, if true, would be most likely to cause the analysts' prediction to be inaccurate?

- (A) A new tax bill that, if passed, would discourage investment in capital equipment such as machine tools is being studied and debated seriously in the United States Congress.
  - (B) United States companies' orders for metal-cutting machines, which account for 75 percent of sales by the machine-tool industry, rose faster than orders for other types of machine tools during the past year.
  - (C) Worldwide orders for machine tools made in the United States dropped by more than 10 percent during the past year.
  - (D) Substantial inventories of foreign-made machine tools were stockpiled in the United States during the past year.
  - (E) Companies in the industrial sectors of many countries showed a significantly expanded demand for machine tools during the past year.
11. The cities with the densest population have the highest ratio of police officers to citizens. Such cities also have the lowest rates of property crime without contact between perpetrator and victim. Thus maintaining a high ratio of police officers to citizens can serve as an effective deterrent to at least certain kinds of property crime.

Which of the following, if true, most seriously weakens the argument above?

- (A) The quality of training that police receive varies from city to city.
  - (B) High population density itself makes it difficult to commit a property crime that involves no contact between perpetrator and victim.
  - (C) Many nonviolent crimes in large cities are drug-related.
  - (D) A majority of the perpetrators of property crimes in densely populated cities are not apprehended by the police.
  - (E) Property crimes without contact between perpetrator and victim represent only a small proportion of overall crime.
12. Approximately two hundred brands of personal computers are being manufactured, but we currently limit our inventory to only the eight most popular brands. We plan to increase greatly the number of computers we sell by expanding our inventory to include the ten best-selling brands.

Which of the following, if true, points out a major weakness of the plan above?

- (A) The capabilities of three most popular personal computers add to be approximately equivalent, with no brand having consistent superiority in all respects.
- (B) The seven most popular brands of personal computers account for almost all computers sold.
- (C) As the users of personal computers become more sophisticated, they are more willing to buy less well-known brands of computers.

- (D) Less popular brands of computers often provide less profit to the retailer because prices must be discounted to attract customers.
- (E) The leading brand of personal computer has been losing sales to less popular brands that offer similar capabilities for less money.
13. Of those person who became teachers in 1968 and who later left the profession, 30 percent today earn salaries above \$35,000 a year: of those who became teachers in 1968 and have remained in the profession, only 15 percent today earn salaries above \$35,000 a year. These figures indicate how underpaid teachers are today.
- The argument above depends on which of the following assumptions about the persons for whom statistics are cited?
- (A) At least one-third of the group of persons who have remained in teaching would today be earning more than \$35,000 a year if they had left teaching.
- (B) The group of persons who left teaching and the group who did not are comparable in terms of factors that determine how much people outside the teaching profession are paid.
- (C) Most of those persons who left teaching did so entirely because of the low salaries teachers earn.
- (D) As a group, those persons who have remained in teaching are abler and more dedicated than the group of persons who left teaching.
- (E) The group of persons who left teaching and who today earn more than \$35,000 a year were more capable teachers than the group who remained in the profession.
14. Some analysts maintain that an embargo by country Litora on the export of a strategic metal to country Zenda, if imposed, would drive up the price of the metal in Zenda at least tenfold. They note that few other countries export the metal and that, with an embargo, Zenda might have to depend on as-yet-unexploited domestic sources of the metal.

Which of the following, if true, constitutes the most serious objection to the analysis above?

- (A) Litora's economy depends heavily on foreign currency earned by the export of the strategic metal to other countries.
- (B) There are foreign-policy steps that Zenda could take to appease Litora and avoid being subjected to an embargo on the metal.
- (C) Geologists believe that additional deposits of the metal could possibly be found within the territory of Litora.
- (D) Only a small proportion of Zenda's import expenditures is devoted to the import of the metal from Litora.
- (E) In case of an embargo, Zenda could buy the metal indirectly from Litora on the world market at a less than one-third increase in cost.

15. The government should stop permitting tobacco companies to subtract advertising expenses from their revenues in calculating taxable income. Tobacco companies would then have to pay more taxes. As a consequence, they would raise the prices of their products and this price increase would raise the prices of their products and this price increase would discourage tobacco use.

Which of the following is an additional premise required by the argument above?

- (A) Tobacco companies would not offset the payment of extra taxes by reducing costs in other areas.
  - (B) Tobacco companies would not continue to advertise if they were forced to pay higher taxes.
  - (C) People would not continue to buy tobacco products if these products were no longer advertised.
  - (D) The money the government would gain as a result of the increase in tobacco companies' taxable income would be used to educate the public about the dangers of tobacco use.
  - (E) The increase in taxes paid by tobacco companies would be equal to the additional income generated by raising prices.
16. Instead of blaming an airline accident on pilot error, investigators should find out why the error was made by analyzing airplane design, airline management, and pilot-training programs. For only then can changes be made to ensure that the same type of error does not recur and cause another accident.
- Which of the following is a presupposition of the argument above?
- (A) Pilot error is not a contributing factor in most airline accidents.
  - (B) Airline companies themselves should be the agents who investigate airline accidents.
  - (C) Stricter government regulation of airline companies will make air travel significantly safer.
  - (D) Investigators of airline accidents should contribute to the prevention of future accidents.
  - (E) Most pilots who make errors in flying will repeat their errors unless they are retrained.

Questions 17-18 are based on the following.

Professor A: We must make a strong moral statement against Country X's policies. Only total divestment—the sale of all stock in companies that have factories or business offices in X—can do this. Therefore, the university should divest totally.

Professor B: Our aim should be to encourage X to change its policies. Partial divestment is the best way to achieve this aim. Therefore, the university should sell its stock only in companies that either sell goods to X's government, or do the majority of their business in X, or treat their workers in X unfairly.

17. Professor A's and Professor B's arguments differ in which of the following ways?
- (A) They state the same goal but propose different ways of achieving it.
  - (B) They state different goals but propose the same way of achieving them.
  - (C) They state different goals and propose different ways of achieving them.
  - (D) They disagree about whether the university should sell any stock at all.
  - (E) They disagree about whether X's policies are objectionable.
18. Which of the following, if true, would be evidence that the university would not be harmed economically if it followed Professor A's recommendation.
- (A) Very few of the companies in which the university owns stocks sell goods to X's government.
  - (B) Most companies that have factories or business offices in X and in which the university owns stock actually do little of their business in X.
  - (C) Some companies that have factories or business offices in X and in which the university owns stock have instituted fair treatment policies for their workers in X at very little additional cost to the companies.
  - (D) The expected financial return to the university from stocks that the university could own under a policy of total divestment is approximately the same as the expected financial return from the same as the expected financial.
  - (E) If the university sold large blocks of stock under a policy of total divestment, the prices of the stocks of the companies whose stocks were sold would probably decrease somewhat.
19. In an effort to go beyond resumes as tools in its search for executives, one leading company has resorted to interviewing the top candidates for a position all together in a single group. This technique is supposed to afford a direct comparison of the candidates with respect to some personal qualities that cannot be gleaned from a resume.
- Which of the following, if true, casts the most serious doubt on the value of the simultaneous interview technique?
- (A) Resumes do sometimes allow reliable inferences to be made about a candidate's personal qualities.
  - (B) The simultaneous interview could become cumbersome if there were a great many candidates for a position.
  - (C) The more perceptive the interviewer, the more revealing the simultaneous interview is apt to be.
  - (D) There are certain personal qualities that only an extended simultaneous interview can bring out.
  - (E) The simultaneous interview distorts each candidate's response style by inducing stresses unlike any an executive position induces.
20. The Asian American History Association receives approximately 1,000 proposals each year from individuals who wish to present papers at its annual meeting. The

association's officers would like to ensure constant standards of quality in the presentations from year to year. The officers have therefore decided to accept for presentation each year only the best 300 papers selected on the basis of the quality of the proposals submitted.

Of the following, the best criticism of the officers' plan is that the plan assumes that

- (A) Professional associations cannot accept all papers submitted for presentation at their annual meetings.
- (B) The total number of proposals submitted to the association will remain at approximately 1,000 in future years.
- (C) Each proposal submitted to the association deserves to be considered a serious candidate for presentation.
- (D) It is difficult to judge the quality of a paper on the basis of the proposal alone.
- (E) The best 300 papers submitted to the association for presentation will be of the same quality from year to year.

### TEST III

#### 30 Minutes 20 Questions

1. Two groups of laboratory mice were injected with cancerous cells. One group's cages were rotated in a disorienting manner. Two-thirds of these mice developed cancers. One-tenth of the mice in stationary cages developed cancers. The researchers concluded that stress enhances the development of cancer in laboratory mice.  
The researchers' conclusion logically depends on which of the following assumptions?
  - (A) Rotating the cages in disorienting manner produced stress in the mice in those cages.
  - (B) The injections given to the two groups of mice were not of equal strength.
  - (C) Injecting the mice with cancerous cells caused stress in the mice.
  - (D) Even without the injections the mice in the rotated cages would have developed cancers.
  - (E) Even the rotation of cages in a manner that is not disorienting is likely to produce stress in mice in those cages.
2. In 1846 about 80 percent of the towns in New York State banned the sale of alcoholic beverages. A recent article about the bans concludes that mid-nineteenth-century supporters of the temperance movement were not residents of remote rural areas, as has often been asserted; rather, they were concentrated in centers of economic opportunity.  
Which of the following, if true, best supports the conclusion reached in the article?



- (A) After 1846 the temperance movement grew rapidly and it flourished until the turn of the century.
- (B) Support for the ban on alcohol was strongest in New York towns where the economy was based on new, growing industries.
- (C) Many young New York State farmers supported the ban on alcohol.
- (D) The most adamant opponents of the ban included several affluent factory and mill owners.
- (E) In New York City, which was a commercial center in 1846, the sale of alcoholic beverages was not banned.
3. In 1984 Exco, which sells its products only through mail-order catalogs, began distributing its catalog to people who had never purchased Exco's products, while it continued to distribute the catalog to previous customers. Total dollar sales increased in 1984, but Exco's profits that year were smaller than in 1983. Which of the following, if true, contributes most to an explanation of Exco's smaller profits in 1984, as compared to 1983?
- (A) There was a two percent increase in 1984 in the sales tax that consumers had to pay on all purchases from the catalog.
- (B) A greater number of catalogs were sent to previous customers than to people who never purchased products from Exco.
- (C) In 1984 Exco's product-manufacturing costs increased by a smaller amount than the products' selling prices increased.
- (D) Customers who never previously purchased products from Exco purchased, on the average, fewer products in 1984 than did previous customers.
- (E) The increase between 1983 and 1984 in the cost of mailing the catalogs was greater than the increase in sales from 1983 to 1984.
4. People living in the undeveloped wilderness area want jobs, and commercial development of the area will create jobs. But if the new commercial development plan is carried out, the wilderness will suffer. Thus the board considering the area's future must choose between the preservation of the wilderness and the wishes of the local people.
- The answer to which of the following questions would be LEAST relevant to evaluating whether the board indeed faces the choice the author says it faces?
- (A) Could commercial development be carried out under an alternative plan without damaging the wilderness?
- (B) Would commercial development of the wilderness area significantly benefit people living elsewhere?
- (C) Would the jobs created by the new development plan be filled by the local people?
- (D) Do local people support or oppose commercial development of the wilderness area?

- (E) Can job be provided without commercial development of the wilderness area?

Questions 5-6 are based on the following.

The lobbyists argued that because there is no statistical evidence that breathing other people's tobacco smoke increases the incidence of heart disease or lung cancer in healthy nonsmokers, legislation banning smoking in workplaces cannot be justified on health grounds.

5. The argument reported above would be most seriously weakened if it were true that
- (A) Breathing smoke-filled air increase the incidence of headaches and coughs in healthy nonsmokers.
  - (B) Most nonsmokers dislike the odor of smoke-filled air.
  - (C) Smoke-filled air is a major source of the dirt that damages computers and other sensitive equipment.
  - (D) Most workers would prefer to have smoking banned in workplaces.
  - (E) Legislation banning smoking in workplaces decreases friction between smoking and nonsmoking workers and is easy to enforce.
6. Of the following, which is the best criticism of the argument reported above?
- (A) It ignores causes of lung cancer other than smoking.
  - (B) It neglects the damaging effects of smoke-filled air on nonsmokers who are not healthy.
  - (C) It fails to mention the roles played by diet, exercise, and heredity in the development of heart disease.
  - (D) It does not consider the possibility that nonsmokers who breathe smoke-filled air at work may become more concerned about their health.
  - (E) It does not acknowledge that nonsmokers, even those who breathe smoke-filled air at work, are in general healthier than smokers.
7. Which of the following best completes the passage below?
- When a project is failing and should be terminated, plan to bring in a new manager. New managers are more likely to terminate the project than are the original managers because\_\_\_\_\_
- (A) the project may have failed for reasons that the original manager could not have foreseen
  - (B) organizations tend to reward managers who can overcome problems
  - (C) managerial decisions to terminate a project should depend on the likelihood of the project's eventual success
  - (D) the original managers were not necessarily able to overcome problems caused by external events over which they had no control
  - (E) the new managers have no need to justify the earlier decision to maintain the

project

8. State X's income-averaging law allows a portion of one's income to be taxed at lower rate than the rate based on one's total taxable income. To use income averaging, the taxpayer must have earned taxable income for a particular year that exceeds 140 percent of his or her average taxable income for the previous three years. People using income averaging owe less tax for that year than they would without income averaging.

Which of the following individuals would be most seriously affected if income averaging were not permitted in computing the taxes owed for current year?

- (A) Individuals whose income has steadily decreased for the past three years
- (B) Individuals whose income increased by 50 percent four years ago and has remained the same since then
- (C) Individuals whose income has doubled this year after remaining about the same for five years
- (D) Individuals who had no income this year, but did in each of the previous three years
- (E) Individuals who are retired and whose income has remained about the same for the past ten years

9. According to a recent study, fifteen corporations in the United States that follow a credo of social responsibility are also very profitable. Because of their credos, these fifteen corporations give generously to charity, follow stringent environmental-protection policies, and have vigorous affirmative-action programs.

Which of the following can be correctly inferred from the statements above?

- (A) Following a credo of social responsibility helps to make a corporation very profitable.
- (B) It is possible for a corporation that follows a credo of social responsibility to be very profitable.
- (C) A corporation that gives generously to charity must be doing so because of its credo of social responsibility.
- (D) Corporations that are very profitable tend to give generously to charity.
- (E) Corporations that have vigorous affirmative-action programs also tend to follow stringent environmental-protection policies.

10. A year after the start an experiment to decrease crime in two high-crime subway stations by the installation of closed-circuit televisions, the experiment is being discontinued, city officials say the program has led to an increase in crime, citing the fact that following the installation, both stations showed increases in the number of crimes reported.

Which of the following, if true, most seriously weakens the claim of the city officials that the program has led to an increase in crime?

- (A) The two subway stations had been chosen on the basis subway stations was higher than that of other high-crime subway stations not equipped with closed-circuit-television.
  - (B) The rate of increase in crimes reported for two subway stations was higher than that of other high-crime subway stations not equipped with closed-circuit television.
  - (C) The percentage of all crimes committed at the two subway stations that were reported rose as a result of increased instances of observations of crime on the closed-circuit televisions.
  - (D) The year in which the experiment was conducted was a year in which the total number of crimes reported in the city fell.
  - (E) Closed-circuit televisions installed in shops and stores throughout the city have proved to be useful in the prevention of shoplifting and burglaries.
11. A government agency that reimburses its clients for bills they have paid for medical care has had this year's budget cut. To save money without cutting reimbursements or otherwise harming clients financially, it plans to delay reimbursements to clients for forty days, thereby earning \$180 million per year in interest on the reimbursement money.
- Which of the following, if true, is the best criticism of the agency's plan?
- (A) Hospitals and physicians typically hold patients responsible for the ultimate payment of their bills.
  - (B) The agency cannot save money by cutting staff because it is already understaffed.
  - (C) Some clients borrow money to pay their medical bills; they will pay forty extra days of interest on these loans.
  - (D) Some clients pay their medical bills immediately, but they often take more than forty days to file with the agency for reimbursement.
  - (E) The agency's budget was cut by more than \$180 million last year.

Questions 12-13 are based on the following.

Record companies defend their substitution of laser-read compact discs (CD's) for the much less expensive traditional long-playing vinyl records in their catalogs by claiming that the audio market is ruled by consumer demand for ever-improved sound reproduction rather than by record manufacturers' profit-motivated marketing decisions. But this claim cannot be true, because if it were true, then digital audiotape, which produces even better sound than CD's, would be commercially available from these same record companies, but it is not.

12. Which of the following, if true, best explains how the record companies' claim about the nature of the audio reproduction market could be true and digital audiotape nevertheless be unavailable for the commercial market?
- (A) Most consumers prefer audiotape to long-playing records or CD's because of

- the tape's durability and compactness.
- (B) Prototypes of digital audiotape have been used to make master tapes of some performances in recording studios.
  - (C) The manufacturing technology that underlies the commercial production of CD's requires equipment very similar to that needed for commercial production of digital audiotape.
  - (D) Record companies have not yet solved several quality-control problems that have beset attempts to produce digital audiotape in commercial quantities.
  - (E) CD's are more expensive than long-playing vinyl records by about the same ratio as digital audiotape cassettes would be more expensive than conventional cassettes.
13. Which of the following, if true, would most strengthen the argument against the record companies' claim?
- (A) When CD's were first introduced in the audio-reproduction market, prices were high and selection was poor.
  - (B) Record companies are reluctant to attempt commercial production of digital audiotape until profits from the sales of CD's have enabled them to recover their investments in compact-disc manufacturing technology.
  - (C) Some CD's have been so much in demand that consumers have experienced long delays in obtaining copies.
  - (D) Because CD's work according to principles very different from those that govern conventional recordings, commercial production of CD's requires new kinds of manufacturing technology.
  - (E) Any valid comparison of CD audio reproductions to digital audiotape reproductions must be based on identical performances played back on the highest quality disc or tape player.
14. The president of a consulting firm analyzed the decisions made about marketing by her clients and concluded that the decisions were correct only about half of the time.
- The conclusion above depends on the presupposition that
- (A) companies can be successful even when about half of the decisions they make about marketing prove to be wrong
  - (B) companies hiring her consulting firm make no more incorrect marketing decisions than do companies in general
  - (C) executives consistently making correct marketing decisions rarely enlist the aid of a consulting firm
  - (D) marketing decision are just as likely to be correct as they are to be incorrect
  - (E) it is possible to classify a marketing decision properly as being either right or wrong
15. It is true that unionized women earn, on average, more than a third more than



nonunionized women do. But the unionized women work in industries where wages happen to be high, their nonunionized counterparts in these industries earn about as much as they do. Therefore unionization does not raise women's wages.

Which of the following, if true, most seriously weakens the argument above?

- (A) Besides wage increases, unions bargain for benefits such as medical insurance and workplace safety.
- (B) The most highly paid women are in executive positions, which are not unionized.
- (C) Wages in many industries vary from one part of the country to another, regardless of whether workers are unionized or not.
- (D) Nonunionized women in an industry often receive income increases as a result of increases won by unions representing women who work for other employers in the same industry.
- (E) The unionization of women who work for one employer in a given industry frequently prompts the unionization of women who work for other employers in the same industry.

16. A violin constructed to have improved sound would sound different from the best-sounding existing violins.

To professional violinists, a violin that sounds different from the best-sounding existing violins sounds less like a violin and therefore worse than the best-sounding existing violins.

Professional violinists are the only accepted judges of the sound quality of violins.

Would be the best supported by those statements?

- (A) Only amateur violinists should be asked to judge the sound quality of newly constructed violins.
- (B) Professional violinists supervise the construction of violins.
- (C) The best-sounding existing violins have been in existence for several centuries.
- (D) It is currently impossible to construct a violin that the only accepted judges will evaluate as having improved sound.
- (E) It is possible to construct a violin that sounds better than the best-sounding existing violins to everyone but professional violinists.

17. The fact that several of the largest senior citizens' organizations are constituted almost exclusively of middle-class elderly people has led critics to question the seriousness of those organizations' commitment to speaking out on behalf of the needs of economically disadvantaged elderly people.

Which of the following generalizations, if true, would help to substantiate the criticism implicit in the statement above?

- (A) The ideology of an organization tends to reflect the traditional political climate

of its locale.

- (B) The needs of disadvantaged elderly people differ in some ways from those of other disadvantaged groups within contemporary society.
- (C) Organized groups are better able to publicize their problems and seek redress than individuals acting alone.
- (D) Middle-class elderly people are more likely to join organizations than are economically disadvantaged elderly people.
- (E) People usually join organizations whose purpose is to further the economic, political, or social interests of their members.

18. Corporate Officer: Last year was an unusually poor one for our chemical division, which has traditionally contributed about 60 percent of the corporation's profits. It is therefore encouraging that there is the following evidence that the pharmaceutical division is growing stronger: it contributed 45 percent of the corporation's profits, up from 20 percent the previous year.

On the basis of the facts stated, which of the following is the best critique of the evidence presented above?

- (A) The increase in the pharmaceutical division's contribution to corporation profits could have resulted largely from the introduction of single, important new product.
- (B) In multidivisional corporations that have pharmaceutical divisions, over half of the corporation's profits usually come from the pharmaceuticals.
- (C) The percentage of the corporation's profits attributable to the pharmaceutical division could have increased even if that division's performance had not improved.
- (D) The information cited does not make it possible to determine whether the 20 percent share of profits cited was itself an improvement over the year before.
- (E) The information cited does not make it possible to compare the performance of the chemical and pharmaceutical divisions in of the percent of total profits attributable to each.

19. Identical twins tend to have similar personalities; if environment outweighs heredity in personality development, twins raised together should presumably have more similar personalities than those raised apart. A recent study of identical twins in both situations measured 11 key traits through a questionnaire, and concluded that 7 of the 11 are primarily products of heredity.

Which of the following, if established, would cast the most doubt on the study's results?

- (A) Fewer than half of the pairs of twins studied were raised separately.
- (B) The ages of all of the twins studied fell within a 10-year range.
- (C) Some of the traits that the study attributed to heredity developed in the separately raised twins because those pairs all grew up in similar families.

- (D) Although over half the traits measured were determined to be linked to heredity, the nature of those traits varied widely.
- (E) The 11 traits that were measured constitute a representative sample of larger, generally accepted pool of key personality traits.
20. When people predict that certain result will not take place unless a certain action is taken, they believe that they have learned that the prediction is correct when the action is taken and the result occurs. On reflection, however, it often becomes clear that the result admits of more than one interpretation.
- Which of the following, if true, best supports the claims above?
- (A) Judging the success of an action requires specifying the goal of the action.
- (B) Judging which action to take after a prediction is made requires knowing about other actions that have been successful in similar past situations.
- (C) Learning whether a certain predictive strategy is good requires knowing the result using that strategy through several trials.
- (D) Distinguishing a correct prediction and effective action from an incorrect prediction and ineffective action is often impossible.
- (E) Making a successful prediction requires knowing the facts about the context of that prediction.

### TEST 1

#### 30 Minutes 20 Questions

1. Nearly one in three subscribers to *Financial Forecaster* is a millionaire, and over half are in top management. Shouldn't you subscribe to *Financial Forecaster* now?
- A reader who is neither a millionaire nor in top management would be most likely to act in accordance with the advertisement's suggestion if he or she drew which of the following questionable conclusions invited by the advertisement?
- (A) Among finance-related periodicals, *Financial Forecaster* provides the most detailed financial information.
- (B) Top managers cannot do their jobs properly without reading *Financial Forecaster*.
- (C) The advertisement is placed where those who will be likely to read it are millionaires.
- (D) The subscribers mentioned were helped to become millionaires or join top management by reading *Financial Forecaster*.
- (E) Only those who will in fact become millionaires, or at least top managers, will read the advertisement.

Questions 2-3 are based on the following.

Contrary to the charges made by some of its opponents, the provisions of the new deficit-reduction law for indiscriminate cuts in the federal budget are justified.

Opponents should remember that the New Deal pulled this country out of great economic troubles even though some of its programs were later found to be unconstitutional.

2. The author's method of attacking the charges of certain opponents of the new deficit-reduction law is to
  - (A) attack the character of the opponents rather than their claim
  - (B) imply an analogy between the law and some New Deal programs
  - (C) point out that the opponents' claims imply a dilemma
  - (D) show that the opponents' reasoning leads to an absurd conclusion
  - (E) show that the New Deal also called for indiscriminate cuts in the federal budget
3. The opponents could effectively defend their position against the author's strategy by pointing out that
  - (A) the expertise of those opposing the law is outstanding
  - (B) the lack of justification for the new law does not imply that those who drew it up were either inept or immoral
  - (C) the practical application of the new law will not entail indiscriminate budget cuts
  - (D) economic troubles present at the time of the New Deal were equal in severity to those that have led to the present law
  - (E) the fact that certain flawed programs or laws have improved the economy does not prove that every such program can do so
4. In Millington, a city of 50,000 people, Mercedes Pedrosa, a realtor, calculated that a family with Millington's median family income, \$28,000 a year, could afford to buy Millington's median-priced \$77,000 house. This calculation was based on an 11.2 percent mortgage interest rate and on the realtor's assumption that a family could only afford to pay up to 25 percent of its income for housing. Which of the following corrections of a figure appearing in the passage above, if it were the only correction that needed to be made, would yield a new calculation showing that even incomes below the median family income would enable families in Millington to afford Millington's median-priced house?
  - (A) Millington's total population was 45,000 people.
  - (B) Millington's median annual family income was \$27,000.
  - (C) Millington's median-priced house cost \$80,000.
  - (D) The rate at which people in Millington had to pay mortgage interest was only 10 percent.
  - (E) Families in Millington could only afford to pay up to 22 percent of their annual income for housing.
5. Psychological research indicates that college hockey and football players are

more quickly moved to hostility and aggression than are college athletes in noncontact sports such as swimming. But the researchers' conclusion—that contact sports encourage and teach participants to be hostile and aggressive—is untenable. The football and hockey players were probably more hostile and aggressive to start with than the swimmers.

Which of the following, if true, would most strengthen the conclusion drawn by the psychological researchers?

- (A) The football and hockey players became more hostile and aggressive during the season and remained so during the off-season, whereas there was no increase in aggressiveness among the swimmers.
- (B) The football and hockey players, but not the swimmers, were aware at the start of the experiment that they were being tested for aggressiveness.
- (C) The same psychological research indicated that the football and hockey players had a great respect for cooperation and team play, whereas the swimmers were most concerned with excelling as individual competitors.
- (D) The research studies were designed to include no college athletes who participated in both contact and noncontact sports.
- (E) Throughout the United States, more incidents of fan violence occur at baseball games than occur at hockey or football games.

6. Ross: The profitability of Company X, restored to private ownership five years ago, is clear evidence that businesses will always fare better under private than under public ownership.

Julia: Wrong. A close look at the records shows that X has been profitable since the appointment of a first-class manager, which happened while X was still in the public sector.

Which of the following best describes the weak point in Ross's claim on which Julia's response focuses?

- (A) The evidence Ross cites comes from only a single observed case, that of Company X.
- (B) The profitability of Company X might be only temporary.
- (C) Ross's statement leaves open the possibility that the cause he cites came after the effect he attributes to it.
- (D) No mention is made of companies that are partly government owned and partly privately owned.
- (E) No exact figures are given for the current profits of Company X.

7. Stronger patent laws are needed to protect inventions from being pirated. With that protection, manufacturers would be encouraged to invest in the development of new products and technologies. Such investment frequently results in an increase in a manufacturer's productivity.

Which of the following conclusions can most properly be drawn from the information above?



- (A) Stronger patent laws tend to benefit financial institutions as well as manufacturers.
- (B) Increased productivity in manufacturing is likely to be accompanied by the creation of more manufacturing jobs.
- (C) Manufacturers will decrease investment in the development of new products and technologies unless there are stronger patent laws.
- (D) The weakness of current patent laws has been a cause of economic recession.
- (E) Stronger patent laws would stimulate improvements in productivity for many manufacturers.

8. Which of the following best completes the passage below?

At large amusement parks, live shows are used very deliberately to influence crowd movements. Lunchtime performances relieve the pressure on a park's restaurants. Evening performances have a rather different purpose: to encourage visitors to stay for supper. Behind this surface divergence in immediate purpose there is the unified underlying goal of \_\_\_\_\_

- (A) keeping the lines at the various rides short by drawing off part of the crowd
- (B) enhancing revenue by attracting people who come only for the live shows and then leave the park
- (C) avoiding as far as possible traffic jams caused by visitors entering or leaving the park
- (D) encouraging as many people as possible to come to the park in order to eat at the restaurants
- (E) utilizing the restaurants at optimal levels for as much of the day as possible

9. James weighs more than Kelly.

Luis weighs more than Mark.

Mark weighs less than Ned.

Kelly and Ned are exactly the same weight.

If the information above is true, which of the following must also be true?

- (A) Luis weighs more than Ned.
- (B) Luis weighs more than James.
- (C) Kelly weighs less than Luis.
- (D) James weighs more than Mark.
- (E) Kelly weighs less than Mark.

Questions 10-11 are based on the following.

Partly because of bad weather, but also partly because some major pepper growers have switched to high-priced cocoa, world production of pepper has been running well below worldwide sales for three years. Pepper is consequently in relatively short supply. The price of pepper has soared in response: it now equals that of cocoa.

10. Which of the following can be inferred from the passage?
- (A) Pepper is a profitable crop only if it is grown on a large scale.
  - (B) World consumption of pepper has been unusually high for three years.
  - (C) World production of pepper will return to previous levels once normal weather returns.
  - (D) Surplus stocks of pepper have been reduced in the past three years.
  - (E) The profits that the growers of pepper have made in the past three years have been unprecedented.
11. Some observers have concluded that the rise in the price of pepper means that the switch by some growers from pepper to cocoa left those growers no better off than if none of them had switched; this conclusion, however, is unwarranted because it can be inferred to be likely that
- (A) those growers could not have foreseen how high the price of pepper would go
  - (B) the initial cost involved in switching from pepper to cocoa is substantial
  - (C) supplies of pepper would not be as low as they are if those growers had not switched crops
  - (D) cocoa crops are as susceptible to being reduced by bad weather as are pepper crops
  - (E) as more growers turn to growing cocoa, cocoa supplies will increase and the price of cocoa will fall precipitously
12. Using computer techniques, researchers analyze layers of paint that lie buried beneath the surface layers of old paintings. They claim, for example, that additional mountainous scenery once appeared in Leonardo da Vinci's *Mona Lisa*, which was later painted over. Skeptics reply to these claims, however, that X-ray examinations of the *Mona Lisa* do not show hidden mountains. Which of the following, if true, would tend most to weaken the force of the skeptics' objections?
- (A) There is no written or anecdotal record that Leonardo da Vinci ever painted over major areas of his *Mona Lisa*.
  - (B) Painters of da Vinci's time commonly created images of mountainous scenery in the backgrounds of portraits like the *Mona Lisa*.
  - (C) No one knows for certain what parts of the *Mona Lisa* may have been painted by da Vinci's assistants rather than by da Vinci himself.
  - (D) Infrared photography of the *Mona Lisa* has revealed no trace of hidden mountainous scenery.
  - (E) Analysis relying on X-rays only has the capacity to detect lead-based white pigments in layers of paint beneath a painting's surface layers.
13. While Governor Verdant has been in office, the state's budget has increased by an average of 6 percent each year. While the previous governor was in office, the

state's budget increased by an average of 11.5 percent each year. Obviously, the austere budgets during Governor Verdant's term have caused the slowdown in the growth in state spending.

Which of the following, if true, would most seriously weaken the conclusion drawn above?

- (A) The rate of inflation in the state averaged 10 percent each year during the previous governor's term in office and 3 percent each year during Verdant's term.
  - (B) Both federal and state income tax rates have been lowered considerably during Verdant's term in office.
  - (C) In each year of Verdant's term in office, the state's budget has shown some increase in spending over the previous year.
  - (D) During Verdant's term in office, the state has either discontinued or begun to charge private citizens for numerous services that the state offered free to citizens during the previous governor's term.
  - (E) During the previous governor's term in office, the state introduced several so-called "austerity" budgets intended to reduce the growth in state spending.
14. Federal agricultural programs aimed at benefiting one group whose livelihood depends on farming often end up harming another such group.

Which of the following statements provides support for the claim above?

- I. An effort to help feed-grain producers resulted in higher prices for their crops, but the higher prices decreased the profits of livestock producers.
  - II. In order to reduce crop surpluses and increase prices, growers of certain crops were paid to leave a portion of their land idle, but the reduction was not achieved because improvements in efficiency resulted in higher production on the land in use.
  - III. Many farm workers were put out of work when a program meant to raise the price of grain provided grain growers with an incentive to reduce production by giving them surplus grain from government reserves.
- (A) I, but not II and not III
  - (B) II, but not I and not III
  - (C) I and III, but not II
  - (D) II and III, but not I
  - (E) I, II and III
15. Technological education is worsening. People between eighteen and twenty-four, who are just emerging from their formal education, are more likely to be technologically illiterate than somewhat older adults. And yet, issues for public referenda will increasingly involve aspects of technology.

Which of the following conclusions can be properly drawn from the statements

above?

- (A) If all young people are to make informed decisions on public referenda, many of them must learn more about technology.
- (B) Thorough studies of technological issues and innovations should be made a required part of the public and private school curriculum.
- (C) It should be suggested that prospective voters attend applied science courses in order to acquire a minimal competency in technical matters.
- (D) If young people are not to be overly influenced by famous technocrats, they must increase their knowledge of pure science.
- (E) On public referenda issues, young people tend to confuse real or probable technologies with impossible ideals.

16. In a political system with only two major parties, the entrance of a third-party candidate into an election race damages the chances of only one of the two major candidates. The third-party candidate always attracts some of the voters who might otherwise have voted for one of the two major candidates, but not voters who support the other candidate. Since a third-party candidacy affects the two major candidates unequally, for reasons neither of them has any control over, the practice is unfair and should not be allowed.

If the factual information in the passage above is true, which of the following can be most reliably inferred from it?

- (A) If the political platform of the third party is a compromise position between that of the two major parties, the third party will draw its voters equally from the two major parties.
- (B) If, before the emergence of a third party, voters were divided equally between the two major parties, neither of the major parties is likely to capture much more than one-half of the vote.
- (C) A third-party candidate will not capture the votes of new voters who have never voted for candidates of either of the two major parties.
- (D) The political stance of a third party will be more radical than that of either of the two major parties.
- (E) The founders of a third party are likely to be a coalition consisting of former leaders of the two major parties.

17. Companies considering new cost-cutting manufacturing processes often compare the projected results of making the investment against the alternative of not making the investment with costs, selling prices, and share of market remaining constant.

Which of the following, assuming that each is a realistic possibility, constitutes the most serious disadvantage for companies of using the method above for evaluating the financial benefit of new manufacturing processes?

- (A) The costs of materials required by the new process might not be known with certainty.

- (B) In several years interest rates might go down, reducing the interest costs of borrowing money to pay for the investment.
  - (C) Some cost-cutting processes might require such expensive investments that there would be no net gain for many years, until the investment was paid for by savings in the manufacturing process.
  - (D) Competitors that do invest in a new process might reduce their selling prices and thus take market share away from companies that do not.
  - (E) The period of year chosen for averaging out the cost of the investment might be somewhat longer or shorter, thus affecting the result.
18. There are far fewer children available for adoption than there are people who want to adopt. Two million couples are currently waiting to adopt, but in 1982, the last year for which figures exist, there were only some 50,000 adoptions. Which of the following statements, if true, most strengthens the author's claim that there are far fewer children available for adoption than there are people who want to adopt?
- (A) The number of couples waiting to adopt has increased significantly in the last decade.
  - (B) The number of adoptions in the current year is greater than the number of adoptions in any preceding year.
  - (C) The number of adoptions in a year is approximately equal to the number of children available for adoption in that period.
  - (D) People who seek to adopt children often go through a long process of interviews and investigation by adoption agencies.
  - (E) People who seek to adopt children generally make very good parents.

Questions 19-20 are based on the following.

Archaeologists seeking the location of a legendary siege and destruction of a city are excavating in several possible places, including a middle and a lower layer of a large mound. The bottom of the middle layer contains some pieces of pottery of type 3, known to be from a later period than the time of the destruction of the city, but the lower layer does not.

19. Which of the following hypotheses is best supported by the evidence above?
- (A) The lower layer contains the remains of the city where the siege took place.
  - (B) The legend confuses stories from two different historical periods.
  - (C) The middle layer does not represent the period of the siege.
  - (D) The siege lasted for a long time before the city was destroyed.
  - (E) The pottery of type 3 was imported to the city by traders.
20. The force of the evidence cited above is most seriously weakened if which of the following is true?
- (A) Gerbils, small animals long native to the area, dig large burrows into which



objects can fall when the burrows collapse.

- (B) Pottery of types 1 and 2, found in the lower level, was used in the cities from which, according to the legend, the besieging forces came.
- (C) Several pieces of stone from a lower-layer wall have been found incorporated into the remains of a building in the middle layer.
- (D) Both the middle and the lower layer show evidence of large-scale destruction of habitations by fire.
- (E) Bronze ax heads of a type used at the time of the siege were found in the lower level of excavation.

## TEST 2

### 30 Minutes 20 Questions

1. After the national speed limit of 55 miles per hour was imposed in 1974, the number of deaths per mile driven on a highway fell abruptly as a result. Since then, however, the average speed of vehicles on highways has risen, but the number of deaths per mile driven on a highway has continued to fall.  
Which of the following conclusions can be properly drawn from the statements above?
  - (A) The speed limit alone is probably not responsible for the continued reduction in highway deaths in the years after 1974.
  - (B) People have been driving less since 1974.
  - (C) Driver-education courses have been more effective since 1974 in teaching drivers to drive safely.
  - (D) In recent years highway patrols have been less effective in catching drivers who speed.
  - (E) The change in the speed limit cannot be responsible for the abrupt decline in highway deaths in 1974.
2. Neighboring landholders: Air pollution from the giant aluminum refinery that has been built next to our land is killing our plants.  
Company spokesperson: The refinery is not to blame, since our study shows that the damage is due to insects and fungi.  
Which of the following, if true, most seriously weakens the conclusion drawn by the company spokesperson?
  - (A) The study did not measure the quantity of pollutants emitted into the surrounding air by the aluminum refinery.
  - (B) The neighboring landholders have made no change in the way they take care of their plants.
  - (C) Air pollution from the refinery has changed the chemical balance in the plants' environment, allowing the harmful insects and fungi to thrive.
  - (D) Pollutants that are invisible and odorless are emitted into the surrounding air by the refinery.

(E) The various species of insects and fungi mentioned in the study have been occasionally found in the locality during the past hundred years.

3. Sales taxes tend to be regressive, affecting poor people more severely than wealthy people. When all purchases of consumer goods are taxed at a fixed percentage of the purchase price, poor people pay a larger proportion of their income in sales taxes than wealthy people do.

It can be correctly inferred on the basis of the statements above that which of the following is true?

- (A) Poor people constitute a larger proportion of the taxpaying population than wealthy people do.
- (B) Poor people spend a larger proportion of their income on purchases of consumer goods than wealthy people do.
- (C) Wealthy people pay, on average, a larger amount of sales taxes than poor people do.
- (D) The total amount spent by all poor people on purchases of consumer goods exceeds the total amount spent by all wealthy people on consumer goods.
- (E) The average purchase price of consumer goods bought by wealthy people is higher than that of consumer goods bought by poor people.

4. Reviewing historical data, medical researchers in California found that counties with the largest number of television sets per capita have had the lowest incidence of a serious brain disease, mosquito-borne encephalitis. The researchers have concluded that people in these counties stay indoors more and thus avoid exposure to the disease.

The researchers' conclusion would be most strengthened if which of the following were true?

- (A) Programs designed to control the size of disease-bearing mosquito populations have not affected the incidence of mosquito borne encephalitis.
- (B) The occupations of county residents affect their risk of exposure to mosquito-borne encephalitis more than does television-watching.
- (C) The incidence of mosquito-borne encephalitis in counties with the largest number of television sets per capita is likely to decrease even further.
- (D) The more time people in a county spend outdoors, the greater their awareness of the dangers of mosquito-borne encephalitis.
- (E) The more television sets there are per capita in a county, the more time the average county resident spends watching television.

5. The city's public transportation system should be removed from the jurisdiction of the municipal government, which finds it politically impossible either to raise fares or to institute cost-saving reductions in service. If public transportation were handled by a private firm, profits would be vigorously pursued, thereby eliminating the necessity for covering operating costs with government funds.

The statements above best support the conclusion that

- (A) the private firms that would handle public transportation would have experience in the transportation industry
- (B) political considerations would not prevent private firms from ensuring that revenues cover operating costs
- (C) private firms would receive government funding if it were needed to cover operating costs
- (D) the public would approve the cost-cutting actions taken by the private firm
- (E) the municipal government would not be resigned to accumulating merely enough income to cover costs

6. To entice customers away from competitors, Red Label supermarkets have begun offering discounts on home appliances to customers who spend \$50 or more on any shopping trip to Red Label. Red Label executives claim that the discount program has been a huge success, since cash register receipts of \$50 or more are up thirty percent since the beginning of the program.

Which of the following, if true, most seriously weakens the claim of the Red Label executives?

- (A) Most people who switched to Red Label after the program began spend more than \$50 each time they shop at Red Label.
- (B) Most people whose average grocery bill is less than \$50 would not be persuaded to spend more by any discount program.
- (C) Most people who received discounts on home appliances through Red Label's program will shop at Red Label after the program ends.
- (D) Since the beginning of the discount program, most of the people who spend \$50 or more at Red Label are people who have never before shopped there and whose average grocery bill has always been higher than \$50.
- (E) Almost all of the people who have begun spending \$50 or more at Red Label since the discount program began are longtime customers who have increased the average amount of their shopping bills by making fewer trips.

7. Throughout the 1950's, there were increases in the numbers of dead birds found in agricultural areas after pesticide sprayings. Pesticide manufacturers claimed that the publicity given to bird deaths stimulated volunteers to look for dead birds, and that the increase in numbers reported was attributable to the increase in the number of people looking.

Which of the following statements, if true, would help to refute the claim of the pesticide manufacturers?

- (A) The publicity given to bird deaths was largely regional and never reached national proportions.
- (B) Pesticide sprayings were timed to coincide with various phases of the life cycles of the insects they destroyed.

- (C) No provision was made to ensure that a dead bird would not be reported by more than one observer.
  - (D) Initial increases in bird deaths had been noticed by agricultural workers long before any publicity had been given to the matter.
  - (E) Dead birds of the same species as those found in agricultural areas had been found along coastal areas where no farming took place.
8. Teenagers are often priced out of the labor market by the government-mandated minimum-wage level because employers cannot afford to pay that much for extra help. Therefore, if Congress institutes a subminimum wage, a new lower legal wage for teenagers, the teenage unemployment rate, which has been rising since 1960, will no longer increase.

Which of the following, if true, would most weaken the argument above?

- (A) Since 1960 the teenage unemployment rate has risen when the minimum wage has risen.
  - (B) Since 1960 the teenage unemployment rate has risen even when the minimum wage remained constant.
  - (C) Employers often hire extra help during holiday and warm weather seasons.
  - (D) The teenage unemployment rate rose more quickly in the 1970's than it did in the 1960's.
  - (E) The teenage unemployment rate has occasionally declined in the years since 1960.
9. Which of the following best completes the passage below?
- The computer industry's estimate that it loses millions of dollars when users illegally copy programs without paying for them is greatly exaggerated. Most of the illegal copying is done by people with no serious interest in the programs. Thus, the loss to the industry is much smaller than estimated because \_\_\_\_\_
- (A) many users who illegally copy programs never find any use for them
  - (B) most of the illegally copied programs would not be purchased even if purchasing them were the only way to obtain them
  - (C) even if the computer industry received all the revenue it claims to be losing, it would still be experiencing financial difficulties
  - (D) the total market value of all illegal copies is low in comparison to the total revenue of the computer industry
  - (E) the number of programs that are frequently copied illegally is low in comparison to the number of programs available for sale
10. This year the New Hampshire Division of Company X set a new record for annual sales by that division. This record is especially surprising since the New Hampshire Division has the smallest potential market and the lowest sales of any of Company X's divisions.

Which of the following identifies a flaw in the logical coherence of the statement

above?

- (A) If overall sales for Company X were sharply reduced, the New Hampshire Division's new sales record is irrelevant to the company's prosperity.
- (B) Since the division is competing against its own record, the comparison of its sales record with that of other divisions is irrelevant.
- (C) If this is the first year that the New Hampshire Division has been last in sales among Company X's divisions, the new record is not surprising at all.
- (D) If overall sales for Company X were greater than usual, it is not surprising that the New Hampshire Division was last in sales.
- (E) Since the New Hampshire Division has the smallest potential market, it is not surprising that it had the lowest sales.

11. Statement of a United States copper mining company: Import quotas should be imposed on the less expensive copper mined outside the country to maintain the price of copper in this country; otherwise, our companies will not be able to stay in business.

Response of a United States copper wire manufacturer: United States wire and cable manufacturers purchase about 70 percent of the copper mined in the United States. If the copper prices we pay are not at the international level, our sales will drop, and then the demand for United States copper will go down.

If the factual information presented by both companies is accurate, the best assessment of the logical relationship between the two arguments is that the wire manufacturer's argument

- (A) is self-serving and irrelevant to the proposal of the mining company
  - (B) is circular, presupposing what it seeks to prove about the proposal of the mining company
  - (C) shows that the proposal of the mining company would have a negative effect on the mining company's own business
  - (D) fails to give a reason why the proposal of the mining company should not be put into effect to alleviate the concern of the mining company for staying in business
  - (E) establishes that even the mining company's business will prosper if the mining company's proposal is rejected
12. Y has been believed to cause Z. A new report, noting that Y and Z are often observed to be preceded by X, suggests that X, not Y, may be the cause of Z. Which of the following further observations would best support the new report's suggestion?
- (A) In cases where X occurs but Y does not, X is usually followed by Z.
  - (B) In cases where X occurs, followed by Y, Y is usually followed by Z.
  - (C) In cases where Y occurs but X does not, Y is usually followed by Z.
  - (D) In cases where Y occurs but Z does not, Y is usually preceded by X.



(E) In cases where Z occurs, it is usually preceded by X and Y.

13. Mr. Primm: If hospitals were private enterprises, dependent on profits for their survival, there would be no teaching hospitals, because of the intrinsically high cost of running such hospitals.

Ms. Nakai: I disagree. The medical challenges provided by teaching hospitals attract the very best physicians. This, in turn, enables those hospitals to concentrate on nonroutine cases.

Which of the following, if true, would most strengthen Ms. Nakai's attempt to refute Mr. Primm's claim?

- (A) Doctors at teaching hospitals command high salaries.
  - (B) Sophisticated, nonroutine medical care commands a high price.
  - (C) Existing teaching hospitals derive some revenue from public subsidies.
  - (D) The patient mortality rate at teaching hospitals is high.
  - (E) The modern trend among physicians is to become highly specialized.
14. A recent survey of all auto accident victims in Dole County found that, of the severely injured drivers and front-seat passengers, 80 percent were not wearing seat belts at the time of their accidents. This indicates that, by wearing seat belts, drivers and front-seat passengers can greatly reduce their risk of being severely injured if they are in an auto accident.

The conclusion above is not properly drawn unless which of the following is true?

- (A) Of all the drivers and front-seat passengers in the survey, more than 20 percent were wearing seat belts at the time of their accidents.
  - (B) Considerably more than 20 percent of drivers and front-seat passengers in Dole County always wear seat belts when traveling by car.
  - (C) More drivers and front-seat passengers in the survey than rear-seat passengers were very severely injured.
  - (D) More than half of the drivers and front-seat passengers in the survey were not wearing seat belts at the time of their accidents.
  - (E) Most of the auto accidents reported to police in Dole County do not involve any serious injury.
15. Six months or so after getting a video recorder, many early buyers apparently lost interest in obtaining videos to watch on it. The trade of businesses selling and renting videos is still buoyant, because the number of homes with video recorders is still growing. But clearly, once the market for video recorders is saturated, businesses distributing videos face hard times.

Which of the following, if true, would most seriously weaken the conclusion above?

- (A) The market for video recorders would not be considered saturated until there was one in 80 percent of homes.

- (B) Among the items handled by video distributors are many films specifically produced as video features.
- (C) Few of the early buyers of video recorders raised any complaints about performance aspects of the new product.
- (D) The early buyers of a novel product are always people who are quick to acquire novelties, but also often as quick to tire of them.
- (E) In a shrinking market, competition always intensifies and marginal businesses fail.

16. Advertiser: The revenue that newspapers and magazines earn by publishing advertisements allows publishers to keep the prices per copy of their publications much lower than would otherwise be possible. Therefore, consumers benefit economically from advertising.

Consumer: But who pays for the advertising that pays for low-priced newspapers and magazines? We consumers do, because advertisers pass along advertising costs to us through the higher prices they charge for their products.

Which of the following best describes how the consumer counters the advertiser's argument?

- (A) By alleging something that, if true, would weaken the plausibility of the advertiser's conclusion
  - (B) By questioning the truth of the purportedly factual statement on which the advertiser's conclusion is based
  - (C) By offering an interpretation of the advertiser's opening statement that, if accurate, shows that there is an implicit contradiction in it
  - (D) By pointing out that the advertiser's point of view is biased
  - (E) By arguing that the advertiser too narrowly restricts the discussion to the effects of advertising that are economic
17. Mr. Lawson: We should adopt a national family policy that includes legislation requiring employers to provide paid parental leave and establishing government-sponsored day care. Such laws would decrease the stress levels of employees who have responsibility for small children. Thus, such laws would lead to happier, better-adjusted families.
- Which of the following, if true, would most strengthen the conclusion above?
- (A) An employee's high stress level can be a cause of unhappiness and poor adjustment for his or her family.
  - (B) People who have responsibility for small children and who work outside the home have higher stress levels than those who do not.
  - (C) The goal of a national family policy is to lower the stress levels of parents.
  - (D) Any national family policy that is adopted would include legislation requiring employers to provide paid parental leave and establishing government-sponsored day care.

(E) Most children who have been cared for in daycare centers are happy and well adjusted.

18. Lark Manufacturing Company initiated a voluntary Quality Circles program for machine operators. Independent surveys of employee attitudes indicated that the machine operators participating in the program were less satisfied with their work situations after two years of the program's existence than they were at the program's start. Obviously, any workers who participate in a Quality Circles program will, as a result, become less satisfied with their jobs.

Each of the following, if true, would weaken the conclusion drawn above EXCEPT:

- (A) The second survey occurred during a period of recession when rumors of cutbacks and layoffs at Lark Manufacturing were plentiful.
- (B) The surveys also showed that those Lark machine operators who neither participated in Quality Circles nor knew anyone who did so reported the same degree of lessened satisfaction with their work situations as did the Lark machine operators who participated in Quality Circles.
- (C) While participating in Quality Circles at Lark Manufacturing, machine operators exhibited two of the primary indicators of improved job satisfaction: increased productivity and decreased absenteeism.
- (D) Several workers at Lark Manufacturing who had participated in Quality Circles while employed at other companies reported that, while participating in Quality Circles in their previous companies, their work satisfaction had increased.
- (E) The machine operators who participated in Quality Circles reported that, when the program started, they felt that participation might improve their work situations.

*Questions 19-20 are based on the following.*

Blood banks will shortly start to screen all donors for NANB hepatitis. Although the new screening tests are estimated to disqualify up to 5 percent of all prospective blood donors, they will still miss two-thirds of donors carrying NANB hepatitis. Therefore, about 10 percent of actual donors will still supply NANB-contaminated blood.

19. The argument above depends on which of the following assumptions?
- (A) Donors carrying NANB hepatitis do not, in a large percentage of cases, carry other infections for which reliable screening tests are routinely performed.
  - (B) Donors carrying NANB hepatitis do not, in a large percentage of cases, develop the disease themselves at any point.
  - (C) The estimate of the number of donors who would be disqualified by tests for NANB hepatitis is an underestimate.
  - (D) The incidence of NANB hepatitis is lower among the potential blood donors than it is in the population at large.

- (E) The donors who will still supply NANB-contaminated blood will donate blood at the average frequency for all donors.
20. Which of the following inferences about the consequences of instituting the new tests is best supported by the passage above?
- (A) The incidence of new cases of NANB hepatitis is likely to go up by 10 percent.
- (B) Donations made by patients specifically for their own use are likely to become less frequent.
- (C) The demand for blood from blood banks is likely to fluctuate more strongly.
- (D) The blood supplies available from blood banks are likely to go down.
- (E) The number of prospective first-time donors is likely to go up by 5 percent.

### TEST 3

#### 30 Minutes 20 Questions

1. Child's World, a chain of toy stores, has relied on a "supermarket concept" of computerized inventory control and customer self-service to eliminate the category of sales clerks from its force of employees. It now plans to employ the same concept in selling children's clothes.
- The plan of Child's World assumes that
- (A) supermarkets will not also be selling children's clothes in the same manner
- (B) personal service by sales personnel is not required for selling children's clothes successfully
- (C) the same kind of computers will be used in inventory control for both clothes and toys at Child's World
- (D) a self-service plan cannot be employed without computerized inventory control
- (E) sales clerks are the only employees of Child's World who could be assigned tasks related to inventory control
2. Continuous indoor fluorescent light benefits the health of hamsters with inherited heart disease. A group of them exposed to continuous fluorescent light survived twenty-five percent longer than a similar group exposed instead to equal periods of indoor fluorescent light and of darkness.
- The method of the research described above is most likely to be applicable in addressing which of the following questions?
- (A) Can industrial workers who need to see their work do so better by sunlight or by fluorescent light?
- (B) Can hospital lighting be improved to promote the recovery of patients?
- (C) How do deep-sea fish survive in total darkness?
- (D) What are the inherited illnesses to which hamsters are subject?
- (E) Are there plants that require specific periods of darkness in order to bloom?

3. Millions of identical copies of a plant can be produced using new tissue-culture and cloning techniques.
- If plant propagation by such methods in laboratories proves economical, each of the following, if true, represents a benefit of the new techniques to farmers EXCEPT:
- (A) The techniques allow the development of superior strains to take place more rapidly, requiring fewer generations of plants grown to maturity.
  - (B) It is less difficult to care for plants that will grow at rates that do not vary widely.
  - (C) Plant diseases and pests, once they take hold, spread more rapidly among genetically uniform plants than among those with genetic variations.
  - (D) Mechanical harvesting of crops is less difficult if plants are more uniform in size.
  - (E) Special genetic traits can more easily be introduced into plant strains with the use of the new techniques.
4. Which of the following best completes the passage below?
- Sales campaigns aimed at the faltering personal computer market have strongly emphasized ease of use, called user-friendliness. This emphasis is oddly premature and irrelevant in the eyes of most potential buyers, who are trying to address the logically prior issue of whether\_\_\_\_\_
- (A) user-friendliness also implies that owners can service their own computers
  - (B) personal computers cost more the more user-friendly they are
  - (C) currently available models are user-friendly enough to suit them
  - (D) the people promoting personal computers use them in their own homes
  - (E) they have enough sensible uses for a personal computer to justify the expense of buying one
5. A weapons-smuggling incident recently took place in country Y. We all know that Y is a closed society. So Y's government must have known about the weapons. Which of the following is an assumption that would make the conclusion above logically correct?
- (A) If a government knows about a particular weapons-smuggling incident, it must have intended to use the weapons for its own purposes.
  - (B) If a government claims that it knew nothing about a particular weapons-smuggling incident, it must have known everything about it.
  - (C) If a government does not permit weapons to enter a country, it is a closed society.
  - (D) If a country is a closed society, its government has a large contingent of armed guards patrolling its borders.
  - (E) If a country is a closed society, its government has knowledge about everything that occurs in the country.



6. Banning cigarette advertisements in the mass media will not reduce the number of young people who smoke. They know that cigarettes exist and they know how to get them. They do not need the advertisements to supply that information.

The above argument would be most weakened if which of the following were true?

- (A) Seeing or hearing an advertisement for a product tends to increase people's desire for that product.
  - (B) Banning cigarette advertisements in the mass media will cause an increase in advertisements in places where cigarettes are sold.
  - (C) Advertisements in the mass media have been an exceedingly large part of the expenditures of the tobacco companies.
  - (D) Those who oppose cigarette use have advertised against it in the mass media ever since cigarettes were found to be harmful.
  - (E) Older people tend to be less influenced by mass-media advertisements than younger people tend to be.
7. People tend to estimate the likelihood of an event's occurrence according to its salience; that is, according to how strongly and how often it comes to their attention.

By placement and headlines, newspapers emphasize stories about local crime over stories about crime elsewhere and about many other major events.

It can be concluded on the basis of the statements above that, if they are true, which of the following is most probably also true?

- (A) The language used in newspaper headlines about local crime is inflammatory and fails to respect the rights of suspects.
  - (B) The coverage of international events in newspapers is neglected in favor of the coverage of local events.
  - (C) Readers of local news in newspapers tend to overestimate the amount of crime in their own localities relative to the amount of crime in other places.
  - (D) None of the events concerning other people that are reported in newspapers is so salient in people's minds as their own personal experiences.
  - (E) The press is the news medium that focuses people's attention most strongly on local crimes.
8. By analyzing the garbage of a large number of average-sized households, a group of modern urban anthropologists has found that a household discards less food the more standardized—made up of canned and prepackaged foods—its diet is. The more standardized a household's diet is, however, the greater the quantities of fresh produce the household throws away.

Which of the following can be properly inferred from the passage?

- (A) An increasing number of households rely on a highly standardized diet.
- (B) The less standardized a household's diet is, the more nonfood waste the

household discards.

- (C) The less standardized a household's diet is, the smaller is the proportion of fresh produce in the household's food waste.
- (D) The less standardized a household's diet is, the more canned and prepackaged foods the household discards as waste.
- (E) The more fresh produce a household buys, the more fresh produce it throws away.

Questions 9-10 are based on the following.

In the past, teachers, bank tellers, and secretaries were predominantly men; these occupations slipped in pay and status when they became largely occupied by women. Therefore, if women become the majority in currently male-dominated professions like accounting, law, and medicine, the income and prestige of these professions will also drop.

9. The argument above is based on
- (A) another argument that contains circular reasoning
  - (B) an attempt to refute a generalization by means of an exceptional case
  - (C) an analogy between the past and the future
  - (D) an appeal to popular beliefs and values
  - (E) an attack on the character of the opposition
10. Which of the following, if true, would most likely be part of the evidence used to refute the conclusion above?
- (A) Accountants, lawyers, and physicians attained their current relatively high levels of income and prestige at about the same time that the pay and status of teachers, bank tellers, and secretaries slipped.
  - (B) When large numbers of men join a female-dominated occupation, such as airline flight attendant, the status and pay of the occupation tend to increase.
  - (C) The demand for teachers and secretaries has increased significantly in recent years, while the demand for bank tellers has remained relatively stable.
  - (D) If present trends in the awarding of law degrees to women continue, it will be at least two decades before the majority of lawyers are women.
  - (E) The pay and status of female accountants, lawyers, and physicians today are governed by significantly different economic and sociological forces than were the pay and status of female teachers, bank tellers, and secretaries in the past.
11. An electric-power company gained greater profits and provided electricity to consumers at lower rates per unit of electricity by building larger-capacity more efficient plants and by stimulating greater use of electricity within its area. To continue these financial trends, the company planned to replace an old plant by a plant with triple the capacity of its largest plant.

The company's plan as described above assumed each of the following EXCEPT:

- (A) Demand for electricity within the company's area of service would increase in the future.
- (B) Expenses would not rise beyond the level that could be compensated for by efficiency or volume of operation, or both.
- (C) The planned plant would be sufficiently reliable in service to contribute a net financial benefit to the company as a whole.
- (D) Safety measures to be instituted for the new plant would be the same as those for the plant it would replace.
- (E) The tripling of capacity would not result in insuperable technological obstacles to efficiency.

Questions 12-13 are based on the following.

Meteorologists say that if only they could design an accurate mathematical model of the atmosphere with all its complexities, they could forecast the weather with real precision. But this is an idle boast, immune to any evaluation, for any inadequate weather forecast would obviously be blamed on imperfections in the model.

12. Which of the following, if true, could best be used as a basis for arguing against the author's position that the meteorologists' claim cannot be evaluated?
- (A) Certain unusual configurations of data can serve as the basis for precise weather forecasts even though the exact causal mechanisms are not understood.
  - (B) Most significant gains in the accuracy of the relevant mathematical models are accompanied by clear gains in the precision of weather forecasts.
  - (C) Mathematical models of the meteorological aftermath of such catastrophic events as volcanic eruptions are beginning to be constructed.
  - (D) Modern weather forecasts for as much as a full day ahead are broadly correct about 80 percent of the time.
  - (E) Meteorologists readily concede that the accurate mathematical model they are talking about is not now in their power to construct.
13. Which of the following, if true, would cast the most serious doubt on the meteorologists' boast, aside from the doubt expressed in the passage above?
- (A) The amount of energy that the Earth receives from the Sun is monitored closely and is known not to be constant.
  - (B) Volcanic eruptions, the combustion of fossil fuels, and several other processes that also cannot be quantified with any accuracy are known to have a significant and continuing impact on the constitution of the atmosphere.
  - (C) As current models of the atmosphere are improved, even small increments in complexity will mean large increases in the number of computers required

for the representation of the models.

(D) Frequent and accurate data about the atmosphere collected at a large number of points both on and above the ground are a prerequisite for the construction of a good model of the atmosphere.

(E) With existing models of the atmosphere, large scale weather patterns can be predicted with greater accuracy than can relatively local weather patterns.

14. Of the countries that were the world's twenty largest exporters in 1953, four had the same share of total world exports in 1984 as in 1953. These countries can therefore serve as models for those countries that wish to keep their share of the global export trade stable over the years.

Which of the following, if true, casts the most serious doubt on the suitability of those four countries as models in the sense described?

(A) Many countries wish to increase their share of world export trade, not just keep it stable.

(B) Many countries are less concerned with exports alone than with the balance between exports and imports.

(C) With respect to the mix of products each exports, the four countries are very different from each other.

(D) Of the four countries, two had a much larger, and two had a much smaller, share of total world exports in 1970 than in 1984.

(E) The exports of the four countries range from 15 percent to 75 percent of the total national output.

Questions 15-16 are based on the following.

In the United States, the Postal Service has a monopoly on first-class mail, but much of what is sent first class could be transmitted electronically. Electronic transmittal operators argue that if the Postal Service were to offer electronic transmission, it would have an unfair advantage, since its electronic transmission service could be subsidized from the profits of the monopoly.

15. Which of the following, if each is true, would allay the electronic transmittal operators' fears of unfair competition?

(A) If the Postal Service were to offer electronic transmission, it could not make a profit on first-class mail.

(B) If the Postal Service were to offer electronic transmission, it would have a monopoly on that kind of service.

(C) Much of the material that is now sent by first-class mail could be delivered much faster by special package couriers, but is not sent that way because of cost.

(D) There is no economy of scale in electronic transmission—that is, the cost per transaction does not go down as more pieces of information are transmitted.

(E) Electronic transmission will never be cost-effective for material not sent by

first-class mail such as newspapers and bulk mail.

16. Which of the following questions can be answered on the basis of the information in the passage above?
- (A) Is the Postal Service as efficient as privately owned electric transmission services?
  - (B) If private operators were allowed to operate first-class mail services, would they choose to do so?
  - (C) Do the electronic transmittal operators believe that the Postal Service makes a profit on first-class mail?
  - (D) Is the Postal Service prohibited from offering electronic transmission services?
  - (E) Is the Postal Service expected to have a monopoly on electronic transmission?
17. Lists of hospitals have been compiled showing which hospitals have patient death rates exceeding the national average. The data have been adjusted to allow for differences in the ages of patients.
- Each of the following, if true, provides a good logical ground for hospitals to object to interpreting rank on these lists as one of the indices of the quality of hospital care EXCEPT:
- (A) Rank order might indicate insignificant differences, rather than large differences, in numbers of patient deaths.
  - (B) Hospitals that keep patients longer are likely to have higher death rates than those that discharge patients earlier but do not record deaths of patients at home after discharge.
  - (C) Patients who are very old on admission to a hospital are less likely than younger patients to survive the same types of illnesses or surgical procedures.
  - (D) Some hospitals serve a larger proportion of low-income patients, who tend to be more seriously ill when admitted to a hospital.
  - (E) For-profit hospitals sometimes do not provide intensive-care units and other expensive services for very sick patients but refer or transfer such patients to other hospitals.
18. Teresa: Manned spaceflight does not have a future, since it cannot compete economically with other means of accomplishing the objectives of spaceflight.
- Edward: No mode of human transportation has a better record of reliability: two accidents in twenty-five years. Thus manned spaceflight definitely has a positive future.
- Which of the following is the best logical evaluation of Edward's argument as a response to Teresa's argument?
- (A) It cites evidence that, if true, tends to disprove the evidence cited by Teresa



in drawing her conclusion.

- (B) It indicates a logical gap in the support that Teresa offers for her conclusion.
- (C) It raises a consideration that outweighs the argument Teresa makes.
- (D) It does not meet Teresa's point because it assumes that there is no serious impediment to transporting people into space, but this was the issue raised by Teresa.
- (E) It fails to respond to Teresa's argument because it does not address the fundamental issue of whether space activities should have priority over other claims on the national budget.

19. Black Americans are, on the whole, about twice as likely as White Americans to develop high blood pressure. This likelihood also holds for westernized Black Africans when compared to White Africans.

Researchers have hypothesized that this predisposition in westernized Blacks may reflect an interaction between western high-salt diets and genes that adapted to an environmental scarcity of salt.

Which of the following statements about present-day, westernized Black Africans, if true, would most tend to confirm the researchers' hypothesis?

- (A) The blood pressures of those descended from peoples situated throughout their history in Senegal and Gambia, where salt was always available, are low.
- (B) The unusually high salt consumption in certain areas of Africa represents a serious health problem.
- (C) Because of their blood pressure levels, most White Africans have markedly decreased their salt consumption.
- (D) Blood pressures are low among the Yoruba, who, throughout their history, have been situated far inland from sources of sea salt and far south of Saharan salt mines.
- (E) No significant differences in salt metabolism have been found between those people who have had salt available throughout their history and those who have not.

20. The following proposal to amend the bylaws of an organization was circulated to its members for comment.

When more than one nominee is to be named for an office, prospective nominees must consent to nomination and before giving such consent must be told who the other nominees will be.

Which of the following comments concerning the logic of the proposal is accurate if it cannot be known who the actual nominees are until prospective nominees have given their consent to be nominated?

- (A) The proposal would make it possible for each of several nominees for an office to be aware of who all of the other nominees are.

- (B) The proposal would widen the choice available to those choosing among the nominees.
- (C) If there are several prospective nominees, the proposal would deny the last nominee equal treatment with the first.
- (D) The proposal would enable a prospective nominee to withdraw from competition with a specific person without making that withdrawal known.
- (E) If there is more than one prospective nominee, the proposal would make it impossible for anyone to become a nominee.

### TEST 4

#### 30 Minutes 20 Questions

1. Which of the following best completes the passage below?

In a survey of job applicants, two-fifths admitted to being at least a little dishonest. However, the survey may underestimate the proportion of job applicants who are dishonest, because\_\_\_\_\_

- (A) some dishonest people taking the survey might have claimed on the survey to be honest
- (B) some generally honest people taking the survey might have claimed on the survey to be dishonest
- (C) some people who claimed on the survey to be at least a little dishonest may be very dishonest
- (D) some people who claimed on the survey to be dishonest may have been answering honestly
- (E) some people who are not job applicants are probably at least a little dishonest

*Questions 2-3 are based on the following.*

The average life expectancy for the United States population as a whole is 73.9 years, but children born in Hawaii will live an average of 77 years, and those born in Louisiana, 71.7 years. If a newlywed couple from Louisiana were to begin their family in Hawaii, therefore, their children would be expected to live longer than would be the case if the family remained in Louisiana.

2. Which of the following, if true, would most seriously weaken the conclusion drawn in the passage?
- (A) Insurance company statisticians do not believe that moving to Hawaii will significantly lengthen the average Louisianian's life.
  - (B) The governor of Louisiana has falsely alleged that statistics for his state are inaccurate.
  - (C) The longevity ascribed to Hawaii's current population is attributable mostly to genetically determined factors.
  - (D) Thirty percent of all Louisianians can expect to live longer than 77 years.
  - (E) Most of the Hawaiian Islands have levels of air pollution well below the

national average for the United States.

3. Which of the following statements, if true, would most significantly strengthen the conclusion drawn in the passage?
- (A) As population density increases in Hawaii, life expectancy figures for that state are likely to be revised downward.
  - (B) Environmental factors tending to favor longevity are abundant in Hawaii and less numerous in Louisiana.
  - (C) Twenty-five percent of all Louisianians who move to Hawaii live longer than 77 years.
  - (D) Over the last decade, average life expectancy has risen at a higher rate for Louisianians than for Hawaiians.
  - (E) Studies show that the average life expectancy for Hawaiians who move permanently to Louisiana is roughly equal to that of Hawaiians who remain in Hawaii.
4. Insurance Company X is considering issuing a new policy to cover services required by elderly people who suffer from diseases that afflict the elderly. Premiums for the policy must be low enough to attract customers. Therefore, Company X is concerned that the income from the policies would not be sufficient to pay for the claims that would be made.
- Which of the following strategies would be most likely to minimize Company X's losses on the policies?
- (A) Attracting middle-aged customers unlikely to submit claims for benefits for many years
  - (B) Insuring only those individuals who did not suffer any serious diseases as children
  - (C) Including a greater number of services in the policy than are included in other policies of lower cost
  - (D) Insuring only those individuals who were rejected by other companies for similar policies
  - (E) Insuring only those individuals who are wealthy enough to pay for the medical services
5. A program instituted in a particular state allows parents to prepay their children's future college tuition at current rates. The program then pays the tuition annually for the child at any of the state's public colleges in which the child enrolls. Parents should participate in the program as a means of decreasing the cost for their children's college education.
- Which of the following, if true, is the most appropriate reason for parents not to participate in the program?
- (A) The parents are unsure about which public college in the state the child will attend.

- (B) The amount of money accumulated by putting the prepayment funds in an interest-bearing account today will be greater than the total cost of tuition for any of the public colleges when the child enrolls.
- (C) The annual cost of tuition at the state's public colleges is expected to increase at a faster rate than the annual increase in the cost of living.
- (D) Some of the state's public colleges are contemplating large increases in tuition next year.
- (E) The prepayment plan would not cover the cost of room and board at any of the state's public colleges.
6. Company Alpha buys free-travel coupons from people who are awarded the coupons by Bravo Airlines for flying frequently on Bravo airplanes. The coupons are sold to people who pay less for the coupons than they would pay by purchasing tickets from Bravo. This marketing of coupons results in lost revenue for Bravo.
- To discourage the buying and selling of free-travel coupons, it would be best for Bravo Airlines to restrict the
- (A) number of coupons that a person can be awarded in a particular year
- (B) use of the coupons to those who were awarded the coupons and members of their immediate families
- (C) days that the coupons can be used to Monday through Friday
- (D) amount of time that the coupons can be used after they are issued
- (E) number of routes on which travelers can use the coupons
7. The ice on the front windshield of the car had formed when moisture condensed during the night. The ice melted quickly after the car was warmed up the next morning because the defrosting vent, which blows only on the front windshield, was turned on full force.
- Which of the following, if true, most seriously jeopardizes the validity of the explanation for the speed with which the ice melted?
- (A) The side windows had no ice condensation on them.
- (B) Even though no attempt was made to defrost the back window, the ice there melted at the same rate as did the ice on the front windshield.
- (C) The speed at which ice on a window melts increases as the temperature of the air blown on the window increases.
- (D) The warm air from the defrosting vent for the front windshield cools rapidly as it dissipates throughout the rest of the car.
- (E) The defrosting vent operates efficiently even when the heater, which blows warm air toward the feet or faces of the driver and passengers, is on.
8. To prevent some conflicts of interest, Congress could prohibit high-level government officials from accepting positions as lobbyists for three years after such officials leave government service. One such official concluded, however,

that such a prohibition would be unfortunate because it would prevent high-level government officials from earning a livelihood for three years.

The official's conclusion logically depends on which of the following assumptions?

- (A) Laws should not restrict the behavior of former government officials.
  - (B) Lobbyists are typically people who have previously been high-level government officials.
  - (C) Low-level government officials do not often become lobbyists when they leave government service.
  - (D) High-level government officials who leave government service are capable of earning a livelihood only as lobbyists.
  - (E) High-level government officials who leave government service are currently permitted to act as lobbyists for only three years.
9. A conservation group in the United States is trying to change the long-standing image of bats as frightening creatures. The group contends that bats are feared and persecuted solely because they are shy animals that are active only at night. Which of the following, if true, would cast the most serious doubt on the accuracy of the group's contention?
- (A) Bats are steadily losing natural roosting places such as caves and hollow trees and are thus turning to more developed areas for roosting.
  - (B) Bats are the chief consumers of nocturnal insects and thus can help make their hunting territory more pleasant for humans.
  - (C) Bats are regarded as frightening creatures not only in the United States but also in Europe, Africa, and South America.
  - (D) Raccoons and owls are shy and active only at night; yet they are not generally feared and persecuted.
  - (E) People know more about the behavior of other greatly feared animal species, such as lions, alligators, and snakes, than they do about the behavior of bats.
10. Meteorite explosions in the Earth's atmosphere as large as the one that destroyed forests in Siberia, with approximately the force of a twelve-megaton nuclear blast, occur about once a century.
- The response of highly automated systems controlled by complex computer programs to unexpected circumstances is unpredictable.
- Which of the following conclusions can most properly be drawn, if the statements above are true, about a highly automated nuclear-missile defense system controlled by a complex computer program?
- (A) Within a century after its construction, the system would react inappropriately and might accidentally start a nuclear war.
  - (B) The system would be destroyed if an explosion of a large meteorite occurred in the Earth's atmosphere.



- (C) It would be impossible for the system to distinguish the explosion of a large meteorite from the explosion of a nuclear weapon.
- (D) Whether the system would respond inappropriately to the explosion of a large meteorite would depend on the location of the blast.
- (E) It is not certain what the system's response to the explosion of a large meteorite would be, if its designers did not plan for such a contingency.

Questions 11-12 are based on the following.

The fewer restrictions there are on the advertising of legal services, the more lawyers there are who advertise their services, and the lawyers who advertise a specific service usually charge less for that service than lawyers who do not advertise. Therefore, if the state removes any of its current restrictions, such as the one against advertisements that do not specify fee arrangements, overall consumer legal costs will be lower than if the state retains its current restrictions.

11. If the statements above are true, which of the following must be true?
- (A) Some lawyers who now advertise will charge more for specific services if they do not have to specify fee arrangements in the advertisements.
  - (B) More consumers will use legal services if there are fewer restrictions on the advertising of legal services.
  - (C) If the restriction against advertisements that do not specify fee arrangements is removed, more lawyers will advertise their services.
  - (D) If more lawyers advertise lower prices for specific services, some lawyers who do not advertise will also charge less than they currently charge for those services.
  - (E) If the only restrictions on the advertising of legal services were those that apply to every type of advertising, most lawyers would advertise their services.
12. Which of the following, if true, would most seriously weaken the argument concerning overall consumer legal costs?
- (A) The state has recently removed some other restrictions that had limited the advertising of legal services.
  - (B) The state is unlikely to remove all of the restrictions that apply solely to the advertising of legal services.
  - (C) Lawyers who do not advertise generally provide legal services of the same quality as those provided by lawyers who do advertise.
  - (D) Most lawyers who now specify fee arrangements in their advertisements would continue to do so even if the specification were not required.
  - (E) Most lawyers who advertise specific services do not lower their fees for those services when they begin to advertise.
13. Defense Department analysts worry that the ability of the United States to wage a

prolonged war would be seriously endangered if the machine-tool manufacturing base shrinks further. Before the Defense Department publicly connected this security issue with the import quota issue, however, the machine-tool industry raised the national security issue in its petition for import quotas.

Which of the following, if true, contributes most to an explanation of the machine-tool industry's raising the issue above regarding national security?

- (A) When the aircraft industries retooled, they provided a large amount of work for tool builders.
- (B) The Defense Department is only marginally concerned with the effects of foreign competition on the machine-tool industry.
- (C) The machine-tool industry encountered difficulty in obtaining governmental protection against imports on grounds other than defense.
- (D) A few weapons important for defense consist of parts that do not require extensive machining.
- (E) Several federal government programs have been designed which will enable domestic machine-tool manufacturing firms to compete successfully with foreign toolmakers.

14. Opponents of laws that require automobile drivers and passengers to wear seat belts argue that in a free society people have the right to take risks as long as the people do not harm others as a result of taking the risks. As a result, they conclude that it should be each person's decision whether or not to wear a seat belt.

Which of the following, if true, most seriously weakens the conclusion drawn above?

- (A) Many new cars are built with seat belts that automatically fasten when someone sits in the front seat.
- (B) Automobile insurance rates for all automobile owners are higher because of the need to pay for the increased injuries or deaths of people not wearing seat belts.
- (C) Passengers in airplanes are required to wear seat belts during takeoffs and landings.
- (D) The rate of automobile fatalities in states that do not have mandatory seat-belt laws is greater than the rate of fatalities in states that do have such laws.
- (E) In automobile accidents, a greater number of passengers who do not wear seat belts are injured than are passengers who do wear seat belts.

15. The cost of producing radios in Country Q is ten percent less than the cost of producing radios in Country Y. Even after transportation fees and tariff charges are added, it is still cheaper for a company to import radios from Country Q to Country Y than to produce radios in Country Y.

The statements above, if true, best support which of the following assertions?

- (A) Labor costs in Country Q are ten percent below those in Country Y.

- (B) Importing radios from Country Q to Country Y will eliminate ten percent of the manufacturing jobs in Country Y.
- (C) The tariff on a radio imported from Country Q to Country Y is less than ten percent of the cost of manufacturing the radio in Country Y.
- (D) The fee for transporting a radio from Country Q to Country Y is more than ten percent of the cost of manufacturing the radio in Country Q.
- (E) It takes ten percent less time to manufacture a radio in Country Q than it does in Country Y.
16. During the Second World War, about 375,000 civilians died in the United States and about 408,000 members of the United States armed forces died overseas. On the basis of those figures, it can be concluded that it was not much more dangerous to be overseas in the armed forces during the Second World War than it was to stay at home as a civilian.
- Which of the following would reveal most clearly the absurdity of the conclusion drawn above?
- (A) Counting deaths among members of the armed forces who served in the United States in addition to deaths among members of the armed forces serving overseas
- (B) Expressing the difference between the numbers of deaths among civilians and members of the armed forces as a percentage of the total number of deaths
- (C) Separating deaths caused by accidents during service in the armed forces from deaths caused by combat injuries
- (D) Comparing death rates per thousand members of each group rather than comparing total numbers of deaths
- (E) Comparing deaths caused by accidents in the United States to deaths caused by combat in the armed forces
17. One state adds a 7 percent sales tax to the price of most products purchased within its jurisdiction. This tax, therefore, if viewed as tax on income, has the reverse effect of the federal income tax: the lower the income, the higher the annual percentage rate at which the income is taxed.
- The conclusion above would be properly drawn if which of the following were assumed as a premise?
- (A) The amount of money citizens spend on products subject to the state tax tends to be equal across income levels.
- (B) The federal income tax favors citizens with high incomes, whereas the state sales tax favors citizens with low incomes.
- (C) Citizens with low annual incomes can afford to pay a relatively higher percentage of their incomes in state sales tax, since their federal income tax is relatively low.
- (D) The lower a state's sales tax, the more it will tend to redistribute income

from the more affluent citizens to the rest of society.

(E) Citizens who fail to earn federally taxable income are also exempt from the state sales tax.

18. The average age of chief executive officers (CEO's) in a large sample of companies is 57. The average age of CEO's in those same companies 20 years ago was approximately eight years younger. On the basis of those data, it can be concluded that CEO's in general tend to be older now.

Which of the following casts the most doubt on the conclusion drawn above?

- (A) The dates when the CEO's assumed their current positions have not been specified.
- (B) No information is given concerning the average number of years that CEO's remain in office.
- (C) The information is based only on companies that have been operating for at least 20 years.
- (D) Only approximate information is given concerning the average age of the CEO's 20 years ago.
- (E) Information concerning the exact number of companies in the sample has not been given.

Questions 19-20 are based on the following.

Surveys show that every year only 10 percent of cigarette smokers switch brands. Yet the manufacturers have been spending an amount equal to 10 percent of their gross receipts on cigarette promotion in magazines. It follows from these figures that inducing cigarette smokers to switch brands did not pay, and that cigarette companies would have been no worse off economically if they had dropped their advertising.

19. Of the following, the best criticism of the conclusion that inducing cigarette smokers to switch brands did not pay is that the conclusion is based on
- (A) computing advertising costs as a percentage of gross receipts, not of overall costs
- (B) past patterns of smoking and may not carry over to the future
- (C) the assumption that each smoker is loyal to a single brand of cigarettes at any one time
- (D) the assumption that each manufacturer produces only one brand of cigarettes
- (E) figures for the cigarette industry as a whole and may not hold for a particular company
20. Which of the following, if true, most seriously weakens the conclusion that cigarette companies could have dropped advertising without suffering economically?
- (A) Cigarette advertisements provide a major proportion of total advertising revenue for numerous magazines.

- (B) Cigarette promotion serves to attract first-time smokers to replace those people who have stopped smoking.
- (C) There exists no research conclusively demonstrating that increases in cigarette advertising are related to increases in smoking.
- (D) Advertising is so firmly established as a major business activity of cigarette manufacturers that they would be unlikely to drop it.
- (E) Brand loyalty is typically not very strong among those who smoke inexpensive cigarettes.

### TEST 5

#### 30 Minutes 20 Questions

1. Toughened hiring standards have not been the primary cause of the present staffing shortage in public schools. The shortage of teachers is primarily caused by the fact that in recent years teachers have not experienced any improvements in working conditions and their salaries have not kept pace with salaries in other professions.  
Which of the following, if true, would most support the claims above?
  - (A) Many teachers already in the profession would not have been hired under the new hiring standards.
  - (B) Today more teachers are entering the profession with a higher educational level than in the past.
  - (C) Some teachers have cited higher standards for hiring as a reason for the current staffing shortage.
  - (D) Many teachers have cited low pay and lack of professional freedom as reasons for their leaving the profession.
  - (E) Many prospective teachers have cited the new hiring standards as a reason for not entering the profession.
2. A proposed ordinance requires the installation in new homes of sprinklers automatically triggered by the presence of a fire. However, a home builder argued that because more than ninety percent of residential fires are extinguished by a household member, residential sprinklers would only marginally decrease property damage caused by residential fires.  
Which of the following, if true, would most seriously weaken the home builder's argument?
  - (A) Most individuals have no formal training in how to extinguish fires.
  - (B) Since new homes are only a tiny percentage of available housing in the city, the new ordinance would be extremely narrow in scope.
  - (C) The installation of smoke detectors in new residences costs significantly less than the installation of sprinklers.
  - (D) In the city where the ordinance was proposed, the average time required by the fire department to respond to a fire was less than the national average.



(E) The largest proportion of property damage that results from residential fires is caused by fires that start when no household member is present.

3. Even though most universities retain the royalties from faculty members' inventions, the faculty members retain the royalties from books and articles they write. Therefore, faculty members should retain the royalties from the educational computer software they develop.

The conclusion above would be more reasonably drawn if which of the following were inserted into the argument as an additional premise?

- (A) Royalties from inventions are higher than royalties from educational software programs.
- (B) Faculty members are more likely to produce educational software programs than inventions.
- (C) Inventions bring more prestige to universities than do books and articles.
- (D) In the experience of most universities, educational software programs are more marketable than are books and articles.
- (E) In terms of the criteria used to award royalties, educational software programs are more nearly comparable to books and articles than to inventions.

4. Increases in the level of high-density lipoprotein (HDL) in the human bloodstream lower bloodstream-cholesterol levels by increasing the body's capacity to rid itself of excess cholesterol. Levels of HDL in the bloodstream of some individuals are significantly increased by a program of regular exercise and weight reduction.

Which of the following can be correctly inferred from the statements above?

- (A) Individuals who are underweight do not run any risk of developing high levels of cholesterol in the bloodstream.
- (B) Individuals who do not exercise regularly have a high risk of developing high levels of cholesterol in the bloodstream late in life.
- (C) Exercise and weight reduction are the most effective methods of lowering bloodstream cholesterol levels in humans.
- (D) A program of regular exercise and weight reduction lowers cholesterol levels in the bloodstream of some individuals.
- (E) Only regular exercise is necessary to decrease cholesterol levels in the bloodstream of individuals of average weight.

5. When limitations were in effect on nuclear-arms testing, people tended to save more of their money, but when nuclear-arms testing increased, people tended to spend more of their money. The perceived threat of nuclear catastrophe, therefore, decreases the willingness of people to postpone consumption for the sake of saving money.

The argument above assumes that

- (A) the perceived threat of nuclear catastrophe has increased over the years
- (B) most people supported the development of nuclear arms
- (C) people's perception of the threat of nuclear catastrophe depends on the amount of nuclear-arms testing being done
- (D) the people who saved the most money when nuclear-arms testing was limited were the ones who supported such limitations
- (E) there are more consumer goods available when nuclear-arms testing increases

6. Which of the following best completes the passage below?

People buy prestige when they buy a premium product. They want to be associated with something special. Mass-marketing techniques and price-reduction strategies should not be used because \_\_\_\_\_

- (A) affluent purchasers currently represent a shrinking portion of the population of all purchasers
- (B) continued sales depend directly on the maintenance of an aura of exclusivity
- (C) purchasers of premium products are concerned with the quality as well as with the price of the products
- (D) expansion of the market niche to include a broader spectrum of consumers will increase profits
- (E) manufacturing a premium brand is not necessarily more costly than manufacturing a standard brand of the same product

7. A cost-effective solution to the problem of airport congestion is to provide high-speed ground transportation between major cities lying 200 to 500 miles apart. The successful implementation of this plan would cost far less than expanding existing airports and would also reduce the number of airplanes clogging both airports and airways.

Which of the following, if true, could proponents of the plan above most appropriately cite as a piece of evidence for the soundness of their plan?

- (A) An effective high-speed ground-transportation system would require major repairs to many highways and mass-transit improvements.
- (B) One-half of all departing flights in the nation's busiest airport head for a destination in a major city 225 miles away.
- (C) The majority of travelers departing from rural airports are flying to destinations in cities over 600 miles away.
- (D) Many new airports are being built in areas that are presently served by high-speed ground-transportation systems.
- (E) A large proportion of air travelers are vacationers who are taking long-distance flights.

*Questions 8-9 are based on the following.*

If there is an oil-supply disruption resulting in higher international oil prices, domestic

oil prices in open-market countries such as the United States will rise as well, whether such countries import all or none of their oil.

8. If the statement above concerning oil-supply disruptions is true, which of the following policies in an open-market nation is most likely to reduce the long-term economic impact on that nation of sharp and unexpected increases in international oil prices?
- (A) Maintaining the quantity of oil imported at constant yearly levels
  - (B) Increasing the number of oil tankers in its fleet
  - (C) Suspending diplomatic relations with major oil-producing nations
  - (D) Decreasing oil consumption through conservation
  - (E) Decreasing domestic production of oil
9. Which of the following conclusions is best supported by the statement above?
- (A) Domestic producers of oil in open-market countries are excluded from the international oil market when there is a disruption in the international oil supply.
  - (B) International oil-supply disruptions have little, if any, effect on the price of domestic oil as long as an open-market country has domestic supplies capable of meeting domestic demand.
  - (C) The oil market in an open-market country is actually part of the international oil market, even if most of that country's domestic oil is usually sold to consumers within its borders.
  - (D) Open-market countries that export little or none of their oil can maintain stable domestic oil prices even when international oil prices rise sharply.
  - (E) If international oil prices rise, domestic distributors of oil in open-market countries will begin to import more oil than they export.
10. The average normal infant born in the United States weighs between twelve and fourteen pounds at the age of three months. Therefore, if a three-month-old child weighs only ten pounds, its weight gain has been below the United States average.
- Which of the following indicates a flaw in the reasoning above?
- (A) Weight is only one measure of normal infant development.
  - (B) Some three-month-old children weigh as much as seventeen pounds.
  - (C) It is possible for a normal child to weigh ten pounds at birth.
  - (D) The phrase "below average" does not necessarily mean insufficient.
  - (E) Average weight gain is not the same as average weight.
11. Red blood cells in which the malarial-fever parasite resides are eliminated from a person's body after 120 days. Because the parasite cannot travel to a new generation of red blood cells, any fever that develops in a person more than 120 days after that person has moved to a malaria-free region is not due to the

malarial parasite.

Which of the following, if true, most seriously weakens the conclusion above?

- (A) The fever caused by the malarial parasite may resemble the fever caused by flu viruses.
- (B) The anopheles mosquito, which is the principal insect carrier of the malarial parasite, has been eradicated in many parts of the world.
- (C) Many malarial symptoms other than the fever, which can be suppressed with antimalarial medication, can reappear within 120 days after the medication is discontinued.
- (D) In some cases, the parasite that causes malarial fever travels to cells of the spleen, which are less frequently eliminated from a person's body than are red blood cells.
- (E) In any region infested with malaria-carrying mosquitoes, there are individuals who appear to be immune to malaria.

12. Fact 1: Television advertising is becoming less effective: the proportion of brand names promoted on television that viewers of the advertising can recall is slowly decreasing.

Fact 2: Television viewers recall commercials aired first or last in a cluster of consecutive commercials far better than they recall commercials aired somewhere in the middle.

Fact 2 would be most likely to contribute to an explanation of fact 1 if which of the following were also true?

- (A) The average television viewer currently recalls fewer than half the brand names promoted in commercials he or she saw.
- (B) The total time allotted to the average cluster of consecutive television commercials is decreasing.
- (C) The average number of hours per day that people spend watching television is decreasing.
- (D) The average number of clusters of consecutive commercials per hour of television is increasing.
- (E) The average number of television commercials in a cluster of consecutive commercials is increasing.

13. The number of people diagnosed as having a certain intestinal disease has dropped significantly in a rural county this year, as compared to last year. Health officials attribute this decrease entirely to improved sanitary conditions at water-treatment plants, which made for cleaner water this year and thus reduced the incidence of the disease.

Which of the following, if true, would most seriously weaken the health officials' explanation for the lower incidence of the disease?

- (A) Many new water-treatment plants have been built in the last five years in the

rural county.

- (B) Bottled spring water has not been consumed in significantly different quantities by people diagnosed as having the intestinal disease, as compared to people who did not contract the disease.
  - (C) Because of a new diagnostic technique, many people who until this year would have been diagnosed as having the intestinal disease are now correctly diagnosed as suffering from intestinal ulcers.
  - (D) Because of medical advances this year, far fewer people who contract the intestinal disease will develop severe cases of the disease.
  - (E) The water in the rural county was brought up to the sanitary standards of the water in neighboring counties ten years ago.
14. The price the government pays for standard weapons purchased from military contractors is determined by a pricing method called "historical costing." Historical costing allows contractors to protect their profits by adding a percentage increase, based on the current rate of inflation, to the previous year's contractual price.
- Which of the following statements, if true, is the best basis for a criticism of historical costing as an economically sound pricing method for military contracts?
- (A) The government might continue to pay for past inefficient use of funds.
  - (B) The rate of inflation has varied considerably over the past twenty years.
  - (C) The contractual price will be greatly affected by the cost of materials used for the products.
  - (D) Many taxpayers question the amount of money the government spends on military contracts.
  - (E) The pricing method based on historical costing might not encourage the development of innovative weapons.
15. Some who favor putting governmental enterprises into private hands suggest that conservation objectives would in general be better served if private environmental groups were put in charge of operating and financing the national park system, which is now run by the government.
- Which of the following, assuming that it is a realistic possibility, argues most strongly against the suggestion above?
- (A) Those seeking to abolish all restrictions on exploiting the natural resources of the parks might join the private environmental groups as members and eventually take over their leadership.
  - (B) Private environmental groups might not always agree on the best ways to achieve conservation objectives.
  - (C) If they wished to extend the park system, the private environmental groups might have to seek contributions from major donors and the general public.



- (D) There might be competition among private environmental groups for control of certain park areas.
- (E) Some endangered species, such as the California condor, might die out despite the best efforts of the private environmental groups, even if those groups are not hampered by insufficient resources.
16. A recent spate of launching and operating mishaps with television satellites led to a corresponding surge in claims against companies underwriting satellite insurance. As a result, insurance premiums shot up, making satellites more expensive to launch and operate. This, in turn, has added to the pressure to squeeze more performance out of currently operating satellites.
- Which of the following, if true, taken together with the information above, best supports the conclusion that the cost of television satellites will continue to increase?
- (A) Since the risk to insurers of satellites is spread over relatively few units, insurance premiums are necessarily very high.
- (B) When satellites reach orbit and then fail, the causes of failure are generally impossible to pinpoint with confidence.
- (C) The greater the performance demands placed on satellites, the more frequently those satellites break down.
- (D) Most satellites are produced in such small numbers that no economies of scale can be realized.
- (E) Since many satellites are built by unwieldy international consortia, inefficiencies are inevitable.
17. Tocqueville, a nineteenth-century writer known for his study of democracy in the United States, believed that a government that centralizes power in one individual or institution is dangerous to its citizens. Biographers claim that Tocqueville disliked centralized government because he blamed Napoleon's rule for the poverty of his childhood in Normandy.
- Which of the following, if true, would cast the most serious doubt on the biographers' claim?
- (A) Although Napoleon was popularly blamed at the time for the terrible living conditions in Normandy, historians now know that bad harvests were really to blame for the poor economic conditions.
- (B) Napoleon was notorious for refusing to share power with any of his political associates.
- (C) Tocqueville said he knew that if his father had not suffered ill health, his family would have had a steady income and a comfortable standard of living.
- (D) Although Tocqueville asserted that United States political life was democratic, the United States of the nineteenth century allowed political power to be concentrated in a few institutions.

(E) Tocqueville once wrote in a letter that, although his childhood was terribly impoverished, it was not different from the experience of his friends and neighbors in Normandy.

18. Radio interferometry is a technique for studying details of celestial objects that combines signals intercepted by widely spaced radio telescopes. This technique requires ultraprecise timing, exact knowledge of the locations of the telescopes, and sophisticated computer programs. The successful interferometric linking of an Earth-based radio telescope with a radio telescope on an orbiting satellite was therefore a significant technological accomplishment.

Which of the following can be correctly inferred from the statements above?

- (A) Special care was taken in the launching of the satellite so that the calculations of its orbit would be facilitated.
- (B) The signals received on the satellite are stronger than those received by a terrestrial telescope.
- (C) The resolution of detail achieved by the satellite-Earth interferometer system is inferior to that achieved by exclusively terrestrial systems.
- (D) The computer programs required for making use of the signals received by the satellite required a long time for development.
- (E) The location of an orbiting satellite relative to locations on Earth can be well enough known for interferometric purposes.
19. Recent estimates predict that between 1982 and 1995 the greatest increase in the number of people employed will be in the category of low-paying service occupations. This category, however, will not increase its share of total employment, whereas the category of high-paying service occupations will increase its share.
- If the estimates above are accurate, which of the following conclusions can be drawn?
- (A) In 1982 more people were working in low-paying service occupations than were working in high-paying service occupations.
- (B) In 1995 more people will be working in high-paying service occupations than will be working in low-paying service occupations.
- (C) Nonservice occupations will account for the same share of total employment in 1995 as in 1982.
- (D) Many of the people who were working in low-paying service occupations in 1982 will be working in high-paying service occupations by 1995.
- (E) The rate of growth for low-paying service occupations will be greater than the overall rate of employment growth between 1982 and 1995.
20. For a local government to outlaw all strikes by its workers is a costly mistake, because all its labor disputes must then be settled by binding arbitration, without any negotiated public-sector labor settlements guiding the arbitrators. Strikes

should be outlawed only for categories of public-sector workers for whose services no acceptable substitute exists.

The statements above best support which of the following conclusions?

- (A) Where public-service workers are permitted to strike, contract negotiations with those workers are typically settled without a strike.
- (B) Where strikes by all categories of public-sector workers are outlawed, no acceptable substitutes for the services provided by any of those workers are available.
- (C) Binding arbitration tends to be more advantageous for public-service workers where it is the only available means of settling labor disputes with such workers.
- (D) Most categories of public-sector workers have no counterparts in the private sector.
- (E) A strike by workers in a local government is unlikely to be settled without help from an arbitrator.

### TEST 6

#### 30 Minutes 20 Questions

1. Rural households have more purchasing power than do urban or suburban households at the same income level, since some of the income urban and suburban households use for food and shelter can be used by rural households for other needs.

Which of the following inferences is best supported by the statement made above?

- (A) The average rural household includes more people than does the average urban or suburban household.
- (B) Rural households have lower food and housing costs than do either urban or suburban households.
- (C) Suburban households generally have more purchasing power than do either rural or urban households.
- (D) The median income of urban and suburban households is generally higher than that of rural households.
- (E) All three types of households spend more of their income on food and housing than on all other purchases combined.

2. In 1985 state border colleges in Texas lost the enrollment of more than half, on average, of the Mexican nationals they had previously served each year. Teaching faculties have alleged that this extreme drop resulted from a rise in tuition for international and out-of-state students from \$40 to \$120 per credit hour.

Which of the following, if feasible, offers the best prospects for alleviating the problem of the drop in enrollment of Mexican nationals as the teaching faculties assessed it?

- (A) Providing grants-in-aid to Mexican nationals to study in Mexican universities
  - (B) Allowing Mexican nationals to study in Texas border colleges and to pay in-state tuition rates, which are the same as the previous international rate
  - (C) Reemphasizing the goals and mission of the Texas state border colleges as serving both in-state students and Mexican nationals
  - (D) Increasing the financial resources of Texas colleges by raising the tuition for in-state students attending state institutions
  - (E) Offering career counseling for those Mexican nationals who graduate from state border colleges and intend to return to Mexico
3. Affirmative action is good business. So asserted the National Association of Manufacturers while urging retention of an executive order requiring some federal contractors to set numerical goals for hiring minorities and women. "Diversity in work force participation has produced new ideas in management, product development, and marketing," the association claimed.
- The association's argument as it is presented in the passage above would be most strengthened if which of the following were true?
- (A) The percentage of minority and women workers in business has increased more slowly than many minority and women's groups would prefer.
  - (B) Those businesses with the highest percentages of minority and women workers are those that have been the most innovative and profitable.
  - (C) Disposable income has been rising as fast among minorities and women as among the population as a whole.
  - (D) The biggest growth in sales in the manufacturing sector has come in industries that market the most innovative products.
  - (E) Recent improvements in management practices have allowed many manufacturers to experience enormous gains in worker productivity.

Questions 4-5 refer to the following.

If the airspace around centrally located airports were restricted to commercial airliners and only those private planes equipped with radar, most of the private-plane traffic would be forced to use outlying airfields. Such a reduction in the amount of private-plane traffic would reduce the risk of midair collision around the centrally located airports.

4. The conclusion drawn in the first sentence depends on which of the following assumptions?
- (A) Outlying airfields would be as convenient as centrally located airports for most pilots of private planes.
  - (B) Most outlying airfields are not equipped to handle commercial-airline traffic.
  - (C) Most private planes that use centrally located airports are not equipped with radar.

- (D) Commercial airliners are at greater risk of becoming involved in midair collisions than are private planes.
- (E) A reduction in the risk of midair collision would eventually lead to increases in commercial-airline traffic.
5. Which of the following, if true, would most strengthen the conclusion drawn in the second sentence?
- (A) Commercial airliners are already required by law to be equipped with extremely sophisticated radar systems.
- (B) Centrally located airports are experiencing over-crowded airspace primarily because of sharp increases in commercial-airline traffic.
- (C) Many pilots of private planes would rather buy radar equipment than be excluded from centrally located airports.
- (D) The number of midair collisions that occur near centrally located airports has decreased in recent years.
- (E) Private planes not equipped with radar systems cause a disproportionately large number of midair collisions around centrally located airports.
6. Which of the following best completes the passage below?
- Established companies concentrate on defending what they already have. Consequently, they tend not to be innovative themselves and tend to underestimate the effects of the innovations of others. The clearest example of this defensive strategy is the fact that\_\_\_\_\_
- (A) ballpoint pens and soft-tip markers have eliminated the traditional market for fountain pens, clearing the way for the marketing of fountain pens as luxury or prestige items
- (B) a highly successful automobile was introduced by the same company that had earlier introduced a model that had been a dismal failure
- (C) a once-successful manufacturer of slide rules reacted to the introduction of electronic calculators by trying to make better slide rules
- (D) one of the first models of modern accounting machines, designed for use in the banking industry, was purchased by a public library as well as by banks
- (E) the inventor of a commonly used anesthetic did not intend the product to be used by dentists, who currently account for almost the entire market for that drug
7. Most archaeologists have held that people first reached the Americas less than 20,000 years ago by crossing a land bridge into North America. But recent discoveries of human shelters in South America dating from 32,000 years ago have led researchers to speculate that people arrived in South America first, after voyaging across the Pacific, and then spread northward.
- Which of the following, if it were discovered, would be pertinent evidence against the speculation above?



- (A) A rock shelter near Pittsburgh, Pennsylvania, contains evidence of use by human beings 19,000 years ago.
- (B) Some North American sites of human habitation predate any sites found in South America.
- (C) The climate is warmer at the 32,000-year-old south American site than at the oldest known North American site.
- (D) The site in South America that was occupied 32,000 years ago was continuously occupied until 6,000 years ago.
- (E) The last Ice Age, between 11,500 and 20,000 years ago, considerably lowered worldwide sea levels.
8. In Asia, where palm trees are non-native, the trees' flowers have traditionally been pollinated by hand, which has kept palm fruit productivity unnaturally low. When weevils known to be efficient pollinators of palm flowers were introduced into Asia in 1980, palm fruit productivity increased—by up to fifty percent in some areas—but then decreased sharply in 1984.
- Which of the following statements, if true, would best explain the 1984 decrease in productivity?
- (A) Prices for palm fruit fell between 1980 and 1984 following the rise in production and a concurrent fall in demand.
- (B) Imported trees are often more productive than native trees because the imported ones have left behind their pests and diseases in their native lands.
- (C) Rapid increases in productivity tend to deplete trees of nutrients needed for the development of the fruit-producing female flowers.
- (D) The weevil population in Asia remained at approximately the same level between 1980 and 1984.
- (E) Prior to 1980 another species of insect pollinated the Asian palm trees, but not as efficiently as the species of weevil that was introduced in 1980.
9. Since the mayor's publicity campaign for Greenville's bus service began six months ago, morning automobile traffic into the midtown area of the city has decreased seven percent. During the same period, there has been an equivalent rise in the number of persons riding buses into the midtown area. Obviously, the mayor's publicity campaign has convinced many people to leave their cars at home and ride the bus to work.
- Which of the following, if true, casts the most serious doubt on the conclusion drawn above?
- (A) Fares for all bus routes in Greenville have risen an average of five percent during the past six months.
- (B) The mayor of Greenville rides the bus to City Hall in the city's midtown area.
- (C) Road reconstruction has greatly reduced the number of lanes available to commuters in major streets leading to the midtown area during the past six

months.

- (D) The number of buses entering the midtown area of Greenville during the morning hours is exactly the same now as it was one year ago.
- (E) Surveys show that longtime bus riders are no more satisfied with the Greenville bus service than they were before the mayor's publicity campaign began.

10. In the aftermath of a worldwide stock-market crash, Country T claimed that the severity of the stock-market crash it experienced resulted from the accelerated process of denationalization many of its industries underwent shortly before the crash.

Which of the following, if it could be carried out, would be most useful in an evaluation of Country T's assessment of the causes of the severity of its stock-market crash?

- (A) Calculating the average loss experienced by individual traders in Country T during the crash
  - (B) Using economic theory to predict the most likely date of the next crash in Country T
  - (C) Comparing the total number of shares sold during the worst days of the crash in Country T to the total number of shares sold in Country T just prior to the crash
  - (D) Comparing the severity of the crash in Country T to the severity of the crash in countries otherwise economically similar to Country T that have not experienced recent denationalization
  - (E) Comparing the long-term effects of the crash on the purchasing power of the currency of Country T to the immediate, more severe short-term effects of the crash on the purchasing power of the currency of Country T
11. With the emergence of biotechnology companies, it was feared that they would impose silence about proprietary results on their in-house researchers and their academic consultants. This constraint, in turn, would slow the development of biological science and engineering.

Which of the following, if true, would tend to weaken most seriously the prediction of scientific secrecy described above?

- (A) Biotechnological research funded by industry has reached some conclusions that are of major scientific importance.
- (B) When the results of scientific research are kept secret, independent researchers are unable to build on those results.
- (C) Since the research priorities of biotechnology companies are not the same as those of academic institutions, the financial support of research by such companies distorts the research agenda.
- (D) To enhance the companies' standing in the scientific community, the biotechnology companies encourage employees to publish their results,

especially results that are important.

- (E) Biotechnology companies devote some of their research resources to problems that are of fundamental scientific importance and that are not expected to produce immediate practical applications.

12. Some people have questioned the judge's objectivity in cases of sex discrimination against women. But the record shows that in sixty percent of such cases, the judge has decided in favor of the women. This record demonstrates that the judge has not discriminated against women in cases of sex discrimination against women.

The argument above is flawed in that it ignores the possibility that

- (A) a large number of the judge's cases arose out of allegations of sex discrimination against women  
(B) many judges find it difficult to be objective in cases of sex discrimination against women  
(C) the judge is biased against women defendants or plaintiffs in cases that do not involve sex discrimination  
(D) the majority of the cases of sex discrimination against women that have reached the judge's court have been appealed from a lower court  
(E) the evidence shows that the women should have won in more than sixty percent of the judge's cases involving sex discrimination against women

13. The tobacco industry is still profitable and projections are that it will remain so. In the United States this year, the total amount of tobacco sold by tobacco-farmers has increased, even though the number of adults who smoke has decreased.

Each of the following, if true, could explain the simultaneous increase in tobacco sales and decrease in the number of adults who smoke EXCEPT:

- (A) During this year, the number of women who have begun to smoke is greater than the number of men who have quit smoking.  
(B) The number of teen-age children who have begun to smoke this year is greater than the number of adults who have quit smoking during the same period.  
(C) During this year, the number of nonsmokers who have begun to use chewing tobacco or snuff is greater than the number of people who have quit smoking.  
(D) The people who have continued to smoke consume more tobacco per person than they did in the past.  
(E) More of the cigarettes made in the United States this year were exported to other countries than was the case last year.

14. Kale has more nutritional value than spinach. But since collard greens have more nutritional value than lettuce, it follows that kale has more nutritional value than lettuce.

Any of the following, if introduced into the argument as an additional premise, makes the argument above logically correct EXCEPT:

- (A) Collard greens have more nutritional value than kale.
- (B) Spinach has more nutritional value than lettuce.
- (C) Spinach has more nutritional value than collard greens.
- (D) Spinach and collard greens have the same nutritional value.
- (E) Kale and collard greens have the same nutritional value.

15. On the basis of a decrease in the college-age population, many colleges now anticipate increasingly smaller freshman classes each year. Surprised by a 40 percent increase in qualified applicants over the previous year, however, administrators at Nice College now plan to hire more faculty for courses taken by all freshmen.

Which of the following statements about Nice College's current qualified applicants, if true, would strongly suggest that the administrators' plan is flawed?

- (A) A substantially higher percentage than usual plan to study for advanced degrees after graduation from college.
- (B) According to their applications, their level of participation in extracurricular activities and varsity sports is unusually high.
- (C) According to their applications, none of them lives in a foreign country.
- (D) A substantially lower percentage than usual rate Nice College as their first choice among the colleges to which they are applying.
- (E) A substantially lower percentage than usual list mathematics as their intended major.

*Questions 16-17 are based on the following.*

A researcher discovered that people who have low levels of immune-system activity tend to score much lower on tests of mental health than do people with normal or high immune-system activity. The researcher concluded from this experiment that the immune system protects against mental illness as well as against physical disease.

16. The researcher's conclusion depends on which of the following assumptions?
- (A) High immune-system activity protects against mental illness better than normal immune-system activity does.
  - (B) Mental illness is similar to physical disease in its effects on body system.
  - (C) People with high immune-system activity cannot develop mental illness.
  - (D) Mental illness does not cause people's immune-system activity to decrease.
  - (E) Psychological treatment of mental illness is not as effective as is medical treatment.
17. The researcher's conclusion would be most seriously weakened if it were true that
- (A) there was a one-year delay between the completion of a pilot study for the

- experiment and the initiation of the experiment itself
- (B) people's levels of immune-system activity are not affected by their use of medications
- (C) a few people with high immune-system activity had scores on the test of mental health that were similar to the scores of people who had normal immune-system activity
- (D) people who have low immune-system activity tend to contract more viral infections than do people with normal or high immune-system activity
- (E) high levels of stress first cause mental illness and then cause decreased immune-system activity in normal individuals
18. The value of a product is determined by the ratio of its quality to its price. The higher the value of a product, the better will be its competitive position. Therefore, either increasing the quality or lowering the price of a given product will increase the likelihood that consumer will select that product rather than a competing one.
- Which of the following, if true, would most strengthen the conclusion drawn above?
- (A) It is possible to increase both the quality and the price of a product without changing its competitive position.
- (B) For certain segments of the population of consumers, higher-priced brands of some product lines are preferred to the lower-priced brands.
- (C) Competing products often try to appeal to different segments of the population of consumers.
- (D) The competitive position of a product can be affected by such factors as advertising and brand loyalty.
- (E) Consumers' perceptions of the quality of a product are based on the actual quality of the product.
19. In January there was a large drop in the number of new houses sold, because interest rates for mortgages were falling and many consumers were waiting to see how low the rates would go. This large sales drop was accompanied by a sharp rise in the average price of new houses sold.
- Which of the following, if true, best explains the sharp rise in the average price of new houses?
- (A) Sales of higher-priced houses were unaffected by the sales drop because their purchasers have fewer constraints limiting the total amount they pay.
- (B) Labor agreements of builders with construction unions are not due to expire until the next January.
- (C) The prices of new houses have been rising slowly over the past three years because there is an increasing shortage of housing.
- (D) There was a greater amount of moderate-priced housing available for resale



by owners during January than in the preceding three months.

- (E) Interest rates for home mortgages are expected to rise sharply later in the year if predictions of increased business activity in general prove to be accurate.

20. Seven countries signed a treaty binding each of them to perform specified actions on a certain fixed date, with the actions of each conditional on simultaneous action taken by the other countries. Each country was also to notify the six other countries when it had completed its action.

The simultaneous-action provision of the treaty leaves open the possibility that

- (A) the compliance date was subject to postponement, according to the terms of the treaty
- (B) one of the countries might not be required to make any changes or take any steps in order to comply with the treaty, whereas all the other countries are so required
- (C) each country might have a well-founded excuse, based on the provision, for its own lack of compliance
- (D) the treaty specified that the signal for one of the countries to initiate action was notification by the other countries that they had completed action
- (E) there was ambiguity with respect to the date after which all actions contemplated in the treaty are to be complete

### TEST 7

#### 30 Minutes 20 Questions

1. A milepost on the towpath read “21” on the side facing the hiker as she approached it and “23” on its back. She reasoned that the next milepost forward on the path would indicate that she was halfway between one end of the path and the other. However, the milepost one mile further on read “20” facing her and “24” behind.

Which of the following, if true, would explain the discrepancy described above?

- (A) The numbers on the next milepost had been reversed.
- (B) The numbers on the mileposts indicate kilometers, not miles.
- (C) The facing numbers indicate miles to the end of the path, not miles from the beginning.
- (D) A milepost was missing between the two the hiker encountered.
- (E) The mileposts had originally been put in place for the use of mountain bikers, not for hikers.

2. Airline: Newly developed collision-avoidance systems, although not fully tested to discover potential malfunctions, must be installed immediately in passenger planes. Their mechanical warnings enable pilots to avoid crashes.

Pilots: Pilots will not fly in planes with collision-avoidance systems that are not fully tested. Malfunctioning systems could mislead pilots, causing crashes.

The pilots' objection is most strengthened if which of the following is true?

- (A) It is always possible for mechanical devices to malfunction.
- (B) Jet engines, although not fully tested when first put into use, have achieved exemplary performance and safety records.
- (C) Although collision-avoidance systems will enable pilots to avoid some crashes, the likely malfunctions of the not-fully-tested systems will cause even more crashes.
- (D) Many airline collisions are caused in part by the exhaustion of overworked pilots.
- (E) Collision-avoidance systems, at this stage of development, appear to have worked better in passenger planes than in cargo planes during experimental flights made over a six-month period.

3. Guitar strings often go "dead"—become less responsive and bright in tone—after a few weeks of intense use. A researcher whose son is a classical guitarist hypothesized that dirt and oil, rather than changes in the material properties of the string, were responsible.

Which of the following investigations is most likely to yield significant information that would help to evaluate the researcher's hypothesis?

- (A) Determining if a metal alloy is used to make the strings used by classical guitarists
- (B) Determining whether classical guitarists make their strings go dead faster than do folk guitarists
- (C) Determining whether identical lengths of string, of the same gauge, go dead at different rates when strung on various brands of guitars
- (D) Determining whether a dead string and a new string produce different qualities of sound
- (E) Determining whether smearing various substances on new guitar strings causes them to go dead

4. Most consumers do not get much use out of the sports equipment they purchase. For example, seventeen percent of the adults in the United States own jogging shoes, but only forty-five percent of the owners jog more than once a year, and only seventeen percent jog more than once a week.

Which of the following, if true, casts most doubt on the claim that most consumers get little use out of the sports equipment they purchase?

- (A) Joggers are most susceptible to sports injuries during the first six months in which they jog.
- (B) Joggers often exaggerate the frequency with which they jog in surveys designed to elicit such information.
- (C) Many consumers purchase jogging shoes for use in activities other than jogging.

- (D) Consumers who take up jogging often purchase an athletic shoe that can be used in other sports.
- (E) Joggers who jog more than once a week are often active participants in other sports as well.

5. Two decades after the Emerald River Dam was built, none of the eight fish species native to the Emerald River was still reproducing adequately in the river below the dam. Since the dam reduced the annual range of water temperature in the river below the dam from 50 degrees to 6 degrees, scientists have hypothesized that sharply rising water temperatures must be involved in signaling the native species to begin the reproductive cycle.

Which of the following statements, if true, would most strengthen the scientists' hypothesis?

- (A) The native fish species were still able to reproduce **only** in side streams of the river below the dam where the annual temperature range remains approximately 50 degrees.
  - (B) Before the dam was built, the Emerald River annually overflowed its banks, creating backwaters that were critical breeding areas for the native species of fish.
  - (C) The lowest recorded temperature of the Emerald River before the dam was built was 34 degrees, whereas the lowest recorded temperature of the river after the dam was built has been 43 degrees.
  - (D) Nonnative species of fish, introduced into the Emerald River after the dam was built, have begun competing with the declining native fish species for food and space.
  - (E) Five of the fish species native to the Emerald River are not native to any other river in North America.
6. It is true that it is against international law to sell plutonium to countries that do not yet have nuclear weapons. But if United States companies do not do so, companies in other countries will.
- Which of the following is most like the argument above in its logical structure?
- (A) It is true that it is against the police department's policy to negotiate with kidnappers. But if the police want to prevent loss of life, they must negotiate in some cases.
  - (B) It is true that it is illegal to refuse to register for military service. But there is a long tradition in the United States of conscientious objection to serving in the armed forces.
  - (C) It is true that it is illegal for a government official to participate in a transaction in which there is an apparent conflict of interest. But if the facts are examined carefully, it will clearly be seen that there was no actual conflict of interest in the defendant's case.
  - (D) It is true that it is against the law to burglarize people's homes. But someone

else certainly would have burglarized that house if the defendant had not done so first.

- (E) It is true that company policy forbids supervisors to fire employees without two written warnings. But there have been many supervisors who have disobeyed this policy.

7. In recent years many cabinetmakers have been winning acclaim as artists. But since furniture must be useful, cabinetmakers must exercise their craft with an eye to the practical utility of their product. For this reason, cabinetmaking is not art.

Which of the following is an assumption that supports drawing the conclusion above from the reason given for that conclusion?

- (A) Some furniture is made to be placed in museums, where it will not be used by anyone.  
(B) Some cabinetmakers are more concerned than others with the practical utility of the products they produce.  
(C) Cabinetmakers should be more concerned with the practical utility of their products than they currently are.  
(D) An object is not an art object if its maker pays attention to the object's practical utility.  
(E) Artists are not concerned with the monetary value of their products.

8. Although custom prosthetic bone replacements produced through a new computer-aided design process will cost more than twice as much as ordinary replacements, custom replacements should still be cost-effective. Not only will surgery and recovery time be reduced, but custom replacements should last longer, thereby reducing the need for further hospital stays.

Which of the following must be studied in order to evaluate the argument presented above?

- (A) The amount of time a patient spends in surgery versus the amount of time spent recovering from surgery  
(B) The amount by which the cost of producing custom replacements has declined with the introduction of the new technique for producing them  
(C) The degree to which the use of custom replacements is likely to reduce the need for repeat surgery when compared with the use of ordinary replacements  
(D) The degree to which custom replacements produced with the new technique are more carefully manufactured than are ordinary replacements  
(E) The amount by which custom replacements produced with the new technique will drop in cost as the production procedures become standardized and applicable on a larger scale

9. Extinction is a process that can depend on a variety of ecological, geographical,

and physiological variables. These variables affect different species of organisms in different ways, and should, therefore, yield a random pattern of extinctions. However, the fossil record shows that extinction occurs in a surprisingly definite pattern, with many species vanishing at the same time.

Which of the following, if true, forms the best basis for at least a partial explanation of the patterned extinctions revealed by the fossil record?

- (A) Major episodes of extinction can result from widespread environmental disturbances that affect numerous different species.
  - (B) Certain extinction episodes selectively affect organisms with particular sets of characteristics unique to their species.
  - (C) Some species become extinct because of accumulated gradual changes in their local environments.
  - (D) In geologically recent times, for which there is no fossil record, human intervention has changed the pattern of extinctions.
  - (E) Species that are widely dispersed are the least likely to become extinct.
10. Neither a rising standard of living nor balanced trade, by itself, establishes a country's ability to compete in the international marketplace. Both are required simultaneously since standards of living can rise because of growing trade deficits and trade can be balanced by means of a decline in a country's standard of living.

If the facts stated in the passage above are true, a proper test of a country's ability to be competitive is its ability to

- (A) balance its trade while its standard of living rises
  - (B) balance its trade while its standard of living falls
  - (C) increase trade deficits while its standard of living rises
  - (D) decrease trade deficits while its standard of living falls
  - (E) keep its standard of living constant while trade deficits rise
11. Certain messenger molecules fight damage to the lungs from noxious air by telling the muscle cells encircling the lungs' airways to contract. This partially seals off the lungs. An asthma attack occurs when the messenger molecules are activated unnecessarily, in response to harmless things like pollen or household dust.

Which of the following, if true, points to the most serious flaw of a plan to develop a medication that would prevent asthma attacks by blocking receipt of any messages sent by the messenger molecules referred to above?

- (A) Researchers do not yet know how the body produces the messenger molecules that trigger asthma attacks.
- (B) Researchers do not yet know what makes one person's messenger molecules more easily activated than another's.
- (C) Such a medication would not become available for several years, because of



long lead times in both development and manufacture.

(D) Such a medication would be unable to distinguish between messages triggered by pollen and household dust and messages triggered by noxious air.

(E) Such a medication would be a preventative only and would be unable to alleviate an asthma attack once it had started.

12. Since the routine use of antibiotics can give rise to resistant bacteria capable of surviving antibiotic environments, the presence of resistant bacteria in people could be due to the human use of prescription antibiotics. Some scientists, however, believe that most resistant bacteria in people derive from human consumption of bacterially infected meat.

Which of the following statements, if true, would most significantly strengthen the hypothesis of the scientists?

(A) Antibiotics are routinely included in livestock feed so that livestock producers can increase the rate of growth of their animals.

(B) Most people who develop food poisoning from bacterially infected meat are treated with prescription antibiotics.

(C) The incidence of resistant bacteria in people has tended to be much higher in urban areas than in rural areas where meat is of comparable quality.

(D) People who have never taken prescription antibiotics are those least likely to develop resistant bacteria.

(E) Livestock producers claim that resistant bacteria in animals cannot be transmitted to people through infected meat.

13. The recent decline in the value of the dollar was triggered by a prediction of slower economic growth in the coming year. But that prediction would not have adversely affected the dollar had it not been for the government's huge budget deficit, which must therefore be decreased to prevent future currency declines.

Which of the following, if true, would most seriously weaken the conclusion about how to prevent future currency declines?

(A) The government has made little attempt to reduce the budget deficit.

(B) The budget deficit has not caused a slowdown in economic growth.

(C) The value of the dollar declined several times in the year prior to the recent prediction of slower economic growth.

(D) Before there was a large budget deficit, predictions of slower economic growth frequently caused declines in the dollar's value.

(E) When there is a large budget deficit, other events in addition to predictions of slower economic growth sometimes trigger declines in currency value.

14. Which of the following best completes the passage below?

At a recent conference on environmental threats to the North Sea, most participating countries favored uniform controls on the quality of effluents,

whether or not specific environmental damage could be attributed to a particular source of effluent. What must, of course, be shown, in order to avoid excessively restrictive controls, is that\_\_\_\_\_

- (A) any uniform controls that are adopted are likely to be implemented without delay
- (B) any substance to be made subject to controls can actually cause environmental damage
- (C) the countries favoring uniform controls are those generating the largest quantities of effluents
- (D) all of any given pollutant that is to be controlled actually reaches the North Sea at present
- (E) environmental damage already inflicted on the North Sea is reversible

15. Traditionally, decision-making by managers that is reasoned step-by-step has been considered preferable to intuitive decision-making. However, a recent study found that top managers used intuition significantly more than did most middle- or lower-level managers. This confirms the alternative view that intuition is actually more effective than careful, methodical reasoning.

The conclusion above is based on which of the following assumptions?

- (A) Methodical, step-by-step reasoning is inappropriate for making many real-life management decisions.
- (B) Top managers have the ability to use either intuitive reasoning or methodical, step-by-step reasoning in making decisions.
- (C) The decisions made by middle- and lower-level managers can be made as easily by using methodical reasoning as by using intuitive reasoning.
- (D) Top managers use intuitive reasoning in making the majority of their decisions.
- (E) Top managers are more effective at decision-making than middle- or lower-level managers.

16. The imposition of quotas limiting imported steel will not help the big American steel mills. In fact, the quotas will help “mini-mills” flourish in the United States. Those small domestic mills will take more business from the big American steel mills than would have been taken by the foreign steel mills in the absence of quotas.

Which of the following, if true, would cast the most serious doubt on the claim made in the last sentence above?

- (A) Quality rather than price is a major factor in determining the type of steel to be used for a particular application.
- (B) Foreign steel mills have long produced grades of steel comparable in quality to the steel produced by the big American mills.
- (C) American quotas on imported goods have often induced other countries to

impose similar quotas on American goods.

- (D) Domestic “mini-mills” consistently produce better grades of steel than do the big American mills.
- (E) Domestic “mini-mills” produce low-volume, specialized types of steels that are not produced by the big American steel mills.

17. Correctly measuring the productivity of service workers is complex. Consider, for example, postal workers: they are often said to be more productive if more letters are delivered per postal worker. But is this really true? What if more letters are lost or delayed per worker at the same time that more are delivered?

The objection implied above to the productivity measure described is based on doubts about the truth of which of the following statements?

- (A) Postal workers are representative of service workers in general.
- (B) The delivery of letters is the primary activity of the postal service.
- (C) Productivity should be ascribed to categories of workers, not to individuals.
- (D) The quality of services rendered can appropriately be ignored in computing productivity.
- (E) The number of letters delivered is relevant to measuring the productivity of postal workers.

18. Male bowerbirds construct elaborately decorated nests, or bowers. Basing their judgment on the fact that different local populations of bowerbirds of the same species build bowers that exhibit different building and decorative styles, researchers have concluded that the bowerbirds’ building styles are a culturally acquired, rather than a genetically transmitted, trait.

Which of the following, if true, would most strengthen the conclusion drawn by the researchers?

- (A) There are more common characteristics than there are differences among the bower-building styles of the local bowerbird population that has been studied most extensively.
- (B) Young male bowerbirds are inept at bower-building and apparently spend years watching their elders before becoming accomplished in the local bower style.
- (C) The bowers of one species of bowerbird lack the towers and ornamentation characteristic of the bowers of most other species of bowerbird.
- (D) Bowerbirds are found only in New Guinea and Australia, where local populations of the birds apparently seldom have contact with one another.
- (E) It is well known that the song dialects of some songbirds are learned rather than transmitted genetically.

19. A greater number of newspapers are sold in Town S than in Town T. Therefore, the citizens of Town S are better informed about major world events than are the citizens of Town T.

Each of the following, if true, weakens the conclusion above EXCEPT:

- (A) Town S has a larger population than Town T.
- (B) Most citizens of Town T work in Town S and buy their newspapers there.
- (C) The average citizen of Town S spends less time reading newspapers than does the average citizen of Town T.
- (D) A weekly newspaper restricted to the coverage of local events is published in Town S.
- (E) The average newsstand price of newspapers sold in Town S is lower than the average price of newspapers sold in Town T.

20. One analyst predicts that Hong Kong can retain its capitalist ways after it becomes part of mainland China in 1997 as long as a capitalist Hong Kong is useful to China; that a capitalist Hong Kong will be useful to China as long as Hong Kong is prosperous; and that Hong Kong will remain prosperous as long as it retains its capitalist ways.

If the predictions above are correct, which of the following further predictions can logically be derived from them?

- (A) If Hong Kong fails to stay prosperous, it will no longer remain part of mainland China.
- (B) If Hong Kong retains its capitalist ways until 1997, it will be allowed to do so afterward.
- (C) If there is a world economic crisis after 1997, it will not adversely affect the economy of Hong Kong.
- (D) Hong Kong will be prosperous after 1997.
- (E) The citizens of Hong Kong will have no restrictions placed on them by the government of mainland China.

### TEST 8

30 Minutes 20 Questions

1. A drug that is highly effective in treating many types of infection can, at present, be obtained only from the bark of the ibora, a tree that is quite rare in the wild. It takes the bark of 5,000 trees to make one kilogram of the drug. It follows, therefore, that continued production of the drug must inevitably lead to the ibora's extinction.

Which of the following, if true, most seriously weakens the argument above?

- (A) The drug made from ibora bark is dispensed to doctors from a central authority.
- (B) The drug made from ibora bark is expensive to produce.
- (C) The leaves of the ibora are used in a number of medical products.
- (D) The ibora can be propagated from cuttings and grown under cultivation.
- (E) The ibora generally grows in largely inaccessible places.

2. High levels of fertilizer and pesticides, needed when farmers try to produce high yield of the same crop year after year, pollute water supplies. Experts therefore urge farmers to diversify their crops and to rotate their plantings yearly.

To receive governmental price-support benefits for a crop, farmers must have produced that same crop for the past several years.

The statements above, if true, best support which of the following conclusions?

- (A) The rules for governmental support of farm prices work against efforts to reduce water pollution.
  - (B) The only solution to the problem of water pollution from fertilizers and pesticides is to take farmland out of production.
  - (C) Farmers can continue to make a profit by rotating diverse crops, thus reducing costs for chemicals, but not by planting the same crop each year.
  - (D) New farming techniques will be developed to make it possible for farmers to reduce the application of fertilizers and pesticides.
  - (E) Governmental price supports for farm products are set at levels that are not high enough to allow farmers to get out of debt.
3. Shelby Industries manufactures and sells the same gauges as Jones Industries. Employee wages account for forty percent of the cost of manufacturing gauges at both Shelby Industries and Jones Industries. Shelby Industries is seeking a competitive advantage over Jones Industries. Therefore, to promote this end, Shelby Industries should lower employee wages.

Which of the following, if true, would most weaken the argument above?

- (A) Because they make a small number of precision instruments, gauge manufacturers cannot receive volume discounts on raw materials.
  - (B) Lowering wages would reduce the quality of employee work, and this reduced quality would lead to lowered sales.
  - (C) Jones Industries has taken away twenty percent of Shelby Industries' business over the last year.
  - (D) Shelby Industries pays its employees, on average, ten percent more than does Jones Industries.
  - (E) Many people who work for manufacturing plants live in areas in which the manufacturing plant they work for is the only industry.
4. Some communities in Florida are populated almost exclusively by retired people and contain few, if any, families with small children. Yet these communities are home to thriving businesses specializing in the rental of furniture for infants and small children.

Which of the following, if true, best reconciles the seeming discrepancy described above?

- (A) The businesses specializing in the rental of children's furniture buy their furniture from distributors outside of Florida.



- (B) The few children who do reside in these communities all know each other and often make overnight visits to one another's houses.
- (C) Many residents of these communities who move frequently prefer renting their furniture to buying it outright.
- (D) Many residents of these communities must provide for the needs of visiting grandchildren several weeks a year.
- (E) Children's furniture available for rental is of the same quality as that available for sale in the stores.

5. Large national budget deficits do not cause large trade deficits. If they did, countries with the largest budget deficits would also have the largest trade deficits. In fact, when deficit figures are adjusted so that different countries are reliably comparable to each other, there is no such correlation.

If the statements above are all true, which of the following can properly be inferred on the basis of them?

- (A) Countries with large national budget deficits tend to restrict foreign trade.
- (B) Reliable comparisons of the deficit figures of one country with those of another are impossible.
- (C) Reducing a country's national budget deficit will not necessarily result in a lowering of any trade deficit that country may have.
- (D) When countries are ordered from largest to smallest in terms of population, the smallest countries generally have the smallest budget and trade deficits.
- (E) Countries with the largest trade deficits never have similarly large national budget deficits.

6. "Fast cycle time" is a strategy of designing a manufacturing organization to eliminate bottlenecks and delays in production. Not only does it speed up production, but it also assures quality. The reason is that the bottlenecks and delays cannot be eliminated unless all work is done right the first time.

The claim about quality made above rests on a questionable presupposition that

- (A) any flaw in work on a product would cause a bottleneck or delay and so would be prevented from occurring on a "fast cycle" production line
- (B) the strategy of "fast cycle time" would require fundamental rethinking of product design
- (C) the primary goal of the organization is to produce a product of unexcelled quality, rather than to generate profits for stockholders
- (D) "fast cycle time" could be achieved by shaving time off each of the component processes in production cycle
- (E) "fast cycle time" is a concept in business strategy that has not yet been put into practice in a factory

7. Many breakfast cereals are fortified with vitamin supplements. Some of these cereals provide 100 percent of the recommended daily requirement of vitamins.

Nevertheless, a well-balanced breakfast, including a variety of foods, is a better source of those vitamins than are such fortified breakfast cereals alone.

Which of the following, if true, would most strongly support the position above?

- (A) In many foods, the natural combination of vitamins with other nutrients makes those vitamins more usable by the body than are vitamins added in vitamin supplements.
- (B) People who regularly eat cereals fortified with vitamin supplements sometimes neglect to eat the foods in which the vitamins occur naturally.
- (C) Foods often must be fortified with vitamin supplements because naturally occurring vitamins are removed during processing.
- (D) Unprocessed cereals are naturally high in several of the vitamins that are usually added to fortified breakfast cereals.
- (E) Cereals containing vitamin supplements are no harder to digest than similar cereals without added vitamins.

8. Which of the following best completes the passage below?

The more worried investors are about losing their money, the more they will demand a high potential return on their investment; great risks must be offset by the chance of great rewards. This principle is the fundamental one in determining interest rates, and it is illustrated by the fact that\_\_\_\_\_

- (A) successful investors are distinguished by an ability to make very risky investments without worrying about their money
- (B) lenders receive higher interest rates on unsecured loans than on loans backed by collateral
- (C) in times of high inflation, the interest paid to depositors by banks can actually be below the rate of inflation
- (D) at any one time, a commercial bank will have a single rate of interest that it will expect all of its individual borrowers to pay
- (E) the potential return on investment in a new company is typically lower than the potential return on investment in a well-established company

9. A famous singer recently won a lawsuit against an advertising firm for using another singer in a commercial to evoke the famous singer's well-known rendition of a certain song. As a result of the lawsuit, advertising firms will stop using imitators in commercials. Therefore, advertising costs will rise, since famous singers' services cost more than those of their imitators.

The conclusion above is based on which of the following assumptions?

- (A) Most people are unable to distinguish a famous singer's rendition of a song from a good imitator's rendition of the same song.
- (B) Commercials using famous singers are usually more effective than commercials using imitators of famous singers.
- (C) The original versions of some well-known songs are unavailable for use in

commercials.

- (D) Advertising firms will continue to use imitators to mimic the physical mannerisms of famous singers.
- (E) The advertising industry will use well-known renditions of songs in commercials.

10. A certain mayor has proposed a fee of five dollars per day on private vehicles entering the city, claiming that the fee will alleviate the city's traffic congestion. The mayor reasons that, since the fee will exceed the cost of round-trip bus fare from many nearby points, many people will switch from using their cars to using the bus.

Which of the following statements, if true, provides the best evidence that the mayor's reasoning is flawed?

- (A) Projected increases in the price of gasoline will increase the cost of taking a private vehicle into the city.
  - (B) The cost of parking fees already makes it considerably more expensive for most people to take a private vehicle into the city than to take a bus.
  - (C) Most of the people currently riding the bus do not own private vehicles.
  - (D) Many commuters opposing the mayor's plan have indicated that they would rather endure traffic congestion than pay a five-dollar-per day fee.
  - (E) During the average workday, private vehicles owned and operated by people living within the city account for twenty percent of the city's traffic congestion.
11. A group of children of various ages was read stories in which people caused harm, some of those people doing so intentionally, and some accidentally. When asked about appropriate punishments for those who had caused harm, the younger children, unlike the older ones, assigned punishments that did not vary according to whether the harm was done intentionally or accidentally. Younger children, then, do not regard people's intentions as relevant to punishment.
- Which of the following, if true, would most seriously weaken the conclusion above?
- (A) In interpreting these stories, the listeners had to draw on a relatively mature sense of human psychology in order to tell whether harm was produced intentionally or accidentally.
  - (B) In these stories, the severity of the harm produced was clearly stated.
  - (C) Younger children are as likely to produce harm unintentionally as are older children.
  - (D) The older children assigned punishment in a way that closely resembled the way adults had assigned punishment in a similar experiment.
  - (E) The younger children assigned punishments that varied according to the severity of the harm done by the agents in the stories.

12. When hypnotized subjects are told that they are deaf and are then asked whether they can hear the hypnotist, they reply, "No." Some theorists try to explain this result by arguing that the selves of hypnotized subjects are dissociated into separate parts, and that the part that is deaf is dissociated from the part that replies.
- Which of the following challenges indicates the most serious weakness in the attempted explanation described above?
- (A) Why does the part that replies not answer, "Yes"?
  - (B) Why are the observed facts in need of any special explanation?
  - (C) Why do the subjects appear to accept the hypnotist's suggestion that they are deaf?
  - (D) Why do hypnotized subjects all respond the same way in the situation described?
  - (E) Why are the separate parts of the self the same for all subjects?

Questions 13-14 are based on the following.

The program to control the entry of illegal drugs into the country was a failure in 1987. If the program had been successful, the wholesale price of most illegal drugs would not have dropped substantially in 1987.

13. The argument in the passage depends on which of the following assumptions?
- (A) The supply of illegal drugs dropped substantially in 1987.
  - (B) The price paid for most illegal drugs by the average consumer did not drop substantially in 1987.
  - (C) Domestic production of illegal drugs increased at a higher rate than did the entry of such drugs into the country.
  - (D) The wholesale price of a few illegal drugs increased substantially in 1987.
  - (E) A drop in demand for most illegal drugs in 1987 was not the sole cause of the drop in their wholesale price.
14. The argument in the passage would be most seriously weakened if it were true that
- (A) in 1987 smugglers of illegal drugs, as a group, had significantly more funds at their disposal than did the country's customs agents
  - (B) domestic production of illegal drugs increased substantially in 1987
  - (C) the author's statements were made in order to embarrass the officials responsible for the drug-control program
  - (D) in 1987 illegal drugs entered the country by a different set of routes than they did in 1986
  - (E) the country's citizens spent substantially more money on illegal drugs in 1987 than they did in 1986
15. Excavation of the ancient city of Kourion on the island of Cyprus revealed a

pattern of debris and collapsed buildings typical of towns devastated by earthquakes. Archaeologists have hypothesized that the destruction was due to a major earthquake known to have occurred near the island in A.D. 365.

Which of the following, if true, most strongly supports the archaeologists' hypothesis?

- (A) Bronze ceremonial drinking vessels that are often found in graves dating from years preceding and following A.D. 365 were also found in several graves near Kourion.
- (B) No coins minted after A.D. 365 were found in Kourion, but coins minted before that year were found in abundance.
- (C) Most modern histories of Cyprus mention that an earthquake occurred near the island in A.D. 365.
- (D) Several small statues carved in styles current in Cyprus in the century between A.D. 300 and 400 were found in Kourion.
- (E) Stone inscriptions in a form of the Greek alphabet that was definitely used in Cyprus after A.D. 365 were found in Kourion.

16. Sales of telephones have increased dramatically over the last year. In order to take advantage of this increase, Mammoth Industries plans to expand production of its own model of telephone, while continuing its already very extensive advertising of this product.

Which of the following, if true, provides most support for the view that Mammoth Industries cannot increase its sales of telephones by adopting the plan outlined above?

- (A) Although it sells all of the telephones that it produces, Mammoth Industries' share of all telephone sales has declined over the last year.
- (B) Mammoth Industries' average inventory of telephones awaiting shipment to retailers has declined slightly over the last year.
- (C) Advertising has made the brand name of Mammoth Industries' telephones widely known, but few consumers know that Mammoth Industries owns this brand.
- (D) Mammoth Industries' telephone is one of three brands of telephone that have together accounted for the bulk of the last year's increase in sales.
- (E) Despite a slight decline in the retail price, sales of Mammoth Industries' telephones have fallen in the last year.

17. Many institutions of higher education suffer declining enrollments during periods of economic slowdown. At two-year community colleges, however, enrollment figures boom during these periods when many people have less money and there is more competition for jobs.

Each of the following, if true, helps to explain the enrollment increases in two-year community colleges described above EXCEPT:

- (A) During periods of economic slowdown, two-year community colleges are



more likely than four-year colleges to prepare their students for the jobs that are still available.

- (B) During periods of economic prosperity, graduates of two-year community colleges often continue their studies at four-year colleges.
- (C) Tuition at most two-year community colleges is a fraction of that at four-year colleges.
- (D) Two-year community colleges devote more resources than do other colleges to attracting those students especially affected by economic slowdowns.
- (E) Students at two-year community colleges, but not those at most four-year colleges, can control the cost of their studies by choosing the number of courses they take each term.

*Questions 18-19 are based on the following.*

Hardin argued that grazing land held in common (that is, open to any user) would always be used less carefully than private grazing land. Each rancher would be tempted to overuse common land because the benefits would accrue to the individual, while the costs of reduced land quality that results from overuse would be spread among all users. But a study comparing 217 million acres of common grazing land with 433 million acres of private grazing land showed that the common land was in better condition.

18. The answer to which of the following questions would be most useful in evaluating the significance, in relation to Hardin's claim, of the study described above?
- (A) Did any of the ranchers whose land was studied use both common and private land?
  - (B) Did the ranchers whose land was studied tend to prefer using common land over using private land for grazing?
  - (C) Was the private land that was studied of comparable quality to the common land before either was used for grazing?
  - (D) Were the users of the common land that was studied at least as prosperous as the users of the private land?
  - (E) Were there any owners of herds who used only common land, and no private land, for grazing?
19. Which of the following, if true, and known by the ranchers, would best help explain the results of the study?
- (A) With private grazing land, both the costs and the benefits of overuse fall to the individual user.
  - (B) The cost in reduced land quality that is attributable to any individual user is less easily measured with common land than it is with private land.
  - (C) An individual who overuses common grazing land might be able to achieve higher returns than other users can, with the result that he or she would

- obtain a competitive advantage.
- (D) If one user of common land overuses it even slightly, the other users are likely to do so even more, with the consequence that the costs to each user outweigh the benefits.
- (E) There are more acres of grazing land held privately than there are held in common.
20. In tests for pironoma, a serious disease, a false positive result indicates that people have pironoma when, in fact, they do not; a false negative result indicates that people do not have pironoma when, in fact, they do. To detect pironoma most accurately, physicians should use the laboratory test that has the lowest proportion of false positive results.
- Which of the following, if true, gives the most support to the recommendation above?
- (A) The accepted treatment for pironoma does not have damaging side effects.
- (B) The laboratory test that has the lowest proportion of false positive results causes the same minor side effects as do the other laboratory tests used to detect pironoma.
- (C) In treating pironoma patients, it is essential to begin treatment as early as possible, since even a week of delay can result in loss of life.
- (D) The proportion of inconclusive test results is equal for all laboratory tests used to detect pironoma.
- (E) All laboratory tests to detect pironoma have the same proportion of false negative results.

### TEST 9

#### 30 Minutes 20 Questions

Questions 1-2 are based on the following.

Companies O and P each have the same number of employees who work the same number of hours per week. According to records maintained by each company, the employees of Company O had fewer job-related accidents last year than did the employees of Company P. Therefore, employees of Company O are less likely to have job-related accidents than are employees of Company P.

1. Which of the following, if true, would most strengthen the conclusion above?
- (A) Company P manufactures products that are more hazardous for workers to produce than does Company O.
- (B) Company P holds more safety inspections than does Company O.
- (C) Company P maintains a more modern infirmary than does Company O.
- (D) Company O paid more for new job-related medical claims than did Company P.
- (E) Company P provides more types of health-care benefits than does Company

- O.
2. Which of the following, if true, would most weaken the conclusion above?
- (A) The employees of Company P lost more time at work due to job-related accidents than did the employees of Company O.
  - (B) Company P considered more types of accidents to be job-related than did Company O.
  - (C) The employees of Company P were sick more often than were the employees of Company O.
  - (D) Several employees of Company O each had more than one job-related accident.
  - (E) The majority of job-related accidents at Company O involved a single machine.
3. In comparison to the standard typewriter keyboard, the EFCO keyboard, which places the most-used keys nearest the typist's strongest fingers, allows faster typing and results in less fatigue. Therefore, replacement of standard keyboards with the EFCO keyboard will result in an immediate reduction of typing costs. Which of the following, if true, would most weaken the conclusion drawn above?
- (A) People who use both standard and EFCO keyboards report greater difficulty in the transition from the EFCO keyboard to the standard keyboard than in the transition from the standard keyboard to the EFCO keyboard.
  - (B) EFCO keyboards are no more expensive to manufacture than are standard keyboards and require less frequent repair than do standard keyboards.
  - (C) The number of businesses and government agencies that use EFCO keyboards is increasing each year.
  - (D) The more training and experience an employee has had with the standard keyboard, the more costly it is to train that employee to use the EFCO keyboard.
  - (E) Novice typists can learn to use the EFCO keyboard in about the same amount of time it takes them to learn to use the standard keyboard.

Questions 4-5 are based on the following.

Half of the subjects in an experiment—the experimental group—consumed large quantities of a popular artificial sweetener. Afterward, this group showed lower cognitive abilities than did the other half of the subjects—the control group—who did not consume the sweetener. The detrimental effects were attributed to an amino acid that is one of the sweetener's principal constituents.

4. Which of the following, if true, would best support the conclusion that some ingredient of the sweetener was responsible for the experimental results?
- (A) Most consumers of the sweetener do not consume as much of it as the

- experimental group members did.
- (B) The amino acid referred to in the conclusion is a component of all proteins, some of which must be consumed for adequate nutrition.
  - (C) The quantity of the sweetener consumed by individuals in the experimental group is considered safe by federal food regulators.
  - (D) The two groups of subjects were evenly matched with regard to cognitive abilities prior to the experiment.
  - (E) A second experiment in which subjects consumed large quantities of the sweetener lacked a control group of subjects who were not given the sweetener.
5. Which of the following, if true, would best help explain how the sweetener might produce the observed effect?
- (A) The government's analysis of the artificial sweetener determined that it was sold in relatively pure form.
  - (B) A high level of the amino acid in the blood inhibits the synthesis of a substance required for normal brain functioning.
  - (C) Because the sweetener is used primarily as a food additive, adverse reactions to it are rarely noticed by consumers.
  - (D) The amino acid that is a constituent of the sweetener is also sold separately as a dietary supplement.
  - (E) Subjects in the experiment did not know whether they were consuming the sweetener or a second, harmless substance.
6. Adult female rats who have never before encountered rat pups will start to show maternal behaviors after being confined with a pup for about seven days. This period can be considerably shortened by disabling the female's sense of smell or by removing the scent-producing glands of the pup.
- Which of the following hypotheses best explains the contrast described above?
- (A) The sense of smell in adult female rats is more acute than that in rat pups.
  - (B) The amount of scent produced by rat pups increases when they are in the presence of a female rat that did not bear them.
  - (C) Female rats that have given birth are more affected by olfactory cues than are female rats that have never given birth.
  - (D) A female rat that has given birth shows maternal behavior toward rat pups that she did not bear more quickly than does a female rat that has never given birth.
  - (E) The development of a female rat's maternal interest in a rat pup that she did not bear is inhibited by the odor of the pup.
7. The interview is an essential part of a successful hiring program because, with it, job applicants who have personalities that are unsuited to the requirements of the job will be eliminated from consideration.

The argument above logically depends on which of the following assumptions?

- (A) A hiring program will be successful if it includes interviews.
- (B) The interview is a more important part of a successful hiring program than is the development of a job description.
- (C) Interviewers can accurately identify applicants whose personalities are unsuited to the requirements of the job.
- (D) The only purpose of an interview is to evaluate whether job applicants' personalities are suited to the requirements of the job.
- (E) The fit of job applicants' personalities to the requirements of the job was once the most important factor in making hiring decisions.

8. An overly centralized economy, not the changes in the climate, is responsible for the poor agricultural production in Country X since its new government came to power. Neighboring Country Y has experienced the same climatic conditions, but while agricultural production has been falling in Country X, it has been rising in Country Y.

Which of the following, if true, would most weaken the argument above?

- (A) Industrial production also is declining in Country X.
- (B) Whereas Country Y is landlocked, Country X has a major seaport.
- (C) Both Country X and Country Y have been experiencing drought conditions.
- (D) The crops that have always been grown in Country X are different from those that have always been grown in Country Y.
- (E) Country X's new government instituted a centralized economy with the intention of ensuring an equitable distribution of goods.

9. Useful protein drugs, such as insulin, must still be administered by the cumbersome procedure of injection under the skin. If proteins are taken orally, they are digested and cannot reach their target cells. Certain nonprotein drugs, however, contain chemical bonds that are not broken down by the digestive system. They can, thus, be taken orally.

The statements above most strongly support a claim that a research procedure that successfully accomplishes which of the following would be beneficial to users of protein drugs?

- (A) Coating insulin with compounds that are broken down by target cells, but whose chemical bonds are resistant to digestion
- (B) Converting into protein compounds, by procedures that work in the laboratory, the nonprotein drugs that resist digestion
- (C) Removing permanently from the digestive system any substances that digest proteins
- (D) Determining, in a systematic way, what enzymes and bacteria are present in the normal digestive system and whether they tend to be broken down within the body



- (E) Determining the amount of time each nonprotein drug takes to reach its target cells

10. Country Y uses its scarce foreign-exchange reserves to buy scrap iron for recycling into steel. Although the steel thus produced earns more foreign exchange than it costs, that policy is foolish. Country Y's own territory has vast deposits of iron ore, which can be mined with minimal expenditure of foreign exchange.

Which of the following, if true, provides the strongest support for Country Y's policy of buying scrap iron abroad?

- (A) The price of scrap iron on international markets rose significantly in 1987.  
(B) Country Y's foreign-exchange reserves dropped significantly in 1987.  
(C) There is virtually no difference in quality between steel produced from scrap iron and that produced from iron ore.  
(D) Scrap iron is now used in the production of roughly half the steel used in the world today, and experts predict that scrap iron will be used even more extensively in the future.  
(E) Furnaces that process scrap iron can be built and operated in Country Y with substantially less foreign exchange than can furnaces that process iron ore.
11. Last year the rate of inflation was 1.2 percent, but for the current year it has been 4 percent. We can conclude that inflation is on an upward trend and the rate will be still higher next year.

Which of the following, if true, most seriously weakens the conclusion above?

- (A) The inflation figures were computed on the basis of a representative sample of economic data rather than all of the available data.  
(B) Last year a dip in oil prices brought inflation temporarily below its recent stable annual level of 4 percent.  
(C) Increases in the pay of some workers are tied to the level of inflation, and at an inflation rate of 4 percent or above, these pay raises constitute a force causing further inflation.  
(D) The 1.2 percent rate of inflation last year represented a ten-year low.  
(E) Government intervention cannot affect the rate of inflation to any significant degree.
12. Because no employee wants to be associated with bad news in the eyes of a superior, information about serious problems at lower levels is progressively softened and distorted as it goes up each step in the management hierarchy. The chief executive is, therefore, less well informed about problems at lower levels than are his or her subordinates at those levels.

The conclusion drawn above is based on the assumption that

- (A) problems should be solved at the level in the management hierarchy at which they occur

- (B) employees should be rewarded for accurately reporting problems to their superiors
- (C) problem-solving ability is more important at higher levels than it is at lower levels of the management hierarchy
- (D) chief executives obtain information about problems at lower levels from no source other than their subordinates
- (E) some employees are more concerned about truth than about the way they are perceived by their superiors
13. In the United States in 1986, the average rate of violent crime in states with strict gun-control laws was 645 crimes per 100,000 persons—about 50 percent higher than the average rate in the eleven states where strict gun-control laws have never been passed. Thus one way to reduce violent crime is to repeal strict gun control laws.
- Which of the following, if true, would most weaken the argument above?
- (A) The annual rate of violent crime in states with strict gun-control laws has decreased since the passage of those laws.
- (B) In states with strict gun-control laws, few individuals are prosecuted for violating such laws.
- (C) In states without strict gun-control laws, many individuals have had no formal training in the use of firearms.
- (D) The annual rate of nonviolent crime is lower in states with strict gun-control laws than in states without such laws.
- (E) Less than half of the individuals who reside in states without strict gun-control laws own a gun.
14. Corporate officers and directors commonly buy and sell, for their own portfolios, stock in their own corporations. Generally, when the ratio of such inside sales to inside purchases falls below 2 to 1 for a given stock, a rise in stock prices is imminent. In recent days, while the price of MEGA Corporation stock has been falling, the corporation's officers and directors have bought up to nine times as much of it as they have sold.
- The facts above best support which of the following predictions?
- (A) The imbalance between inside purchases and inside sales of MEGA stock will grow even further.
- (B) Inside purchases of MEGA stock are about to cease abruptly.
- (C) The price of MEGA stock will soon begin to go up.
- (D) The price of MEGA stock will continue to drop, but less rapidly.
- (E) The majority of MEGA stock will soon be owned by MEGA's own officers and directors.
15. The proposal to hire ten new police officers in Middletown is quite foolish. There is sufficient funding to pay the salaries of the new officers, but not the salaries of

additional court and prison employees to process the increased caseload of arrests and convictions that new officers usually generate.

Which of the following, if true, will most seriously weaken the conclusion drawn above?

- (A) Studies have shown that an increase in a city's police force does not necessarily reduce crime.
  - (B) When one major city increased its police force by 19 percent last year, there were 40 percent more arrests and 13 percent more convictions.
  - (C) If funding for the new police officers' salaries is approved, support for other city services will have to be reduced during the next fiscal year.
  - (D) In most United States cities, not all arrests result in convictions, and not all convictions result in prison terms.
  - (E) Middletown's ratio of police officers to citizens has reached a level at which an increase in the number of officers will have a deterrent effect on crime.
16. A recent report determined that although only three percent of drivers on Maryland highways equipped their vehicles with radar detectors, thirty-three percent of all vehicles ticketed for exceeding the speed limit were equipped with them. Clearly, drivers who equip their vehicles with radar detectors are more likely to exceed the speed limit regularly than are drivers who do not.
- The conclusion drawn above depends on which of the following assumptions?
- (A) Drivers who equip their vehicles with radar detectors are less likely to be ticketed for exceeding the speed limit than are drivers who do not.
  - (B) Drivers who are ticketed for exceeding the speed limit are more likely to exceed the speed limit regularly than are drivers who are not ticketed.
  - (C) The number of vehicles that were ticketed for exceeding the speed limit was greater than the number of vehicles that were equipped with radar detectors.
  - (D) Many of the vehicles that were ticketed for exceeding the speed limit were ticketed more than once in the time period covered by the report.
  - (E) Drivers on Maryland highways exceeded the speed limit more often than did drivers on other state highways not covered in the report.
17. There is a great deal of geographical variation in the frequency of many surgical procedures—up to tenfold variation per hundred thousand between different areas in the numbers of hysterectomies, prostatectomies, and tonsillectomies.
- To support a conclusion that much of the variation is due to unnecessary surgical procedures, it would be most important to establish which of the following?
- (A) A local board of review at each hospital examines the records of every operation to determine whether the surgical procedure was necessary.
  - (B) The variation is unrelated to factors (other than the surgical procedures themselves) that influence the incidence of diseases for which surgery might be considered.

- (C) There are several categories of surgical procedure (other than hysterectomies, prostatectomies, and tonsillectomies) that are often performed unnecessarily.
- (D) For certain surgical procedures, it is difficult to determine after the operation whether the procedures were necessary or whether alternative treatment would have succeeded.
- (E) With respect to how often they are performed unnecessarily, hysterectomies, prostatectomies, and tonsillectomies are representative of surgical procedures in general.
18. Researchers have found that when very overweight people, who tend to have relatively low metabolic rates, lose weight primarily through dieting, their metabolisms generally remain unchanged. They will thus burn significantly fewer calories at the new weight than do people whose weight is normally at that level. Such newly thin persons will, therefore, ultimately regain weight until their body size again matches their metabolic rate.
- The conclusion of the argument above depends on which of the following assumptions?
- (A) Relatively few very overweight people who have dieted down to a new weight tend to continue to consume substantially fewer calories than do people whose normal weight is at that level.
- (B) The metabolisms of people who are usually not overweight are much more able to vary than the metabolisms of people who have been very overweight.
- (C) The amount of calories that a person usually burns in a day is determined more by the amount that is consumed that day than by the current weight of the individual.
- (D) Researchers have not yet determined whether the metabolic rates of formerly very overweight individuals can be accelerated by means of chemical agents.
- (E) Because of the constancy of their metabolic rates, people who are at their usual weight normally have as much difficulty gaining weight as they do losing it.
19. In 1987 sinusitis was the most common chronic medical condition in the United States, followed by arthritis and high blood pressure, in that order.
- The incidence rates for both arthritis and high blood pressure increase with age, but the incidence rate for sinusitis is the same for people of all ages.
- The average age of the United States population will increase between 1987 and 2000.
- Which of the following conclusions can be most properly drawn about chronic medical conditions in the United States from the information given above?
- (A) Sinusitis will be more common than either arthritis or high blood pressure in

2000.

- (B) Arthritis will be the most common chronic medical condition in 2000.
- (C) The average age of people suffering from sinusitis will increase between 1987 and 2000.
- (D) Fewer people will suffer from sinusitis in 2000 than suffered from it in 1987.
- (E) A majority of the population will suffer from at least one of the medical conditions mentioned above by the year 2000.

20. Parasitic wasps lay their eggs directly into the eggs of various host insects in exactly the right numbers for any suitable size of host egg. If they laid too many eggs in a host egg, the developing wasp larvae would compete with each other to the death for nutrients and space. If too few eggs were laid, portions of the host egg would decay, killing the wasp larvae.

Which of the following conclusions can properly be drawn from the information above?

- (A) The size of the smallest host egg that a wasp could theoretically parasitize can be determined from the wasp's egg-laying behavior.
- (B) Host insects lack any effective defenses against the form of predation practiced by parasitic wasps.
- (C) Parasitic wasps learn from experience how many eggs to lay into the eggs of different host species.
- (D) Failure to lay enough eggs would lead to the death of the developing wasp larvae more quickly than would laying too many eggs.
- (E) Parasitic wasps use visual clues to calculate the size of a host egg.

### TEST 10

#### 30 Minutes 20 Questions

1. In 1985 in the country of Alissia, farmers brought to market a broccoli crop that was one-and-a-half times as large as the 1985 broccoli crop in its neighbor country, Barbera. Yet total quantities of broccoli available for sale to consumers in Alissia were smaller than were total quantities in Barbera in 1985.

Which of the following, if true, in 1985, contributes most to an explanation of why there was less broccoli available for sale to consumers in Alissia than in Barbera?

- (A) Barbera's farmers produced much more cabbage than did Alissia's farmers.
- (B) Barbera's farmers produced fewer heads of broccoli per acre than did Alissia's farmers.
- (C) Alissia exported a much higher proportion of its broccoli crop than did Barbera.
- (D) Broccoli was much more popular among consumers in Alissia than in Barbera.
- (E) Alissia had more land suitable for growing broccoli than did Barbera.



2. A manufacturer of men's dress socks sought to increase profits by increasing sales. The size of its customer pool was remaining steady, with the average customer buying twelve pairs of dress socks per year. The company's plan was to increase the number of promotional discount-sale periods to one every six months.

Which of the following, if it is a realistic possibility, casts the most serious doubt on the viability of the company's plan?

- (A) New manufacturing capacity would not be required if the company were to increase the number of pairs of socks sold.
  - (B) Inventory stocks of merchandise ready for sale would be high preceding the increase in the number of discount-sale periods.
  - (C) The manufacturer's competitors would match its discounts during sale periods, and its customers would learn to wait for those times to make their purchases.
  - (D) New styles and colors would increase customers' consciousness of fashion in dress socks, but the customers' requirements for older styles and colors would not be reduced.
  - (E) The cost of the manufacturer's raw materials would remain steady, and its customers would have more disposable income.
3. Previous studies have indicated that eating chocolate increases the likelihood of getting heart disease. However, a new, more reliable study has indicated that eating chocolate does not increase the likelihood of getting heart disease. When the results of the new study become known, consumption of chocolate will undoubtedly increase.

Which of the following is an assumption on which the conclusion above is based?

- (A) Most people who eat a great deal of chocolate will not get heart disease.
  - (B) Although they believe that eating chocolate increases the likelihood of getting heart disease, some people still eat as much chocolate as they want.
  - (C) People who have heard that eating chocolate increases the likelihood of getting heart disease do not believe it.
  - (D) There are people who currently eat as much chocolate as they want because they have not heard that eating chocolate increases the likelihood of getting heart disease.
  - (E) There are people who currently limit their consumption of chocolate only because they believe that eating chocolate increases the likelihood of getting heart disease.
4. The fossil record shows that the climate of North America warmed and dried at the end of the Pleistocene period. Most of the species of large mammals then living on the continent became extinct, but the smaller mammalian species survived.

Which of the following, if true, provides the best basis for an explanation of the contrast described above between species of large mammals and species of small mammals?

- (A) Individual large mammals can, in general, travel further than small mammals and so are more able to migrate in search of a hospitable environment.
  - (B) The same pattern of comparative success in smaller, as opposed to larger, species that is observed in mammals is also found in bird species of the same period.
  - (C) The fossil record from the end of Pleistocene period is as clear for small mammals as it is for large mammals.
  - (D) Larger mammals have greater food and space requirements than smaller mammals and are thus less able to withstand environmental change.
  - (E) Many more of the species of larger mammals than of the species of smaller mammals living in North America in that period had originated in climates that were warmer than was that of North America before the end of the Pleistocene period.
5. Bonuses at DSR Industries cannot be awarded unless profits exceed a ten percent return on stockholders' investments in the company. Higher profits mean higher bonuses. Therefore, bonuses in a year of general economic recession will be considerably lower than bonuses in a year of peak profits at DSR.
- The conclusion above depends on the assumption that
- (A) the firm will have relatively low profits in recession years
  - (B) the amount represented by a ten percent return on stockholders' investments in the company will increase from year to year
  - (C) profits rarely exceed a ten percent return on stockholders' investments in the company
  - (D) profits in excess of a ten percent return on stockholders' investments in the company are all distributed in the form of bonuses
  - (E) bonuses at DSR never drop to zero

Questions 6-7 are based on the following.

Suitable habitats for gray wolves have greatly diminished in area. In spite of this fact, the most sensible course would be to refrain from reestablishing gray wolves in places where previously they have been hunted out of existence. Striving to bring back these animals to places where they will only face lethal human hostility is immoral.

6. The argument above depends on
- (A) an appeal to an authority
  - (B) a belief that gray wolves are dangerous to human beings and livestock
  - (C) an assumption that two events that occur together must be causally connected
  - (D) an assumption that the future will be like the past

- (E) a threat of violence against those persons presenting the opposing view
7. The argument above would be most significantly weakened if which of the following were true?
- (A) Effective laws against the hunting of gray wolves have been enacted.
  - (B) Ranchers, farmers, and hunters still have an ingrained bias against gray wolves.
  - (C) By the 1930's bounty hunters had exterminated most of the gray wolves in the United States.
  - (D) Programs for increasing the gray wolf population are not aided by federal laws that require the licensing of hunters of certain predators.
  - (E) Suggested programs for increasing the gray wolf population have been criticized by environmentalists and biologists.
8. For the safety-conscious Swedish market, a United States manufacturer of desktop computers developed a special display screen that produces a much weaker electromagnetic field surrounding the user than do ordinary screens. Despite an advantage in this respect over its competitors, the manufacturer is introducing the screen into the United States market without advertising it as a safety improvement.
- Which of the following, if true, provides a rationale for the manufacturer's approach to advertising the screen in the United States?
- (A) Many more desktop computers are sold each year in the United States market than are sold in the Swedish market.
  - (B) The manufacturer does not want its competitors to become aware of the means by which the company has achieved this advance in technology.
  - (C) Most business and scientific purchasers of desktop computers expect to replace such equipment eventually as better technology becomes available on the market.
  - (D) An emphasis on the comparative safety of the new screen would call into question the safety of the many screens the manufacturer has already sold in the United States.
  - (E) Concern has been expressed in the United States over the health effects of the large electromagnetic fields surrounding electric power lines.
9. In the suburbs surrounding Middletown, there is an average of 2.4 automobiles per family, and thus very few suburban residents use public buses. The suburban communities, therefore, would derive little benefit from continuing to subsidize the portion of Middletown's public bus system that serves the suburbs.
- Which of the following, if true, casts the most serious doubt on the conclusion drawn above?
- (A) The real-estate tax rate in Middletown is higher than it is in the suburbs.
  - (B) Last year voters in the suburban communities defeated by a narrow margin a

bill designed to increase subsidies for public bus routes.

- (C) Many suburban shops can attract enough employees to remain in business only because subsidized public transportation from Middletown is available.
- (D) Public buses operated with less than a 35 percent occupancy rate produce more pollution per passenger mile than would the operation of private automobiles for each passenger.
- (E) Most voters in Middletown's suburban communities are unwilling to continue subsidies for public buses next year if ridership on those buses drops below current levels.

10. Any tax relief received by the solar industry would not benefit the homeowner who installs a solar-energy system. Even though homeowners would pay a lower price for solar-energy system installations because of this tax relief, with the government paying the balance, government revenues come from the public.

The argument above is based on which of the following assumptions?

- (A) The tax relief would cause the homeowner to lose, through taxes or reduced government benefits or both, an amount at least equal to the reduction in the price of that homeowner's solar-energy system installation.
- (B) The tax relief that would be received by solar-energy industries would not be offered at the same time as any tax relief for other industries.
- (C) Advertisements of the solar-energy industry, by failing to identify the source of government revenues explicitly to the public, mask the advantage the industry receives from the public.
- (D) Homeowners generally believe that they benefit from any tax relief offered to the solar-energy industry.
- (E) Tax relief would encourage solar industries to sell solar-energy systems at higher prices.

11. Less than 50 percent of a certain tropical country's wildlands remains intact. Efforts are under way to restore biological diversity in that country by restoring some destroyed wild habitats and extending some relatively intact portions of forests. However, opponents argue that these efforts are not needed because there is still plenty of wildland left.

Which of the following, if true, most significantly weakens the argument of the opponents of conservation efforts?

- (A) As much, if not more, effort is required to restore a wild habitat as to preserve an intact habitat.
- (B) The opponents of restoration efforts are, for the most part, members of the wealthier classes in their own villages and cities.
- (C) Existing conservation laws have been very effective in preserving biological diversity within the wildlands that remain intact.
- (D) For many tropical species native to that country, the tropical wildlands that are still relatively intact do not provide appropriate habitats for

reproduction.

- (E) If a suitable population of plants and animals is introduced and is permitted to disperse and grow, tropical habitats can most certainly be restored.

12. A study comparing a group of chronically depressed individuals with an otherwise matched group of individuals free from depression found significantly more disorders of the immune system among the depressed group. According to the researchers, these results strongly support the hypothesis that mental states influence the body's vulnerability to infection.

Which of the following, if true, casts the most serious doubt on the researchers' interpretation of their findings?

- (A) The researchers' view does little more than echo a familiar theme in folklore and literature.
- (B) Chronically depressed individuals are no less careful than others to avoid exposure to infections.
- (C) Disorders of the immune system cause many of those individuals who have them to become chronically depressed.
- (D) Individuals who have previously been free from depression can become depressed quite suddenly.
- (E) A high frequency of infections can stem from an unusually high level of exposure rather than from any disorder of the immune system.

13. Exports of United States wood pulp will rise considerably during this year. The reason for the rise is that the falling value of the dollar will make it cheaper for paper manufacturers in Japan and Western Europe to buy American wood pulp than to get it from any other source.

Which of the following is an assumption made in drawing the conclusion above?

- (A) Factory output of paper products in Japan and Western Europe will increase sharply during this year.
- (B) The quality of the wood pulp produced in the United States would be adequate for the purposes of Japanese and Western European paper manufacturers.
- (C) Paper manufacturers in Japan and Western Europe would prefer to use wood pulp produced in the United States if cost were not a factor.
- (D) Demand for paper products made in Japan and Western Europe will not increase sharply during this year.
- (E) Production of wood pulp by United States companies will not increase sharply during this year.

14. A company's personnel director surveyed employees about their satisfaction with the company's system for awarding employee performance ratings. The survey data indicated that employees who received high ratings were very satisfied with the system. The personnel director concluded from these data that the company's



best-performing employees liked the system.

The personnel director's conclusion assumes which of the following?

- (A) No other performance rating system is as good as the current system.
- (B) The company's best-performing employees received high ratings.
- (C) Employees who received low ratings were dissatisfied with the system.
- (D) Employees who receive high ratings from a performance-rating system will like that system.
- (E) The company's best-performing employees were motivated to perform well by the knowledge that they would receive performance ratings.

15. In Argonia the average rate drivers pay for car accident insurance is regulated to allow insurance companies to make a reasonable profit. Under the regulations, the rate any individual driver pays never depends on the actual distance driven by that driver each year. Therefore, Argonians who drive less than average partially subsidize the insurance of those who drive more than average.

The conclusion above would be properly drawn if it were also true that in Argonia

- (A) the average accident insurance rate for all drivers rises whenever a substantial number of new drivers buy insurance
- (B) the average cost to insurance companies of insuring drivers who drive less than the annual average is less than the average cost of insuring drivers who drive more than the annual average
- (C) the lower the age of a driver, the higher the insurance rate paid by that driver
- (D) insurance company profits would rise substantially if drivers were classified in terms of the actual number of miles they drive each year
- (E) drivers who have caused insurance companies to pay costly claims generally pay insurance rates that are equal to or lower than those paid by other drivers

16. In the 1970's there was an oversupply of college graduates. The oversupply caused the average annual income of college graduates to fall to a level only 18 percent greater than that of workers with only high school diplomas. By the late 1980's the average annual income of college graduates was 43 percent higher than that of workers with only high school diplomas, even though between the 1970's and the late 1980's the supply of college graduates did not decrease.

Which of the following, if true, in the late 1980's, best reconciles the apparent discrepancy described above?

- (A) The economy slowed, thus creating a decreased demand for college graduates.
- (B) The quality of high school education improved.
- (C) Compared to the 1970's, a greater number of high schools offered vocational guidance programs for their students.

- (D) The proportion of the population with at least a college-level education increased.
- (E) There was for the first time in 20 years an oversupply of job seekers with only high school diplomas.

17. Working shorter workweeks causes managers to feel less stress than does working longer workweeks. In addition, greater perceived control over one's work life reduces stress levels. It can be concluded, therefore, that shorter workweeks cause managers to feel they have more control over their work life.

The argument made above uses which of the following questionable techniques?

- (A) Associating two conditions as cause and effect on the basis of their being causally associated with the same phenomenon
  - (B) Taking for granted that two factors that have a certain effect individually produce that effect more strongly when both act together
  - (C) Assuming what it sets out to prove
  - (D) Using an irrelevant point in order to draw a conclusion
  - (E) Basing a conclusion on preconceived views about the needs of managers
18. There are fundamentally two possible changes in an economy that will each cause inflation unless other compensating changes also occur. These changes are either reductions in the supply of goods and services or increases in demand. In a prebanking economy the quantity of money available, and hence the level of demand, is equivalent to the quantity of gold available.
- If the statements above are true, then it is also true that in a prebanking economy
- (A) any inflation is the result of reductions in the supply of goods and services
  - (B) if other factors in the economy are unchanged, increasing the quantity of gold available will lead to inflation
  - (C) if there is a reduction in the quantity of gold available, then, other things being equal, inflation must result
  - (D) the quantity of goods and services purchasable by a given amount of gold is constant
  - (E) whatever changes in demand occur, there will be compensating changes in the supply of goods and services

19. Industrialists from the country Distopia were accused of promoting the Distopian intervention in the Arcadian civil war merely to insure that the industrialists' facilities in Arcadia made substantial profits during the war. Yet this cannot be the motive since, as the Distopians foresaw, Distopia's federal expenses for the intervention were eight billion dollars, whereas, during the war, profits from the Distopian industrialists' facilities in Arcadia totaled only four billion dollars.

Which of the following, if true, exposes a serious flaw in the argument made in the second sentence above?

- (A) During the Arcadian war, many Distopian industrialists with facilities located

- in Arcadia experienced a significant rise in productivity in their facilities located in Distopia.
- (B) The largest proportion of Distopia's federal expenses is borne by those who receive no significant industrial profits.
- (C) Most Distopian industrialists' facilities located in Arcadia are expected to maintain the level of profits they achieved during the war.
- (D) Distopian industrialists' facilities in Arcadia made substantial profits before the events that triggered the civil war.
- (E) Many Distopians expressed concern over the suffering that Arcadians underwent during the civil war.
20. In the United States, injuries to passengers involved in automobile accidents are typically more severe than in Europe, where laws require a different kind of safety belt. It is clear from this that the United States needs to adopt more stringent standards for safety belt design to protect automobile passengers better. Each of the following, if true, weakens the argument above EXCEPT:
- (A) Europeans are more likely to wear safety belts than are people in the United States.
- (B) Unlike United States drivers, European drivers receive training in how best to react in the event of an accident to minimize injuries to themselves and to their passengers.
- (C) Cars built for the European market tend to have more sturdy construction than do cars built for the United States market.
- (D) Automobile passengers in the United States have a greater statistical chance of being involved in an accident than do passengers in Europe.
- (E) States that have recently begun requiring the European safety belt have experienced no reduction in the average severity of injuries suffered by passengers in automobile accidents.

### TEST 11

#### 30 Minutes 20 Questions

1. The school board has determined that it is necessary to reduce the number of teachers on the staff. Rather than deciding which teachers will be laid off on the basis of seniority, the school board plans to lay off the least effective teachers first.
- The school board's plan assumes that
- (A) there is a way of determining the effectiveness of teachers
- (B) what one individual defines as effective teaching will not be defined as effective teaching by another individual
- (C) those with the most experience teaching are the best teachers
- (D) those teachers who are paid the most are generally the most qualified
- (E) some teachers will be more effective working with some students than with

other students

2. Since applied scientific research is required for technological advancement, many have rightly urged an increased emphasis in universities on applied research. But we must not give too little attention to basic research, even though it may have no foreseeable application, for tomorrow's applied research will depend on the basic research of today.

If the statements above are true, which of the following can be most reliably inferred?

- (A) If future technological advancement is desired, basic research should receive greater emphasis than applied research.
  - (B) If basic research is valued in universities, applied research should be given less emphasis than it currently has.
  - (C) If future technological advancement is desired, research should be limited to that with some foreseeable application.
  - (D) If too little attention is given to basic research today, future technological advancement will be jeopardized.
  - (E) If technological advancement is given insufficient emphasis, basic research will also receive too little attention.
3. The First Banking Group's decision to invest in an electronic network for transferring funds was based on a cost advantage over a nonelectronic system of about ten dollars per transaction in using an electronic system. Executives reasoned further that the system would give them an advantage over competitors. Which of the following, if it is a realistic possibility, most seriously weakens the executives' projection of an advantage over competitors?
- (A) The cost advantage of using the electronic system will not increase sufficiently to match the pace of inflation.
  - (B) Competitors will for the same reasons install electronic systems, and the resulting overcapacity will lead to mutually damaging price wars.
  - (C) The electronic system will provide a means for faster transfer of funds, if the First Banking Group wishes to provide faster transfer to its customers.
  - (D) Large banks from outside the area served by the First Banking Group have recently established branches in that area as competitors to the First Banking Group.
  - (E) Equipment used in the electronic network for transferring funds will be compatible with equipment used in other such networks.
4. Which of the following best completes the argument below?

One effect of the introduction of the electric refrigerator was a collapse in the market for ice. Formerly householders had bought ice to keep their iceboxes cool and the food stored in the iceboxes fresh. Now the iceboxes cool themselves. Similarly, the introduction of crops genetically engineered to be resistant to pests

will\_\_\_\_\_

- (A) increase the size of crop harvests
- (B) increase the cost of seeds
- (C) reduce demand for chemical pesticides
- (D) reduce the value of farmland
- (E) reduce the number of farmers keeping livestock

5. In 1985 the city's Fine Arts Museum sold 30,000 single-entry tickets. In 1986 the city's Folk Arts and Interior Design museums opened, and these three museums together sold over 80,000 such tickets that year. These museums were worth the cost, since more than twice as many citizens are now enjoying the arts.

Which of the following, if true, most seriously weakens the author's assertion that more than twice as many citizens are now enjoying the arts?

- (A) Most visitors to one museum also visit the other two.
- (B) The cost of building the museums will not be covered by revenues generated by the sale of museum tickets.
- (C) As the two new museums become better known, even more citizens will visit them.
- (D) The city's Fine Arts Museum did not experience a decrease in single-entry tickets sold in 1986.
- (E) Fewer museum entry tickets were sold in 1986 than the museum planners had hoped to sell.

6. F: We ought not to test the safety of new drugs on sentient animals, such as dogs and rabbits. Our benefit means their pain, and they are equal to us in the capacity to feel pain.

G: We must carry out such tests; otherwise, we would irresponsibly sacrifice the human lives that could have been saved by the drugs.

Which of the following, if true, is the best objection that could be made from F's point of view to counter G's point?

- (A) Even though it is not necessary for people to use cosmetics, cosmetics are also being tested on sentient animals.
- (B) Medical science already has at its disposal a great number of drugs and other treatments for serious illnesses.
- (C) It is not possible to obtain scientifically adequate results by testing drugs in the test tube, without making tests on living tissue.
- (D) Some of the drugs to be tested would save human beings from great pain.
- (E) Many tests now performed on sentient animals can be performed equally well on fertilized chicken eggs that are at a very early stage of development.

7. Which of the following best completes the passage below?

The unemployment rate in the United States fell from 7.5 percent in 1981 to 6.9



percent in 1986. It cannot, however, be properly concluded from these statistics that the number of unemployed in 1986 was lower than it had been in 1981 because\_\_\_\_\_

- (A) help-wanted advertisements increased between 1981 and 1986
  - (B) many of the high-paying industrial jobs available in 1981 were replaced by low-wage service jobs in 1986, resulting in displacements of hundreds of thousands of workers
  - (C) in some midwestern industrial states, the unemployment rate was much higher in 1986 than it had been in 1981
  - (D) the total available work force, including those with and without employment, increased between 1981 and 1986
  - (E) the average time that employees stay in any one job dropped during the period 1981 to 1986
8. To reduce costs, a company is considering a drastic reduction in the number of middle-level managers. This reduction would be accomplished by first offering early retirement to those 50 years of age or older with 15 years of service, and then by firing enough of the others to bring the overall reduction to 50 percent. Each of the following, assuming that it is a realistic possibility, is a possible disadvantage to the company of the plan EXCEPT:
- (A) Loyalty to the company will be reduced among those surviving the reduction, because they will perceive the status of even good managers as uncertain.
  - (B) The restructuring of managerial jobs will allow business units to be adapted to fit a changing business environment.
  - (C) The company will have a smaller pool of managers from which to choose in selecting future senior managers.
  - (D) Some of the best managers, unsure of their security against being fired, will choose early retirement.
  - (E) The increased workload of managers remaining with the company will subject them to stress that will eventually affect their performance.
9. In order to relieve congestion in the airspace near the airports of a certain country, transportation officials propose sending passengers by new rapid trains between the country's major airport and several small cities within a 300-mile radius of it. This plan was proposed even though the officials realized that it is the major airport that is congested, not those in the small cities.
- The plan to relieve congestion would work best if which of the following were true about the major airport?
- (A) Rail tickets between the airport and the small cities will most likely cost more than the current air tickets for those routes.
  - (B) Most passengers who frequently use the airport prefer to reach their cities of destination exclusively by air, even if they must change planes twice.

- (C) There are feasible changes in the airport's traffic control system which would significantly relieve congestion.
- (D) Some of the congestion the airport experiences could be relieved if more flights were scheduled at night and at other off-peak hours.
- (E) A significant proportion of the airport's traffic consists of passengers transferring between international flights and flights to the small cities.

Questions 10-11 are based on the following.

An annually conducted, nationwide survey shows a continuing marked decline in the use of illegal drugs by high school seniors over the last three years.

10. Which of the following, if true, casts most doubt on the relevance of the survey results described above for drawing conclusions about illegal drug use in the teen-age population as a whole?
- (A) Because of cuts in funding, no survey of illegal drug use by high school seniors will be conducted next year.
  - (B) The decline uncovered in the survey has occurred despite the decreasing cost of illegal drugs.
  - (C) Illegal drug use by teen-agers is highest in those areas of the country where teen-agers are least likely to stay in high school for their senior year.
  - (D) Survey participants are more likely now than they were three years ago to describe as "heroic" people who were addicted to illegal drugs and have been able to quit.
  - (E) The proportion of high school seniors who say that they strongly disapprove of illegal drug use has declined over the last three years.
11. Which of the following, if true, would provide most support for concluding from the survey results described above that the use of illegal drugs by people below the age of 20 is declining?
- (A) Changes in the level of drug use by high school seniors are seldom matched by changes in the level of drug use by other people below the age of 20.
  - (B) In the past, high school seniors were consistently the population group most likely to use illegal drugs and most likely to use them heavily.
  - (C) The percentage of high school seniors who use illegal drugs is consistently very similar to the percentage of all people below the age of 20 who use illegal drugs.
  - (D) The decline revealed by the surveys is the result of drug education programs specifically targeted at those below the age of 20.
  - (E) The number of those surveyed who admit to having sold illegal drugs has declined even faster than has the number who have used drugs.
12. President of the United States: I have received over 2,000 letters on this issue, and the vast majority of them support my current position. These letters prove that

most of the people in the country agree with me.

Which of the following, if true, most weakens the President's conclusion?

- (A) The issue is a very divisive one on which many people have strong opinions.
- (B) Some members of Congress disagree with the President's position.
- (C) People who disagree with the President feel more strongly about the issue than do people who agree with him.
- (D) People who agree with the President are more likely to write to him than are people who disagree with him.
- (E) During the presidential campaign, the President stated a position on this issue that was somewhat different from his current position.

13. Some governments have tried to make alcohol and tobacco less attractive to consumers by regulating what can be shown in advertisements for these products, rather than by banning advertising of them altogether. However, the need to obey the letter of these restrictions has actually stimulated advertisers to create advertisements that are more inventive and humorous than they were prior to the restrictions' introduction.

which of the following, if true, would, in conjunction with the statements above, best support the conclusion that the government policy described above fails to achieve its objective?

- (A) Because of the revenues gained from the sale of alcohol and tobacco, governments have no real interest in making these products less attractive to consumers.
- (B) Advertisers tend to create inventive and humorous advertisements only if they have some particular reason to do so.
- (C) Banning advertising of alcohol and tobacco is a particularly effective way of making these products less attractive to consumers.
- (D) With the policy in place, advertisements for alcohol and tobacco have become far more inventive and humorous than advertisements for other kinds of products.
- (E) The more inventive an advertisement is, the more attractive it makes the advertised product appear.

14. Which of the following, if true, best completes the argument below?

Comparisons of the average standards of living of the citizens of two countries should reflect the citizens' comparative access to goods and services. Reliable figures in a country's own currency for the average income of its citizens are easily obtained. But it is difficult to get an accurate comparison of average standards of living from these figures, because\_\_\_\_\_

- (A) there are usually no figures comparing how much of two different currencies must be spent in order to purchase a given quantity of goods and services
- (B) wage levels for the same job vary greatly from country to country, depending

- on cultural as well as on purely economic factors
- (C) these figures must be calculated by dividing the gross national product of a country by the size of its population
- (D) comparative access to goods and services is only one of several factors relevant in determining quality of life
- (E) the wealth, and hence the standard of living, of a country's citizens is very closely related to their income
15. The level of lead contamination in United States rivers declined between 1975 and 1985. Federal regulations requiring a drop in industrial discharges of lead went into effect in 1975, but the major cause of the decline was a 75 percent drop in the use of leaded gasoline between 1975 and 1985.
- Which of the following, if true, best supports the claim that the major cause of the decline in the level of lead contamination in United States rivers was the decline in the use of leaded gasoline?
- (A) The level of lead contamination in United States rivers fell sharply in both 1975 and 1983.
- (B) Most of the decline in industrial discharges of lead occurred before 1976, but the largest decline in the level of river contamination occurred between 1980 and 1985.
- (C) Levels of lead contamination in rivers fell sharply in 1975-1976 and rose very slightly over the next nine years.
- (D) Levels of lead contamination rose in those rivers where there was reduced river flow due to drought.
- (E) Although the use of leaded gasoline declined 75 percent between 1975 and 1985, 80 percent of the decline took place in 1985.
16. George Bernard Shaw wrote: "That any sane nation, having observed that you could provide for the supply of bread by giving bakers a pecuniary interest in baking for you, should go on to give a surgeon a pecuniary interest in cutting off your leg is enough to make one despair of political humanity."
- Shaw's statement would best serve as an illustration in an argument criticizing which of the following?
- (A) Dentists who perform unnecessary dental work in order to earn a profit
- (B) Doctors who increase their profits by specializing only in diseases that affect a large percentage of the population
- (C) Grocers who raise the price of food in order to increase their profit margins
- (D) Oil companies that decrease the price of their oil in order to increase their market share
- (E) Bakers and surgeons who earn a profit by supplying other peoples' basic needs
17. Since 1975 there has been in the United States a dramatic decline in the incidence

of traditional childhood diseases such as measles. This decline has been accompanied by an increased incidence of Peterson's disease, a hitherto rare viral infection, among children. Few adults, however, have been affected by the disease.

Which of the following, if true, would best help to explain the increased incidence of Peterson's disease among children?

- (A) Hereditary factors determine in part the degree to which a person is susceptible to the virus that causes Peterson's disease.
- (B) The decrease in traditional childhood diseases and the accompanying increase in Peterson's disease have not been found in any other country.
- (C) Children who contract measles develop an immunity to the virus that causes Peterson's disease.
- (D) Persons who did not contract measles in childhood might contract measles in adulthood, in which case the consequences of the disease would generally be more severe.
- (E) Those who have contracted Peterson's disease are at increased risk of contracting chicken pox.

18. Many plant varieties used in industrially developed nations to improve cultivated crops come from less developed nations. No compensation is paid on the grounds that the plants used are "the common heritage of humanity." Such reasoning is, however, flawed. After all, no one suggests that coal, oil, and ores should be extracted without payment.

Which of the following best describes an aspect of the method used by the author in the argument above?

- (A) The author proceeds from a number of specific observations to a tentative generalization.
- (B) The author applies to the case under discussion facts about phenomena assumed to be similar in some relevant respect.
- (C) A position is strengthened by showing that the opposite of that position would have logically absurd consequences.
- (D) A line of reasoning is called into question on the grounds that it confuses cause and effect in a causal relation.
- (E) An argument is analyzed by separating statements of fact from individual value judgments.

19. It is widely assumed that a museum is helped financially when a generous patron donates a potential exhibit. In truth, however, donated objects require storage space, which is not free, and routine conservation, which is rather expensive. Therefore, such gifts exacerbate rather than lighten the demands made on a museum's financial resources.

Which of the following, if true, most seriously weakens the argument above?

- (A) To keep patrons well disposed, a museum will find it advisable to put at least



- some donated objects on exhibit rather than merely in storage.
- (B) The people who are most likely to donate valuable objects to a museum are also the people who are most likely to make cash gifts to it.
- (C) A museum cannot save money by resorting to cheap storage under less than adequate conditions, because so doing would drive up the cost of conservation.
- (D) Patrons expect a museum to keep donated objects in its possession rather than to raise cash by selling them.
- (E) Objects donated by a patron to a museum are often of such importance that the museum would be obliged to add them to its collection through purchase if necessary.
20. Despite the approach of winter, oil prices to industrial customers are exceptionally low this year and likely to remain so. Therefore, unless the winter is especially severe, the price of natural gas to industrial customers is also likely to remain low.
- Which of the following, if true, provides the most support for the conclusion above?
- (A) Long-term weather forecasts predict a mild winter.
- (B) The industrial users who consume most natural gas can quickly and cheaply switch to using oil instead.
- (C) The largest sources of supply for both oil and natural gas are in subtropical regions unlikely to be affected by winter weather.
- (D) The fuel requirements of industrial users of natural gas are not seriously affected by the weather.
- (E) Oil distribution is more likely to be affected by severe winter weather than is the distribution of natural gas.

**TEST 12****30 Minutes 20 Questions**

1. The country of Maravia has severe air pollution, 80 percent of which is caused by the exhaust fumes of cars. In order to reduce the number of cars on the road, the government is raising taxes on the cost of buying and running a car by 20 percent. This tax increase, therefore, will significantly reduce air pollution in Maravia.
- Which of the following, if true, most seriously weakens the argument above?
- (A) The government of Maravia is in the process of building a significant number of roadways.
- (B) Maravia is an oil-producing country and is able to refine an amount of gasoline sufficient for the needs of its population.
- (C) Maravia has had an excellent public transportation system for many years.
- (D) Ninety percent of the population of Maravia is very prosperous and has a substantial amount of disposable income.

- (E) In Maravia, cars that emit relatively low levels of pollutants cost 10 percent less to operate, on average, than do cars that emit high levels of pollutants.
2. Consumer income reports produced by the government distinguish between households and families by means of the following definition: "A family is a household containing a householder and at least one person related to the householder." Except for the homeless and people in group living quarters, most people live in households.
- According to the definition above, which of the following must be true?
- (A) All householders are members of families.  
(B) All families include a householder.  
(C) All of the people related to a householder form a family.  
(D) Some people residing in group living quarters are members of families.  
(E) Some homeless people reside in group living quarters.

Questions 3-4 are based on the following.

The proportion of manufacturing companies in Alameda that use microelectronics in their manufacturing processes increased from 6 percent in 1979 to 66 percent in 1990. Many labor leaders say that the introduction of microelectronics is the principal cause of the great increase in unemployment during that period in Alameda. In actual fact, however, most of the job losses were due to organizational changes. Moreover, according to new figures released by the labor department, there were many more people employed in Alameda in the manufacturing industry in 1990 than in 1979.

3. Which of the following, if true, best reconciles the discrepancy between the increase in unemployment and the increase in jobs in the manufacturing industry of Alameda?
- (A) Many products that contain microelectronic components are now assembled completely by machine.  
(B) Workers involved in the various aspects of the manufacturing processes that use microelectronic technology need extensive training.  
(C) It is difficult to evaluate numerically what impact on job security the introduction of microelectronics in the workplace had before 1979.  
(D) In 1990 over 90 percent of the jobs in Alameda's manufacturing companies were filled by workers who moved to Alameda because they had skills for which there was no demand in Alameda prior to the introduction of microelectronics there.  
(E) Many workers who have retired from the manufacturing industry in Alameda since 1979 have not been replaced by younger workers.
4. Which of the following, if true, would most strengthen the labor leaders' claim concerning the manufacturing industry in Alameda?
- (A) From 1979 to 1990, fewer employees of manufacturing companies in

Alameda lost their jobs because of the introduction of microelectronics than did employees of manufacturing companies in the nearby community of Rockside.

- (B) The figures on the use of microelectronics that were made public are the result of inquiries made of managers in the manufacturing industry in Alameda.
- (C) The organizational changes that led to job losses in all sectors of the manufacturing industry in Alameda were primarily the result of the introduction of microelectronics.
- (D) Figures on job losses in the manufacturing industry in Alameda for the late sixties and early seventies have not been made available.
- (E) A few jobs in the manufacturing industry in Alameda could have been saved if workers had been willing to become knowledgeable in microelectronics.

5. The number of musicians employed to play accompaniment for radio and television commercials has sharply decreased over the past ten years. This has occurred even though the number of commercials produced each year has not significantly changed for the last ten years.

Which of the following, if it occurred during the past ten years, would contribute LEAST to an explanation of the facts above?

- (A) The type of music most popular for use in commercials has changed from a type that requires a large number of instruments to a type that requires very few instruments.
- (B) There has been an increase in the number of commercials that use only the spoken word and sound effects, rather than musical accompaniment.
- (C) There has been an increase in the number of commercials that use a synthesizer, an instrument on which one musician can reproduce the sound of many musicians playing together.
- (D) There has been an increase in the number of commercials that use prerecorded music as their only source of music.
- (E) There has been an increase in the number of commercials that use musicians just starting in the music industry rather than musicians experienced in accompanying commercials.

6. Recent audits revealed that BanqueCard, a credit service, has erred in calculating the interest it charges its clients. But BanqueCard's chief accountant reasoned that the profits that the company shows would remain unaffected by a revision of its clients' credit statements to correct its previous billing errors, since just as many clients had been overcharged as undercharged.

Which of the following is a reasoning error that the accountant makes in concluding that correcting its clients' statements would leave BanqueCard's profits unaffected?

- (A) Relying on the reputation of BanqueCard as a trustworthy credit service to

- maintain the company's clientele after the error becomes widely known
- (B) Failing to establish that BanqueCard charges the same rates of interest for all of its clients
  - (C) Overlooking the possibility that the amount by which BanqueCard's clients had been overcharged might be greater than the amount by which they had been undercharged
  - (D) Assuming that the clients who had been overcharged by BanqueCard had not noticed the error in their credit bills
  - (E) Presupposing that each one of BanqueCard's clients had either been overcharged or else had been undercharged by the billing error

7. Not Scored

8. Residents of an apartment complex are considering two possible plans for collecting recyclable trash.

Plan 1 - Residents will deposit recyclable trash in municipal dumpsters located in the parking lot. The trash will be collected on the first and the fifteenth days of each month.

Plan 2 - Residents will be given individual containers for recyclable trash. The containers will be placed at the curb twice a week for trash collection.

Which of the following points raised at a meeting of the residents, if valid, would most favor one of the recycling plans over the other?

- (A) Residents will be required to exercise care in separating recyclable trash from nonrecyclable trash.
  - (B) For trash recycling to be successful, residents must separate recyclable bottles and cans from recyclable paper products.
  - (C) Penalties will be levied against residents who fail to sort their trash correctly.
  - (D) Individual recycling containers will need to be made of a strong and durable material.
  - (E) Recyclable trash that is allowed to accumulate for two weeks will attract rodents.
9. In 1990 all of the people who applied for a job at Evco also applied for a job at Radeco, and Evco and Radeco each offered jobs to half of these applicants. Therefore, every one of these applicants must have been offered a job in 1990. The argument above is based on which of the following assumptions about these job applicants?
- (A) All of the applicants were very well qualified for a job at either Evco or Radeco.
  - (B) All of the applicants accepted a job at either Evco or Radeco.
  - (C) None of the applicants was offered a job by both Evco and Radeco.
  - (D) None of the applicants had applied for jobs at places other than Evco and

Radeco.

(E) None of the applicants had previously worked for either Evco or Radeco.

10. The geese that gather at the pond of a large corporation create a hazard for executives who use the corporate helicopter, whose landing site is 40 feet away from the pond. To solve the problem, the corporation plans to import a large number of herding dogs to keep the geese away from the helicopter.

Which of the following, if a realistic possibility, would cast the most serious doubt on the prospects for success of the corporation's plan?

(A) The dogs will form an uncontrollable pack.

(B) The dogs will require training to learn to herd the geese.

(C) The dogs will frighten away foxes that prey on old and sick geese.

(D) It will be necessary to keep the dogs in quarantine for 30 days after importing them.

(E) Some of the geese will move to the pond of another corporation in order to avoid being herded by the dogs.

11. When a person is under intense psychological stress, his or her cardiovascular response is the same as it is during vigorous physical exercise. Psychological stress, then, must be beneficial for the heart as is vigorous physical exercise.

The argument above relies on which of the following assumptions?

(A) Exercise is an effective means of relieving psychological stress.

(B) The body's short-term cardiovascular response to any activity indicates that activity's long-term effect on the body.

(C) Cardiovascular response during an activity is an adequate measure of how beneficial the activity is for the heart.

(D) Psychological stress can have a positive effect on the body.

(E) Vigorous exercise is the most reliable method of maintaining a healthy heart.

12. After graduating from high school, people rarely multiply fractions or discuss ancient Rome, but they are confronted daily with decisions relating to home economics. Yet whereas mathematics and history are required courses in the high school curriculum, home economics is only an elective, and few students choose to take it.

Which of the following positions would be best supported by the considerations above?

(A) If mathematics and history were not required courses, few students would choose to take them.

(B) Whereas home economics would be the most useful subject for people facing the decisions they must make in daily life, often mathematics and history can also help them face these decisions.

(C) If it is important to teach high school students subjects that relate to decisions



that will confront them in their daily lives, then home economics should be made an important part of the high school curriculum.

- (D) Mathematics, history, and other courses that are not directly relevant to a person's daily life should not be a required part of the high school curriculum.
- (E) Unless high schools put more emphasis on nonacademic subjects like home economics, people graduating from high school will never feel comfortable about making the decisions that will confront them in their daily lives.

13. Houses built during the last ten years have been found to contain indoor air pollution at levels that are, on average, much higher than the levels found in older houses. The reason air-pollution levels are higher in the newer houses is that many such houses are built near the sites of old waste dumps or where automobile emissions are heavy.

Which of the following, if true, calls into question the explanation above?

- (A) Many new houses are built with air-filtration systems that remove from the house pollutants that are generated indoors.
  - (B) The easing of standards for smokestack emissions has led to an increase in air-pollution levels in homes.
  - (C) New houses built in secluded rural areas are relatively free of air pollutants.
  - (D) Warm-weather conditions tend to slow down the movement of air, thus keeping pollution trapped near its source.
  - (E) Pressboard, an inexpensive new plywood substitute now often used in the construction of houses, emits the pollutant formaldehyde into the house.
14. The most important aspect of moviemaking is conveying a scene's rhythm. Conveying rhythm depends less on the artistic quality of the individual photographic images than on how the shots go together and the order in which they highlight different aspects of the action taking place in front of the camera. If the statements above are true, which of the following must be true on the basis of them?
- (A) The artistic quality of the individual photographic image is unimportant in movie photography.
  - (B) Photographers known for the superb artistic quality of their photographs are seldom effective as moviemakers.
  - (C) Having the ability to produce photographs of superb artistic quality does not in itself guarantee having the ability to be a good moviemaker.
  - (D) Movie photographers who are good at their jobs rarely give serious thought to the artistic quality of the photographs they take.
  - (E) To convey a scene's rhythm effectively, a moviemaker must highlight many different aspects of the action taking place.

15. Human beings can see the spatial relations among objects by processing

information conveyed by light. Scientists trying to build computers that can detect spatial relations by the same kind of process have so far designed and built stationary machines. However, these scientists will not achieve their goal until they produce such a machine that can move around in its environment.

Which of the following, if true, would best support the prediction above?

- (A) Human beings are dependent on visual cues from motion in order to detect spatial relations.
- (B) Human beings can often easily detect the spatial relations among objects, even when those objects are in motion.
- (C) Detecting spatial relations among objects requires drawing inferences from the information conveyed by light.
- (D) Although human beings can discern spatial relations through their sense of hearing, vision is usually the most important means of detecting spatial relations.
- (E) Information about the spatial relations among objects can be obtained by noticing such things as shadows and the relative sizes of objects.

16. In a study of the effect of color on productivity, 50 of 100 factory workers were moved from their drab workroom to a brightly colored workroom. Both these workers and the 50 who remained in the drab workroom increased their productivity, probably as a result of the interest taken by researchers in the work of both groups during the study.

Which of the following, if true, would cast most doubt upon the author's interpretation of the study results given above?

- (A) The 50 workers moved to the brightly colored room performed precisely the same manufacturing task as the workers who remained in the drab workroom.
- (B) The drab workroom was designed to provide adequate space for at most 65 workers.
- (C) The 50 workers who moved to the brightly colored workroom were matched as closely as possible in age and level of training to the 50 workers who remained in the drab work-room.
- (D) Nearly all the workers in both groups had volunteered to move to the brightly colored workroom.
- (E) Many of the workers who moved to the brightly colored workroom reported that they liked the drab workroom as well as or better than they liked the brightly colored workroom.

17. Not Scored

18. Manager: Accounting and Billing are located right next to each other and the two departments do similar kinds of work; yet expenditures for clerical supplies charged to Billing are much higher. Is Billing wasting supplies?

Head of Billing: Not at all.

Which of the following, if true, best supports the position of the Head of Billing?

- (A) There are more staff members in Accounting than in Billing.
- (B) Two years ago, expenditures in Accounting for clerical supplies were the same as were expenditures that year in Billing for clerical supplies.
- (C) The work of Billing now requires a wider variety of clerical supplies than it did in the past.
- (D) Some of the paper-and-pencil work of both Accounting and Billing has been replaced by work done on computers.
- (E) Members of Accounting found the clerical supplies cabinet of Billing more convenient to go to for supplies than their own department's cabinet.

19. Most geologists believe oil results from chemical transformations of hydrocarbons derived from organisms buried under ancient seas. Suppose, instead, that oil actually results from bacterial action on other complex hydrocarbons that are trapped within the Earth. As is well known, the volume of these hydrocarbons exceeds that of buried organisms. Therefore, our oil reserves would be greater than most geologists believe.

Which of the following, if true, gives the strongest support to the argument above about our oil reserves?

- (A) Most geologists think optimistically about the Earth's reserves of oil.
- (B) Most geologists have performed accurate chemical analyses on previously discovered oil reserves.
- (C) Ancient seas are buried within the Earth at many places where fossils are abundant.
- (D) The only bacteria yet found in oil reserves could have leaked down drill holes from surface contaminants.
- (E) Chemical transformations reduce the volume of buried hydrocarbons derived from organisms by roughly the same proportion as bacterial action reduces the volume of other complex hydrocarbons.

20. The wild mouflon sheep of the island of Corsica are direct descendants of sheep that escaped from domestication on the island 8,000 years ago. They therefore provide archaeologists with a picture of what some early domesticated sheep looked like, before the deliberate selective breeding that produced modern domesticated sheep began.

The argument above makes which of the following assumptions?

- (A) The domesticated sheep of 8,000 years ago were quite dissimilar from the wild sheep of the time.
- (B) There are no other existing breeds of sheep that escaped from domestication at about the same time as the forebears of the mouflon.
- (C) Modern domesticated sheep are direct descendants of sheep that were wild

8,000 years ago.

- (D) Mouflon sheep are more similar to their forebears of 8,000 years ago than modern domesticated sheep are to theirs.
- (E) The climate of Corsica has not changed at all in the last 8,000 years.

### TEST 13

#### 25 Minutes 16 Questions

1. Cable-television spokesperson: Subscriptions to cable television are a bargain in comparison to “free” television. Remember that “free” television is not really free. It is consumers, in the end, who pay for the costly advertising that supports “free” television.  
Which of the following, if true, is most damaging to the position of the cable-television spokesperson?
  - (A) Consumers who do not own television sets are less likely to be influenced in their purchasing decisions by television advertising than are consumers who own television sets.
  - (B) Subscriptions to cable television include access to some public-television channels, which do not accept advertising.
  - (C) For locations with poor television reception, cable television provides picture quality superior to that provided by free television.
  - (D) There is as much advertising on many cable-television channels as there is on “free” television channels.
  - (E) Cable-television subscribers can choose which channels they wish to receive, and the fees vary accordingly.
2. Woodsmoke contains dangerous toxins that cause changes in human cells. Because woodsmoke presents such a high health risk, legislation is needed to regulate the use of open-air fires and wood-burning stoves.  
Which of the following, if true, provides the most support for the argument above?
  - (A) The amount of dangerous toxins contained in woodsmoke is much less than the amount contained in an equal volume of automobile exhaust.
  - (B) Within the jurisdiction covered by the proposed legislation, most heating and cooking is done with oil or natural gas.
  - (C) Smoke produced by coal-burning stoves is significantly more toxic than smoke from wood-burning stoves.
  - (D) No significant beneficial effect on air quality would result if open-air fires were banned within the jurisdiction covered by the proposed legislation.
  - (E) In valleys where wood is used as the primary heating fuel, the concentration of smoke results in poor air quality.
3. Within 20 years it will probably be possible to identify the genetic susceptibility an individual may have toward any particular disease. Eventually, effective

strategies will be discovered to counteract each such susceptibility. Once these effective strategies are found, therefore, the people who follow them will never get sick.

The argument above is based on which of the following assumptions?

- (A) For every disease there is only one strategy that can prevent its occurrence.
- (B) In the future, genetics will be the only medical specialty of any importance.
- (C) All human sicknesses are in part the result of individuals' genetic susceptibilities.
- (D) All humans are genetically susceptible to some diseases.
- (E) People will follow medical advice when they are convinced that it is effective.

4. Most employees in the computer industry move from company to company, changing jobs several times in their careers. However, Summit Computers is known throughout the industry for retaining its employees. Summit credits its success in retaining employees to its informal, nonhierarchical work environment.

Which of the following, if true, most strongly supports Summit's explanation of its success in retaining employees?

- (A) Some people employed in the computer industry change jobs if they become bored with their current projects.
- (B) A hierarchical work environment hinders the cooperative exchange of ideas that computer industry employees consider necessary for their work.
- (C) Many of Summit's senior employees had previously worked at only one other computer company.
- (D) In a nonhierarchical work environment, people avoid behavior that might threaten group harmony and thus avoid discussing with their colleagues any dissatisfaction they might have with their jobs.
- (E) The cost of living near Summit is relatively low compared to areas in which some other computer companies are located.

5. Financing for a large construction project was provided by a group of banks. When the money was gone before the project was completed, the banks approved additional loans. Now, with funds used up again and completion still not at hand, the banks refuse to extend further loans, although without those loans, the project is doomed.

Which of the following, if true, best explains why the bank's current reaction is different from their reaction in the previous instance of depletion of funds?

- (A) The banks have reassessed the income potential of the completed project and have concluded that total income generable would be less than total interest due on the old plus the needed new loans.
- (B) The banks have identified several other projects that offer faster repayment of the principal if loans are approved now to get those projects started.



- (C) The banks had agreed with the borrowers that the construction loans would be secured by the completed project.
- (D) The cost overruns were largely due to unforeseeable problems that arose in the most difficult phase of the construction work.
- (E) The project stimulated the development and refinement of several new construction techniques, which will make it easier and cheaper to carry out similar projects in the future.

6. Low-income families are often unable to afford as much child care as they need. One government program would award low-income families a refund on the income taxes they pay of as much as \$1,000 for each child under age four. This program would make it possible for all low-income families with children under age four to obtain more child care than they otherwise would have been able to afford.

Which of the following, if true, most seriously calls into question the claim that the program would make it possible for all low-income families to obtain more child care?

- (A) The average family with children under age four spends more than \$1,000 a year on child care.
- (B) Some low-income families in which one of the parents is usually available to care for children under age four may not want to spend their income tax refund on child care.
- (C) The reduction in government revenues stemming from the income tax refund will necessitate cuts in other government programs, such as grants for higher education.
- (D) Many low-income families with children under age four do not pay any income taxes because their total income is too low to be subject to such taxes.
- (E) Income taxes have increased substantially over the past twenty years, reducing the money that low-income families have available to spend on child care.

7. Not scored

8. Although parapsychology is often considered a pseudoscience, it is in fact a genuine scientific enterprise, for it uses scientific methods such as controlled experiments and statistical tests of clearly stated hypotheses to examine the questions it raises.

The conclusion above is properly drawn if which of the following is assumed?

- (A) If a field of study can conclusively answer the questions it raises, then it is a genuine science.
- (B) Since parapsychology uses scientific methods, it will produce credible results.

- (C) Any enterprise that does not use controlled experiments and statistical tests is not genuine science.
- (D) Any field of study that employs scientific methods is a genuine scientific enterprise.
- (E) Since parapsychology raises clearly statable questions, they can be tested in controlled experiments.
9. Hotco oil burners, designed to be used in asphalt plants, are so efficient that Hotco will sell one to the Clifton Asphalt plant for no payment other than the cost savings between the total amount the asphalt plant actually paid for oil using its former burner during the last two years and the total amount it will pay for oil using the Hotco burner during the next two years. On installation, the plant will make an estimated payment, which will be adjusted after two years to equal the actual cost savings.
- Which of the following, if it occurred, would constitute a disadvantage for Hotco of the plan described above?
- (A) Another manufacturer's introduction to the market of a similarly efficient burner
- (B) The Clifton Asphalt plant's need for more than one new burner
- (C) Very poor efficiency in the Clifton Asphalt plant's old burner
- (D) A decrease in the demand for asphalt
- (E) A steady increase in the price of oil beginning soon after the new burner is installed
10. Today's low gasoline prices make consumers willing to indulge their preference for larger cars, which consume greater amounts of gasoline as fuel. So United States automakers are unwilling to pursue the development of new fuel-efficient technologies aggressively. The particular reluctance of the United States automobile industry to do so, however, could threaten the industry's future.
- Which of the following, if true, would provide the most support for the claim above about the future of the United States automobile industry?
- (A) A prototype fuel-efficient vehicle, built five years ago, achieves a very high 81 miles per gallon on the highway and 63 in the city, but its materials are relatively costly.
- (B) Small cars sold by manufacturers in the United States are more fuel efficient now than before the sudden jump in oil prices in 1973.
- (C) Automakers elsewhere in the world have slowed the introduction of fuel-efficient technologies but have pressed ahead with research and development of them in preparation for a predicted rise in world oil prices.
- (D) There are many technological opportunities for reducing the waste of energy in cars and light trucks through weight, aerodynamic drag, and braking friction.
- (E) The promotion of mass transit over automobiles as an alternative mode of

transportation has encountered consumer resistance that is due in part to the failure of mass transit to accommodate the wide dispersal of points of origin and destinations for trips.

11. An experiment was done in which human subjects recognize a pattern within a matrix of abstract designs and then select another design that completes that pattern. The results of the experiment were surprising. The lowest expenditure of energy in neurons in the brain was found in those subjects who performed most successfully in the experiments.

Which of the following hypotheses best accounts for the findings of the experiment?

- (A) The neurons of the brain react less when a subject is trying to recognize patterns than when the subject is doing other kinds of reasoning.
  - (B) Those who performed best in the experiment experienced more satisfaction when working with abstract patterns than did those who performed less well.
  - (C) People who are better at abstract pattern recognition have more energy-efficient neural connections.
  - (D) The energy expenditure of the subjects brains increases when a design that completes the initially recognized pattern is determined.
  - (E) The task of completing a given design is more capably performed by athletes, whose energy expenditure is lower when they are at rest than is that of the general population.
12. A researcher studying drug addicts found that, on average, they tend to manipulate other people a great deal more than nonaddicts do. The researcher concluded that people who frequently manipulate other people are likely to become addicts.
- Which of the following, if true, most seriously weakens the researcher's conclusion?
- (A) After becoming addicted to drugs, drug addicts learn to manipulate other people as a way of obtaining drugs.
  - (B) When they are imprisoned, drug addicts often use their ability to manipulate other people to obtain better living conditions.
  - (C) Some nonaddicts manipulate other people more than some addicts do.
  - (D) People who are likely to become addicts exhibit unusual behavior patterns other than frequent manipulation of other people.
  - (E) The addicts that the researcher studied were often unsuccessful in obtaining what they wanted when they manipulated other people.
13. One way to judge the performance of a company is to compare it with other companies. This technique, commonly called "benchmarking," permits the manager of a company to discover better industrial practices and can provide a

justification for the adoption of good practices.

Any of the following, if true, is a valid reason for benchmarking the performance of a company against companies with which it is not in competition rather than against competitors EXCEPT:

- (A) Comparisons with competitors are most likely to focus on practices that the manager making the comparisons already employs.
- (B) Getting “inside” information about the unique practices of competitors is particularly difficult.
- (C) Since companies that compete with each other are likely to have comparable levels of efficiency, only benchmarking against noncompetitors is likely to reveal practices that would aid in beating competitors.
- (D) Managers are generally more receptive to new ideas that they find outside their own industry.
- (E) Much of the success of good companies is due to their adoption of practices that take advantage of the special circumstances of their products or markets.

14. Among the more effective kinds of publicity that publishers can get for a new book is to have excerpts of it published in a high-circulation magazine soon before the book is published. The benefits of such excerpting include not only a sure increase in sales but also a fee paid by the magazine to the book’s publisher.

Which of the following conclusions is best supported by the information above?

- (A) The number of people for whom seeing an excerpt of a book in a magazine provides an adequate substitute for reading the whole book is smaller than the number for whom the excerpt stimulates a desire to read the book.
- (B) Because the financial advantage of excerpting a new book in a magazine usually accrues to the book’s publisher, magazine editors are unwilling to publish excerpts from new books.
- (C) In calculating the total number of copies that a book has sold, publishers include sales of copies of magazines that featured an excerpt of the book.
- (D) The effectiveness of having excerpts of a book published in a magazine, measured in terms of increased sales of a book, is proportional to the circulation of the magazine in which the excerpts are published.
- (E) Books that are suitable for excerpting in high-circulation magazines sell more copies than books that are not suitable for excerpting.

15. In Swartkans territory, archaeologists discovered charred bone fragments dating back 1 million years. Analysis of the fragments, which came from a variety of animals, showed that they had been heated to temperatures no higher than those produced in experimental campfires made from branches of white stinkwood, the most common tree around Swartkans.

Which of the following, if true, would, together with the information above, provide the best basis for the claim that the charred bone fragments are evidence

of the use of fire by early hominids?

- (A) The white stinkwood tree is used for building material by the present-day inhabitants of Swartkans.
- (B) Forest fires can heat wood to a range of temperatures that occur in campfires.
- (C) The bone fragments were fitted together by the archaeologists to form the complete skeletons of several animals.
- (D) Apart from the Swartkans discovery, there is reliable evidence that early hominids used fire as many as 500 thousand years ago.
- (E) The bone fragments were found in several distinct layers of limestone that contained primitive cutting tools known to have been used by early hominids.

16. For a trade embargo against a particular country to succeed, a high degree of both international accord and ability to prevent goods from entering or leaving that country must be sustained. A total blockade of Patria's ports is necessary to an embargo, but such an action would be likely to cause international discord over the embargo.

The claims above, if true, most strongly support which of the following conclusions?

- (A) The balance of opinion is likely to favor Patria in the event of a blockade.
- (B) As long as international opinion is unanimously against Patria, a trade embargo is likely to succeed.
- (C) A naval blockade of Patria's ports would ensure that no goods enter or leave Patria.
- (D) Any trade embargo against Patria would be likely to fail at some time.
- (E) For a blockade of Patria's ports to be successful, international opinion must be unanimous.

### TEST 14

25 Minutes 16 Questions

1. The local board of education found that, because the current physics curriculum has little direct relevance to today's world, physics classes attracted few high school students. So to attract students to physics classes, the board proposed a curriculum that emphasizes principles of physics involved in producing and analyzing visual images.

Which of the following, if true, provides the strongest reason to expect that the proposed curriculum will be successful in attracting students?

- (A) Several of the fundamental principles of physics are involved in producing and analyzing visual images.
- (B) Knowledge of physics is becoming increasingly important in understanding the technology used in today's world.
- (C) Equipment that a large producer of photographic equipment has donated to



the high school could be used in the proposed curriculum.

- (D) The number of students interested in physics today is much lower than the number of students interested in physics 50 years ago.
- (E) In today's world the production and analysis of visual images is of major importance in communications, business, and recreation.

2. Many companies now have employee assistance programs that enable employees, free of charge, to improve their physical fitness, reduce stress, and learn ways to stop smoking. These programs increase worker productivity, reduce absenteeism, and lessen insurance costs for employee health care. Therefore, these programs benefit the company as well as the employee.

Which of the following, if true, most significantly strengthens the conclusion above?

- (A) Physical fitness programs are often the most popular services offered to employees.
- (B) Studies have shown that training in stress management is not effective for many people.
- (C) Regular exercise reduces people's risk of heart disease and provides them with increased energy.
- (D) Physical injuries sometimes result from entering a strenuous physical fitness program too quickly.
- (E) Employee assistance programs require companies to hire people to supervise the various programs offered.

3. Unlike the wholesale price of raw wool, the wholesale price of raw cotton has fallen considerably in the last year. Thus, although the retail price of cotton clothing at retail clothing stores has not yet fallen, it will inevitably fall.

Which of the following, if true, most seriously weakens the argument above?

- (A) The cost of processing raw cotton for cloth has increased during the last year.
- (B) The wholesale price of raw wool is typically higher than that of the same volume of raw cotton.
- (C) The operating costs of the average retail clothing store have remained constant during the last year.
- (D) Changes in retail prices always lag behind changes in wholesale prices.
- (E) The cost of harvesting raw cotton has increased in the last year.

4. Small-business groups are lobbying to defeat proposed federal legislation that would substantially raise the federal minimum wage. This opposition is surprising since the legislation they oppose would, for the first time, exempt all small businesses from paying any minimum wage.

Which of the following, if true, would best explain the opposition of small-business groups to the proposed legislation?

- (A) Under the current federal minimum-wage law, most small businesses are

- required to pay no less than the minimum wage to their employees.
- (B) In order to attract workers, small companies must match the wages offered by their larger competitors, and these competitors would not be exempt under the proposed laws.
- (C) The exact number of companies that are currently required to pay no less than the minimum wage but that would be exempt under the proposed laws is unknown.
- (D) Some states have set their own minimum wages—in some cases, quite a bit above the level of the minimum wage mandated by current federal law—for certain key industries.
- (E) Service companies make up the majority of small businesses and they generally employ more employees per dollar of revenues than do retail or manufacturing businesses.
5. Reviewer: The book *Art's Decline* argues that European painters today lack skills that were common among European painters of preceding centuries. In this the book must be right, since its analysis of 100 paintings, 50 old and 50 contemporary, demonstrates convincingly that none of the contemporary paintings are executed as skillfully as the older paintings.
- Which of the following points to the most serious logical flaw in the reviewer's argument?
- (A) The paintings chosen by the book's author for analysis could be those that most support the book's thesis.
- (B) There could be criteria other than the technical skill of the artist by which to evaluate a painting.
- (C) The title of the book could cause readers to accept the book's thesis even before they read the analysis of the paintings that supports it.
- (D) The particular methods currently used by European painters could require less artistic skill than do methods used by painters in other parts of the world.
- (E) A reader who was not familiar with the language of art criticism might not be convinced by the book's analysis of the 100 paintings.
6. The pharmaceutical industry argues that because new drugs will not be developed unless heavy development costs can be recouped in later sales, the current 20 years of protection provided by patents should be extended in the case of newly developed drugs. However, in other industries new-product development continues despite high development costs, a fact that indicates that the extension is unnecessary.
- Which of the following, if true, most strongly supports the pharmaceutical industry's argument against the challenge made above?
- (A) No industries other than the pharmaceutical industry have asked for an extension of the 20-year limit on patent protection.

- (B) Clinical trials of new drugs, which occur after the patent is granted and before the new drug can be marketed, often now take as long as 10 years to complete.
- (C) There are several industries in which the ratio of research and development costs to revenues is higher than it is in the pharmaceutical industry.
- (D) An existing patent for a drug does not legally prevent pharmaceutical companies from bringing to market alternative drugs, provided they are sufficiently dissimilar to the patented drug.
- (E) Much recent industrial innovation has occurred in products—for example, in the computer and electronics industries—for which patent protection is often very ineffective.

Questions 7-8 are based on the following.

Bank depositors in the United States are all financially protected against bank failure because the government insures all individuals' bank deposits. An economist argues that this insurance is partly responsible for the high rate of bank failures, since it removes from depositors any financial incentive to find out whether the bank that holds their money is secure against failure. If depositors were more selective, then banks would need to be secure in order to compete for depositors' money.

7. The economist's argument makes which of the following assumptions?
- (A) Bank failures are caused when big borrowers default on loan repayments.
  - (B) A significant proportion of depositors maintain accounts at several different banks.
  - (C) The more a depositor has to deposit, the more careful he or she tends to be in selecting a bank.
  - (D) The difference in the interest rates paid to depositors by different banks is not a significant factor in bank failures.
  - (E) Potential depositors are able to determine which banks are secure against failure.
8. Which of the following, if true, most seriously weakens the economist's argument?
- (A) Before the government started to insure depositors against bank failure, there was a lower rate of bank failure than there is now.
  - (B) When the government did not insure deposits, frequent bank failures occurred as a result of depositors' fears of losing money in bank failures.
  - (C) Surveys show that a significant proportion of depositors are aware that their deposits are insured by the government.
  - (D) There is an upper limit on the amount of an individual's deposit that the government will insure, but very few individuals' deposits exceed this limit.
  - (E) The security of a bank against failure depends on the percentage of its assets that are loaned out and also on how much risk its loans involve.

9. Passengers must exit airplanes swiftly after accidents, since gases released following accidents are toxic to humans and often explode soon after being released. In order to prevent passenger deaths from gas inhalation, safety officials recommend that passengers be provided with smoke hoods that prevent inhalation of the gases.

Which of the following, if true, constitutes the strongest reason not to require implementation of the safety officials' recommendation?

- (A) Test evacuations showed that putting on the smoke hoods added considerably to the overall time it took passengers to leave the cabin.
  - (B) Some airlines are unwilling to buy the smoke hoods because they consider them to be prohibitively expensive.
  - (C) Although the smoke hoods protect passengers from the toxic gases, they can do nothing to prevent the gases from igniting.
  - (D) Some experienced flyers fail to pay attention to the safety instructions given on every commercial flight before takeoff.
  - (E) In many airplane accidents, passengers who were able to reach emergency exits were overcome by toxic gases before they could exit the airplane.
10. In 1960, 10 percent of every dollar paid in automobile insurance premiums went to pay costs arising from injuries incurred in car accidents. In 1990, 50 percent of every dollar paid in automobile insurance premiums went toward such costs, despite the fact that cars were much safer in 1990 than in 1960.

Which of the following, if true, best explains the discrepancy outlined above?

- (A) There were fewer accidents in 1990 than in 1960.
  - (B) On average, people drove more slowly in 1990 than in 1960.
  - (C) Cars grew increasingly more expensive to repair over the period in question.
  - (D) The price of insurance increased more rapidly than the rate of inflation between 1960 and 1990.
  - (E) Health-care costs rose sharply between 1960 and 1990.
11. Caterpillars of all species produce an identical hormone called "juvenile hormone" that maintains feeding behavior. Only when a caterpillar has grown to the right size for pupation to take place does a special enzyme halt the production of juvenile hormone. This enzyme can be synthesized and will, on being ingested by immature caterpillars, kill them by stopping them from feeding.

Which of the following, if true, most strongly supports the view that it would not be advisable to try to eradicate agricultural pests that go through a caterpillar stage by spraying croplands with the enzyme mentioned above?

- (A) Most species of caterpillar are subject to some natural predation.
- (B) Many agricultural pests do not go through a caterpillar stage.
- (C) Many agriculturally beneficial insects go through a caterpillar stage.
- (D) Since caterpillars of different species emerge at different times, several

spraying would be necessary.

(E) Although the enzyme has been synthesized in the laboratory, no large-scale production facilities exist as yet.

12. Although aspirin has been proven to eliminate moderate fever associated with some illnesses, many doctors no longer routinely recommend its use for this purpose. A moderate fever stimulates the activity of the body's disease-fighting white blood cells and also inhibits the growth of many strains of disease-causing bacteria.

If the statements above are true, which of the following conclusions is most strongly supported by them?

- (A) Aspirin, an effective painkiller, alleviates the pain and discomfort of many illnesses.
- (B) Aspirin can prolong a patient's illness by eliminating moderate fever helpful in fighting some diseases.
- (C) Aspirin inhibits the growth of white blood cells, which are necessary for fighting some illnesses.
- (D) The more white blood cells a patient's body produces, the less severe the patient's illness will be.
- (E) The focus of modern medicine is on inhibiting the growth of disease-causing bacteria within the body.

13. Because postage rates are rising, *Home Decorator* magazine plans to maximize its profits by reducing by one half the number of issues it publishes each year. The quality of articles, the number of articles published per year, and the subscription price will not change. Market research shows that neither subscribers nor advertisers will be lost if the magazine's plan is instituted.

Which of the following, if true, provides the strongest evidence that the magazine's profits are likely to decline if the plan is instituted?

- (A) With the new postage rates, a typical issue under the proposed plan would cost about one-third more to mail than a typical current issue would.
- (B) The majority of the magazine's subscribers are less concerned about a possible reduction in the quantity of the magazine's articles than about a possible loss of the current high quality of its articles.
- (C) Many of the magazine's long-time subscribers would continue their subscriptions even if the subscription price were increased.
- (D) Most of the advertisers that purchase advertising space in the magazine will continue to spend the same amount on advertising per issue as they have in the past.
- (E) Production costs for the magazine are expected to remain stable.

14. A study of marital relationships in which one partner's sleeping and waking cycles differ from those of the other partner reveals that such couples share fewer



activities with each other and have more violent arguments than do couples in a relationship in which both partners follow the same sleeping and waking patterns. Thus, mismatched sleeping and waking cycles can seriously jeopardize a marriage.

Which of the following, if true, most seriously weakens the argument above?

- (A) Married couples in which both spouses follow the same sleeping and waking patterns also occasionally have arguments that can jeopardize the couple's marriage.
- (B) The sleeping and waking cycles of individuals tend to vary from season to season.
- (C) The individuals who have sleeping and waking cycles that differ significantly from those of their spouses tend to argue little with colleagues at work.
- (D) People in unhappy marriages have been found to express hostility by adopting a different sleeping and waking cycle from that of their spouses.
- (E) According to a recent study, most people's sleeping and waking cycles can be controlled and modified easily.

*Questions 15-16 are based on the following.*

Roland: The alarming fact is that 90 percent of the people in this country now report that they know someone who is unemployed.

Sharon: But a normal, moderate level of unemployment is 5 percent, with 1 out of 20 workers unemployed. So at any given time if a person knows approximately 50 workers, 1 or more will very likely be unemployed.

15. Sharon's argument is structured to lead to which of the following as a conclusion?
- (A) The fact that 90% of the people know someone who is unemployed is not an indication that unemployment is abnormally high.
  - (B) The current level of unemployment is not moderate.
  - (C) If at least 5% of workers are unemployed, the result of questioning a representative group of people cannot be the percentage Roland cites.
  - (D) It is unlikely that the people whose statements Roland cites are giving accurate reports.
  - (E) If an unemployment figure is given as a certain percent, the actual percentage of those without jobs is even higher.
16. Sharon's argument relies on the assumption that
- (A) normal levels of unemployment are rarely exceeded
  - (B) unemployment is not normally concentrated in geographically isolated segments of the population
  - (C) the number of people who each know someone who is unemployed is always higher than 90% of the population
  - (D) Roland is not consciously distorting the statistics he presents

- (E) knowledge that a personal acquaintance is unemployed generates more fear of losing one's job than does knowledge of unemployment statistics

TEST 15

**25 Minutes 16 Questions**

1. A company is considering changing its policy concerning daily working hours. Currently, this company requires all employees to arrive at work at 8 a.m. The proposed policy would permit each employee to decide when to arrive—from as early as 6 a.m. to as late as 11 a.m.  
The adoption of this policy would be most likely to decrease employees' productivity if the employees' job functions required them to
  - (A) work without interruption from other employees
  - (B) consult at least once a day with employees from other companies
  - (C) submit their work for a supervisor's eventual approval
  - (D) interact frequently with each other throughout the entire workday
  - (E) undertake projects that take several days to complete
2. The amount of time it takes for most of a worker's occupational knowledge and skills to become obsolete has been declining because of the introduction of advanced manufacturing technology (AMT). Given the rate at which AMT is currently being introduced in manufacturing, the average worker's old skills become obsolete and new skills are required within as little as five years.  
Which of the following plans, if feasible, would allow a company to prepare most effectively for the rapid obsolescence of skills described above?
  - (A) The company will develop a program to offer selected employees the opportunity to receive training six years after they were originally hired.
  - (B) The company will increase its investment in AMT every year for a period of at least five years.
  - (C) The company will periodically survey its employees to determine how the introduction of AMT has affected them.
  - (D) Before the introduction of AMT, the company will institute an educational program to inform its employees of the probable consequences of the introduction of AMT.
  - (E) The company will ensure that it can offer its employees any training necessary for meeting their job requirements.
3. Installing scrubbers in smokestacks and switching to cleaner-burning fuel are the two methods available to Northern Power for reducing harmful emissions from its plants. Scrubbers will reduce harmful emissions more than cleaner-burning fuels will. Therefore, by installing scrubbers, Northern Power will be doing the most that can be done to reduce harmful emissions from its plants.  
Which of the following is an assumption on which the argument depends?
  - (A) Switching to cleaner-burning fuel will not be more expensive than installing

scrubbers.

- (B) Northern Power can choose from among various kinds of scrubbers, some of which are more effective than others.
- (C) Northern Power is not necessarily committed to reducing harmful emissions from its plants.
- (D) Harmful emissions from Northern Power's plants cannot be reduced more by using both methods together than by the installation of scrubbers alone.
- (E) Aside from harmful emissions from the smokestacks of its plants, the activities of Northern Power do not cause significant air pollution.

4. Some anthropologists study modern-day societies of foragers in an effort to learn about our ancient ancestors who were also foragers. A flaw in this strategy is that forager societies are extremely varied. Indeed, any forager society with which anthropologists are familiar has had considerable contact with modern nonforager societies.

Which of the following, if true, would most weaken the criticism made above of the anthropologists' strategy?

- (A) All forager societies throughout history have had a number of important features in common that are absent from other types of societies.
- (B) Most ancient forager societies either dissolved or made a transition to another way of life.
- (C) All anthropologists study one kind or another of modern-day society.
- (D) Many anthropologists who study modern-day forager societies do not draw inferences about ancient societies on the basis of their studies.
- (E) Even those modern-day forager societies that have not had significant contact with modern societies are importantly different from ancient forager societies.

5. Mayor: In each of the past five years, the city has cut school funding and each time school officials complained that the cuts would force them to reduce expenditures for essential services. But each time, only expenditures for nonessential services were actually reduced. So school officials can implement further cuts without reducing any expenditures for essential services.

Which of the following, if true, most strongly supports the mayor's conclusion?

- (A) The city's schools have always provided essential services as efficiently as they have provided nonessential services.
- (B) Sufficient funds are currently available to allow the city's schools to provide some nonessential services.
- (C) Price estimates quoted to the city's schools for the provision of nonessential services have not increased substantially since the most recent school funding cut.
- (D) Few influential city administrators support the funding of costly nonessential

services in the city's schools.

(E) The city's school officials rarely exaggerate the potential impact of threatened funding cuts.

6. Advertisement: For sinus pain, three out of four hospitals give their patients Novex. So when you want the most effective painkiller for sinus pain, Novex is the one to choose.

Which of the following, if true, most seriously undermines the advertisement's argument?

(A) Some competing brands of painkillers are intended to reduce other kinds of pain in addition to sinus pain.

(B) Many hospitals that do not usually use Novex will do so for those patients who cannot tolerate the drug the hospitals usually use.

(C) Many drug manufacturers increase sales of their products to hospitals by selling these products to the hospitals at the lowest price the manufacturers can afford.

(D) Unlike some competing brands of painkillers, Novex is available from pharmacies without a doctor's prescription.

(E) In clinical trials Novex has been found more effective than competing brands of painkillers that have been on the market longer than Novex.

7. A report that many apples contain a cancer-causing preservative called Alar apparently had little effect on consumers. Few consumers planned to change their apple-buying habits as a result of the report. Nonetheless, sales of apples in grocery stores fell sharply in March, a month after the report was issued.

Which of the following, if true, best explains the reason for the apparent discrepancy described above?

(A) In March, many grocers removed apples from their shelves in order to demonstrate concern about their customers' health.

(B) Because of a growing number of food-safety warnings, consumers in March were indifferent to such warnings.

(C) The report was delivered on television and also appeared in newspapers.

(D) The report did not mention that any other fruit contains Alar, although the preservative is used on other fruit.

(E) Public health officials did not believe that apples posed a health threat because only minute traces of Alar were present in affected apples.

8. A new law gives ownership of patents—documents providing exclusive right to make and sell an invention—to universities, not the government, when those patents result from government-sponsored university research. Administrators at Logos University plan to sell any patents they acquire to corporations in order to fund programs to improve undergraduate teaching.

Which of the following, if true, would cast most doubt on the viability of the

college administrators' plan described above?

- (A) Profit-making corporations interested in developing products based on patents held by universities are likely to try to serve as exclusive sponsors of ongoing university research projects.
- (B) Corporate sponsors of research in university facilities are entitled to tax credits under new federal tax-code guidelines.
- (C) Research scientists at Logos University have few or no teaching responsibilities and participate little if at all in the undergraduate programs in their field.
- (D) Government-sponsored research conducted at Logos University for the most part duplicates research already completed by several profit-making corporations.
- (E) Logos University is unlikely to attract corporate sponsorship of its scientific research.

9. Contrary to earlier predictions, demand for sugarcane has not increased in recent years. Yet, even though prices and production amounts have also been stable during the last three years, sugarcane growers last year increased their profits by more than ten percent over the previous year's level.

Any of the following statements, if true, about last year, helps to explain the rise in profits EXCEPT:

- (A) Many countries that are large consumers of sugarcane increased their production of sugarcane-based ethanol, yet their overall consumption of sugarcane decreased.
- (B) Sugarcane growers have saved money on wages by switching from paying laborers an hourly wage to paying them by the amount harvested.
- (C) The price of oil, the major energy source used by sugarcane growers in harvesting their crops, dropped by over twenty percent.
- (D) Many small sugarcane growers joined together to form an association of sugarcane producers and began to buy supplies at low group rates.
- (E) Rainfall in sugarcane-growing regions was higher than it had been during the previous year, allowing the growers to save money on expensive artificial irrigation.

10. If the county continues to collect residential trash at current levels, landfills will soon be overflowing and parkland will need to be used in order to create more space. Charging each household a fee for each pound of trash it puts out for collection will induce residents to reduce the amount of trash they create; this charge will therefore protect the remaining county parkland.

Which of the following is an assumption made in drawing the conclusion above?

- (A) Residents will reduce the amount of trash they put out for collection by reducing the number of products they buy.
- (B) The collection fee will not significantly affect the purchasing power of most



residents, even if their households do not reduce the amount of trash they put out.

- (C) The collection fee will not induce residents to dump their trash in the parklands illegally.
- (D) The beauty of county parkland is an important issue for most of the county's residents.
- (E) Landfills outside the county's borders could be used as dumping sites for the county's trash.

Questions 11-12 are based on the following.

Environmentalist: The commissioner of the Fish and Game Authority would have the public believe that increases in the number of marine fish caught demonstrate that this resource is no longer endangered. This is a specious argument, as unsound as it would be to assert that the ever-increasing rate at which rain forests are being cut down demonstrates a lack of danger to that resource. The real cause of the increased fish-catch is a greater efficiency in using technologies that deplete resources.

11. Which of the following strategies is used in the presentation of the environmentalist's position?
  - (A) Questioning the motives of an opponent
  - (B) Showing that an opposing position is self-contradictory
  - (C) Attacking an argument through the use of an analogy
  - (D) Demonstrating the inaccuracy of certain data
  - (E) Pointing out adverse consequences of a proposal
12. The environmentalist's statements, if true, best support which of the following as a conclusion?
  - (A) The use of technology is the reason for the increasing encroachment of people on nature.
  - (B) It is possible to determine how many fish are in the sea in some way other than by catching fish.
  - (C) The proportion of marine fish that are caught is as high as the proportion of rain-forest trees that are cut down each year.
  - (D) Modern technologies waste resources by catching inedible fish.
  - (E) Marine fish continue to be an endangered resource.
13. Biometric access-control systems—those using fingerprints, voiceprints, etc., to regulate admittance to restricted areas—work by degrees of similarity, not by identity. After all, even the same finger will rarely leave exactly identical prints. Such systems can be adjusted to minimize refusals of access to legitimate access-seekers. Such adjustments, however, increase the likelihood of admitting impostors.

Which of the following conclusions is most strongly supported by the

information above?

- (A) If a biometric access-control system were made to work by identity, it would not produce any correct admittance decisions.
- (B) If a biometric access-control system reliably prevents impostors from being admitted, it will sometimes turn away legitimate access-seekers.
- (C) Biometric access-control systems are appropriate only in situations in which admittance of impostors is less of a problem than is mistaken refusal of access.
- (D) Nonbiometric access-control systems—based, for example, on numerical codes—are less likely than biometric ones to admit impostors.
- (E) Anyone choosing an access-control system should base the choice solely on the ratio of false refusals to false admittances.

14. Although computers can enhance people's ability to communicate, computer games are a cause of underdeveloped communication skills in children. After-school hours spent playing computer games are hours not spent talking with people. Therefore, children who spend all their spare time playing these games have less experience in interpersonal communication than other children have.

The argument depends on which of the following assumptions?

- (A) Passive activities such as watching television and listening to music do not hinder the development of communication skills in children.
- (B) Most children have other opportunities, in addition to after-school hours, in which they can choose whether to play computer games or to interact with other people.
- (C) Children who do not spend all of their after-school hours playing computer games spend at least some of that time talking with other people.
- (D) Formal instruction contributes little or nothing to children's acquisition of communication skills.
- (E) The mental skills developed through playing computer games do not contribute significantly to children's intellectual development.

15. One variety of partially biodegradable plastic beverage container is manufactured from small bits of plastic bound together by a degradable bonding agent such as cornstarch. Since only the bonding agent degrades, leaving the small bits of plastic, no less plastic refuse per container is produced when such containers are discarded than when comparable nonbiodegradable containers are discarded.

Which of the following, if true, most strengthens the argument above?

- (A) Both partially biodegradable and nonbiodegradable plastic beverage containers can be crushed completely flat by refuse compactors.
- (B) The partially biodegradable plastic beverage containers are made with more plastic than comparable nonbiodegradable ones in order to compensate for the weakening effect of the bounding agents.

- (C) Many consumers are ecology-minded and prefer to buy a product sold in the partially biodegradable plastic beverage containers rather than in nonbiodegradable containers, even if the price is higher.
- (D) The manufacturing process for the partially biodegradable plastic beverage containers results in less plastic waste than the manufacturing process for nonbiodegradable plastic beverage containers.
- (E) Technological problems with recycling currently prevent the reuse as food or beverage containers of the plastic from either type of plastic beverage container.
16. Commentator: The theory of trade retaliation states that countries closed out of any of another country's markets should close some of their own markets to the other country in order to pressure the other country to reopen its markets. If every country acted according to this theory, no country would trade with any other. The commentator's argument relies on which of the following assumptions?
- (A) No country actually acts according to the theory of trade retaliation.
- (B) No country should block any of its markets to foreign trade.
- (C) Trade disputes should be settled by international tribunal.
- (D) For any two countries, at least one has some market closed to the other.
- (E) Countries close their markets to foreigners to protect domestic producers.

### TEST 16

#### 25 Minutes 16 Questions

1. The chanterelle, a type of wild mushroom, grows beneath host trees such as the Douglas fir, which provide it with necessary sugars. The underground filaments of chanterelles, which extract the sugars, in turn provide nutrients and water for their hosts. Because of this mutually beneficial relationship, harvesting the chanterelles growing beneath a Douglas fir seriously endangers the tree. Which of the following, if true, casts the most doubt on the conclusion drawn above?
- (A) The number of wild mushrooms harvested has increased in recent years.
- (B) Chanterelles grow not only beneath Douglas firs but also beneath other host trees.
- (C) Many types of wild mushrooms are found only in forests and cannot easily be grown elsewhere.
- (D) The harvesting of wild mushrooms stimulates future growth of those mushrooms.
- (E) Young Douglas fir seedlings die without the nutrients and water provided by chanterelle filaments.
2. The reason much refrigerated food spoils is that it ends up out of sight at the back of the shelf. So why not have round shelves that rotate? Because such rotating shelves would have just the same sort of drawback, since things would fall off the

shelves' edges into the rear corners.

Which of the following is presupposed in the argument against introducing rotating shelves?

- (A) Refrigerators would not be made so that their interior space is cylindrical.
- (B) Refrigerators would not be made to have a window in front for easy viewing of their contents without opening the door.
- (C) The problem of spoilage of refrigerated food is not amenable to any solution based on design changes.
- (D) Refrigerators are so well designed that there are bound to be drawbacks to any design change.
- (E) Rotating shelves would be designed to rotate only while the refrigerator door was open.

3. It would cost Rosetown one million dollars to repair all of its roads. In the year after completion of those repairs, however, Rosetown would thereby avoid incurring three million dollars worth of damages, since currently Rosetown pays that amount annually in compensation for damage done to cars each year by its unrepaired roads.

Which of the following, if true, gives the strongest support to the argument above?

- (A) Communities bordering on Rosetown also pay compensation for damage done to cars by their unrepaired roads.
- (B) After any Rosetown road has been repaired, several years will elapse before that road begins to damage cars.
- (C) Rosetown would need to raise additional taxes if it were to spend one million dollars in one year on road repairs.
- (D) The degree of damage caused to Rosetown's roads by harsh weather can vary widely from year to year.
- (E) Trucks cause much of the wear on Rosetown's roads, but owners of cars file almost all of the claims for compensation for damage caused by unrepaired roads.

4. Two experimental garden plots were each planted with the same number of tomato plants. Magnesium salts were added to the first plot but not to the second. The first plot produced 20 pounds of tomatoes and the second plot produced 10 pounds. Since nothing else but water was added to either plot, the higher yields in the first plot must have been due to the magnesium salts.

Which of the following, if true, most seriously weakens the argument above?

- (A) A small amount of the magnesium salts from the first plot leached into the second plot.
- (B) Tomato plants in a third experimental plot, to which a high-nitrogen fertilizer was added, but no magnesium salts, produced 15 pounds of tomatoes.

- (C) Four different types of tomatoes were grown in equal proportions in each of the plots.
- (D) Some weeds that compete with tomatoes cannot tolerate high amounts of magnesium salts in the soil.
- (E) The two experimental plots differed from each other with respect to soil texture and exposure to sunlight.
5. Archaeologists have found wheeled ceramic toys made by the Toltec, twelfth-century inhabitants of what is now Veracruz. Although there is no archaeological evidence that the Toltec used wheels for anything but toys, some anthropologists hypothesize that wheeled utility vehicles were used to carry materials needed for the monumental structures the Toltec produced.
- Which of the following, if true, would most help the anthropologists explain the lack of evidence noted above?
- (A) The Toltec sometimes incorporated into their toys representations of utensils or other devices that served some practical purpose.
- (B) Any wheeled utility vehicles used by the Toltec could have been made entirely of wood, and unlike ceramic, wood decays rapidly in the humid climate of Veracruz.
- (C) Carvings in monument walls suggest that the Toltec's wheeled ceramic toys sometimes had ritual uses in addition to being used by both children and adults as decorations and playthings.
- (D) Wheeled utility vehicles were used during the twelfth century in many areas of the world, but during this time wheeled toys were not very common in areas outside Veracruz.
- (E) Some of the wheeled ceramic toys were found near the remains of monumental structures.
6. Demographers doing research for an international economics newsletter claim that the average per capita income in the country of Kuptala is substantially lower than that in the country of Bahlton. They also claim, however, that whereas poverty is relatively rare in Kuptala, over half the population of Bahlton lives in extreme poverty. At least one of the demographers' claims must, therefore, be wrong.
- The argument above is most vulnerable to which of the following criticisms?
- (A) It rejects an empirical claim about the average per capita incomes in the two countries without making any attempt to discredit that claim by offering additional economic evidence.
- (B) It treats the vague term "poverty" as though it had a precise and universally accepted meaning.
- (C) It overlooks the possibility that the number of people in the two countries who live in poverty could be the same even though the percentages of the two populations that live in poverty differ markedly.



- (D) It fails to show that wealth and poverty have the same social significance in Kuptala as in Bahlton.
- (E) It does not consider the possibility that incomes in Kuptala, unlike those in Bahlton, might all be very close to the country's average per capita income.
7. Normally, increases in the price of a product decrease its sales except when the price increase accompanies an improvement in the product. Wine is unusual, however. Often increases in the price of a particular producer's wine will result in increased sales, even when the wine itself is unchanged.
- Which of the following, if true, does most to explain the anomaly described above?
- (A) The retail wine market is characterized by an extremely wide range of competing products.
- (B) Many consumers make decisions about which wines to purchase on the basis of reviews of wine published in books and periodicals.
- (C) Consumers selecting wine in a store often use the price charged as their main guide to the wine's quality.
- (D) Wine retailers and producers can generally increase the sales of a particular wine temporarily by introducing a price discount.
- (E) Consumers who purchase wine regularly generally have strong opinions about which wines they prefer.
8. The recent decline in land prices has hurt many institutions that had invested heavily in real estate. Last year, before the decline began, a local college added 2,000 acres to its holdings. The college, however, did not purchase the land but received it as a gift. Therefore the price decline will probably not affect the college.
- Which of the following, if true, casts most doubt on the conclusion above?
- (A) The 2,000 acres that the college was given last year are located within the same community as the college itself.
- (B) The college usually receives more contributions of money than of real estate.
- (C) Land prices in the region in which the college is located are currently higher than the national average.
- (D) Last year, the amount that the college allocated to pay for renovations included money it expected to receive by selling some of its land this year.
- (E) Last year, the college paid no property taxes on land occupied by college buildings but instead paid fees to compensate the local government for services provided.
9. Civil trials often involve great complexities that are beyond the capacities of jurors to understand. As a result, jurors' decisions in such trials are frequently incorrect. Justice would therefore be better served if the more complex trials were decided by judges rather than juries.

The argument above depends on which of the following assumptions?

- (A) A majority of civil trials involve complexities that jurors are not capable of understanding.
- (B) The judges who would decide complex civil trials would be better able to understand the complexities of those trials than jurors are.
- (C) The judges who would preside over civil trials would disallow the most complex sorts of evidence from being introduced into those trials.
- (D) Jurors' decisions are frequently incorrect even in those civil trials that do not involve great complexities.
- (E) The sole reason in favor of having juries decide civil trials is the supposition that their decisions will almost always be correct.

10. Some species of dolphins find their prey by echolocation; they emit clicking sounds and listen for echoes returning from distant objects in the water. Marine biologists have speculated that those same clicking sounds might have a second function: particularly loud clicks might be used by the dolphins to stun their prey at close range through sensory overload.

Which of the following, if discovered to be true, would cast the most serious doubt on the correctness of the speculation described above?

- (A) Dolphins that use echolocation to locate distant prey also emit frequent clicks at intermediate distances as they close in on their prey.
- (B) The usefulness of echolocation as a means of locating prey depends on the clicking sounds being of a type that the prey is incapable of perceiving, regardless of volume.
- (C) If dolphins stun their prey, the effect is bound to be so temporary that stunning from far away, even if possible, would be ineffective.
- (D) Echolocation appears to give dolphins that use it information about the richness of a source of food as well as about its direction.
- (E) The more distant a dolphin's prey, the louder the echolocation clicks must be if they are to reveal the prey's presence to the hunting dolphin.

11. Advertisement: The world's best coffee beans come from Colombia. The more Colombian beans in a blend of coffee, the better the blend, and no company purchases more Colombian beans than Kreemo Coffee, Inc. So it only stands to reason that if you buy a can of Kreemo's coffee, you're buying the best blended coffee available today.

The reasoning of the argument in the advertisement is flawed because it overlooks the possibility that

- (A) the equipment used by Kreemo to blend and package its coffee is no different from that used by most other coffee producers
- (B) not all of Kreemo's competitors use Colombian coffee beans in the blends of coffee they sell

- (C) Kreemo sells more coffee than does any other company  
(D) Kreemo's coffee is the most expensive blended coffee available today  
(E) the best unblended coffee is better than the best blended coffee
12. The only purpose for which a particular type of tape is needed is to hold certain surgical wounds closed for ten days—the maximum time such wounds need tape. Newtape is a new brand of this type of tape. Newtape's salespeople claim that Newtape will improve healing because Newtape adheres twice as long as the currently used tape does.
- Which of the following statements, if true, would most seriously call into question the claim made by Newtape's salespeople?
- (A) Most surgical wounds take about ten days to heal.  
(B) Most surgical tape is purchased by hospitals and clinics rather than by individual surgeons.  
(C) The currently used tape's adhesiveness is more than sufficient to hold wounds closed for ten days.  
(D) Neither Newtape nor the currently used tape adheres well to skin that has not been cleaned.  
(E) Newtape's adhesion to skin that has been coated with a special chemical preparation is only half as good as the currently used tape's adhesion to such coated skin.
13. A severe drought can actually lessen the total amount of government aid that United States farmers receive as a group. The government pays farmers the amount, if any, by which the market price at which crops are actually sold falls short of a preset target price per bushel for the crops. The drought of 1983, for example, caused farm-program payments to drop by \$10 billion.
- Given the information above, which of the following, if true, best explains why the drought of 1983 resulted in a reduction in farm-program payments?
- (A) Prior to the drought of 1983, the government raised the target price for crops in order to aid farmers in reducing their debt loads.  
(B) Due to the drought of 1983, United States farmers exported less food in 1983 than in the preceding year.  
(C) Due to the drought of 1983, United States farmers had smaller harvests and thus received a higher market price for the 1983 crop than for the larger crop of the preceding year.  
(D) Due to the drought of 1983, United States farmers planned to plant smaller crops in 1984 than they had in 1983.  
(E) Despite the drought of 1983, retail prices for food did not increase significantly between 1982 and 1983.
14. In order to increase revenues, an airport plans to change the parking fees it charges at its hourly parking lots. Rather than charging \$2.00 for the first two-

hour period, or part thereof, and \$1.00 for each hour thereafter, the airport will charge \$4.00 for the first four-hour period, or part thereof, and \$1.00 for each hour thereafter.

Which of the following is a consideration that, if true, suggests that the plan will be successful in increasing revenues?

- (A) Very few people who park their cars at the hourly parking lot at the airport leave their cars for more than two hours at a time.
- (B) Over the past several years, the cost to the airport of operating its hourly parking facilities has been greater than the revenues it has received from them.
- (C) People who leave their cars at the airport while on a trip generally park their cars in lots that charge by the day rather than by the hour.
- (D) A significant portion of the money spent to operate the airport parking lot is spent to maintain the facilities rather than to pay the salaries of the personnel who collect the parking fees.
- (E) The hourly parking lots at the airport have recently been expanded and are therefore rarely filled to capacity.

15. In the course of her researches, a historian recently found two documents mentioning the same person, Erich Schnitzler. One, dated May 3, 1739, is a record of Schnitzler's arrest for peddling without a license. The second, undated, is a statement by Schnitzler asserting that he has been peddling off and on for 20 years.

The facts above best support which of the following conclusions?

- (A) Schnitzler started peddling around 1719.
- (B) Schnitzler was arrested repeatedly for peddling.
- (C) The undated document was written before 1765.
- (D) The arrest record was written after the undated document.
- (E) The arrest record provides better evidence that Schnitzler peddled than does the undated document.

16. The recent upheaval in the office-equipment retail business, in which many small firms have gone out of business, has been attributed to the advent of office equipment "superstores" whose high sales volume keeps their prices low. This analysis is flawed, however, since even today the superstores control a very small share of the retail market.

Which of the following, if true, would most weaken the argument that the analysis is flawed?

- (A) Most of the larger customers for office equipment purchase under contract directly from manufacturers and thus do not participate in the retail market.
- (B) The superstores' heavy advertising of their low prices has forced prices down throughout the retail market for office supplies.

- (C) Some of the superstores that only recently opened have themselves gone out of business.
- (D) Most of the office equipment superstores are owned by large retailing chains that also own stores selling other types of goods.
- (E) The growing importance of computers in most offices has changed the kind of office equipment retailers must stock.

### TEST 17

#### 25 Minutes 16 Questions

1. A report on acid rain concluded, “Most forests in Canada are not being damaged by acid rain.” Critics of the report insist the conclusion be changed to, “Most forests in Canada do not show visible symptoms of damage by acid rain, such as abnormal loss of leaves, slower rates of growth, or higher mortality.”  
Which of the following, if true, provides the best logical justification for the critics’ insistence that the report’s conclusion be changed?
  - (A) Some forests in Canada are being damaged by acid rain.
  - (B) Acid rain could be causing damage for which symptoms have not yet become visible.
  - (C) The report does not compare acid rain damage to Canadian forests with acid rain damage to forests in other countries.
  - (D) All forests in Canada have received acid rain during the past fifteen years.
  - (E) The severity of damage by acid rain differs from forest to forest.
2. In the past most airline companies minimized aircraft weight to minimize fuel costs. The safest airline seats were heavy, and airlines equipped their planes with few of these seats. This year the seat that has sold best to airlines has been the safest one—a clear indication that airlines are assigning a higher priority to safe seating than to minimizing fuel costs.  
Which of the following, if true, most seriously weakens the argument above?
  - (A) Last year’s best-selling airline seat was not the safest airline seat on the market.
  - (B) No airline company has announced that it would be making safe seating a higher priority this year.
  - (C) The price of fuel was higher this year than it had been in most of the years when the safest airline seats sold poorly.
  - (D) Because of increases in the cost of materials, all airline seats were more expensive to manufacture this year than in any previous year.
  - (E) Because of technological innovations, the safest airline seat on the market this year weighed less than most other airline seats on the market.
3. A computer equipped with signature-recognition software, which restricts access to a computer to those people whose signatures are on file, identifies a person’s signature by analyzing not only the form of the signature but also such



characteristics as pen pressure and signing speed. Even the most adept forgers cannot duplicate all of the characteristics the program analyzes.

Which of the following can be logically concluded from the passage above?

- (A) The time it takes to record and analyze a signature makes the software impractical for everyday use.
- (B) Computers equipped with the software will soon be installed in most banks.
- (C) Nobody can gain access to a computer equipped with the software solely by virtue of skill at forging signatures.
- (D) Signature-recognition software has taken many years to develop and perfect.
- (E) In many cases even authorized users are denied legitimate access to computers equipped with the software.

4. Division manager: I want to replace the Microton computers in my division with Vitech computers.

General manager: Why?

Division manager: It costs 28 percent less to train new staff on the Vitech.

General manager: But that is not a good enough reason. We can simply hire only people who already know how to use the Microton computer.

Which of the following, if true, most seriously undermines the general manager's objection to the replacement of Microton computers with Vitechs?

- (A) Currently all employees in the company are required to attend workshops on how to use Microton computers in new applications.
- (B) Once employees learn how to use a computer, they tend to change employers more readily than before.
- (C) Experienced users of Microton computers command much higher salaries than do prospective employees who have no experience in the use of computers.
- (D) The average productivity of employees in the general manager's company is below the average productivity of the employees of its competitors.
- (E) The high costs of replacement parts make Vitech computers more expensive to maintain than Microton computers.

5. An airplane engine manufacturer developed a new engine model with safety features lacking in the earlier model, which was still being manufactured. During the first year that both were sold, the earlier model far outsold the new model; the manufacturer thus concluded that safety was not the customers' primary consideration.

Which of the following, if true, would most seriously weaken the manufacturer's conclusion?

- (A) Both private plane owners and commercial airlines buy engines from this airplane engine manufacturer.
- (B) Many customers consider earlier engine models better safety risks than new

engine models, since more is usually known about the safety of the earlier models.

- (C) Many customers of this airplane engine manufacturer also bought airplane engines from manufacturers who did not provide additional safety features in their newer models.
- (D) The newer engine model can be used in all planes in which the earlier engine model can be used.
- (E) There was no significant difference in price between the newer engine model and the earlier engine model.

6. Between 1975 and 1985, nursing-home occupancy rates averaged 87 percent of capacity, while admission rates remained constant, at an average of 95 admissions per 1,000 beds per year. Between 1985 and 1988, however, occupancy rates rose to an average of 92 percent of capacity, while admission rates declined to 81 per 1,000 beds per year.

If the statements above are true, which of the following conclusions can be most properly drawn?

- (A) The average length of time nursing-home residents stayed in nursing homes increased between 1985 and 1988.
- (B) The proportion of older people living in nursing homes was greater in 1988 than in 1975.
- (C) Nursing home admission rates tend to decline whenever occupancy rates rise.
- (D) Nursing homes built prior to 1985 generally had fewer beds than did nursing homes built between 1985 and 1988.
- (E) The more beds a nursing home has, the higher its occupancy rate is likely to be.

7. Firms adopting “profit-related-pay” (PRP) contracts pay wages at levels that vary with the firm’s profits. In the metalworking industry last year, firms with PRP contracts in place showed productivity per worker on average 13 percent higher than that of their competitors who used more traditional contracts.

If, on the basis of the evidence above, it is argued that PRP contracts increase worker productivity, which of the following, if true, would most seriously weaken that argument?

- (A) Results similar to those cited for the metalworking industry have been found in other industries where PRP contracts are used.
- (B) Under PRP contracts costs other than labor costs, such as plant, machinery, and energy, make up an increased proportion of the total cost of each unit of output.
- (C) Because introducing PRP contracts greatly changes individual workers’ relationships to the firm, negotiating the introduction of PRP contracts is complex and time consuming.
- (D) Many firms in the metalworking industry have modernized production

equipment in the last five years, and most of these introduced PRP contracts at the same time.

- (E) In firms in the metalworking industry where PRP contracts are in place, the average take-home pay is 15 percent higher than it is in those firms where workers have more traditional contracts.

8. Crops can be traded on the futures market before they are harvested. If a poor corn harvest is predicted, prices of corn futures rise; if a bountiful corn harvest is predicted, prices of corn futures fall. This morning meteorologists are predicting much-needed rain for the corn-growing region starting tomorrow. Therefore, since adequate moisture is essential for the current crop's survival, prices of corn futures will fall sharply today.

Which of the following, if true, most weakens the argument above?

- (A) Corn that does not receive adequate moisture during its critical pollination stage will not produce a bountiful harvest.
- (B) Futures prices for corn have been fluctuating more dramatically this season than last season.
- (C) The rain that meteorologists predicted for tomorrow is expected to extend well beyond the corn-growing region.
- (D) Agriculture experts announced today that a disease that has devastated some of the corn crop will spread widely before the end of the growing season.
- (E) Most people who trade in corn futures rarely take physical possession of the corn they trade.

9. A discount retailer of basic household necessities employs thousands of people and pays most of them at the minimum wage rate. Yet following a federally mandated increase of the minimum wage rate that increased the retailer's operating costs considerably, the retailer's profits increased markedly.

Which of the following, if true, most helps to resolve the apparent paradox?

- (A) Over half of the retailer's operating costs consist of payroll expenditures; yet only a small percentage of those expenditures go to pay management salaries.
- (B) The retailer's customer base is made up primarily of people who earn, or who depend on the earnings of others who earn, the minimum wage.
- (C) The retailer's operating costs, other than wages, increased substantially after the increase in the minimum wage rate went into effect.
- (D) When the increase in the minimum wage rate went into effect, the retailer also raised the wage rate for employees who had been earning just above minimum wage.
- (E) The majority of the retailer's employees work as cashiers, and most cashiers are paid the minimum wage.

10. The cotton farms of Country Q became so productive that the market could not

absorb all that they produced. Consequently, cotton prices fell. The government tried to boost cotton prices by offering farmers who took 25 percent of their cotton acreage out of production direct support payments up to a specified maximum per farm.

The government's program, if successful, will not be a net burden on the budget. Which of the following, if true, is the best basis for an explanation of how this could be so?

- (A) Depressed cotton prices meant operating losses for cotton farms, and the government lost revenue from taxes on farm profits.
  - (B) Cotton production in several counties other than Q declined slightly the year that the support-payment program went into effect in Q.
  - (C) The first year that the support-payment program was in effect, cotton acreage in Q was 5% below its level in the base year for the program.
  - (D) The specified maximum per farm meant that for very large cotton farms the support payments were less per acre for those acres that were withdrawn from production than they were for smaller farms.
  - (E) Farmers who wished to qualify for support payments could not use the cotton acreage that was withdrawn from production to grow any other crop.
11. United States hospitals have traditionally relied primarily on revenues from paying patients to offset losses from unreimbursed care. Almost all paying patients now rely on governmental or private health insurance to pay hospital bills. Recently, insurers have been strictly limiting what they pay hospitals for the care of insured patients to amounts at or below actual costs.
- Which of the following conclusions is best supported by the information above?
- (A) Although the advance of technology has made expensive medical procedures available to the wealthy, such procedures are out of the reach of low-income patients.
  - (B) If hospitals do not find ways to raising additional income for unreimbursed care, they must either deny some of that care or suffer losses if they give it.
  - (C) Some patients have incomes too high for eligibility for governmental health insurance but are unable to afford private insurance for hospital care.
  - (D) If the hospitals reduce their costs in providing care, insurance companies will maintain the current level of reimbursement, thereby providing more funds for unreimbursed care.
  - (E) Even though philanthropic donations have traditionally provided some support for the hospitals, such donations are at present declining.
12. Generally scientists enter their field with the goal of doing important new research and accept as their colleagues those with similar motivation. Therefore, when any scientist wins renown as an expounder of science to general audiences, most other scientists conclude that this popularizer should no longer be regarded as a true colleague.

The explanation offered above for the low esteem in which scientific popularizers are held by research scientists assumes that

- (A) serious scientific research is not a solitary activity, but relies on active cooperation among a group of colleagues
- (B) research scientists tend not to regard as colleagues those scientists whose renown they envy
- (C) a scientist can become a famous popularizer without having completed any important research
- (D) research scientists believe that those who are well known as popularizers of science are not motivated to do important new research
- (E) no important new research can be accessible to or accurately assessed by those who are not themselves scientists

13. Mouth cancer is a danger for people who rarely brush their teeth. In order to achieve early detection of mouth cancer in these individuals, a town's public health officials sent a pamphlet to all town residents, describing how to perform weekly self-examinations of the mouth for lumps.

Which of the following, if true, is the best criticism of the pamphlet as a method of achieving the public health officials' goal?

- (A) Many dental diseases produce symptoms that cannot be detected in a weekly self-examination.
- (B) Once mouth cancer has been detected, the effectiveness of treatment can vary from person to person.
- (C) The pamphlet was sent to all town residents, including those individuals who brush their teeth regularly.
- (D) Mouth cancer is much more common in adults than in children.
- (E) People who rarely brush their teeth are unlikely to perform a weekly examination of their mouth.

14. Technological improvements and reduced equipment costs have made converting solar energy directly into electricity far more cost-efficient in the last decade. However, the threshold of economic viability for solar power (that is, the price per barrel to which oil would have to rise in order for new solar power plants to be more economical than new oil-fired power plants) is unchanged at thirty-five dollars.

Which of the following, if true, does most to help explain why the increased cost-efficiency of solar power has not decreased its threshold of economic viability?

- (A) The cost of oil has fallen dramatically.
- (B) The reduction in the cost of solar-power equipment has occurred despite increased raw material costs for that equipment.
- (C) Technological changes have increased the efficiency of oil-fired power



plants.

(D) Most electricity is generated by coal-fired or nuclear, rather than oil-fired, power plants.

(E) When the price of oil increases, reserves of oil not previously worth exploiting become economically viable.

15. Start-up companies financed by venture capitalist have a much lower failure rate than companies financed by other means. Source of financing, therefore, must be a more important causative factor in the success of a start-up company than are such factors as the personal characteristics of the entrepreneur, the quality of strategic planning, or the management structure of the company.

Which of the following, if true, most seriously weakens the argument above?

(A) Venture capitalists tend to be more responsive than other sources of financing to changes in a start-up company's financial needs.

(B) The strategic planning of a start-up company is a less important factor in the long-term success of the company than are the personal characteristics of the entrepreneur.

(C) More than half of all new companies fall within five years.

(D) The management structures of start-up companies are generally less formal than the management structures of ongoing businesses.

(E) Venture capitalists base their decisions to fund start-up companies on such factors as the characteristics of the entrepreneur and quality of strategic planning of the company.

16. The proportion of women among students enrolled in higher education programs has increased over the past decades. This is partly shown by the fact that in 1959, only 11 percent of the women between twenty and twenty-one were enrolled in college, while in 1981, 30 percent of the women between twenty and twenty-one were enrolled in college.

To evaluate the argument above, it would be most useful to compare 1959 and 1981 with regard to which of the following characteristics?

(A) The percentage of women between twenty and twenty-one who were not enrolled in college

(B) The percentage of women between twenty and twenty-five who graduated from college

(C) The percentage of women who, after attending college, entered highly paid professions

(D) The percentage of men between twenty and twenty-one who were enrolled in college

(E) The percentage of men who graduated from high school

**TEST 18**

**25 Minutes 16 Questions**

1. Since a rhinoceros that has no horn is worthless to poachers, the Wildlife Protection Committee plans to protect selected rhinoceroses from being killed by poachers by cutting off the rhinos' horns.  
The Wildlife Protection Committee's plan assumes that
  - (A) poachers do not kill rhinos that are worthless to them
  - (B) hornless rhinos pose less of a threat to humans, including poachers, than do rhinos that have horns
  - (C) rhinos are the only animals poachers kill for their horns
  - (D) hornless rhinos can successfully defend their young against nonhuman predators
  - (E) imposing more stringent penalties on poachers will not decrease the number of rhinos killed by poachers
2. Crimes are mainly committed by the young, and for this reason merely increasing the number of police officers or expenditures on police services has little effect on reducing the crime rate. In fact, the only factor associated with a crime-rate drop is a decrease in the number of people in the community aged fourteen to thirty.  
The findings above can best serve as part of an argument against
  - (A) the likelihood that any law enforcement program will be effective in reducing the crime rate within a short time
  - (B) increasing prison terms for young people found guilty of crimes
  - (C) introducing compulsory military conscription for people aged seventeen to nineteen
  - (D) raising the age at which students are permitted to leave school
  - (E) a community's plan to increase the number of recreational and educational activities in which young adults can participate
3. A 20 percent decline in lobster catches in Maine waters since 1980 can be justifiably blamed on legislation passed in 1972 to protect harbor seals. Maine's population of harbor seals is now double the level existing before protection was initiated, and these seals are known to eat both fish and lobsters.  
Which of the following, if true, would most seriously weaken the argument above?
  - (A) Harbor seals usually eat more fish than lobsters, but the seals are natural predators of both.
  - (B) Although harbor seals are skillful predators of lobsters, they rarely finish eating their catch.
  - (C) Harbor seals attract tourists to Maine's coastal areas, thus revitalizing the local economy.
  - (D) Authors of the 1972 legislation protecting harbor seals were convinced that an increase in that animal's numbers would not have a measurably negative impact on the lobster catch.

(E) The record lobster harvests of the late 1970's removed large numbers of mature lobsters from the reproductive stock.

4. Politician: Fewer people are entering the labor market now than previously. If the economy grows, the demand for motivated and educated people will far outstrip the supply. Some companies have already started to respond to this labor-market situation by finding better ways to keep their current employees. Their concern is a sure indicator that the economy is growing.

Which of the following is the best criticism of the politician's reasoning?

- (A) The fact that companies are making prudent preparations for a possible future development does not mean that this development is already taking place.
- (B) The fact that some companies now try harder to keep their employees does not mean that they used to be indifferent to employee morale.
- (C) The fact that demand will outstrip supply does not mean that there will be no supply at all.
- (D) The fact that the number of new entrants into the labor market is declining does not mean that the number of new entrants is lower than it has ever been.
- (E) The fact that current employees have become more valuable to some companies does not mean that those employees will do their jobs better than they used to.
5. Under current federal law, employers are allowed to offer their employees free parking spaces as a tax-free benefit, but they can offer employees only up to \$180 per year as a tax-free benefit for using mass transit. The government could significantly increase mass transit ridership by raising the limit of this benefit to meet commuters' transportation costs.

The proposal above to increase mass transit ridership assumes that

- (A) current mass transit systems are subject to unexpected route closings and delays
- (B) using mass transit creates less air pollution per person than using a private automobile
- (C) the parking spaces offered by employers as tax-free benefits can be worth as much as \$2,500 per year
- (D) many employees are deterred by financial considerations from using mass transit to commute to their places of employment
- (E) because of traffic congestion on major commuter routes, it is often faster to travel to one's place of employment by means of mass transit than by private automobile
6. Which of the following best completes the passage below?

"Government" does not exist as an independent entity defining policy. Instead

there exists a group of democratically elected pragmatists sensitive to the electorate, who establish policies that will result in their own reelection. Therefore, if public policy is hostile to, say, environmental concerns, it is not because of governmental perversity but because elected officials believe that\_\_\_\_\_

- (A) environmentalists would be extremely difficult to satisfy with any policy, however environmentally sound
- (B) environmental concerns are being accommodated as well as public funds permit
- (C) the public is overly anxious about environmental deterioration
- (D) the majority of voters vote for certain politicians because of those politicians' idiosyncratic positions on policy issues
- (E) the majority of voters do not strongly wish for a different policy

7. Fresh potatoes generally cost about \$2 for a 10-pound bag, whereas dehydrated instant potatoes cost, on average, about \$3 per pound. It can be concluded that some consumers will pay 15 times as much for convenience, since sales of this convenience food continue to rise.

Which of the following, if true, indicates that there is a major flaw in the argument above?

- (A) Fresh potatoes bought in convenient 2-pound bags are about \$1 a bag, or 2 1/2 times more expensive than fresh potatoes bought in 10-pound bags.
- (B) Since fresh potatoes are 80 percent water, one pound of dehydrated potatoes is the equivalent of 5 pounds of fresh potatoes.
- (C) Peeled potatoes in cans are also more expensive than the less convenient fresh potatoes.
- (D) Retail prices of dehydrated potatoes have declined by 20 percent since 1960 to the current level of about \$3 a pound.
- (E) As a consequence of labor and processing costs, all convenience foods cost more than the basic foods from which they are derived.

8. Consumers in California seeking personal loans have fewer banks to turn to than do consumers elsewhere in the United States. This shortage of competition among banks explains why interest rates on personal loans in California are higher than in any other region of the United States.

Which of the following, if true, most substantially weakens the conclusion above?

- (A) Because of the comparatively high wages they must pay to attract qualified workers, California banks charge depositors more than banks elsewhere do for many of the services they offer.
- (B) Personal loans are riskier than other types of loans, such as home mortgage loans, that banks make.

- (C) Since bank deposits in California are covered by the same type of insurance that guarantees bank deposits in other parts of the United States, they are no less secure than deposits elsewhere.
- (D) The proportion of consumers who default on their personal loans is lower in California than in any other region of the United States.
- (E) Interest rates paid by California banks to depositors are lower than those paid by banks in other parts of the United States because in California there is less competition to attract depositors.
9. Technically a given category of insurance policy is underpriced if, over time, claims against it plus expenses associated with it exceed total income from premiums. But premium income can be invested and will then yield returns of its own. Therefore, an underpriced policy does not represent a net loss in every case. The argument above is based on which of the following assumptions?
- (A) No insurance policies are deliberately underpriced in order to attract customers to the insurance company offering such policies.
- (B) A policy that represents a net loss to the insurance company is not an underpriced policy in every case.
- (C) There are policies for which the level of claims per year can be predicted with great accuracy before premiums are set.
- (D) The income earned by investing premium income is the most important determinant of an insurance company's profits.
- (E) The claims against at least some underpriced policies do not require paying out all of the premium income from those policies as soon as it is earned.
10. Purebred cows native to Mongolia produce, on average, 400 liters of milk per year; if Mongolian cattle are crossbred with European breeds, the crossbred cows can produce, on average, 2,700 liters per year. An international agency plans to increase the profitability of Mongolia's dairy sector by encouraging widespread crossbreeding of native Mongolian cattle with European breeds. Which of the following, if true, casts the most serious doubt on the viability of the agency's plan?
- (A) Not all European breeds of cattle can be successfully bred with native Mongolian cattle.
- (B) Many young Mongolians now regard cattle raising as a low-status occupation because it is less lucrative than other endeavors open to them.
- (C) Mongolia's terrain is suitable for grazing native herds but not for growing the fodder needed to keep crossbred animals healthy.
- (D) Cowhide and leather products, not milk, make up the bulk of Mongolia's animal product exports to Europe.
- (E) Many European breeds of cattle attain average milk production levels exceeding 2,700 liters.



11. Any combination of overwork and stress inevitably leads of insomnia. Managers at HiCorp, Inc., all suffer from stress. A majority of the managers—despite their doctors’ warnings—work well over 60 hours per week, whereas the other managers work no more than the normal 40 hours per week. HiCorp gives regular bonuses only to employees who work more than 40 hours per week.

Which of the following conclusions is most strongly supported by the statements above?

- (A) Managers at HiCorp work under conditions that are more stressful than the conditions under which managers at most other companies work.
  - (B) Most of the employee bonuses given by HiCorp are given to managers.
  - (C) At HiCorp, insomnia is more widespread among managers than among any other group of employees.
  - (D) No manager at HiCorp who works only 40 hours per week suffers from overwork.
  - (E) Most of the managers at HiCorp who receive regular bonuses have insomnia.
12. Holiday receipts—the total sales recorded in the fourth quarter of the year—determine the economic success or failure of many retail businesses. Camco, a retailer selling just one camera model, is an excellent example. Camco’s holiday receipts, on average, account for a third of its yearly total receipts and about half of its yearly profits.

If the statements above are true, which of the following must also be true about Camco on the basis of them?

- (A) Its fixed expenses per camera sold are higher during the fourth quarter than for any of the other three quarters.
  - (B) It makes more profit during the first and third quarters combined than during the fourth quarter.
  - (C) Its per-camera retail price is lower, on average, during the fourth quarter than during any one of the first three quarters.
  - (D) It makes less profit, on average, for a given dollar amount of sales during the first three quarters combined than during the fourth quarter.
  - (E) The per-camera price it pays to wholesalers is higher, on average, during the fourth quarter than during any of the other three quarters.
13. Canadians now increasingly engage in “out-shopping,” which is shopping across the national border, where prices are lower. Prices are lower outside of Canada in large part because the goods-and-services tax that pays for Canadian social services is not applied.

Which one of the following is best supported on the basis of the information above?

- (A) If the upward trend in out-shopping continues at a significant level and the amounts paid by the government for Canadian social services are maintained, the Canadian goods-and-services tax will be assessed at a

higher rate.

- (B) If Canada imposes a substantial tariff on the goods bought across the border, a reciprocal tariff on cross-border shopping in the other direction will be imposed, thereby harming Canadian businesses.
- (C) The amounts the Canadian government pays out to those who provide social services to Canadians are increasing.
- (D) The same brands of goods are available to Canadian shoppers across the border as are available in Canada.
- (E) Out-shopping purchases are subject to Canadian taxes when the purchaser crosses the border to bring them into Canada.

14. Surveys indicate that 52 percent of all women aged eighteen to sixty-five are in the labor force (employed outside the home) in any given month. On the basis of these surveys, a market researcher concluded that 48 percent of all women aged eighteen to sixty-five are full-time homemakers year-round.

Which of the following, if true, would most seriously weaken the researcher's conclusion?

- (A) More women are in the labor force today than during any other period since the Second World War.
- (B) Many workers, both men and women, enter and exit the labor force frequently.
- (C) Although only a small sample of the total population is surveyed each month, these samples have been found to be a reliable indicator of total monthly employment.
- (D) Surveys show that more women than ever before consider having a rewarding job an important priority.
- (E) Women who are in the labor force have more discretionary income available to them than do women who are not.

15. Left-handed persons suffer more frequently than do right-handed persons from certain immune disorders, such as allergies. Left-handers tend to have an advantage over the right-handed majority, however, on tasks controlled by the right hemisphere of the brain, and mathematical reasoning is strongly under the influence of the right hemisphere in most people.

If the information above is true, it best supports which of the following hypotheses?

- (A) Most people who suffer from allergies or other such immune disorders are left-handed rather than right-handed.
- (B) Most left-handed mathematicians suffer from some kind of allergy.
- (C) There are proportionally more left-handers among people whose ability to reason mathematically is above average than there are among people with poor mathematical reasoning ability.

- (D) If a left-handed person suffers from an allergy, that person will probably be good at mathematics.
- (E) There are proportionally more people who suffer from immune disorders such as allergies than there are people who are left-handed or people whose mathematical reasoning ability is unusually good.
16. After observing the Earth's weather patterns and the 11-year sunspot cycle of the Sun for 36 years, scientists have found that high levels of sunspot activity precede shifts in wind patterns that affect the Earth's weather. One can conclude that meteorologists will be able to improve their weather forecasts based on this information.
- Which of the following, if true, most seriously weakens the argument above?
- (A) Weather forecasts are more detailed today than they were 36 years ago.
- (B) Scientists can establish that sunspot activity directly affects the Earth's weather.
- (C) Evidence other than sunspot activity has previously enabled meteorologists to forecast the weather conditions that are predictable on the basis of sunspot activity.
- (D) Scientists have not determined why the sunspot activity on the Sun follows an 11-year cycle.
- (E) It has been established that predictable wind patterns yield predictable weather patterns.

### TEST 19

#### 25 Minutes 16 Questions

1. A publisher is now providing university professors with the option of ordering custom textbooks for their courses. The professors can edit out those chapters of a book they are not interested in and add material of their own choosing.
- The widespread use of the option mentioned above is LEAST likely to contribute to fulfilling which of the following educational objectives?
- (A) Coverage of material relevant to a particular student body's specific needs
- (B) Offering advanced elective courses that pursue in-depth investigation of selected topics in a field
- (C) Ensuring that students nationwide engaged in a specific course of study are uniformly exposed to a basic set of readings
- (D) Making the textbooks used in university courses more satisfactory from the individual teacher's point of view
- (E) Keeping students' interest in a course by offering lively, well-written reading assignments
2. Mechanicorp's newest product costs so little to make that it appears doubtful the company will be able to sell it without increasing the markup the company usually allows for profit: potential clients would simply not believe that

something so inexpensive would really work. Yet Mechanicorp's reputation is built on fair prices incorporating only modest profit margins.

The statements above, if true, most strongly support which of the following?

- (A) Mechanicorp will encounter difficulties in trying to set a price for its newest product that will promote sales without threatening to compromise the company's reputation.
- (B) Mechanicorp achieves large annual profits, despite small profits per unit sold, by means of a high volume of sales.
- (C) Mechanicorp made a significant computational error in calculating the production costs for its newest product.
- (D) Mechanicorp's newest product is intended to perform tasks that can be performed by other devices costing less to manufacture.
- (E) Mechanicorp's production processes are designed with the same ingenuity as are the products that the company makes.

3. Companies in the country of Kollontay can sell semiconductors in the country of Valdivia at a price that is below the cost to Valdivian companies of producing them. To help those Valdivian companies, the Valdivian legislature plans to set a minimum selling price in Valdivia for semiconductors manufactured in Kollontay that is ten percent greater than the average production costs for companies in Valdivia.

Which of the following, if true, most seriously threatens the success of the plan?

- (A) The annual rate of inflation in Kollontay is expected to exceed ten percent within the next year.
- (B) Valdivia is not the only country where companies in Kollontay currently sell semiconductors.
- (C) Some Valdivian companies that sell semiconductors have announced that they plan to decrease their price for semiconductors.
- (D) The government of Kollontay will also set a minimum price for selling semiconductors in that country.
- (E) Emerging companies in countries other than Kollontay will still be able to sell semiconductors in Valdivia at a price below the cost to Valdivian companies to manufacture them.

4. An experimental microwave clothes dryer heats neither air nor cloth. Rather, it heats water on clothes, thereby saving electricity and protecting delicate fibers by operating at a lower temperature. Microwaves are waves that usually heat metal objects, but developers of a microwave dryer are perfecting a process that will prevent thin metal objects such as hairpins from heating up and burning clothes.

Which of the following, if true, most strongly indicates that the process, when perfected, will be insufficient to make the dryer readily marketable?

- (A) Metal snap fasteners on clothes that are commonly put into drying machines are about the same thickness as most hairpins.

- (B) Many clothes that are currently placed into mechanical dryers are not placed there along with hairpins or other thin metal objects.
- (C) The experimental microwave dryer uses more electricity than future, improved models would be expected to use.
- (D) Drying clothes with the process would not cause more shrinkage than the currently used mechanical drying process causes.
- (E) Many clothes that are frequently machine-dried by prospective customers incorporate thick metal parts such as decorative brass studs or buttons.
5. Airplane manufacturer: I object to your characterization of our X-387 jets as dangerous. No X-387 in commercial use has ever crashed or even had a serious malfunction.
- Airline regulator: The problem with the X-387 is not that it, itself, malfunctions, but that it creates a turbulence in its wake that can create hazardous conditions for aircraft in its vicinity.
- The airline regulator responds to the manufacturer by doing which of the following?
- (A) Characterizing the manufacturer's assertion as stemming from subjective interest rather than from objective evaluation of the facts
- (B) Drawing attention to the fact that the manufacturer's interpretation of the word "dangerous" is too narrow
- (C) Invoking evidence that the manufacturer has explicitly dismissed as irrelevant to the point at issue
- (D) Citing statistical evidence that refutes the manufacturer's claim
- (E) Casting doubt on the extent of the manufacturer's knowledge of the number of recent airline disasters
6. Damaged nerves in the spinal cord do not regenerate themselves naturally, nor even under the spur of nerve-growth stimulants. The reason, recently discovered, is the presence of nerve-growth inhibitors in the spinal cord. Antibodies that deactivate those inhibitors have now been developed. Clearly, then, nerve repair will be a standard medical procedure in the foreseeable future.
- Which of the following, if true, casts the most serious doubt on the accuracy of the prediction above?
- (A) Prevention of the regeneration of damaged nerves is merely a by-product of the main function in the human body of the substances inhibiting nerve growth.
- (B) Certain nerve-growth stimulants have similar chemical structures to those of the antibodies against nerve-growth inhibitors.
- (C) Nerves in the brain are similar to nerves in the spinal cord in their inability to regenerate themselves naturally.
- (D) Researchers have been able to stimulate the growth of nerves not located in



the spinal cord by using only nerve-growth stimulants.

(E) Deactivating the substances inhibiting nerve growth for an extended period would require a steady supply of antibodies.

7. The human body secretes more pain-blocking hormones late at night than during the day. Consequently, surgical patients operated on at night need less anesthesia. Since larger amounts of anesthesia pose greater risks for patients, the risks of surgery could be reduced if operations routinely took place at night.

Which of the following, if true, argues most strongly against the view that surgical risks could be reduced by scheduling operations at night?

- (A) Energy costs in hospitals are generally lower at night than they are during the day.
- (B) More babies are born between midnight and seven o'clock in the morning than at any other time.
- (C) Over the course of a year, people's biological rhythms shift slightly in response to changes in the amounts of daylight to which the people are exposed.
- (D) Nurses and medical technicians are generally paid more per hour when they work during the night than when they work during the day.
- (E) Manual dexterity and mental alertness are lower in the late night than they are during the day, even in people accustomed to working at night.

Questions 8-9

Walter: A copy of an artwork should be worth exactly what the original is worth if the two works are visually indistinguishable. After all, if the two works are visually indistinguishable, they have all the same qualities, and if they have all the same qualities, their prices should be equal.

Marissa: How little you understand art! Even if someone could make a perfect copy that is visually indistinguishable from the original, the copy would have a different history and hence not have all the same qualities as the original.

8. Which of the following is a point at issue between Walter and Marissa?
- (A) Whether a copy of an artwork could ever be visually indistinguishable from the original
- (B) Whether the reproduction of a work of art is ever worth more than the original is worth
- (C) Whether a copy of a work of art is ever mistaken for the original
- (D) Whether a copy of a work of art could have all the same qualities as the original
- (E) Whether originality is the only valuable attribute that a work of art can possess
9. Marissa uses which of the following techniques in attempting to refute Walter's

argument?

- (A) Attacking his assumption that the price of an artwork indicates its worth
- (B) Raising a point that would undermine one of the claims on which his conclusion is based
- (C) Questioning his claim that a perfect copy of a work of art would be visually indistinguishable from the original
- (D) Giving reason to believe that Walter is unable to judge the quality of a work of art because of his inadequate understanding of the history of art
- (E) Proposing alternative criteria for determining whether two works of art are visually indistinguishable

10. Magnetic resonance imaging (MRI)—a noninvasive diagnostic procedure—can be used to identify blockages in the coronary arteries. In contrast to angiograms—the invasive procedure customarily used—MRI's pose no risk to patients. Thus, to guarantee patient safety in the attempt to diagnose arterial blockages, MRI's should replace angiograms in all attempts at diagnosing coronary blockages.

Which of the following, if true, would most support the recommendation above?

- (A) Angiograms can be used to diagnose conditions other than blockages in arteries.
- (B) MRI's were designed primarily in order to diagnose blockages in the coronary arteries.
- (C) Angiograms reveal more information about the nature of a blockage than an MRI can.
- (D) An MRI is just as likely as an angiogram to identify an arterial blockage.
- (E) Some patients for whom an angiogram presents no risk are unwilling to undergo an MRI.

11. Naturally occurring chemicals cannot be newly patented once their structures have been published. Before a naturally occurring chemical compound can be used as a drug, however, it must be put through the same rigorous testing program as any synthetic compound, culminating in a published report detailing the chemical's structure and observed effects.

If the statements above are true, which of the following must also be true on the basis of them?

- (A) Any naturally occurring chemical can be reproduced synthetically once its structure is known.
- (B) Synthetically produced chemical compounds cannot be patented unless their chemical structures are made public.
- (C) If proven no less effective, naturally occurring chemicals are to be preferred to synthetic compounds for use in drugs.
- (D) Once a naturally occurring compound has been approved for use as a drug, it can no longer be newly patented.

(E) A naturally occurring chemical cannot be patented unless its effectiveness as a drug has been rigorously established.

12. A public-service advertisement advises that people who have consumed alcohol should not drive until they can do so safely. In a hospital study, however, subjects questioned immediately after they consumed alcohol underestimated the time necessary to regain their driving ability. This result indicates that many people who drink before driving will have difficulty following the advertisement's advice.

Which of the following, if true, most strongly supports the argument above?

- (A) Many people, if they plan to drink alcohol, make arrangements beforehand for a nondrinker to drive them home.
- (B) The subjects in the hospital study generally rated their abilities more conservatively than would people drinking alcohol outside a hospital setting.
- (C) Some people refrain from drinking if they will have to drive to get home afterward.
- (D) The subjects in the hospital study were also questioned about the time necessary to regain abilities that do not play an important role in driving safely.
- (E) Awareness of the public-service advertisement is higher among the general population than it was among the subjects in the hospital study.

13. Investigator: XYZ Coins has misled its clients by promoting some coins as "extremely rare" when in fact those coins are relatively common and readily available.

XYZ agent: That is ridiculous. XYZ Coins is one of the largest coin dealers in the world. We authenticate the coins we sell through a nationally recognized firm and operate a licensed coin dealership.

The XYZ agent's reply is most vulnerable to the criticism that it

- (A) exaggerates the investigator's claims in order to make them appear absurd
- (B) accuses the investigator of bias but presents no evidence to support that accusation
- (C) fails to establish that other coin dealers do not also authenticate the coins those dealers sell
- (D) lists strengths of XYZ Coins while failing to address the investigator's charge
- (E) provides no definition for the inherently vague phrase "extremely rare"

14. Both Writewell and Express provide round-the-clock telephone assistance to any customer who uses their word-processing software. Since customers only call the hot lines when they find the software difficult to use, and the Writewell hot line receives four times as many calls as the Express hot line, Writewell's word-

processing software must be more difficult to use than Express's.

Which of the following, if true, most strengthens the argument above?

- (A) Calls to the Express hot line are almost twice as long, on average, as are calls to the Writewell hot line.
- (B) Express has three times the number of word-processing software customers that Writewell has.
- (C) Express receives twice as many letters of complaint about its word-processing software as Writewell receives about its word-processing software.
- (D) The number of calls received by each of the two hot lines has been gradually increasing.
- (E) The Writewell hot-line number is more widely publicized than the Express hot-line number.

15. Over the last century, paleontologists have used small differences between fossil specimens to classify triceratops into sixteen species. This classification is unjustified, however, since the specimens used to distinguish eleven of the species come from animals that lived in the same area at the same time.

Which of the following, if true, would enable the conclusion of the argument to be properly drawn?

- (A) Not every species that lived in a given area is preserved as a fossil.
- (B) At least one individual of every true species of triceratops has been discovered as a fossil specimen.
- (C) No geographical area ever supports more than three similar species at the same time.
- (D) In many species, individuals display quite marked variation.
- (E) Differences between fossil specimens of triceratops that came from the same area are no less distinctive than differences between specimens that came from different areas.

16. Many consumers are concerned about the ecological effects of wasteful packaging. This concern probably explains why stores have been quick to stock new cleaning products that have been produced in a concentrated form. The concentrated form is packaged in smaller containers that use less plastic and require less transportation space.

Which of the following, if true, most seriously undermines the explanation offered above?

- (A) Few consumers believe that containers of concentrated cleaning products are merely small packages of regular cleaning products.
- (B) The containers in which concentrated cleaning products are packaged are no harder to recycle than those in which regular cleaning products are packaged.

- (C) Those concentrated cleaning products that are intended to be used diluted have clear instructions for dilution printed on their labels.
- (D) The smaller containers of concentrated cleaning products enable supermarkets and drugstores to increase their revenues from a given shelf space.
- (E) Consumer pressure has led to the elimination of wasteful cardboard packaging that was used for compact discs.

TEST 20

**25 Minutes 16 Questions**

1. In the first half of this year, from January to June, about three million videocassette recorders were sold. This number is only 35 percent of the total number of videocassette recorders sold last year. Therefore, total sales of videocassette recorders will almost certainly be lower for this year than they were for last year.  
Which of the following, if true, most seriously weakens the conclusion above?
  - (A) The total number of videocassette recorders sold last year was lower than the total number sold in the year before that.
  - (B) Most people who are interested in owning a videocassette recorder have already purchased one.
  - (C) Videocassette recorders are less expensive this year than they were last year.
  - (D) Of the videocassette recorders sold last year, almost 60 percent were sold in January.
  - (E) Typically, over 70 percent of the sales of videocassette recorders made in a year occur in the months of November and December.
2. Mud from a lake on an uninhabited wooded island in northern Lake Superior contains toxic chemicals, including toxaphene, a banned pesticide for cotton that previously was manufactured and used, not in nearby regions of Canada or the northern United States, but in the southern United States. No dumping has occurred on the island. The island lake is sufficiently elevated that water from Lake Superior does not reach it.  
The statements above, if true, most strongly support which of the following hypotheses?
  - (A) The waters of the island lake are more severely polluted than those of Lake Superior.
  - (B) The toxaphene was carried to the island in the atmosphere by winds.
  - (C) Banning chemicals such as toxaphene does not aid the natural environment.
  - (D) Toxaphene has adverse effects on human beings but not on other organisms.
  - (E) Concentrations of toxaphene in the soil of cotton-growing regions are not sufficient to be measurable.
3. Last year in the United States, women who ran for state and national offices were



about as likely to win as men. However, only about fifteen percent of the candidates for these offices were women. Therefore, the reason there are so few women who win elections for these offices is not that women have difficulty winning elections but that so few women want to run.

Which of the following, if true, most seriously undermines the conclusion given?

- (A) Last year the proportion of women incumbents who won reelection was smaller than the proportion of men incumbents who won reelection.
- (B) Few women who run for state and national offices run against other women.
- (C) Most women who have no strong desire to be politicians never run for state and national offices.
- (D) The proportion of people holding local offices who are women is smaller than the proportion of people holding state and national offices who are women.
- (E) Many more women than men who want to run for state and national offices do not because they cannot get adequate funding for their campaigns.

4. Samples from a ceramic vase found at a tomb in Sicily prove that the vase was manufactured in Greece. Since the occupant of the tomb died during the reign of a Sicilian ruler who lived 2,700 years ago, the location of the vase indicates that there was trade between Sicily and Greece 2,700 years ago.

Which of the following is an assumption on which the argument depends?

- (A) Sicilian potters who lived during the reign of the ruler did not produce work of the same level of quality as did Greek potters.
- (B) Sicilian clay that was used in the manufacture of pottery during the ruler's reign bore little resemblance to Greek clay used to manufacture pottery at that time.
- (C) At the time that the occupant of the tomb was alive, there were ships capable of transporting large quantities of manufactured goods between Sicily and Greece.
- (D) The vase that was found at the Sicilian tomb was not placed there many generations later by descendants of the occupant of the tomb.
- (E) The occupant of the tomb was not a member of the royal family to which the Sicilian ruler belonged.

5. In several cities, the government is going ahead with ambitious construction projects despite the high office vacancy rates in those cities. The vacant offices, though available for leasing, unfortunately do not meet the requirements for the facilities needed, such as court houses and laboratories. The government, therefore, is not guilty of any fiscal wastefulness.

Which of the following is an assumption on which the argument above depends?

- (A) Adaptation of vacant office space to meet the government's requirements, if possible, would not make leasing such office space a more cost-effective alternative to new construction.

- (B) The government prefers leasing facilities to owning them in cases where the two alternatives are equally cost-effective.
- (C) If facilities available for leasing come very close to meeting the government's requirements for facilities the government needs, the government can relax its own requirements slightly and consider those facilities in compliance.
- (D) The government's construction projects would not on being completed, add to the stock of facilities available for leasing in the cities concerned.
- (E) Before embarking on any major construction project, the government is required by law to establish beyond any reasonable doubt that there are no alternatives that are most cost-effective.

6. Potato cyst nematodes are a pest of potato crops. The nematodes can lie dormant for several years in their cysts, which are protective capsules, and do not emerge except in the presence of chemicals emitted by potato roots. A company that has identified the relevant chemicals is planning to market them to potato farmers to spread on their fields when no potatoes are planted; any nematodes that emerge will soon starve to death.

Which of the following, if true, best supports the claim that the company's plan will be successful?

- (A) Nematodes that have emerged from their cysts can be killed by ordinary pesticides.
- (B) The only part of a potato plant that a nematode eats is the roots.
- (C) Some bacteria commonly present in the roots of potatoes digest the chemicals that cause the nematodes to emerge from their cysts.
- (D) Trials have shown that spreading even minute quantities of the chemicals on potato fields caused nine-tenths of the nematodes present to emerge from their cysts.
- (E) The chemicals that cause the nematodes to emerge from their cysts are not emitted all the time the potato plant is growing.

7. It is better for the environment if as much of all packaging as possible is made from materials that are biodegradable in landfills. Therefore, it is always a change for the worse to replace packaging made from paper or cardboard with packaging made from plastics that are not biodegradable in landfills.

Which of the following, if true, constitutes the strongest objection to the argument above?

- (A) The paper and cardboard used in packaging are usually not biodegradable in landfills.
- (B) Some plastic used in packaging is biodegradable in landfills.
- (C) In many landfills, a significant proportion of space is taken up by materials other than discarded packaging materials.
- (D) It is impossible to avoid entirely the use of packaging materials that are not

biodegradable in landfills.

(E) Sometimes, in packaging an item, plastics that are not biodegradable in landfills are combined with cardboard.

8. Any serious policy discussion about acceptable levels of risk in connection with explosions is not well served if the participants fail to use the word “explosion” and use the phrase “energetic disassembly” instead. In fact, the word “explosion” elicits desirable reactions, such as a heightened level of attention, whereas the substitute phrase does not. Therefore, of the two terms, “explosion” is the one that should be used throughout discussions of this sort.

Which of the following is an assumption on which the argument above depends?

- (A) In the kind of discussion at issue, the advantages of desirable reactions to the term “explosion” outweigh the drawbacks, if any, arising from undesirable reactions to that term.
- (B) The phrase “energetic disassembly” has not so far been used as a substitute for the word “explosion” in the kind of discussion at issue.
- (C) In any serious policy discussion, what is said by the participants is more important than how it is put into words.
- (D) The only reason that people would have for using “energetic disassembly” in place of “explosion” is to render impossible any serious policy discussion concerning explosions.
- (E) The phrase “energetic disassembly” is not necessarily out of place in describing a controlled rather than an accidental explosion.
9. Mannis Corporation’s archival records are stored in an obsolete format that is accessible only by its current computer system; thus they are inaccessible when that system is not functioning properly. In order to avoid the possibility of losing access to their archival records in the case of computer malfunction, Mannis plans to replace its current computer system with a new system that stores records in a format that is accessible to several different systems.

The answer to which of the following questions would be most helpful in evaluating the effectiveness of the plan as a means of retaining access to the archival records?

- (A) Will the new computer system require fewer operators than the current system requires?
- (B) Has Mannis Corporation always stored its archival records in a computerized format?
- (C) Will the new computer system that Mannis plans ensure greater security for the records stored than does Mannis’ current system?
- (D) Will Mannis’ current collection of archival records be readily transferable to the new computer system?
- (E) Will the new computer system be able to perform many more tasks than the current system is able to perform?

10. Last year the worldwide paper industry used over twice as much fresh pulp (pulp made directly from raw plant fibers) as recycled pulp (pulp made from wastepaper). A paper-industry analyst has projected that by 2010 the industry will use at least as much recycled pulp annually as it does fresh pulp, while using a greater quantity of fresh pulp than it did last year.

If the information above is correct and the analyst's projections prove to be accurate, which of the following projections must also be accurate?

- (A) In 2010 the paper industry will use at least twice as much recycled pulp as it did last years.
  - (B) In 2010 the paper industry will use at least twice as much total pulp as it did last year.
  - (C) In 2010 the paper industry will produce more paper from a given amount of pulp than it did last year.
  - (D) As compared with last year, in 2010 the paper industry will make more paper that contains only recycled pulp.
  - (E) As compared with last year, in 2010 the paper industry will make less paper that contains only fresh pulp.
11. In malaria-infested areas, many children tend to suffer several bouts of malaria before becoming immune to the disease. Clearly, what must be happening is that those children's immune systems are only weakly stimulated by any single exposure to the malaria parasite and need to be challenged several times to produce an effective immune response.

Which of the following, if true, most seriously undermines the explanatory hypothesis?

- (A) Immediately after a child has suffered a bout of malaria, the child's caregivers tend to go to great lengths in taking precautions to prevent another infection, but this level of attention is not sustained.
  - (B) Malaria is spread from person to person by mosquitoes, and mosquitoes have become increasingly resistant to the pesticides used to control them.
  - (C) A certain gene, if inherited by children from only one of their parents, can render those children largely immune to infection with malaria.
  - (D) Antimalaria vaccines, of which several are in development, are all designed to work by stimulating the body's immune system.
  - (E) There are several distinct strains of malaria, and the body's immune response to any one of them does not protect it against the others.
12. An advertisement designed to convince readers of the great durability of automobiles manufactured by the Deluxe Motor Car Company cites as evidence the fact that over half of all automobiles built by the company since 1970 are still on the road today, compared to no more than a third for any other manufacturer.
- Which of the following, if true, most strongly supports the advertisement's argument?

- (A) After taking inflation into account, a new Deluxe automobile costs only slightly more than a new model did in 1970.
- (B) The number of automobiles built by Deluxe each year has not increased sharply since 1970.
- (C) Owners of Deluxe automobiles typically keep their cars well maintained.
- (D) Since 1970, Deluxe has made fewer changes in the automobiles it manufactures than other car companies have made in their automobiles.
- (E) Deluxe automobiles have been selling at relatively stable prices in recent years.
13. Many state legislatures are considering proposals to the effect that certain policies should be determined not by the legislature itself but by public referenda in which every voter can take part. Critics of the proposals argue that the outcomes of public referenda would be biased, since wealthy special-interest groups are able to influence voters' views by means of television advertisements.
- Which of the following, if true, most strengthens the critics' argument?
- (A) Many state legislators regard public referenda as a way of avoiding voting on issues on which their constituents are divided.
- (B) During elections for members of the legislature, the number of people who vote is unaffected by whether the candidates run television advertisements or not.
- (C) Proponents of policies that are opposed by wealthy special-interest groups are often unable to afford advertising time on local television stations.
- (D) Different special-interest groups often take opposing positions on questions of which policies the state should adopt.
- (E) Television stations are reluctant to become associated with any one political opinion, for fear of losing viewers who do not share that opinion.
14. Advertisement: Of the many over-the-counter medications marketed for the relief of sinus headache, SineEase costs the least per dose. And SineEase is as effective per dose as the most effective of those other medications. So for relief from sinus headaches, SineEase is the best buy.
- Which of the following, if true, most seriously weakens the argument above?
- (A) Most of the over-the-counter medications marketed for the relief of sinus headache are equally effective per dose in providing such relief.
- (B) Many of the over-the-counter medications marketed for the relief of sinus headache contain the same active ingredient as SineEase.
- (C) People who suffer from frequent sinus headaches are strongly advised to consult a doctor before taking any over-the-counter medication.
- (D) An over-the-counter medication that is marketed for the relief of symptoms of head cold is identical in composition to SineEase but costs less per dose.
- (E) The per dose price for any given over-the-counter medication marketed for



the relief of sinus headache is higher for smaller packages than it is for larger packages.

15. In the United States, vacationers account for more than half of all visitors to what are technically called “pure aquariums” but for fewer than one quarter of all visitors to zoos, which usually include a “zoo aquarium” of relatively modest scope.

Which of the following, if true, most helps to account for the difference described above between visitors to zoos and visitors to pure aquariums?

- (A) In cities that have both a zoo and a pure aquarium, local residents are twice as likely to visit the aquarium as they are to visit the zoo.
  - (B) Virtually all large metropolitan areas have zoos, whereas only a few large metropolitan areas have pure aquariums.
  - (C) Over the last ten years, newly constructed pure aquariums have outnumbered newly established zoos by a factor of two to one.
  - (D) People who visit a zoo in a given year are two times more likely to visit a pure aquarium that year than are people who do not visit a zoo.
  - (E) The zoo aquariums of zoos that are in the same city as a pure aquarium tend to be smaller than the aquariums of zoos that have no pure aquarium nearby.
16. Which of the following, if true, is the most logical completion of the argument below?

The tax system of the Republic of Grootland encourages borrowing by granting its taxpayers tax relief for interest paid on loans. The system also discourages saving by taxing any interest earned on savings. Nevertheless, it is clear that Grootland’s tax system does not consistently favor borrowing over saving, for if it did, there would be no\_\_\_\_\_

- (A) tax relief in Grootland for those portions of a taxpayer’s income, if any, that are set aside to increase that taxpayer’s total savings
- (B) tax relief in Grootland for the processing fees that taxpayers pay to lending institutions when obtaining certain kinds of loans
- (C) tax relief in Grootland for interest that taxpayers are charged on the unpaid balance in credit card accounts
- (D) taxes due in Grootland on the cash value of gifts received by taxpayers from banks trying to encourage people to open savings accounts
- (E) taxes due in Grootland on the amount that a taxpayer has invested in interest-bearing savings accounts

LSAT**TEST 1**SECTION I

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages. For some questions, more than one of the choices could conceivably answer the question. However, you are to choose the best answer; that is, the response that most accurately and completely answers the question. You should not make assumptions that are by commonsense standards implausible, superfluous, or incompatible with the passage. After you have chosen the best answer, blacken the corresponding space on your answer sheet.*

1. Mr. West: Well, Ms. Smith, by how much do you plan to increase your donation to the cultural society this year? You know how many worthwhile projects we do.

Ms. Smith: I'm not so sure of that. I was very upset about the statue you purchased last month. I think I'll give no more money to your cause.

Mr. West: That's all right: we'll just put you down for the same amount that you gave last year.

Which one of the following words or phrases has been misinterpreted in the conversation?

- (A) "increase"
  - (B) "you know"
  - (C) "worthwhile"
  - (D) "no more"
  - (E) "same amount"
2. Handwriting analysis—also known as graphology—is a poor way to predict personality types, even though it is used by 3,000 United States firms and by a majority of European companies. In a recent study, five graphologists scored no better than chance in predicting the occupations of forty professionals.
- Which one of the following is an assumption necessary to the argument?
- (A) People in the same occupation usually do not have the same personality type.
  - (B) Graphology is an effective means of predicting personality types in non-business contexts.
  - (C) There are more United States firms that do not use graphology than all the United States and European firms that do use it.
  - (D) There are several other techniques for predicting personality types that are more accurate than graphology.
  - (E) There is a correspondence between type of personality and choice of occupation.

Questions 3-4

The simple facts are these: the number of people killed each year by grizzly bears is about the same as the number of people killed by lightning on golf courses. And the number of people killed by lightning on golf courses each year is about the same as the number of people electrocuted by electric blenders. All the horrible myths and gruesome stories aside, therefore, a grizzly bear is in fact about as dangerous as an electric blender or a game of golf.

3. Which one of the following is an assumption that the author relies upon in the passage?
- (A) Most incidents involving grizzly bears are fatal.
  - (B) Grizzly bears are no longer the danger they once were.
  - (C) The number of fatalities per year is an adequate indication of something's dangerousness.
  - (D) A golf course is a particularly dangerous place to be in a thunderstorm.
  - (E) Something is dangerous only if it results in death in the majority of cases.
4. Which one of the following, if true, would most effectively undermine the author's argument?
- (A) Although the number of people killed by lightning on golf courses each year is very small, the total number of lightning fatalities is many times greater.
  - (B) Electric blenders are among the safest household appliances; were the author to compare fatalities from electrical appliances in general, she would get a much higher figure.
  - (C) Most people would rather take their chances with blenders and golf games than with grizzly bears.
  - (D) Bears in general—including black, brown, and cinnamon bears, as well as grizzly bears—kill many more people than do electric blenders.
  - (E) Statistics show that the number of times people use electric blenders each year exceeds the number of times people play golf each year, which in turn far exceeds the number of contacts people have with grizzly bears each year.
5. Emperor: The enemy empire across the sea has harassed us for centuries. I want to conquer it and stop it once and for all. What advice can you give me?
- Admiral: If you cross the sea, a mighty empire will fall.
- Emperor: In that case, prepare the troops. We set sail tonight.
- Of the following, the strongest criticism of the Emperor's decision to invade would be that it
- (A) is certain to lead to the emperor's defeat
  - (B) is based on opinion rather than objective facts about troop strength
  - (C) contradicts the Admiral's statement
  - (D) fails to consider fully the possible meanings of the Admiral's advice

(E) is a futile strategy for solving the problem at hand

6. No senator spoke at the convention unless he or she was a Democrat. No Democrat both spoke at the convention and was a senator.

Which one of the following conclusions can be correctly drawn from the statements above?

- (A) No one but senators spoke at the convention.
- (B) No Democrat spoke at the convention.
- (C) Only Democrats spoke at the convention.
- (D) No senator spoke at the convention.
- (E) Some Democrat senators spoke at the convention.

7. If Sarah were a concert pianist for a major orchestra, she would be famous. She is not a concert pianist since she is not famous.

The conclusion above is unsound because the author does not consider that

- (A) Sarah could be a famous actress.
- (B) Sarah could be a harpist for a major orchestra.
- (C) Sarah could be a pianist with a rock group.
- (D) Sarah could be a concert pianist with a minor orchestra.
- (E) Sarah could be famous for another reason.

8. Neuroscientists are making progress in discovering more about the cause of Alzheimer's disease. Alzheimer's disease patients suffer from dementia and severe memory loss. Autopsies performed on such patients have revealed the presence of brain lesions caused by abnormal protein deposits. Similar deposits are also found in the brains of elderly patients who do not suffer from Alzheimer's disease. It follows that everyone who lives long enough will eventually develop Alzheimer's disease.

Which one of the following statements, if true, most seriously undermines the conclusion that everyone who lives long enough will eventually develop Alzheimer's disease?

- (A) The lesions found in the brains of non-Alzheimer's disease patients are far less extensive than those found in the brains of Alzheimer's disease patients.
- (B) The developing brain produces a greater number of cells than it will ever use. The extra cells are later destroyed by what biologists call "programmed cell death."
- (C) The procedure that allows scientists to discover the presence of protein deposits during an autopsy is not yet refined enough to ensure detection of the lesions in all patients.
- (D) Autopsies have shown that some people lack the chemical necessary for protein deposits to cause brain lesions.
- (E) Though most Alzheimer's disease patients develop the disease when they are

in their late fifties to early seventies, the frequency of patients who develop the disease in their forties is on the rise.

9. Free public education is the best form of education there is. Therefore, we must fight to ensure its continued existence; that is, we must be ready to defend the principle of equality of educational opportunity. Because this principle is worth defending, it is clear that free public education is better than any other form of education.

Which one of the following illustrates the same weak reasoning as found in the passage?

- (A) I love music, and that's why I listen to it constantly. I have my stereo or radio on every waking minute. Since I play music all the time, I must really love it.
- (B) Books are my most valuable possessions. My books are like my friends—each pleases me in different ways. Just as I would give up everything to save my friends, so too with my books.
- (C) I would much rather be poor and respected than be rich and despised. To have the respect of others is far more valuable than to have millions of dollars.
- (D) I have never been betrayed by any of my friends. They have been true to me through good times and bad. Therefore I will never betray any of my friends.
- (E) Because every plant I have ever seen has green leaves, I have concluded that all plants must have green leaves. This looks like a plant but it does not have green leaves, so it cannot be a plant.
10. Some people say that the scarcity of food is a function of the finite limits of the earth's resources, coupled with a relentless rate of population growth. This analysis fails to recognize, however, that much of the world's agricultural resources are used to feed livestock instead of people. In the United States, for example, almost one-half of the agricultural acreage is devoted to crops fed to livestock. A steer reduces twenty-one pounds of inexpensive grain to one pound of expensive meat. Thus, the scarcity of food is not merely a function of limited resources and population growth.

Which one of the following is an assumption that would allow the conclusion in the argument to be properly drawn?

- (A) People prefer eating meat to eating grain.
- (B) Meat is twenty-one times more expensive than grain.
- (C) The limits of the earth's agricultural resources are not finite.
- (D) More than one-half of the agricultural acreage in the United States is devoted to crops fed to humans.
- (E) Growing crops for human consumption on the acreage currently devoted to crops for livestock will yield more food for more people.



11. Hanifah: A recent survey shows that there are fewer people who drive only on weekends than there are people who drive to work each weekday. As a result, weekend-only drives are involved in fewer accidents. Therefore, insurance rates should be adjusted so that rates would be significantly higher for the regular commuters.

Katsu: I can't agree with your conclusion. The same study also showed that, although weekend-only drives are involved in fewer accidents, when considered on the basis of accidents-per-mile-driven their records are worse than those of regular commuters. Therefore, insurance rates should be adjusted to increase the rates of weekend-only drivers over those of regular commuters.

In the conversation above, Katsu does which one of the following?

- (A) Katsu disagrees with each of the premises of the argument that Hanifah offers.
  - (B) Katsu cites additional evidence stating that weekend-only drivers are actually involved in a greater number of accidents than regular commuters.
  - (C) Katsu accuses Hanifah of using inaccurate statistical information.
  - (D) Katsu proves that Hanifah didn't read the entire report that was cited.
  - (E) Katsu disagrees with Hanifah over how accident records are to be evaluated for insurance rates.
12. If Country X does not intervene militarily in Country Y, then the whole region will definitely fall under enemy influence.
- It most logically follows from the statement above that, if Country X does intervene militarily in Country Y, then the whole region
- (A) Will definitely fall under enemy influence
  - (B) Will probably fall under enemy influence
  - (C) Will probably not fall under enemy influence
  - (D) Will definitely not fall under enemy influence
  - (E) May or may not fall under enemy influence
13. Top college graduates are having more difficulty demonstrating their superiority to prospective employers than did the top students of twenty years ago when an honors degree was distinction enough. Today's employers are less impressed with the honors degree. Twenty years ago no more than 10 percent of a given class graduated with honors. Today, however, because of grade inflation, the honors degree goes to more than 50 percent of a graduating class. Therefore, to restore confidence in the degrees they award, colleges must take steps to control grade inflation.
- Which one of the following is an assumption that, if true, would support the conclusion in the passage?
- (A) Today's students are not higher achievers than the students of twenty years ago.

- (B) Awarding too many honors degrees causes colleges to inflate grades.
- (C) Today's employers rely on honors ranking in making their hiring decisions.
- (D) It is not easy for students with low grades to obtain jobs.
- (E) Colleges must make employers aware of the criteria used to determine who receives an honors degree.

14. Either Perry's faction or Tucker's faction, but not both, will win control of the government. If Perry's faction wins, the nation will suffer economically. If Tucker's faction wins, the nation will suffer militarily.

Given the statements in the passage, which one of the following statements must be true?

- (A) It is possible, but not certain, that the nation will neither suffer economically nor suffer militarily.
- (B) If the nation suffers economically, it is certain that Perry's faction has won control of the government.
- (C) It is certain that the nation will suffer either economically or militarily, and also certain that it will not suffer both.
- (D) If the nation suffers militarily, it is possible, but not certain, that Tucker's faction has won control of the government.
- (E) If the nation suffers both economically and militarily, it is certain that neither Perry's faction nor Tucker's has won control of the government.

15. One of the more reliable methods of determining regional climatic conditions in prehistoric periods is to examine plant pollen trapped in glacial ice during ancient times. By comparing such pollen samples with spores taken from modern vegetation, scientists can figure out approximately what the weather was like at the time of pollen deposition. Furthermore, by submitting the prehistoric samples to radiocarbon dating techniques, we can also determine when certain climatic conditions were prevalent in that portion of the globe.

Which one of the following may be inferred from the information in the passage?

- (A) The earth has undergone several glacial periods.
- (B) Radiocarbon dating can be corroborated by glacial evidence.
- (C) Similarities between prehistoric and contemporary climates do not exist.
- (D) Pollen deposition is a fairly continuous process.
- (E) Certain flora are reliably associated with particular climatic conditions.

16. Investigators concluded that human failure was not responsible for the fatal airplane crash last August, and since that time new and more stringent rules for identifying and reporting mechanical problems have been in effect. That accounts for the fact that reports of airplane mechanical problems have increased in frequency by 50 percent since last August.

Which one of the following is an assumption underlying the argument in the passage?

- (A) Airplane travel is still relatively safe, despite the increase in reported mechanical problems.
- (B) Mechanical problems in airplanes have increased dramatically since last August.
- (C) Mechanical problems in airplanes have not increased by 50 percent since last August.
- (D) Airlines are less reluctant to report mechanical problems than they previously were.
- (E) Mechanical problems in airplanes have become easier to detect since last August.
17. The peculiar evil of silencing the expression of an opinion is that it robs the human race. It takes from posterity, as well as the existing generation, and from those who dissent from the opinion even more than from those who hold it. If the opinion is right, they are deprived of the opportunity of exchanging error for truth; if it is wrong, they lose what is almost as great a benefit: the clearer perception and livelier impression of truth, produced by its collision with error. Which one of the following best expresses the conclusion presented in the argument?
- (A) Silencing the expression of an opinion is robbing the human race.
- (B) Silencing the expression of an opinion harms those who dissent more than those who agree.
- (C) Anyone who agrees with an opinion would not want to silence its expression.
- (D) Gaining a clearer perception and livelier impression of truth is a great benefit.
- (E) The greatest benefit is the opportunity of exchanging truth for error.
18. Brushing your teeth regularly, no matter which toothpaste you use, will reduce your chances of tooth decay. Scientists have concluded that, when you brush, you reduce tooth decay by removing the film of plaque that forms on teeth and gums. So, you can forget about fluorides: brush your teeth carefully and say goodbye to cavities. Which one of the following is a criticism of the reasoning in the argument?
- (A) Brushing with fluoride toothpaste has been shown to reduce tooth decay.
- (B) The fact that brushing will reduce tooth decay does not show that fluorides are of no value.
- (C) Few people adequately remove plaque by brushing.
- (D) People have plaque on their teeth most of the time.
- (E) Scientists have been wrong about fluorides.
19. Some good cooks are gourmet cooks who pride themselves on always using extravagantly rich ingredients in elaborate recipes. Some good cooks can be characterized as fast-food cooks. They may use rich ingredients as long as the

recipes are easy to follow and take little time. Other good cooks are health food enthusiasts, who are concerned primarily with the nutritional value of food. But even though not all good cooks are big eaters, they all enjoy preparing and serving food.

If the information in the passage is true, which one of the following CANNOT be true?

- (A) Most good cooks do not use extravagantly rich ingredients.
- (B) Everyone who enjoys preparing and serving food is a good cook.
- (C) More good cooks who use extravagantly rich ingredients are big eaters than are good cooks who do not use such ingredients.
- (D) There are fewer good cooks who enjoy serving and preparing food than there are good cooks who are big eaters.
- (E) Gourmet cooks, fast-food cooks, and cooks who are health food enthusiasts are all big eaters.

20. Most discussions of the factors contributing to improvements in public health greatly underestimate the influence of the values held by individuals. This influence is indicated by the fact that the astonishing decline in mortality from infectious disease during the past century was primarily due to an improvement in living conditions. To a substantial degree, these improvements depended on the emphasis by an increasing share of the population on cleanliness, prudence, and moderation.

The main point of the passage is made primarily by

- (A) analyzing existing data on medical practices and health outcomes
- (B) presenting a set of related cause-and-effect assertions
- (C) applying several general principles to a specific case
- (D) presenting a general observation and supporting it with several specific examples
- (E) refuting in detail a commonly accepted argument

### Questions 21-22

If the city council institutes new parking regulations, city revenues will surely increase, since studies have conclusively shown that, if such parking regulations are put into effect, there is an increase in parking violations, and an increase in parking violations will result in a greater number of parking fines collected.

21. Which one of the following is closest, in terms of its logical features, to the reasoning used in the argument above?
- (A) Last year's increase in revenues can be easily explained. That was the year the city council instituted new parking regulations. No doubt the new law brought with it an increase in the number of parking violations.
  - (B) If taxes were increased, this act would naturally result in increased revenues for the city, and increased revenues would make some desirable social

programs possible. So, if taxes were increased, some desirable social programs would become possible.

(C) Henry says that, if the city council goes into closed session, an important matter of personnel policy is being discussed. However, no personnel matters were discussed at the council meeting, so if Henry is right, the council did not go into closed session.

(D) All cars parked on the north side of the street were ticketed last night, and the same cars were towed away this morning. So beware! A car ticketed in this city also gets towed away.

(E) Allen says that, if the city council institutes new parking regulations, it is unlikely that revenues for the city will increase. If Allen is right, then the parking regulation plan should not be instituted.

22. If the statements in the passage are true, which one of the following must also be true?

(A) Unless there is an increase in the number of parking violations in the city, city revenues will not increase.

(B) If the city council institutes new parking regulations, the council will fall from favor with the citizens.

(C) The city council will institute new parking regulations only if an increase in city revenues can be expected to result.

(D) If the city council's new regulations cause more parking violators to be ticketed, the city revenues will increase.

(E) Unless the city institutes a complex system of parking regulations, the city cannot expect traffic violations to increase.

23. The function of government is to satisfy the genuine wants of the masses, and government cannot satisfy those wants unless it is informed about what those wants are. Freedom of speech ensures that such information will reach the ears of government officials. Therefore, freedom of speech is indispensable for a healthy state.

Which one of the following, if true, would NOT undermine the conclusion of the argument?

(A) People most often do not know what they genuinely want.

(B) Freedom of speech tends ultimately to undermine social order, and social order is a prerequisite for satisfying the wants of the masses.

(C) The proper function of government is not to satisfy wants, but to provide equality of opportunity.

(D) Freedom of speech is not sufficient for satisfying the wants of the masses: social order is necessary as well.

(E) Rulers already know what the people want.

24. An unbiased observer of everyday encounters in Western societies would surely



not find many instances of unkindness by people under 65 toward people over 65. There are undoubtedly incidents of unkindness based on age, and these warrant reproof. However, the very fact that such reproof occurs and is generally accepted implies that our Western societies basically respect the elderly. The same conclusion can be drawn from a recent survey finding: 71 percent of the under 65 population agreed with the statement that “people over 65 receive too little respect from society”, while only 44 percent of the over-65 population, the target of the alleged irreverence agreed with it.

The author concludes that Western societies basically respect the elderly partly because

- (A) people under 65 are just as kind to people over 65 as they are to people of their own age group
- (B) survey data suggest that fewer people over 65 than under 65 get too little respect
- (C) disrespect for the elderly does not go so far as to result in actual harm
- (D) survey data suggest that people over 65 are more aware of incidents involving disrespect to the elderly than are people under 65
- (E) incidents of unkindness to the elderly are neither common nor generally accepted in Western societies

25. These days, everyone talks about being too busy. But all this busyness does not seem to result in things getting done. Just as many tasks are still left uncompleted, phone calls unreturned, and appointments missed as there were in the days before this outbreak of busyness. Therefore, people must not be as busy as they claim.

Which one of the following, if true, would most seriously weaken the conclusion in the passage?

- (A) These days, looking busy is a status symbol.
- (B) People have to do much more these days than before the so-called outbreak of busyness.
- (C) People waste so much time talking about being busy that they fail to get things done.
- (D) Just as many things are getting done now as before the so-called outbreak of busyness.
- (E) People have more leisure time these days than before the so-called outbreak of busyness.

#### SECTION IV

**Time 35 minutes 26 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. The government should enact a bill that would prohibit the sale and consumption of alcohol on commuter trains. Recently, the state, exercising its legitimate

authority, passed a law to protect the health of commuters by prohibiting smoking on the commuter line. When intoxicated riders get off the train, get in their cars, and drive, the public is exposed to at least as much danger as are nonsmoking rail passengers who are forced to inhale cigarette smoke.

In arguing that alcohol consumption on commuter trains should be banned, the author relies on

- (A) the fact that drinking alcohol is dangerous to one's health
- (B) the principle that people need to be protected from their own actions
- (C) the use of emotionally charged descriptions of smoking and drinking alcohol
- (D) the reader's sympathy for the problems of commuters
- (E) a comparison between the effects of smoking and the effects of drinking alcohol

2. Creating false marble is an art at which only those with a light hand can excel. Picasso, however, was a great artist, so while he did not have a light hand he could have excelled at creating false marble.

Which one of the following contains a logical error that most closely resembles the logical error contained in the passage?

- (A) The police have determined that the murderer left his fingerprints on the knife. Ira's fingerprints do not match those on the knife, so we can eliminate him as a suspect.
- (B) It is true that it is necessary to work hard in order to succeed. However, Smith was governor of the state, so it was possible for him to succeed without working hard.
- (C) Whenever I eat nuts of any kind I break out in hives. After eating the pie I did not break out, so I know it could not have been real pecan pie.
- (D) If the inventory can be sold within the next few months the business can be saved. However, since a sale cannot be concluded quickly, the business will go under.
- (E) Only the brave deserve the spoils. Major Wilson has distinguished himself several times for bravery, so surely he deserves the spoils.

3. Cass: War and peace are mutually exclusive. Therefore, a nation cannot be preparing for both war and peace simultaneously.

Stanislaus: But aren't the U.S. and the U.S.S.R. doing precisely that? They are spending vast amounts of money on war research and armaments while at the same time they are negotiating trade agreements and nuclear arms treaties that are designed to secure peace. Although they are maintaining a shaky peaceful coexistence, they are preparing for both war and peace simultaneously.

In order to refute Cass's conclusion, Stanislaus

- (A) demonstrates that a nation can be at war and at peace at the same time
- (B) points out that there are several different meanings to the words "war" and

“peace”

- (C) uses a different meaning for the term “simultaneously” than Cass does
- (D) shows that preparing for war and preparing for peace are not mutually exclusive
- (E) changes an argument based on a definition into one based on an ethical consideration

4. According to advertisements, the higher a suntan lotion’s sun protection factor, or SPF, the more protection from sunburn. In order for a suntan lotion to work, however, one has to remember to put it on before going in the sun, put on an adequate amount to cover the skin, and reapply it as needed. Therefore, it really does not matter what SPF a suntan lotion has.

Which one of the following best identifies the error in reasoning made in the passage?

- (A) It is unreasonable to assume that the only purpose of a suntan lotion is to provide protection from sunburn.
- (B) Because some people get sunburned more easily than others, the fact that there are different SPFs cannot be ignored.
- (C) It cannot be concluded that the SPF is not important just because there are requirements for the application of the suntan lotion.
- (D) It is unreasonable to assume that all suntan lotions require the same application.
- (E) There is no reason to assume that manufacturers are unaware that people sometimes forget to apply suntan lotion before going in the sun.

Questions 5-6

Patient: Doctor, I read an article that claimed that the first few hours after birth are very important to establishing a mother-infant bond, which is the first step in building a healthy relationship. Can you assure me that my relationship with my baby has not been permanently harmed by our separation for several days after his birth?

Physician: Your relationship with your child has not been harmed by the separation. Mother-infant bonding is not like an “instant glue” that cements your relationship forever. Having your infant with you during the period immediately after birth does give your relationship a head start, but many factors are involved in building a strong and lasting relationship between a mother and her child.

5. If everything the doctor says is correct, which one of the following must be true?
- (A) The best relationships between mothers and their children are caused by immediate mother-infant bonding.
  - (B) There is a high degree of correlation between the best relationships between mothers and their children and those that began with immediate mother-infant bonding.

- (C) A strong and lasting relationship is necessary for mother-infant bonding.
- (D) Where immediate mother-infant bonding takes place, a strong and lasting relationship between a mother and her child will be assured.
- (E) Immediate mother-infant bonding is not necessary for a strong and lasting relationship between a mother and her child.
6. The doctor does which one of the following in her reply to her patient?
- (A) She rejects an analogy in an attempt to reduce the patient's concern.
- (B) She cites evidence to show that the patient's worry is unfounded.
- (C) She misinterprets the patient's explanation of her concern.
- (D) She establishes that the article that the patient read was in error.
- (E) She names other factors that are more important in creating a mother-infant bond.
7. A recent survey showed that many workers in a certain company are dissatisfied with their jobs. The survey also showed that most of the dissatisfied workers believe that they have little control over their job assignments. Therefore, to increase workers job satisfaction the company's management need only concentrate on changing workers' beliefs regarding the degree of control they have over their job assignments.
- Which one of the following, if also shown by the survey, would most seriously call into question the conclusion made by the author of the passage?
- (A) The dissatisfied workers feel that their wages are too low and working conditions are unsatisfactory.
- (B) The number of workers in the company who are satisfied with their jobs is greater than the number who are dissatisfied.
- (C) The workers in the company are more dissatisfied than workers in other companies.
- (D) Most people in company management believe that the workers already have too much control over their work.
- (E) The workers in the company who are satisfied with their jobs believe that they have a lot of control over their job assignments.
8. Dr. Sheila Porter plans to run an experiment using nursing students. Each student will be shown either a pleasant nature film or a disturbing horror film. Each student will be observed by someone who—looking only at the student's facial expressions—must ascertain which film is being shown. Students shown the horror movie are told to hide their feelings in order to convince the observer that they are watching a pleasant film. Dr. Porter hypothesizes that all the students in the experiment who are convincing will be among the best at working with patients. The hypothesis will be tested by comparing the convincing students and unconvincing students in terms of their performance with patents.
- Which one of the following incidents best illustrates Dr. Porter's hypothesis?

- (A) Niles, the most convincing student in the experiment, later went on to become a physician.
- (B) After graduating, Yoshiro, a nursing student who was convincing in the experiment, helped care for Bram, a patient at a hospital. Bram recovered from his operation.
- (C) After graduating, Kim, a nursing student in the experiment who watched the nature film, was removed from the staff of a hospital for unacceptable performance in patient care.
- (D) Daria, a nursing student who was convincing in the experiment, later received “A’s” in those classes in which working with patients in a teaching hospital was the sole basis of her grades.
- (E) Marite, a nursing student who was not convincing in the experiment, later quit nursing school.
9. Those who think with a hierarchical mentality strive for situations in which their side is dominant and the other side is submissive. In contrast, communal thinkers strive for parity among all sides. Therefore, achieving parity of nuclear weaponry between the East and the West is not enough for Western military generals. Which one of the following assumptions would provide the most support for the conclusion above?
- (A) Western military generals do not have the same mentality as do Eastern military generals.
- (B) Parity in nuclear weaponry requires that military generals from both the East and the West think in communal terms.
- (C) Western military generals want parity with respect to strength in nuclear weaponry between the East and the West.
- (D) Western military generals’ thinking about relative strength in nuclear weaponry is hierarchical.
- (E) The thinking of military generals with respect to relative strength in nuclear weaponry is either hierarchical or communal.
10. It has always been difficult to understand the basis of politics in the People’s Republic of China. Because the system is effectively closed, it is impossible to know with any degree of confidence who is allied with whom and for what reasons. Yet Chinese politics does exhibit many of the external characteristics of factional political systems, as found in more open societies. It is legitimate to conclude, therefore, that China has a factional political system. Which one of the following, if true, would confirm the author’s conclusion that China has a factional political system?
- (A) All open political systems are factional political systems.
- (B) All factional political systems are closed political systems.
- (C) All closed political systems are factional political systems.



- (D) China's political system is more open than many existing factional political systems.
- (E) China's political system is more closed than all existing factional political systems.
11. Since no one returns from death, we can never be certain about what passes through the mind of the dying person. For the unconscious, the confused, and the heavily sedated, these final moments are probably meaningless. However, for the mentally alert, it is quite possible that death presents itself as an unbelievably glorious experience, a flight into an entirely new universe of sensation. Why should we think so? Some people who have been reprieved from "certain" death at the last moment have experienced what goes through the consciousness of those who are not so fortunate. For example, parachutists who have survived falls report experiences that resemble psychedelic "trips."
- The primary point of the argument in the passage is
- (A) no one returns from death
- (B) dying can be a glorious experience
- (C) we can never know what passes through the mind of a dying person
- (D) some people are reprieved from death at the last moment
- (E) some people "die", yet live to report their, experiences
12. Aristotle wrote that a tyrant would be well advised to put on the appearance of uncommon devotion to religion. Subjects are more tolerant of unjust treatment from a ruler whom they consider god-rearing and pious. Moreover as most subjects believe that even the gods are on the side of the ruler, the subjects are less apt to move against him.
- Which one of the following is an assumption on which Aristotle's argument depends?
- (A) The subjects of tyrannical rulers typically believe that there is a power other than the mortal.
- (B) A tyrant cannot rule unless he has divine power on his side.
- (C) The subjects of tyrannical rulers can rarely be fooled by appearances.
- (D) Tyrants who are devoted to religion will not treat their subjects unjustly.
- (E) For a tyrant, the appearance of uncommon devotion to religion is a more effective means of ruling than unjust treatment.
13. That gadget I bought for the kitchen last week has already broken. It's just another example of the shoddy products that we are seeing more and more of these days. The thing was probably manufactured in East Golo.
- Which one of the following is the best expression of an unstated premise that underlies the author's reasoning in the passage?
- (A) If a manufacturer uses shoddy materials to make a gadget, the gadget is likely to break quickly.

- (B) If a gadget breaks quickly, it was probably manufactured in East Golo.
- (C) If a kitchen gadget was manufactured in East Golo, it should not be sold in this country.
- (D) If everything that is manufactured in East Golo breaks quickly, then kitchen gadgets manufactured in East Golo are likely to break quickly.
- (E) Nothing that is manufactured in East Golo can be expected to last more than a week.
14. All those who keep a journal will be heard by the next generation. Some of these journal writers are true artists, others humorous observers of the commonplace, and still others insufferable egotists who feel compelled to record their every thought.
- If the statements above are true, which one of the following must be true?
- (A) Not all of those who are humorous observers of the commonplace will be heard by the next generation.
- (B) Everyone who will be heard by the next generation keeps a journal.
- (C) The next generation will hear both insufferable egotists and true artists.
- (D) Some of those who keep journals are not true artists, humorous observers of the commonplace, or insufferable egotists.
- (E) The next generation will hear some of those who are true artists but not all of them.
15. Sven: Trade unions are traditionally regarded by governments and economists as restraints of trade, working against the complete freedom of the economy, but I believe that unions are indispensable since they are often the worker's only protection against exploitation.
- Ravi: I don't agree. The exploitation of the workers and their work is a normal part of ordinary trade just like the exploitation of natural or other material resources.
- Sven and Ravi will not be able to resolve their disagreement logically unless they
- (A) define a key term
- (B) rely on the opinions of established authorities
- (C) question an unproved premise
- (D) present supporting data
- (E) distinguish fact from opinion
16. History textbooks frequently need to be revised. The reasons for this are clear: new discoveries of documents and remains, the discovery of mistaken inferences in prior histories, the discovery of previously unnoticed relationships among data, and the application of hitherto undiscovered principles of natural science all may indicate inadequacies in current history texts. Any of these considerations may require that the past be reinterpreted in a manner that is new and more illuminating.

Which one of the following can be inferred from the argument in the passage?

- (A) The interpretation of historical events is affected by natural science.
- (B) The past is constantly renewed because of illuminating reinterpretations.
- (C) History books are outdated as soon as they are written.
- (D) Natural scientists also function as historians.
- (E) Historians' mistaken inferences are caused by unnoticed relationships among data.

Questions 17-18

If the artificial is not better than the natural, to what end are all the arts of life? To dig, to plow, to build, to wear clothes—all are direct violations of the injunction to follow nature.

17. Which one of the following is an assumption made by the author of the passage?
- (A) The arts of life have no useful end.
  - (B) The artificial is not better than the natural.
  - (C) Digging, plowing, building, and wearing clothes are better than nature.
  - (D) The injunction to follow nature should not be violated.
  - (E) The arts of life are indirect means of following nature.
18. If the author's argument were challenged on the grounds that the construction of buildings has adverse effects on the natural environment, which of the following replies might the author use to respond to the challenge logically?
- (A) There are human activities, such as making music, that are environmentally harmless.
  - (B) Harming the environment is not an end, or purpose, of the arts of life.
  - (C) The construction could involve the use of natural, not artificial, materials.
  - (D) Constructing buildings is not an "art of life."
  - (E) Even if the natural environment is disturbed by the construction of buildings, it is improved for human use.
19. There are at least three people in the room. At most two people in the room recognize each other. At least one person in the room recognizes everybody else in the room.
- Which one of the following is NOT consistent with the above?
- (A) Four people are in the room.
  - (B) No two people in the room recognize each other.
  - (C) At most one person in the room recognizes everybody else in the room.
  - (D) Anyone in the room who recognizes any other person in the room is also recognized by that person.
  - (E) Two people in the room recognize every one else in the room.

20. Abolish taxes, and real taxpayers would find that their disposable incomes have increased. Abolish taxes, and public employees would find that their incomes have disappeared.

Which one of the following is a logical conclusion that depends on information in both of the statements above?

- (A) Public offices should be abolished so that disposable incomes will rise.
- (B) The only real taxpayers are those who would have more to spend if they did not pay taxes.
- (C) Public employees are not real taxpayers.
- (D) Public employees' incomes should not be taxed since they come from taxes.
- (E) If there were no taxes, then public employees could not be paid.

21. A low-pressure weather system is approaching Plainville; rainfall results from about 70 percent of such systems in the Plainville area. Moreover, the current season, spring, is the time of year in which thundershowers, which sometimes result from low-pressure systems, are most likely to occur in Plainville.

Knowing which one of the following, in addition to the information above, would be most useful for determining the probability that Plainville will have a thundershower soon?

- (A) the percentage of thundershowers in Plainville that occur in the spring
- (B) the percentage of spring rainfalls in Plainville that are thundershowers
- (C) the percentage of thundershowers in Plainville that result from low-pressure systems
- (D) whether low-pressure systems in other areas are associated with rainfall
- (E) whether Plainville has more or fewer thundershowers each spring than do nearby towns

22. It is illogical to infer a second and different effect from a cause which is known only by one particular effect. This is incorrect because the inferred effect must necessarily be produced by some different characteristic of the cause than is the observed effect, which already serves entirely to describe the cause.

Which one of the following arguments makes the same logical error as the one described by the author in the passage?

- (A) An anonymous donor gave a thousand dollars to our historical society. I would guess that that individual also volunteers at the children's hospital.
- (B) The radioactive material caused a genetic mutation, which, in turn, caused the birth defect. Therefore, the radioactive material caused the birth defect.
- (C) The tiny, unseen atom is the source of immense power. It must be its highly complex structure that produces this power.
- (D) The city orchestra received more funds from the local government this year than ever before. Clearly this administration is more civic-minded than previous ones.

- (E) If I heat water, which is a liquid, it evaporates. If I heat hundreds of other liquids like water, they evaporate. Therefore, if I heat any liquid like water, it will evaporate.

Questions 23-24

Just as a bicycle chain may be too tight, so may one's carefulness and conscientiousness be so tense as to hinder the running of one's mind.

23. Which one of the following most closely parallels the reasoning used in the argument above?
- (A) Just as a clock may be wound too tightly, so may one's time be spent fruitlessly in the pursuit of perfection.
  - (B) Just as a carousel may spin too quickly, so may one's rapid concentration on several problems prevent a resolution of difficulties.
  - (C) Just as a machine may be oiled too much, so may one's heavy drinking of alcoholic beverages lead to complete dissipation.
  - (D) Just as a raging river may be frozen into stillness during the winter, so may one's career falter at certain times of the year.
  - (E) Just as a boxer may become too tense before a big fight, so may one's personal concerns stand in the way of professional success.
24. Which one of the following, if true, would most seriously weaken the argument?
- (A) Bicycle chains are used to turn wheels, but the human mind is used to "turn" ideas.
  - (B) People and bicycles are similar only in that both may not function well under stress.
  - (C) Bicycles help people with transportation, but careful, conscientious thought helps to solve many different problems.
  - (D) Extreme tension helps a bicycle chain to function efficiently.
  - (E) People engage in poor reasoning whether they are careful and conscientious or not.
25. All of the best comedians have had unhappy childhoods. Yet, many people who have had happy childhoods are good comedians, and some good comedians who have had miserably unhappy childhoods are happy adults.
- If the statements in the passage are true, which one of the following CANNOT be true?
- (A) The proportion of good comedians who had unhappy childhoods is greater than the proportion of the best comedians who did.
  - (B) Some good comedians have had unhappy childhoods and are unhappy adults.
  - (C) Most of the best comedians are happy adults.
  - (D) More good comedians have had unhappy childhoods than have had happy childhoods.



(E) The proportion of comedians who are happy adults is higher than the proportion who are unhappy adults.

26. The usefulness of lie detectors cannot be overestimated. Although there is no employee screening procedure that is 100 percent accurate, the lie detector is a valuable tool for employers and employees alike. The lie detector's usefulness is amply demonstrated in a recent survey conducted by a prestigious university. In the survey, those employees of a large company who were applying for a newly created position within the company were asked if they had ever worked on Project X. More than one-third of the applicants studied lied and said they had worked on the project—a project that never existed.

Which one of the following best identifies a flaw in the author's argument about the usefulness of lie detectors?

- (A) The argument depends on the assumption that whatever is good for the employer is good for the employee.
- (B) Since lie detectors are known to be less than 100 percent accurate, the test will tend to help only those with something to hide.
- (C) By referring to a prestigious university, the author is appealing to authority rather than to evidence.
- (D) The study shows only that certain individual will lie, not that the lie detector can detect them.
- (E) The author fails to address the issue that the use of lie detectors may fail to prevent embezzlement.

## TEST 2

### SECTION II

Time 35 minutes 24 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Some people believe that witnessing violence in movies will discharge aggressive energy. Does watching someone else eat fill one's own stomach?
- In which one of the following does the reasoning most closely parallel that employed in the passage?
- (A) Some people think appropriating supplies at work for their own personal use is morally wrong. Isn't shoplifting morally wrong?
  - (B) Some people think nationalism is defensible. Hasn't nationalism been the excuse for committing abominable crimes?
  - (C) Some people think that boxing is fixed just because wrestling usually is. Are the two sports managed by the same sort of people?
  - (D) Some people think that economists can control inflation. Can meteorologists make the sun shine?

(E) Some people think workaholics are compensating for a lack of interpersonal skills. However, aren't most doctors workaholics?

2. Ann: All the campers at Camp Winnehatchee go to Tri-Cities High School  
Bill: That's not true. Some Tri-Cities students are campers at Camp Lakemont.  
Bill's answer can be best explained on the assumption that he has interpreted Ann's remark to mean that
- (A) most of the campers at Camp Lakemont come from high schools other than Tri-Cities
  - (B) most Tri-Cities High School students are campers at Camp Winnehatchee
  - (C) some Tri-Cities High School students have withdrawn from Camp Lakemont
  - (D) all Tri-Cities High School students have withdrawn from Camp Lakemont
  - (E) only campers at Camp Winnehatchee are students at Tri-Cities High School
3. More than a year ago, the city announced that police would crack down on illegally parked cars and that resources would be diverted from writing speeding tickets to ticketing illegally parked cars. But no crackdown has taken place. The police chief claims that resources have had to be diverted from writing speeding tickets to combating the city's staggering drug problem. Yet the police are still writing as many speeding tickets as ever. Therefore, the excuse about resources being tied up in fighting drug-related crime simply is not true.  
The conclusion in the passage depends on the assumption that
- (A) every member of the police force is qualified to work on combating the city's drug problem
  - (B) drug-related crime is not as serious a problem for the city as the police chief claims it is
  - (C) writing speeding tickets should be as important a priority for the city as combating drug-related crime
  - (D) the police could be cracking down on illegally parked cars and combating the drug problem without having to reduce writing speeding tickets
  - (E) the police cannot continue writing as many speeding tickets as ever while diverting resources to combating drug-related crime
4. Dried grass clippings mixed into garden soil gradually decompose, providing nutrients for beneficial soil bacteria. This results in better-than-average plant growth. Yet mixing fresh grass clippings into garden soil usually causes poorer-than-average plant growth.  
Which one of the following, if true, most helps to explain the difference in plant growth described above?
- (A) The number of beneficial soil bacteria increases whenever any kind of plant material is mixed into garden soil.
  - (B) Nutrients released by dried grass clippings are immediately available to beneficial soil bacteria.

- (C) Some dried grass clippings retain nutrients originally derived from commercial lawn fertilizers, and thus provide additional enrichment to the soil.
- (D) Fresh grass clippings mixed into soil decompose rapidly, generating high levels of heat that kill beneficial soil bacteria.
- (E) When a mix of fresh and dried grass clippings is mixed into garden soil, plant growth often decreases.
5. A gas tax of one cent per gallon would raise one billion dollars per year at current consumption rates. Since a tax of fifty cents per gallon would therefore raise fifty billion dollars per year, it seems a perfect way to deal with the federal budget deficit. This tax would have the additional advantage that the resulting drop in the demand for gasoline would be ecologically sound and would keep our country from being too dependent on foreign oil producers.
- Which one of the following most clearly identifies an error in the author's reasoning?
- (A) The author cites irrelevant data.
- (B) The author relies on incorrect current consumption figures.
- (C) The author makes incompatible assumptions.
- (D) The author mistakes an effect for a cause.
- (E) The author appeals to conscience rather than reason.
6. As symbols of the freedom of the wilderness, bald eagles have the unique capacity to inspire people and foster in them a sympathetic attitude toward the needs of other threatened species. Clearly, without that sympathy and the political will it engenders, the needs of more obscure species will go unmet. The conservation needs of many obscure species can only be met by beginning with the conservation of this symbolic species, the bald eagle.
- Which one of the following is the main point of the passage as a whole?
- (A) Because bald eagles symbolize freedom, conservation efforts should be concentrated on them rather than on other, more obscure species.
- (B) The conservation of bald eagles is the first necessary step in conserving other endangered species.
- (C) Without increased public sympathy for conservation, the needs of many symbolic species will go unmet.
- (D) People's love of the wilderness can be used to engender political support for conservation efforts.
- (E) Other threatened species do not inspire people or foster sympathy as much as do bald eagles.
7. There is no reason why the work of scientists has to be officially confirmed before being published. There is a system in place for the confirmation or disconfirmation of scientific finding, namely, the replication of results by other

scientists. Poor scientific work on the part of any one scientist, which can include anything from careless reporting practices to fraud, is not harmful. It will be exposed and rendered harmless when other scientists conduct the experiments and obtain disconfirmatory results.

Which one of the following, if true, would weaken the argument?

- (A) Scientific experiments can go unchallenged for many years before they are replicated.
  - (B) Most scientists work in universities, where their work is submitted to peer review before publication.
  - (C) Most scientists are under pressure to make their work accessible to the scrutiny of replication.
  - (D) In scientific experiments, careless reporting is more common than fraud.
  - (E) Most scientists work as part of a team rather than alone.
8. Alice: Quotas on automobile imports to the United States should be eliminated. Then domestic producers would have to compete directly with Japanese manufacturers and would be forced to produce higher-quality cars. Such competition would be good for consumers.

David: You fail to realize, Alice, that quotas on automobile imports are pervasive worldwide. Since German, Britain, and France have quotas, so should the United States.

Which one of the following most accurately characterizes David's response to Alice's statement?

- (A) David falsely accuses Alice of contradicting herself.
  - (B) David unfairly directs his argument against Alice personally.
  - (C) David uncovers a hidden assumption underlying Alice's position.
  - (D) David takes a position that is similar to the one Alice has taken.
  - (E) David fails to address the reasons Alice cites in favor of her conclusion.
9. Governments have only one response to public criticism of socially necessary services: regulation of the activity of providing those services. But governments inevitably make the activity more expensive by regulating it, and that is particularly troublesome in these times of strained financial resources. However, since public criticism of child-care services has undermined all confidence in such services, and since such services are socially necessary, the government is certain to respond.

Which one of the following statements can be inferred from the passage?

- (A) The quality of child care will improve.
- (B) The cost of providing child-care services will increase.
- (C) The government will use funding to foster advances in child care.
- (D) If public criticism of policy is strongly voiced, the government is certain to respond.

(E) If child-care services are not regulated, the cost of providing child care will not increase.

10. Advertisers are often criticized for their unscrupulous manipulation of people's tastes and wants. There is evidence, however, that some advertisers are motivated by moral as well as financial considerations. A particular publication decided to change its image from being a family newspaper to concentrating on sex and violence, thus appealing to a different readership. Some advertisers withdrew their advertisements from the publication, and this must have been because they morally disapproved of publishing salacious material.

Which one of the following, if true, would most strengthen the argument?

- (A) The advertisers switched their advertisements to other family newspapers.
- (B) Some advertisers switched from family newspapers to advertise in the changed publication.
- (C) The advertisers expected their product sales to increase if they stayed with the changed publication, but to decrease if they withdrew.
- (D) People who generally read family newspapers are not likely to buy newspapers that concentrate on sex and violence.
- (E) It was expected that the changed publication would appeal principally to those in a different income group.

11. "If the forest continues to disappear at its present pace, the koala will approach extinction," said the biologist.

"So all that is needed to save the koala is to stop deforestation," said the politician.

Which one of the following statements is consistent with the biologist's claim but not with the politician's claim?

- (A) Deforestation continues and the koala becomes extinct.
  - (B) Deforestation is stopped and the koala becomes extinct.
  - (C) Reforestation begins and the koala survives.
  - (D) Deforestation is slowed and the koala survives.
  - (E) Deforestation is slowed and the koala approaches extinction.
12. People have long been fascinated by the paranormal. Over the years, numerous researchers have investigated telepathy only to find that conclusive evidence for its existence has persistently evaded them. Despite this, there are still those who believe that there must be "something in it" since some research seems to support the view that telepathy exist. However, it can often be shown that other explanations that do comply with known laws can be given. Therefore, it is premature to conclude that telepathy is an alternative means of communication.

In the passage, the author

- (A) supports the conclusion by pointing to the inadequacy of evidence for the opposite view



- (B) supports the conclusion by describing particular experiments
  - (C) supports the conclusion by overgeneralizing from a specific piece of evidence
  - (D) draws a conclusion that is not supported by the premises
  - (E) rephrases the conclusion without offering any support for it
13. If retail stores experience a decrease in revenues during this holiday season, then either attitudes toward extravagant gift-giving have changed or prices have risen beyond the level most people can afford. If attitudes have changed, then we all have something to celebrate this season. If prices have risen beyond the level most people can afford, then it must be that salaries have not kept pace with rising prices during the past year.
- Assume the premises above to be true. If salaries have kept pace with rising prices during the past year, which one of the following must be true?
- (A) Attitudes toward extravagant gift-giving have changed.
  - (B) Retail stores will not experience a decrease in retail sales during this holiday season.
  - (C) Prices in retail stores have not risen beyond the level that most people can afford during this holiday season.
  - (D) Attitudes toward extravagant gift-giving have not changed, and stores will not experience a decrease in revenues during this holiday season.
  - (E) Either attitudes toward extravagant gift-giving have changed or prices have risen beyond the level that most people can afford during this holiday season.
14. The “suicide wave” that followed the United States stock market crash of October 1929 is more legend than fact. Careful examination of the monthly figures on the causes of death in 1929 shows that the number of suicides in October and in November was comparatively low. In only three other months were the monthly figures lower. During the summer months, when the stock market was flourishing, the number of suicides was substantially higher.
- Which one of the following, if true, would best challenge the conclusion of the passage?
- (A) The suicide rate is influenced by many psychological, interpersonal, and societal factors during any given historical period.
  - (B) October and November have almost always had relatively high suicide rates, even during the 1920s and 1930s.
  - (C) The suicide rate in October and November of 1929 was considerably higher than the average for those months during several preceding and following years.
  - (D) During the years surrounding the stock market crash, suicide rates were typically lower at the beginning of any calendar year than toward the end of that year.

(E) Because of seasonal differences, the number of suicides in October and November of 1929 would not be expected to be the same as those for other months.

15. A well-known sports figure found that combining publicity tours with playing tours led to problems, so she stopped combining the two. She no longer allows bookstore appearances and playing in competition to occur in the same city within the same trip. This week she is traveling to London to play in a major competition, so during her stay in London she will not be making any publicity appearances at any bookstore in London.

Which one of the following most closely parallels the reasoning used in the passage?

- (A) Wherever there is an Acme Bugkiller, many wasps are killed. The Z family garden has an Acme Bugkiller, so any wasps remaining in the garden will soon be killed.
- (B) The only times that the hospital's emergency room staff attends to relatively less serious emergencies are times when there is no critical emergency to attend to. On Monday night the emergency room staff attended to a series of fairly minor emergencies, so there must not have been any critical emergencies to take care of at the time.
- (C) Tomato plants require hot summers to thrive. Farms in the cool summers of country Y probably do not have thriving tomato plants.
- (D) Higher grades lead to better job opportunities, and studying leads to higher grades. Therefore, studying will lead to better job opportunities.
- (E) Butter knives are not sharp. Q was not murdered with a sharp blade, so suspect X's butter knife may have been the murder weapon.

Questions 16-17

The advanced technology of ski boots and bindings has brought a dramatic drop in the incidence of injuries that occur on the slopes of ski resorts: from 9 injuries per 1,000 skiers in 1950 to 3 in 1980. As a result, the remainder of ski-related injuries, which includes all injuries occurring on the premises of a ski resort but not on the slopes, rose from 10 percent of all ski-related injuries in 1950 to 25 percent in 1980. The incidence of these injuries, including accidents such as falling down steps, increases with the amount of alcohol consumed per skier.

16. Which one of the following can be properly inferred from the passage?
- (A) As the number of ski injuries that occur on the slopes decreases, the number of injuries that occur on the premises of ski resorts increases.
- (B) The amount of alcohol consumed per skier increased between 1950 and 1980.
- (C) The technology of ski boots and bindings affects the incidence of each type of ski-related injury.

- (D) If the technology of ski boots and bindings continues to advance, the incidence of ski-related injuries will continue to decline.
- (E) Injuries that occurred on the slopes of ski resorts made up a smaller percentage of ski-related injuries in 1980 than in 1950.
17. Which one of the following conflicts with information in the passage?
- (A) The number of ski injuries that occurred on the slopes was greater in 1980 than in 1950.
- (B) A skier was less likely to be injured on the slopes in 1950 than in 1980.
- (C) The reporting of ski injuries became more accurate between 1950 and 1980.
- (D) The total number of skiers dropped between 1950 and 1980.
- (E) Some ski-related injuries occurred in 1980 to people who were not skiing.
18. Learning how to build a nest plays an important part in the breeding success of birds. For example, Dr. Snow has recorded the success of a number of blackbirds in several successive years. He finds that birds nesting for the first time are less successful in breeding than are older birds, and also less successful than they themselves are a year later. This cannot be a mere matter of size and strength, since blackbirds, like the great majority of birds, are fully grown when they leave the nest. It is difficult to avoid the conclusion that they benefit by their nesting experience.
- Which one of the following, if true, would most weaken the argument?
- (A) Blackbirds build better nests than other birds.
- (B) The capacity of blackbirds to lay viable eggs increases with each successive trial during the first few years of reproduction.
- (C) The breeding success of birds nesting for the second time is greater than that of birds nesting for the first time.
- (D) Smaller and weaker blackbirds breed just as successfully as bigger and stronger blackbirds.
- (E) Up to 25 percent of all birds are killed by predators before they start to nest.
19. How do the airlines expect to prevent commercial plane crashes? Studies have shown that pilot error contributes to two-thirds of all such crashes. To address this problem, the airlines have upgraded their training programs by increasing the hours of classroom instruction and emphasizing communication skills in the cockpit. But it is unrealistic to expect such measures to compensate for pilots' lack of actual flying time. Therefore, the airlines should rethink their training approach to reducing commercial crashes.
- Which one of the following is an assumption upon which the argument depends?
- (A) Training programs can eliminate pilot errors.
- (B) Commercial pilots routinely undergo additional training throughout their careers.
- (C) The number of airline crashes will decrease if pilot training programs focus

on increasing actual flying time.

(D) Lack of actual flying time is an important contributor to pilot error in commercial plane crashes.

(E) Communication skills are not important to pilot training programs.

20. All savings accounts are interest-bearing accounts. The interest from some interest-bearing accounts is tax-free, so there must be some savings accounts that have tax-free interest.

Which one of the following arguments is flawed in a way most similar to the way in which the passage is flawed?

(A) All artists are intellectuals. Some great photographers are artists. Therefore, some great photographers must be intellectuals.

(B) All great photographers are artists. All artists are intellectuals. Therefore, some great photographers must be intellectuals.

(C) All great photographers are artists. Some artists are intellectuals. Therefore, some great photographers are intellectuals.

(D) All great photographers are artists. Some great photographers are intellectuals. Therefore, some artists must be intellectuals.

(E) All great photographers are artists. No artists are intellectuals. Therefore, some great photographers must not be intellectuals.

21. One method of dating the emergence of species is to compare the genetic material of related species. Scientists theorize that the more genetically similar two species are to each other, the more recently they diverged from a common ancestor. After comparing genetic material from giant pandas, red pandas, raccoons, coatis, and all seven bear species, scientists concluded that bears and raccoons diverged 30 to 50 million years ago. They further concluded that red pandas separated from the ancestor of today's raccoons and coatis a few million years later, some 10 million years before giant pandas diverged from the other bears.

Which one of the following can be properly inferred from the passage?

(A) Giant pandas and red pandas are more closely related than scientists originally thought they were.

(B) Scientists now count the giant panda as the eighth species of bear.

(C) It is possible to determine, within a margin of just a few years, the timing of divergence of various species.

(D) Scientists have found that giant pandas are more similar genetically to bears than to raccoons.

(E) There is substantial consensus among scientists that giant pandas and red pandas are equally related to raccoons.

### Questions 22-23

Despite improvements in treatment for asthma, the death rate from this disease has doubled during the past decade from its previous rate. Two possible explanations for

this increase have been offered. First, the recording of deaths due to asthma has become more widespread and accurate in the past decade than it had been previously. Second, there has been an increase in urban pollution. However, since the rate of deaths due to asthma has increased dramatically even in cities with long-standing, comprehensive medical records and with little or no urban pollution, one must instead conclude that the cause of increased deaths is the use of bronchial inhalers by asthma sufferers to relieve their symptoms.

22. Each of the following, if true, provides support to the argument EXCEPT:
- (A) Urban populations have doubled in the past decade.
  - (B) Records of asthma deaths are as accurate for the past twenty years as for the past ten years.
  - (C) Evidence suggests that bronchial inhalers make the lungs more sensitive to irritation by airborne pollen.
  - (D) By temporarily relieving the symptoms of asthma, inhalers encourage sufferers to avoid more beneficial measures.
  - (E) Ten years ago bronchial inhalers were not available as an asthma treatment.
23. Which one of the following is an assumption on which the argument depends?
- (A) Urban pollution has not doubled in the past decade.
  - (B) Doctors and patients generally ignore the role of allergies in asthma.
  - (C) Bronchial inhalers are unsafe, even when used according to the recommended instructions.
  - (D) The use of bronchial inhalers aggravates other diseases that frequently occur among asthma sufferers and that often lead to fatal outcomes even when the asthma itself does not.
  - (E) Increased urban pollution, improved recording of asthma deaths, and the use of bronchial inhalers are the only possible explanations of the increased death rate due to asthma.
24. There is little point in looking to artists for insights into political issues. Most of them hold political views that are less insightful than those of any reasonably well-educated person who is not an artist. Indeed, when taken as a whole, the statements made by artists, including those considered to be great, indicate that artistic talent and political insight are rarely found together.
- Which one of the following can be inferred from the passage?
- (A) There are no artists who have insights into political issues.
  - (B) A thorough education in art makes a person reasonably well educated.
  - (C) Every reasonably well-educated person who is not an artist has more insight into political issues than any artist.
  - (D) Politicians rarely have any artistic talent.
  - (E) Some artists are no less politically insightful than some reasonably well-educated persons who are not artists.



**SECTION IV****Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. A major art theft from a museum was remarkable in that the pieces stolen clearly had been carefully selected. The criterion for selection, however, clearly had not been greatest estimated market value. It follows that the theft was specifically carried out to suit the taste of some individual collector for whose private collection the pieces were destined.

The argument tacitly appeals to which one of the following principles?

- (A) Any art theft can, on the evidence of the selection of pieces stolen, be categorized as committed either at the direction of a single known individual or at the direction of a group of known individuals.
  - (B) Any art theft committed at the direction of a single individual results in a pattern of works taken and works left alone that defies rational analysis.
  - (C) The pattern of works taken and works left alone can sometimes distinguish one type of art theft from another.
  - (D) Art thefts committed with no preexisting plan for the disposition of the stolen works do not always involve theft of the most valuable pieces only.
  - (E) The pattern of works taken and works left alone in an art theft can be particularly damaging to the integrity of the remaining collection.
2. The teeth of some mammals show “growth rings” that result from the constant depositing of layers of cementum as opaque bands in summer and translucent bands in winter. Cross sections of pigs teeth found in an excavated Stone Age trash pit revealed bands of remarkably constant width except that the band deposited last, which was invariably translucent, was only about half the normal width.
- The statements above most strongly support the conclusion that the animals died
- (A) in an unusually early winter
  - (B) at roughly the same age
  - (C) roughly in midwinter
  - (D) in a natural catastrophe
  - (E) from starvation
3. The United States has never been a great international trader. It found most of its raw materials and customers for finished products within its own borders. The terrible consequences of this situation have become apparent, as this country now owes the largest foreign debt in the world and is a playground for wealthy foreign investors. The moral is clear: a country can no more live without foreign trade than a dog can live by eating its own tail.

In order to advance her point of view, the author does each of the following

EXCEPT:

- (A) draw on an analogy
- (B) appeal to historical fact
- (C) identify a cause and an effect
- (D) suggest a cause of the current economic situation
- (E) question the ethical basis of an economic situation

4. Giselle: The government needs to ensure that the public consumes less petroleum. When things cost more, people buy and use less of them. Therefore, the government should raise the sales tax on gasoline, a major petroleum product.

Antoine: The government should not raise the sales tax on gasoline. Such an increase would be unfair to gasoline users. If taxes are to be increased, the increases should be applied in such a way that they spread the burden of providing the government with increased revenues among many people, not just the users of gasoline.

As a rebuttal of Giselle's argument, Antoine's response is ineffective because

- (A) he ignores the fact that Giselle does not base her argument for raising the gasoline sales tax on the government's need for increase revenues
- (B) he fails to specify how many taxpayers there are who are not gasoline users
- (C) his conclusion is based on an assertion regarding unfairness, and unfairness is a very subjective concept
- (D) he mistakenly assumes that Giselle wants a sales tax increase only on gasoline
- (E) he makes the implausible assumption that the burden of increasing government revenues can be more evenly distributed among the people through other means besides increasing the gasoline sales tax

5. A government agency publishes ratings of airlines, ranking highest the airlines that have the smallest proportion of late flights. The agency's purpose is to establish an objective measure of the relative efficiency of different airlines' personnel in meeting published flight schedules.

Which one of the following, if true, would tend to invalidate use of the ratings for the agency's purpose?

- (A) Travelers sometimes have no choice of airlines for a given trip at a given time.
- (B) Flights are often made late by bad weather conditions that affect some airlines more than others.
- (C) The flight schedules of all airlines allow extra time for flights that go into or out of very busy airports.
- (D) Airline personnel are aware that the government agency is monitoring all airline flights for lateness.
- (E) Flights are defined as "late" only if they arrive more than fifteen minutes past

their scheduled arrival time, and a record is made of how much later than fifteen minutes they are.

6. Although this bottle is labeled “vinegar,” no fizzing occurred when some of the liquid in it was added to powder from this box labeled “baking soda.” But when an acidic liquid such as vinegar is added to baking soda the resulting mixture fizzes, so this bottle clearly has been mislabeled.

A flaw in the reasoning in the argument above is that this argument

- (A) ignores the possibility that the bottle contained an acidic liquid other than vinegar
  - (B) fails to exclude an alternative explanation for the observed effect
  - (C) depends on the use of the imprecise term “fizz”
  - (D) does not take into account the fact that scientific principles can be definitively tested only under controlled laboratory conditions
  - (E) assumes that the fact of a labeling error is proof of an intention to deceive
7. Marine biologists have long thought that variation in the shell color of aquatic snails evolved as a protective camouflage against birds and other predators. Brown shells seem to be more frequent when the underlying seafloor is dark-colored and white shells more frequent when the underlying seafloor is light-colored. A new theory has been advanced, however, that claims that shell color is related to physiological stress associated with heat absorption. According to this theory, brown shells will be more prevalent in areas where the wave action of the sea is great and thus heat absorption from the Sun is minimized, whereas white shells will be more numerous in calmer waters where the snails will absorb more heat from the Sun’s rays.
- Evidence that would strongly favor the new theory over the traditional theory would be the discovery of a large majority of
- (A) dark-shelled snails in a calm inlet with a dark, rocky bottom and many predators
  - (B) dark-shelled snails in a calm inlet with a white, sandy bottom
  - (C) light-shelled snails in an inlet with much wave action and a dark, rocky bottom
  - (D) light-shelled snails in a calm inlet with a dark, rocky bottom and many predators
  - (E) light-shelled snails in a calm inlet with a white, sandy bottom and many predators
8. Measurements of the extent of amino-acid decomposition in fragments of eggshell found at archaeological sites in such places as southern Africa can be used to obtain accurate dates for sites up to 200,000 years old. Because the decomposition is slower in cool climates, the technique can be used to obtain accurate dates for sites almost a million years old in cooler regions.

The information above provides the most support for which one of the following conclusions?

- (A) The oldest archaeological sites are not in southern Africa, but rather in cooler regions of the world.
  - (B) The amino-acid decomposition that enables eggshells to be used in dating does not take place in other organic matter found at ancient archaeological sites.
  - (C) If the site being dated had been subject to large unsuspected climatic fluctuations during the time the eggshell has been at the site, application of the technique is less likely to yield accurate results.
  - (D) After 200,000 years in a cool climate, less than one-fifth of the amino acids in a fragment of eggshell that would provide material for dating with the technique will have decomposed and will thus no longer be suitable for examination by the technique.
  - (E) Fragments of eggshell are more likely to be found at ancient archaeological sites in warm regions of the world than at such sites in cooler regions.
9. Advertisement: Clark brand-name parts are made for cars manufactured in this country. They satisfy all of our government automotive test—the toughest such tests in the world. With foreign-made parts, you never know which might be reliable and which are cheap look-alikes that are poorly constructed and liable to cost you hundreds of dollars in repairs. Therefore, be smart and insist on brand-name parts by Clark for your car.
- The argument requires the assumption that
- (A) Clark parts are available only in this country
  - (B) foreign-made parts are not suitable for cars manufactured in this country
  - (C) no foreign-made parts satisfy our government standards
  - (D) parts that satisfy our government standards are not as poorly constructed as cheap foreign-made parts
  - (E) if parts are made for cars manufactured in our country, they are not poorly constructed

10. Even if a crime that has been committed by computer is discovered and reported, the odds of being both arrested and convicted greatly favor the criminal.

Each of the following, if true, supports the claim above EXCEPT:

- (A) The preparation of computer-fraud cases takes much more time than is required for average fraud cases, and the productivity of prosecutors is evaluated by the number of good cases made.
- (B) In most police departments, officers are rotated through different assignments every two or three years, a shorter time than it takes to become proficient as a computer-crime investigator.
- (C) The priorities of local police departments, under whose jurisdiction most

computer crime falls, are weighted toward visible street crime that communities perceive as threatening.

- (D) Computer criminals have rarely been sentenced to serve time in prison, because prisons are overcrowded with violent criminals and drug offenders.
- (E) The many police officers who are untrained in computers often inadvertently destroy the physical evidence of computer crime.

11. Every week, the programming office at an FM radio station reviewed unsolicited letters from listeners who were expressing comments on the station's programs. One week, the station received 50 letters with favorable comments about the station's news reporting and music selection and 10 letters with unfavorable comments on the station's new movie review segment of the evening program. Faced with this information, the programming director assumed that if some listeners did not like the movie review segment, then there must be other listeners who did like it. Therefore, he decided to continue the movie review segment of the evening program.

Which one of the following identifies a problem with the programming director's decision process?

- (A) He failed to recognize that people are more likely to write letters of criticism than of praise.
  - (B) He could not properly infer from the fact that some listeners did not like the movie review segment that some others did.
  - (C) He failed to take into consideration the discrepancy in numbers between favorable and unfavorable letters received.
  - (D) He failed to take into account the relation existing between the movie review segment and the news.
  - (E) He did not wait until he received at least 50 letters with unfavorable comments about the movie review segment before making his decision.
12. "Though they soon will, patients should not have a legal right to see their medical records. As a doctor, I see two reasons for this. First, giving them access will be time-wasting because it will significantly reduce the amount of time that medical staff can spend on more important duties, by forcing them to retrieve and return files. Second, if my experience is anything to go by, no patients are going to ask for access to their records anyway."

Which one of the following, if true, establishes that the doctor's second reason does not cancel out the first?

- (A) The new law will require that doctors, when seeing a patient in their office, must be ready to produce the patient's records immediately, not just ready to retrieve them.
- (B) The task of retrieving and returning files would fall to the lowest-paid member of a doctor's office staff.
- (C) Any patients who asked to see their medical records would also insist on



having details they did not understand explained to them.

- (D) The new law does not rule out that doctors may charge patients for extra expenses incurred specifically in order to comply with the new law.
- (E) Some doctors have all allowing their patients access to their medical records, but those doctors' patients took no advantage of this policy.

13. Alia: Hawthorne admits that he has influence with high government officials. He further admits that he sold that influence to an environmental interest group. There can be no justification for this kind of unethical behavior.

Martha: I disagree that he was unethical. The group that retained Hawthorne's services is dedicated to the cause of preventing water pollution. So, in using his influence to benefit this group, Hawthorne also benefited the public.

Alia and Martha disagree on whether

- (A) the meaning of ethical behavior has changed over time
- (B) the consequences of Hawthorne's behavior can ethically justify that behavior
- (C) the standards for judging ethical behavior can be imposed on Hawthorne by another
- (D) the meaning of ethical behavior is the same in a public situation as in a private one
- (E) the definition of ethical behavior is rooted in philosophy or religion

14. The mayor boasts that the average ambulance turnaround time, the time from summons to delivery of the patient, has been reduced this year for top-priority emergencies. This is a serious misrepresentation. This "reduction" was produced simply by redefining "top priority." Such emergencies used to include gunshot wounds and electrocutions, the most time-consuming cases. Now they are limited strictly to heart attacks and strokes.

Which one of the following would strengthen the author's conclusion that it was the redefinition of "top priority" that produced the reduction in turnaround time?

- (A) The number of heart attacks and strokes declined this year.
- (B) The mayor redefined the city's financial priorities this year.
- (C) Experts disagree with the mayor's definition of "top-priority emergency."
- (D) Other cities include gunshot wound cases in their category of top-priority emergencies.
- (E) One half of all of last year's top-priority emergencies were gunshot wounds and electrocution cases.

15. In a large residential building, there is a rule that no pets are allowed. A group of pet lovers tried to change that rule but failed. The rule-changing procedure outlined in the building's regulations states that only if a group of tenants can obtain the signatures of 10 percent of the tenants on a petition to change a rule will the proposed change be put to a majority vote of all the tenants in the building. It follows that the pet lovers were voted down on their proposal by the

majority of the tenants.

The argument depends on which one of the following assumptions?

- (A) The pet lovers succeeded in obtaining the signatures of 10 percent of the tenants on their petition.
- (B) The signatures of less than 10 percent of the tenants were obtained on the pet lovers' petition.
- (C) Ninety percent of the tenants are against changing the rule forbidding pets.
- (D) The support of 10 percent of the tenants for a rule change ensures that the rule change will be adopted.
- (E) The failure of the pet lovers to obtain the signatures of 10 percent of the tenants on their petition for a rule change ensures that the rule change will be voted down by a majority of the tenants.

16. Nuclear fusion is a process whereby the nuclei of atoms are joined, or "fused," and in which energy is released. One of the by-products of fusion is helium-4 gas. A recent fusion experiment was conducted using "heavy" water contained in a sealed flask. The flask was, in turn, contained in an air-filled chamber designed to eliminate extraneous vibration. After the experiment, a measurable amount of helium-4 gas was found in the air of the chamber. The experimenters cited this evidence in support of their conclusion that fusion had been achieved.

Which one of the following, if true, would cast doubt on the experimenters' conclusion?

- (A) Helium-4 was not the only gas found in the experiment chamber.
- (B) When fusion is achieved, it normally produces several by-products, including tritium and gamma rays.
- (C) The amount of helium-4 found in the chamber's air did not exceed the amount of helium-4 that is found in ordinary air.
- (D) Helium-4 gas rapidly breaks down, forming ordinary helium gas after a few hours.
- (E) Nuclear fusion reactions are characterized by the release of large amounts of heat.

17. Every photograph, because it involves the light rays that something emits hitting film, must in some obvious sense be true. But because it could always have been made to show things differently than it does, it cannot express the whole truth and, in that sense, is false. Therefore, nothing can ever be definitively proved with a photograph.

Which one of the following is an assumption that would permit the conclusion above to be properly drawn?

- (A) Whatever is false in the sense that it cannot express the whole truth cannot furnish definitive proof.
- (B) The whole truth cannot be known.

- (C) It is not possible to determine the truthfulness of a photograph in any sense.
- (D) It is possible to use a photograph as corroborative evidence if there is additional evidence establishing the truth about the scene photographed.
- (E) If something is being photographed, then it is possible to prove definitively the truth about it.

Questions 18-19

Some cleaning fluids, synthetic carpets, wall paneling, and other products release toxins, such as formaldehyde and benzene, into the household air supply. This is not a problem in well-ventilated houses, but it is a problem in houses that are so well insulated that they trap toxins as well as heat. Recent tests, however, demonstrate that houseplants remove some household toxins from the air and thereby eliminate their danger. In one test, 20 large plants eliminated formaldehyde from a small, well-insulated house.

18. Assume that a person who lives in a small, well-insulated house that contains toxin-releasing products places houseplants, such as those tested, in the house. Which one of the following can be expected as a result?
- (A) There will no longer be any need to ventilate the house.
  - (B) The concentration of toxins in the household air supply will remain the same.
  - (C) The house will be warm and have a safe air supply.
  - (D) If there is formaldehyde in the household air supply, its level will decrease.
  - (E) If formaldehyde and benzene are being released into the household air supply, the quantities released of each will decrease.
19. The passage is structured to lead to which one of the following conclusions?
- (A) Houseplants can remove benzene from the air.
  - (B) Nonsynthetic products do not release toxins into houses.
  - (C) Keeping houseplants is an effective means of trapping heat in a poorly insulated house.
  - (D) Keeping houseplants can compensate for some of the negative effects of poor ventilation.
  - (E) The air in a well-insulated house with houseplants will contain fewer toxins than the air in a well-ventilated house without houseplants.
20. Normal full-term babies are all born with certain instinctive reflexes that disappear by the age of two months. Because this three-month-old baby exhibits these reflexes, this baby is not a normal full-term baby.
- Which one of the following has a logical structure most like that of the argument above?
- (A) Because carbon dioxide turns limewater milky and this gas is oxygen, it will not turn limewater milky.
  - (B) Because no ape can talk and Suzy is an ape, Suzy cannot talk.

- (C) Because humans are social animals and Henry is sociable, Henry is normal.
- (D) Because opossums have abdominal pouches and this animal lacks any such pouch, this animal is not an opossum.
- (E) Because some types of trees shed their leaves annually and this tree has not shed its leaves, it is not normal.

21. Efficiency and redundancy are contradictory characteristics of linguistic systems: however, they can be used together to achieve usefulness and reliability in communication. If a spoken language is completely efficient, then every possible permutation of its basic language sounds can be an understandable word. However, if the human auditory system is an imperfect receptor of sounds, then it is not true that every possible permutation of a spoken language's basic language sounds can be an understandable word.

If all of the statements above are true, which one of the following must also be true?

- (A) Efficiency causes a spoken language to be useful and redundancy causes it to be reliable.
  - (B) Neither efficiency nor redundancy can be completely achieved in spoken language.
  - (C) If a spoken language were completely redundant, then it could not be useful.
  - (D) If the human auditory system were a perfect receptor of sounds, then every permutation of language sounds would be an understandable word.
  - (E) If the human auditory system is an imperfect receptor of sounds, then a spoken language cannot be completely efficient.
22. All intelligent people are nearsighted. I am very nearsighted. So I must be a genius.
- Which one of the following exhibits both of the logical flaws exhibited in the argument above?
- (A) I must be stupid because all intelligent people are nearsighted and I have perfect eyesight.
  - (B) All chickens have beaks. This bird has a beak. So this bird must be a chicken.
  - (C) All pigs have four legs, but this spider has eight legs. So this spider must be twice as big as any pig.
  - (D) John is extremely happy, so he must be extremely tall because all tall people are happy.
  - (E) All geniuses are very nearsighted. I must be very nearsighted since I am a genius.
23. An advertisement states:
- Like Danaxil, all headache pills can stop your headache. But when you are in pain, you want relief right away. Danaxil is for you—no headache pill stops pain more quickly.

Evelyn and Jane are each suffering from a headache. Suppose Evelyn takes Danaxil and Jane takes its leading competitor.

Which one of the following can be properly concluded from the claims in the advertisement?

- (A) Evelyn's headache pain will be relieved, but Jane's will not.
- (B) Evelyn's headache pain will be relieved more quickly than Jane's.
- (C) Evelyn's headache will be relieved at least as quickly as Jane's.
- (D) Jane's headache pain will be relieved at the same time as is Evelyn's.
- (E) Jane will be taking Danaxil for relief from headache pain.

Questions 24-25

In opposing the 1970 Clean Air Act, the United States automobile industry argued that meeting the act's standards for automobile emissions was neither economically feasible nor environmentally necessary. However, the catalytic converter, invented in 1967, enabled automakers to meet the 1970 standards efficiently. Currently, automakers are lobbying against the government's attempt to pass legislation that would tighten restrictions on automobile emissions. The automakers contend that these new restrictions would be overly expensive and unnecessary to efforts to curb air pollution. Clearly, the automobile industry's position should not be heeded.

24. Which one of the following most accurately expresses the method used to counter the automakers' current position?
- (A) The automakers' premises are shown to lead to a contradiction.
  - (B) Facts are mentioned that show that the automakers are relying on false information.
  - (C) A flaw is pointed out in the reasoning used by the automakers to reach their conclusion.
  - (D) A comparison is drawn between the automakers' current position and a position they held in the past.
  - (E) Evidence is provided that the new emissions legislation is both economically feasible and environmentally necessary.
25. Which one of the following, if true, lends the most support to the automakers' current position?
- (A) The more stringent the legislation restricting emissions becomes, the more difficult it becomes for automakers to provide the required technology economically.
  - (B) Emissions-restriction technology can often be engineered so as to avoid reducing the efficiency with which an automobile uses fuel.
  - (C) Not every new piece of legislation restricting emissions requires new automotive technology in order for automakers to comply with it.
  - (D) The more automobiles there are on the road, the more stringent emission



restrictions must be to prevent increased overall air pollution.

- (E) Unless forced to do so by the government, automakers rarely make changes in automotive technology that is not related to profitability.

## TEST 3

### SECTION I

Time 35 minutes 24 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Rita: The original purpose of government farm subsidy programs was to provide income stability for small family farmers. But most farm-subsidy money goes to a few farmers with large holdings. Payments to farmers whose income, before subsidies, is greater than \$100,000 a year should be stopped.

Thomas: It would be impossible to administer such a cutoff point. Subsidies are needed during the planting and growing season, but farmers do not know their income for given calendar year until tax returns are calculated and submitted the following April.

Which one of the following, if true, is the strongest counter Rita can make to Thomas' objection?

- (A) It has become difficult for small farmers to obtain bank loans to be repaid later by money from subsidies.
- (B) Having such a cutoff point would cause some farmers whose income would otherwise exceed \$100,000 to reduce their plantings.
- (C) The income of a farmer varies because weather and market prices are not stable from year to year.
- (D) If subsidy payments to large farmers were eliminated the financial condition of the government would improve.
- (E) Subsidy cutoffs can be determined on the basis of income for the preceding year.
2. Modern physicians often employ laboratory tests, in addition to physical examinations, in order to diagnose diseases accurately. Insurance company regulations that deny coverage for certain laboratory tests therefore decrease the quality of medical care provided to patients.
- Which one of the following is an assumption that would serve to justify the conclusion above?
- (A) Physical examinations and the uncovered laboratory tests together provide a more accurate diagnosis of many diseases than do physical examinations alone.
- (B) Many physicians generally oppose insurance company regulations that, in order to reduce costs, limit the use of laboratory tests.

- (C) Many patients who might benefit from the uncovered laboratory tests do not have any form of health insurance.
- (D) There are some illnesses that experienced physicians can diagnose accurately from physicians examination alone.
- (E) Laboratory tests are more costly to perform than are physical examinations.
3. Oil analysis predict that if the price of oil falls by half, the consumer's purchase price for gasoline made from this oil will also fall by half.
- Which one of the following, if true, would cast the most serious doubt on the prediction made by the oil analysts?
- (A) Improved automobile technology and new kinds of fuel for cars have enabled some drivers to use less gasoline.
- (B) Gasoline manufacturers will not expand their profit margins.
- (C) There are many different gasoline companies that compete with each other to provide the most attractive price to consumers.
- (D) Studies in several countries show that the amount of gasoline purchased by consumers initially rises after the price of gasoline has fallen.
- (E) Refining costs, distribution costs, and taxes, none of which varies significantly with oil prices, constitute a large portion of the prices of gasoline.
4. A survey was recently conducted among ferry passengers on the North Sea. Among the results was this: more of those who had taken anti-seasickness medication before their trip reported symptoms of seasickness than those who had not taken such medication. It is clear, then that despite claims by drug companies that clinical tests show the contrary, people would be better off not taking anti-seasickness medications.
- Which one of the following, if true, would most weaken the conclusion above?
- (A) Given rough enough weather, most ferry passengers will have some symptoms of seasickness.
- (B) The clinical tests reported by the drug companies were conducted by the drug companies' staffs.
- (C) People who do not take anti-seasickness medication are just as likely to respond to a survey on seasickness as people who do.
- (D) The seasickness symptoms of the people who took anti-seasickness medication would have been more severe had they not taken the medication.
- (E) People who have spent money on anti-seasickness medication are less likely to admit symptoms of seasickness than those who have not.
5. Economic considerations color every aspect of international dealings, and nations are just like individuals in that the lender sets the terms of its dealings with the borrower. That is why a nation that owes money to another nation cannot be world leader.

The reasoning in the passage assumes which one of the following?

- (A) A nation that does not lend to any other nation cannot be a world leader.
- (B) A nation that can set the terms of its dealings with other nations is certain to be a world leader.
- (C) A nation that has the terms of its dealings with another nation set by that nation cannot be a world leader.
- (D) A nation that is a world leader can borrow from another nation as long as that other nation does not set the terms of the dealings between the two nations.
- (E) A nation that has no dealings with any other nation cannot be world leader.

Questions 6-7

Rotelle: You are too old to address effectively the difficult issues facing the country, such as nuclear power, poverty, and pollution.

Sims: I don't want to make age an issue in this campaign, so I will not comment on your youth and inexperience.

6. Sims does which one of the following?
- (A) demonstrates that Rotelle's claim is incorrect
  - (B) avoids mentioning the issue of age
  - (C) proposes a way to decide which issues are important
  - (D) shows that Rotelle's statement is self-contradictory
  - (E) fails to respond directly to Rotelle's claim
7. Rotelle is committed to which one of the following?
- (A) Many old people cannot effectively address the difficult issues facing the country.
  - (B) Those at least as old as Sims are the only people who cannot effectively address the difficult issues facing the country.
  - (C) Some young people can effectively address the difficult issues facing the country.
  - (D) If anyone can effectively address the difficult issues facing the country, that person must be younger than Sims.
  - (E) Addressing the difficult issues facing the country requires an understanding of young people's points of view.
8. Political theorist: The chief foundations of all governments are the legal system and the police force; and as there cannot be a good legal system where the police are not well paid. It follows that where the police are well paid there will be good legal system.
- The reasoning in the argument is not sound because it fails to establish that:
- (A) many governments with bad legal systems have poorly paid police forces
  - (B) bad governments with good legal systems must have poorly paid police

forces

- (C) a well-paid police force cannot be effective without a good legal system
- (D) a well-paid police force is sufficient to guarantee a good legal system
- (E) some bad governments have good legal systems

9. Court records from medieval France show that in the years 1300 to 1400 the number of people arrested in the French realm for “violent interpersonal crimes” (not committed in wars) increased by 30 percent over the number of people arrested for such crimes in the years 1200 to 1300. If the increase was not the result of false arrests, therefore, medieval France had a higher level of documented interpersonal violence in the years 1300 to 1400 than in the years 1200 to 1300.

Which one of the following statements, if true, most seriously weakens the argument?

- (A) In the years 1300 to 1400 the French government’s category of violent crimes included an increasing variety of interpersonal crimes that are actually nonviolent.
  - (B) Historical accounts by monastic chroniclers in the years 1300 to 1400 are filled with descriptions of violent attacks committed by people living in the French realm.
  - (C) The number of individual agreements between two people in which they swore oaths not to attack each other increased substantially after 1300.
  - (D) When English armies tried to conquer parts of France in the mid- to late 1300s, violence in the northern province of Normandy and the southwestern province of Gascony increased.
  - (E) The population of medieval France increased substantially during the first five decades of the 1300s, until the deadly bubonic plague decimated the population of France after 1348.
10. Rhizobium bacteria living in the roots of bean plants or other legumes produce fixed nitrogen which is one of the essential plant nutrients and which for non-legume crops, such as wheat, normally must be supplied by applications of nitrogen-based fertilizer. So if biotechnology succeeds in producing wheat strains whose roots will play host to Rhizobium bacteria, the need for artificial fertilizers will be reduced.

The argument above makes which one of the following assumptions?

- (A) Biotechnology should be directed toward producing plants that do not require artificial fertilizer.
- (B) Fixed nitrogen is currently the only soil nutrient that must be supplied by artificial fertilizer for growing wheat crops.
- (C) There are no naturally occurring strains of wheat or other grasses that have *Rhizobium* bacteria living in their roots.
- (D) Legumes are currently the only crops that produce their own supply of fixed

nitrogen.

(E) *Rhizobium* bacteria living in the roots of wheat would produce fixed nitrogen.

11. Current legislation that requires designated sections for smokers and nonsmokers on the premises of privately owned businesses is an intrusion into the private sector that cannot be justified. The fact that studies indicate that nonsmokers might be harmed by inhaling the smoke from others' cigarettes is not the main issue. Rather, the main issue concerns the government's violation of the right of private businesses to determine their own policies and rule.

Which one of the following is principle that, if accepted, could enable the conclusion to be properly drawn?

- (A) Government intrusion into the policies and rules of private businesses is justified only when individuals might be harmed.
- (B) The right of individuals to breathe safe air supersedes the right of businesses to be free from government intrusion.
- (C) The right of businesses to self-determination overrides whatever right or duty the government may have to protect the individual.
- (D) It is the duty of private businesses to protect employees from harm in the workplace.
- (E) Where the rights of businesses and the duty of government conflict, the main issue is finding a successful compromise.
12. Leachate is a solution, frequently highly contaminated, that develops when water permeates a landfill site. If and only if the landfill's capacity to hold liquids is exceeded does the leachate escape into the environment, generally in unpredictable quantities. A method must be found for disposing of leachate. Most landfill leachate is sent directly to sewage treatment plants, but not all sewage plants are capable of handling the highly contaminated water.
- Which one of the following can be inferred from the passage?
- (A) The ability to predict the volume of escaping landfill leachate would help solve the disposal problem.
- (B) If any water permeates a landfill, leachate will escape into the environment.
- (C) No sewage treatment plants are capable of handling leachate.
- (D) Some landfill leachate is sent to sewage treatment plants that are incapable of handling it.
- (E) If leachate does not escape from a landfill into the environment, then the landfill's capacity to hold liquids has not been exceeded.
13. The soaring prices of scholarly and scientific journals have forced academic libraries used only by academic researchers to drastically reduce their list of subscriptions. Some have suggested that in each academic discipline subscription decisions should be determined solely by a journal's usefulness in that discipline,



measured by the frequency with which it is cited in published writings by researchers in the discipline.

Which one of the following, if true, most seriously calls into question the suggestion described above?

- (A) The nonacademic readership of a scholarly or scientific journal can be accurately gauged by the number of times articles appearing in it are cited in daily newspapers and popular magazines.
  - (B) The average length of a journal article in some sciences, such as physics, is less than half the average length of a journal article in some other academic disciplines, such as history.
  - (C) The increasingly expensive scholarly journals are less and less likely to be available to the general public from nonacademic public libraries.
  - (D) Researchers often will not cite a journal article that has influenced their work if they think that the journal in which it appears is not highly regarded by the leading researchers in the mainstream of the discipline.
  - (E) In some academic disciplines, controversies which begin in the pages of one journal spill over into articles in other journals that are widely read by researchers in the discipline.
14. The average level of fat in the blood of people suffering from acute cases of disease W is lower than the average level for the population as a whole. Nevertheless, most doctors believe that reducing blood-fat levels is an effective way of preventing acute W.
- Which one of the following, if true, does most to justify this apparently paradoxical belief?
- (A) The blood level of fat for patients who have been cured of W is on average the same as that for the population at large.
  - (B) Several of the symptoms characteristic of acute W have been produced in laboratory animals fed large doses of a synthetic fat substitute, though acute W itself has not been produced in this way.
  - (C) The progression from latent to acute W can occur only when the agent that causes acute W absorbs large quantities of fat from the patient's blood.
  - (D) The levels of fat in the blood of patients who have disease W respond abnormally slowly to changes in dietary intake of fat.
  - (E) High levels of fat in the blood are indicative of several diseases that are just as serious as W.
15. Baking for winter holidays is tradition that may have a sound medical basis. In midwinter, when days are short, many people suffer from a specific type of seasonal depression caused by lack of sunlight. Carbohydrates, both sugars and starches, boost the brain's levels of serotonin, a neurotransmitter that improve the mood. In this respect, carbohydrates act on the brain in the same way as some antidepressants. Thus, eating holiday cookies may provide an effective form of

self-prescribed medication.

Which one of the following can be properly inferred from the passage?

- (A) Seasonal depression is one of the most easily treated forms of depression.
- (B) Lack of sunlight lowers the level of serotonin in the brain.
- (C) People are more likely to be depressed in midwinter than at other times of the year.
- (D) Some antidepressants act by changing the brain's level of serotonin.
- (E) Raising the level of neurotransmitters in the brain effectively relieves depression.

16. The current proposal to give college students a broader choice in planning their own courses of study should be abandoned. The students who are supporting the proposal will never be satisfied, no matter what requirements are established. Some of these students have reached their third year without declaring a major. One first-year student has failed to complete four required courses. Several others have indicated a serious indifference to grades and intellectual achievement.

A flaw in the argument is that it does which one of the following?

- (A) avoids the issue by focusing on supporters of the proposal
- (B) argues circularly by assuming the conclusion is true in stating the premises
- (C) fails to define the critical term "satisfied"
- (D) distorts the proposal advocated by opponents
- (E) uses the term "student" equivocally

Questions 17-18

The question whether intelligent life exists elsewhere in the universe is certainly imprecise, because we are not sure how different from us something might be and still count as "intelligent life." Yet we cannot just decide to define "intelligent life" in some more precise way since it is likely that we will find and recognize intelligent life elsewhere in the universe only if we leave our definitions open to new, unimagined possibilities.

17. The argument can most reasonably be interpreted as an objection to which one of the following claims?
- (A) The question whether intelligent life exists elsewhere in the universe is one that will never be correctly answered.
  - (B) Whether or not there is intelligent life elsewhere in the universe, our understanding of intelligent life is limited.
  - (C) The question about the existence of intelligent life elsewhere in the universe must be made more precise if we hope to answer it correctly.
  - (D) The question whether there is intelligent life elsewhere in the universe is so imprecise as to be meaningless.
  - (E) The question whether there is intelligent life elsewhere in the universe is one

we should not spend our time trying to answer.

18. The passage, if seen as an objection to an antecedent claim, challenges that claim by:
- (A) showing the claim to be irrelevant to the issue at hand
  - (B) citing examples that fail to fit proposed definition of “intelligent life”
  - (C) claiming that “intelligent life” cannot be adequately defined
  - (D) arguing that the claim, if acted on, would be counterproductive
  - (E) maintaining that the claim is not supported by the available evidence
19. The efficiency of microwave ovens in destroying the harmful bacteria frequently found in common foods is diminished by the presence of salt in the food being cooked. When heated in a microwave oven, the interior of unsalted food reaches temperatures high enough to kill bacteria that cause food poisoning, but the interior of salted food does not. Scientists theorize that salt effectively blocks the microwaves from heating the interior.
- Which one of the following conclusions is most supported by the information above?
- (A) The kinds of bacteria that cause food poisoning are more likely to be found on the exterior of food than in the interior of food.
  - (B) The incidence of serious food poisoning would be significantly reduced if microwave ovens were not used by consumers to cook or reheat food.
  - (C) The addition of salt to food that has been cooked or reheated in a microwave oven can increase the danger of food poisoning.
  - (D) The danger of food poisoning can be lessened if salt is not used to prepare foods that are to be cooked in a microwave oven.
  - (E) Salt is the primary cause of food poisoning resulting from food that is heated in microwave ovens.
20. Pamela: Business has an interest in enabling employees to care for children, because those children will be the customers, employees, and managers of the future. Therefore, businesses should adopt policies, such as day-care benefits that facilitate parenting.
- Lee: No individual company, though, will be patronized, staffed, and managed only by its own employees’ children, so it would not be to a company’s advantage to provide such benefits to employees’ children, so it would not be to a company’s advantage to provide such benefits to employees when other companies do not.
- In which one of the following pairs consisting of argument and objection does the objection function most similarly to the way Lee’s objection functions in relation to Pamela’s argument?
- (A) New roads will not serve to relieve this area’s traffic congestion, because new roads would encourage new construction and generate additional

traffic.

Objection: Failure to build new roads would mean that traffic congestion would strangle the area even earlier.

- (B) Humanity needs clean air to breathe, so each person should make an effort avoid polluting the air.

Objection: The air one person breathes is affected mainly by pollution caused by others, so it makes no sense to act alone to curb air pollution.

- (C) Advertised discounts on products draw customers' attention to the products, so advertised discounts benefit sales.

Objection: Customers already planning to purchase a product accelerate buying to take advantage of advertised discounts, and those subsequent sales suffer.

- (D) If people always told lies, then no one would know what the truth was, so people should always tell the truth.

Objection: If people always told lies, then everyone would know that the truth was the opposite of what was said.

- (E) Human social institutions have always changed. So even if we do not know what those changes will be, we do know that the social institutions of the future will differ from those of the past.

Objection: The existence of change in the past does not ensure that there will always be change in the future.

21. Pedro: Unlike cloth diapers, disposable diapers are a threat to the environment. Sixteen billion disposable diapers are discarded annually, filling up landfills at an alarming rate. So people must stop buying disposable diapers and use cloth diapers.

Maria: But you forget that cloth diapers must be washed in hot water, which requires energy. Moreover, the resulting wastewater pollutes our rivers. When families use diaper services, diapers must be delivered by fuel-burning trucks that pollute the air and add to traffic congestion.

Maria objects to Pedro's argument by

- (A) claiming that Pedro overstates the negative evidence about disposable diapers in the course of his argument in favor of cloth diapers
- (B) indicating that Pedro draws a hasty conclusion, based on inadequate evidence about cloth diapers
- (C) pointing out that there is an ambiguous use of the word "disposable" in Pedro's argument
- (D) demonstrating that cloth diapers are a far more serious threat to the environment than disposable diapers are
- (E) suggesting that the economic advantages of cloth diapers outweigh whatever environmental damage they may cause

22. In an experiment, two-year-old boys and their fathers made pie dough together using rolling pins and other utensils. Each father-son pair used a rolling pin that was distinctively different from those used by the other father-son pairs, and each father repeated the phrase “rolling pin” each time his son used it. But when the children were asked to identify all of the rolling pins among a group of kitchen utensils that included several rolling pins, each child picked only the one that he had used.

Which one of the following inferences is most supported by the information above?

- (A) The children did not grasp the function of rolling pin.
  - (B) No two children understood the name “rolling pin” to apply to the same object.
  - (C) The children understood that all rolling pins have the same general shape.
  - (D) Each child was able to identify correctly only the utensils that he had used.
  - (E) The children were not able to distinguish the rolling pins they used from other rolling pins.
23. When 100 people who have not used cocaine are tested for cocaine use, on average only 5 will test positive. By contrast, of every 100 people who have used cocaine 99 will test positive. Thus, when a randomly chosen group of people is tested for cocaine use, the vast majority of those who test positive will be people who have used cocaine.

A reasoning error in the argument is that the argument

- (A) attempts to infer a value judgment from purely factual premises
  - (B) attributes to every member of the population the properties of the average member of the population
  - (C) fails to take into account what proportion of the population have used cocaine
  - (D) ignores the fact that some cocaine users do not test positive
  - (E) advocates testing people for cocaine use when there is no reason to suspect that they have used cocaine
24. If a society encourages freedom of thought and expression, then, during the time when it does so, creativity will flourish in that society. In the United States creativity flourished during the eighteenth century. It is clear, therefore, that freedom of thought was encouraged in the United States during the eighteenth century.

An error of reasoning of the same kind as one contained in the passage is present in each of the following arguments EXCEPT:

- (A) According to the airline industry, airfares have to rise if air travel is to be made safer; since airfares were just raised, we can rest assured that air travel will therefore become safer.



- (B) We can conclude that the Hillside police department has improved its efficiency, because crime rates are down in Hillside, and it is an established fact that crime rates go down when police departments increase their efficiency.
- (C) People who are really interested in the preservation of wildlife obviously do not go hunting for big game; since Gerda has never gone hunting for big game and intends never to do so, it is clear that she is really interested in the preservation of wildlife.
- (D) If the contents of a bottle are safe to drink, the bottle will not be marked “poison,” so, since the bottle is not marked “poison,” its contents will be safe to drink.
- (E) None of the so-called Western democracies is really democratic, because, for a country to be democratic, the opinion of each of its citizens must have a meaningful effect on government, and in none of these countries does each citizen’s opinion have such an effect.

#### SECTION IV

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. With the passage of the new tax reform law, the annual tax burden on low-income taxpayers will be reduced, on average, by anywhere from \$100 to \$300. Clearly, tax reform is in the interest of low-income taxpayers.  
Which one of the following, if true, most undermines the conclusion above?
  - (A) Tax reform, by simplifying the tax code, will save many people the expense of having an accountant do their taxes.
  - (B) Tax reform, by eliminating tax incentives to build rental housing, will push up rents an average of about \$40 per month for low-income taxpayers.
  - (C) Low-income taxpayers have consistently voted for those political candidates who are strong advocates of tax reform.
  - (D) The new tax reform laws will permit low and middle-income taxpayers to deduct child-care expenses from their taxes.
  - (E) Under the new tax reform laws, many low-income taxpayers who now pay taxes will no longer be required to do so.
2. If we are to expand the exploration of our solar system, our next manned flight should be to Phobos, one of Mars’s moons, rather than to Mars itself. The flight times to each are the same, but the Phobos expedition would require less than half the fuel load of a Mars expedition and would, therefore, be much less costly. So, it is clear that Phobos should be our next step in Space exploration.  
Which one of the following, if true, would most help to explain the difference in fuel requirement?
  - (A) More equipment would be required to explore Phobos than to explore Mars.

- (B) Smaller spaceships require less fuel than larger spaceships.
- (C) Information learned during the trip to Phobos can be used during a subsequent trip to Mars.
- (D) The shortest distance between Phobos and Mars is less than half the shortest distance Between Earth and Mars.
- (E) Lift-off for the return trip from Phobos requires much less fuel than that from Mars because of Phobos weaker gravitational pull.
3. Scientific research that involves international collaboration has produced papers of greater influence. As measured by the number of times a paper is cited in subsequent papers, than has research without any collaboration. Papers that result from international collaboration are cited an average of seven times, whereas papers with single authors are cited only three times on average. This difference shows that research projects conducted by international research teams are of greater importance than those conducted by single researchers.
- Which one of the following is an assumption on which the argument depends?
- (A) Prolific writers can inflate the number of citations they receive by citing themselves in subsequent papers.
- (B) It is possible to ascertain whether or not a paper is the product of international collaboration by determining the number of citations it has received.
- (C) The number of citations a paper receives is a measure of the importance of the research it reports.
- (D) The collaborative efforts of scientists who are citizens of the same country do not produce papers that are as important as papers that are produced by international collaboration.
- (E) International research teams tend to be more generously funded than are single researchers.
4. It is more desirable to have some form of socialized medicine than a system of medical care relying on the private sector. Socialized medicine is more broadly accessible than is private-sector system. In addition, since countries with socialized medicine have a lower infant mortality rate than do countries with a system relying entirely on the private sector, socialized medicine seems to be technologically superior.
- Which one of the following best indicates a flaw in the argument about the technological superiority of socialized medicine?
- (A) The lower infant mortality rate might be due to the systems allowing greater access to medical care.
- (B) There is no necessary connection between the economic system of socialism and technological achievement.
- (C) Infant mortality is a reliable indicator of the quality of medical care for children.

- (D) No list is presented of the countries whose infant mortality statistics are summarized under the two categories, “socialized” and “private-sector.”
- (E) The argument presupposes the desirability of socialized medicine, which is what the argument seeks to establish.

5. Most parents who are generous are good parents, but some self-centered parents are also good parents. Yet all good parents share one characteristic: they are good listeners.

If all of the statements in the passage are true, which one of the following must also be true?

- (A) All parents who are good listeners are good parents.
- (B) Some parents who are good listeners are not good parent.
- (C) Most parents who are good listeners are generous.
- (D) Some parents who are good listeners are self-centered.
- (E) Fewer self-centered parents than generous parents are good listeners.

6. Lourdes: Dietary fiber is an important part of a healthful diet. Experts recommend that adults consume 20 to 35 grams of fiber a day.

Kyra: But a daily intake of fiber that is significantly above that recommended level interferes with mineral absorption, especially the absorption of calcium. The public should be told to cut back on fiber intake

Which one of the following, if true, most undermines Kyra’s recommendation?

- (A) Among adults, the average consumption of dietary fiber is at present approximately 10 grams a day.
- (B) The more a food is processed, the more the fiber is broken down and the lower the fiber content.
- (C) Many foodstuffs that are excellent sources of fiber are economical and readily available.
- (D) Adequate calcium intake helps prevent the decrease in bone mass known as osteoporosis.
- (E) Many foodstuffs that are excellent sources of fiber are popular with consumers.

7. A certain retailer promotes merchandise by using the following policy:

At all times there is either a “manager’s sale” or a “holiday sale” or both going on. All sales are run for exactly one calendar month. In any given month, if a manager wishes to clear out particular line of merchandise, then a managers’ sale is declared. If a holiday falls within the calendar month and there is excess merchandise in the warehouse, then a holiday sale is declared.

However, there is no holiday that falls within the month of August and, in that month, the warehouse never contains excess merchandise.

Which one of the following can be concluded from the passage?

- (A) If a holiday falls within a given month and there is no extra merchandise in the warehouse that month, then a holiday sale is declared.
- (B) If a holiday sale is not being run, then it is the month of August.
- (C) If a manger's sale is being run in some month, then there is no excess merchandise in the warehouse in that month.
- (D) If there is not a manger's sale being run some month, then there is holiday sale being run in that month.
- (E) If there is no excess merchandise in the warehouse, then it is the month of August.

8. Prominent business executives often play active roles in United States presidential campaigns as fundraisers or backroom strategists. But few actually seek to become president themselves. Throughout history the great majority of those who have sought to become president have been Lawyers, military leaders, or full-time politicians. This is understandable, for the personality and skills that make for success in business do not make for success in politics. Business is largely hierarchical, whereas politics is coordinative. As a result, business executives tend to be uncomfortable with compromises and power sharing, which are inherent in politics.

Which one of the following, if true, most seriously weakens the proposed explanation of why business executives do not run for president?

- (A) Many of the most active presidential fundraisers and backroom strategists are themselves politicians.
  - (B) Military leaders are generally no more comfortable with compromises and power sharing than are business executives.
  - (C) Some of the skills needed to become a successful lawyer are different from some of those needed to become a successful military leader.
  - (D) Some former presidents have engaged in business ventures after leaving office.
  - (E) Some hierarchically structured companies have been major financial supporters of candidates for president.
9. A scientific theory is a good theory if it satisfies two requirements: It must accurately describe a large class of observations in terms of a model that is simple enough to contain only a few elements, and it must make definite predictions about the results of future observations. For example, Aristotle's cosmological theory, which claimed that everything was made out of four elements—earth, air, fire, and water—satisfied the first requirement, but it did not make any definite prediction. Thus, Aristotle's cosmological theory was not a good theory.
- If all the statements in the passage are true, each of the following must also be true EXCEPT:
- (A) Prediction about the results of future observations must be made by any good scientific theory.

- (B) Observation of physical phenomena was not a major concern in Aristotle's cosmological theory.
- (C) Four elements can be the basis of a scientific model that is simple enough to meet the simplicity criterion of a good theory.
- (D) A scientific model that contains many elements is not a good theory.
- (E) Aristotle's cosmological theory described a large class of observations in terms of only four elements.
10. Millions of irreplaceable exhibits in natural history museums are currently allowed to decay. Yet without analyses of eggs from museums, the studies linking pesticides with the decline of birds of prey would have been impossible. Therefore, funds must be raised to preserve at least those exhibits that will be most valuable to science in the future.
- The argument presupposes that
- (A) if a museum exhibit is irreplaceable, its preservation is of an importance that overrides economic considerations
- (B) the scientific analysis of museum exhibits can be performed in nondestructive way
- (C) eggs of extinct species should be analyzed to increase knowledge of genetic relationships among species
- (D) it can be known at this time what data will be of most use to scientific investigators in the future
- (E) the decay of organic material in natural history exhibits is natural and cannot be prevented
11. Compared to nonprofit hospitals of the same size, investor-owned hospitals require less public investment in the form of tax breaks, use fewer employees, and have higher occupancy levels. It can therefore be concluded that investor-owned hospitals are a better way of delivering medical care than are nonprofit hospitals.
- Which one of the following, if true, most undermines the conclusion drawn above?
- (A) Nonprofit hospitals charge more per bed than do investor-owned hospitals.
- (B) Patients in nonprofit hospitals recover more quickly than do patients with comparable illnesses in investor-owned hospitals.
- (C) Nonprofit hospitals do more fundraising than do investor-owned hospitals.
- (D) Doctors at nonprofit hospitals earn higher salaries than do similarly qualified doctors at investor-owned hospitals.
- (E) Nonprofit hospitals receive more donations than do investor-owned hospitals.
12. The ancient Egyptian pharaoh Akhenaten, who had a profound effect during his lifetime on Egyptian art and religion, was well loved and highly respected by his subjects. We know this from the fierce loyalty shown to him by his palace guards,



as documented in reports written during Akhenaten's reign.

A questionable technique used in the argument is to

- (A) introduce information that actually contradicts the conclusion
- (B) rely on evidence that in principle would be impossible to challenge
- (C) make a generalization based on a sample that is likely to be unrepresentative
- (D) depend on the ambiguity of the term "ancient"
- (E) apply present-day standards in an inappropriate way to ancient times

13. Physician: The patient is suffering either from disease X or else from disease Y, but there is no available test for distinguishing X from Y. Therefore, since there is an effective treatment for Y but no treatment for X, we must act on the assumption that the patient has a case of Y.

The physician's reasoning could be based on which one of the following principles?

- (A) In treating a patient who has one or the other of two diseases, it is more important to treat the diseases than to determine which of the two diseases the patient has.
- (B) If circumstances beyond a decision maker's control will affect the outcome of the decision maker's actions, the decision maker must assume that circumstances are unfavorable.
- (C) When the soundness of a strategy depends on the truth of a certain assumption, the first step in putting the strategy into effect must be to test the truth of this assumption.
- (D) When success is possible only if a circumstance beyond one's control is favorable, then one's strategy must be based on the assumption that this circumstance is in fact favorable.
- (E) When only one strategy carries the possibility of success, circumstances must as much as possible be changed to fit this strategy.

14. Consumer advocate: Tropical oils are high in saturated fats, which increase the risk of heart disease. Fortunately, in most prepared food tropical oils can be replaced by healthier alternatives without noticeably affecting taste. Therefore, intensive publicity about the disadvantage of tropical oils will be likely to result in dietary changes that will diminish many people's risk of developing heart disease.

Nutritionist: The major sources of saturated fat in the average North American diet are meat, poultry, and dairy products, not tropical oils. Thus, focusing attention on the health hazards of tropical oils would be counterproductive, because it would encourage people to believe that more substantial dietary changes are unnecessary.

Which one of the following is a point at issue between the nutritionist and the consumer advocate?

- (A) Whether a diet that regularly includes large quantities of tropical oil can increase the risk of heart disease.
- (B) Whether intensive publicity campaigns can be effective as means of changing people's eating habits.
- (C) Whether more people in North American would benefit from reducing the amount of meat they consume than would benefit from eliminating tropical oils from their diets.
- (D) Whether some people's diets could be made significantly healthier if they replaced all tropical oils with vegetable oils that are significantly lower in saturated fat.
- (E) Whether conducting a publicity campaign that by focusing on the health hazards of tropical oils persuades people to replace such oils with healthier alternatives is a good public-health strategy.
15. People who take what others regard as a ridiculous position should not bother to say, "I mean every word!" For either their position truly is ridiculous, in which case insisting that they are serious about it only exposes them to deeper embarrassment, or else their position has merit, in which case they should meet disbelief with rational argument rather than with assurances of their sincerity. Which one of the following arguments is most similar in its reasoning to the argument above?
- (A) A practice that has been denounced as poor practice should not be defended on the grounds that "this is how we have always done it." If the practice is a poor one, so much the worse that it has been extensively used; if it is not poor one, there must be a better reason for engaging in it than inertia.
- (B) People who are asked why they eat some of the unusual foods they eat should not answer, "because that is what I like." This sort of answer will sound either naive or evasive and thus will satisfy no one.
- (C) People whose taste in clothes is being criticized should not replay, "Every penny I spent on these clothes I earned honestly." For the issue raised by the critics is not how the money was come by but rather whether it was spent wisely.
- (D) Scholars who champion unpopular new theories should not assume that the widespread rejection of their ideas shows that they "must be on the right track." The truth is that few theories of any consequence are either wholly right or wholly wrong and thus there is no substitute for patient works in ascertaining which parts are right.
- (E) People who set themselves goals that others denounce as overly ambitious do little to silence their critics if they say, "I can accomplish this if anyone can." Rather, those people should either admit that their critics are right or not dignify the criticism with any reply.
16. Concetta: Franchot was a great writer because she was ahead of her time in

understanding that industrialization was taking an unconscionable toll on the family structure of the working class.

Alicia: Franchot was not a great writer. The mark of a great writer is the ability to move people with the power of the written word, not the ability to be among the first to grasp a social issue. Besides, the social consequences of industrialization were widely understood in Franchot's day.

In her disagreement with Concetta, Alicia does which one of the following?

- (A) accepts Concetta's criterion and then adds evidence to Concetta's case
- (B) discredits Concetta's evidence and then generalizes from new evidence
- (C) rejects Concetta's criterion and then disputes a specific claim
- (D) disputes Concetta's conclusion and then presents facts in support of an alternative criterion
- (E) attacks one of Concetta's claims and then criticizes the structure of her argument

Questions 17-18

Zelda: Dr. Ladlow, a research psychologist, has convincingly demonstrated that his theory about the determinants of rat behavior generates consistently accurate predictions about how rats will perform in a maze. On the basis of this evidence, Dr. Ladlow has claimed that his theory is irrefutably correct.

Anson: Then Dr. Ladlow is not responsible psychologist. Dr. Ladlow's evidence does not conclusively prove that his theory is correct. Responsible psychologists always accept the possibility that new evidence will show that their theories are incorrect.

17. Which one of the following can be properly inferred from Anson's argument?
- (A) Dr. Ladlow's evidence that his theory generates consistently accurate predictions about how rates will perform in a maze is inaccurate.
  - (B) Psychologists who can derive consistently accurate predictions about how rats will perform in a maze from their theories cannot responsibly conclude that those theories cannot be disproved.
  - (C) No matter how responsible psychologists are, they can never develop correct theoretical explanations.
  - (D) Responsible psychologists do not make predictions about how rats will perform in a maze.
  - (E) Psychologists who accept the possibility that new evidence will show that their theories are incorrect are responsible psychologists.
18. Anson bases his conclusion about Dr. Ladlow on which one of the following?
- (A) an attack on Dr. Ladlow's character
  - (B) the application of a general principle
  - (C) the use of an ambiguous term
  - (D) the discrediting of facts

- (E) the rejection of a theoretical explanation
19. Smith: Meat in the diet is healthy, despite what some people say. After all, most doctors do eat meat, and who knows more about health than doctors do?
- Which one of the following is a flaw in Smith's reasoning?
- (A) attacking the opponents' motives instead of their argument
  - (B) generalizing on the basis of a sample consisting of a typical cases
  - (C) assuming at the outset what the argument claims to establish through reasoning
  - (D) appealing to authority, even when different authorities give conflicting advice about an issue
  - (E) taking for granted that experts do not act counter to what, according to their expertise, in their best interest
20. The rise in the prosperity of England subsequent to 1840 can be attributed to the adoption of the policy of free trade, since economic conditions improved only when that policy had been implemented.
- The reasoning in the above argument most closely parallels that in which one of the following?
- (A) An exhaustive search of the marshes last year revealed no sign of marsh hawks, so it can be assumed that a similar search this year would reveal equally little sign of that kind of bird.
  - (B) Building a circular bypass road around Plainfield probably helped the flow of local traffic in the town center, since a circular bypass road generally cuts a city's through traffic markedly.
  - (C) Before the banks raised their interest rates, people on average incomes could almost afford a mortgage for an amount twice their salary. Hence the rate increase has now put mortgages beyond their reach.
  - (D) Since the improvement in the company's profitability began to occur after the vice president's new morale-building program was put in place, that program can be credited with the improved result.
  - (E) The extinction of the dinosaurs was brought about by an asteroid colliding with Earth, so their extinction could not have come before the collision.
21. During construction of the Quebec Bridge in 1907, the bridge's designer, Theodore Cooper, received word that the suspended span being built out from the bridge's cantilever was deflecting downward by a fraction of an inch. Before he could telegraph to freeze the project, the whole cantilever arm broke off and plunged, along with seven dozens workers, into the St. Lawrence River. It was the worst bridge construction disaster in history. As a direct result of the inquiry that followed, the engineering "rules of thumb" by which thousands of bridges had been built went down with the Quebec Bridge. Twentieth-century bridge engineers would thereafter depend on far more rigorous applications of

mathematical analysis.

Which one of the following statements can be properly inferred from the passage?

- (A) Bridges built before about 1907 were built without thorough mathematical analysis and, therefore, were unsafe for the public to use.
- (B) Cooper's absence from the Quebec Bridge construction site resulted in the breaking off of the cantilever.
- (C) Nineteenth-century bridge engineers relied on their rules of thumb because analytical methods were inadequate to solve their design problems.
- (D) Only a more rigorous application of mathematical analysis to the design of the Quebec Bridge could have prevented its collapse.
- (E) Prior to 1907 the mathematical analysis incorporated in engineering rules of thumb was insufficient to completely assure the safety of bridges under construction.

22. Most children find it very difficult to explain exactly what the words they use mean when those words do not refer to things that can be seen or touched. Yet since children are able to use these words to convey the feelings and emotions they are obviously experiencing, understanding what a word means clearly does not depend on being able to explain it.

Which one of the following principles, if accepted, would provide the most justification for the conclusion?

- (A) The fact that a task is very difficult for most people does not mean that no one can do it.
- (B) Anyone who can provide an exact explanation of a word has a clear understanding of what that word means.
- (C) Words that refer to emotions invariably have less narrowly circumscribed conventional meanings than do words that refer to physical objects.
- (D) When someone appropriately uses a word to convey something that he or she is experiencing, that person understands what that word means.
- (E) Words can be explained satisfactorily only when they refer to things that can be seen or touched.

Questions 23- 24

The brains of identical twins are genetically identical. When only one of a pair of identical twins is a schizophrenic, certain areas of the affected twin's brain are smaller than corresponding areas in the brain of the unaffected twin. No such differences are found when neither twin is schizophrenic. Therefore, this discovery provides definitive evidence that schizophrenia is caused by damage to the physical structure of the brain.

23. Which one of the following is an assumption required by the argument?

- (A) The brain of person suffering from schizophrenia is smaller than the brain of



- anyone not suffering from schizophrenia.
- (B) The relative smallness of certain parts of the brains of schizophrenics is not the result of schizophrenia or of medications used in its treatment.
  - (C) The brain of a person with an identical twin is no smaller, on average, than the brain of person who is not a twin.
  - (D) When a pair of identical twins both suffer from schizophrenia, their brains are the same size.
  - (E) People who have an identical twin are no more likely to suffer from schizophrenia than those who do not.
24. If the statements on which the conclusion above is based are all true, each of the following could be true EXCEPT:
- (A) People who lack a genetic susceptibility for the disease will not develop schizophrenia.
  - (B) Medications can control most of the symptoms of schizophrenia in most patients but will never be able to cure it.
  - (C) The brains of schizophrenics share many of the characteristics found in those of people without the disorder.
  - (D) It will eventually be possible to determine whether or not someone will develop schizophrenia on the basis of genetic information alone.
  - (E) Brain abnormalities associated with schizophrenia are the result of childhood viral infections that inhibit the development of brain cells.
25. Sixty adults were asked to keep a diary of their meals, including what they consumed, when, and in the company of how many people. It was found that at meals with which they drank alcoholic beverages, they consumed about 175 calories more from nonalcoholic source than they did at meals with which they did not drink alcoholic beverages.
- Each of the following, if true, contributes to an explanation of the difference in caloric intake EXCEPT:
- (A) Diners spent a much longer time at meals served with alcohol than they did at those serve without alcohol.
  - (B) The meals eaten later in the day tended to be larger than those eaten earlier in the day, and later meals were more likely to include alcohol.
  - (C) People eat more when there are more people present at the meal, and more people tended to be present at meal served with alcohol than at meals served without alcohol.
  - (D) The meals that were most carefully prepared and most attractively served tended to be those at which alcoholic beverages were consumed.
  - (E) At meals that included alcohol, relatively more of the total calories consumed came from carbohydrates and relatively fewer of them came from fats and proteins.

**TEST 4****SECTION I****Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Something must be done to ease traffic congestion. In traditional small towns, people used to work and shop in the same town in which they lived; but now that stores and workplaces are located far away from residential areas, people cannot avoid traveling long distances each day. Traffic congestion is so heavy on all roads that, even on major highways where the maximum speed limit is 55 miles per hour, the actual speed averages only 35 miles per hour.  
Which one of the following proposals is most supported by the statements above?  
(A) The maximum speed limit on major highways should be increased.  
(B) People who now travel on major highways should be encouraged to travel on secondary roads instead.  
(C) Residents of the remaining traditional small towns should be encouraged to move to the suburbs.  
(D) Drivers who travel well below the maximum speed limit on major highways should be fined.  
(E) New businesses should be encouraged to locate closer to where their workers would live.
2. College professor: College students do not write nearly as well as they used to. Almost all of the paper that my students have done for me this year have been poorly written and ungrammatical.  
Which one of the following is the most serious weakness in the argument made by the professor?  
(A) It requires confirmation that the change in the professor's students is representative of a change among college students in general.  
(B) It offers no proof to the effect that the professor is an accurate judge of writing ability.  
(C) It does not take into account the possibility that the professor is a poor teacher.  
(D) It fails to present contrary evidence.  
(E) It fails to define its terms sufficiently.

**Questions 3-4**

Mayor of Plainsville: In order to help the economy of Plainsville, I am using some of our tax revenues to help bring a major highway through the town and thereby attract

new business to Plainsville.

Citizens' group: You must have interests other than our economy in mind. If you were really interested in helping our economy, you would instead allocate the revenues to building a new business park, since it would bring in twice the business that your highway would.

3. The argument by the citizens' group relies on which one of the following assumptions?
- (A) Plainsville presently has no major highways running through it.
  - (B) The mayor accepts that a new business park would bring in more new business than would the new highway.
  - (C) The new highway would have no benefits for Plainsville other than attracting new business.
  - (D) The mayor is required to get approval for all tax revenue allocation plans from the city council.
  - (E) Plainsville's economy will not be helped unless a new business park of the sort envisioned by the citizens' group is built.
4. Which one of the following principles, if accepted, would most help the citizens' group to justify drawing its conclusion that the mayor has in mind interests other than Plainsville's economy?
- (A) Anyone really pursuing a cause will choose the means that that person believes will advance the cause the farthest.
  - (B) Any goal that includes helping the economy of a community will require public revenues in order to be achieved.
  - (C) Anyone planning to use resources collected from a group must consult the members of the group before using the resources.
  - (D) Any cause worth committing oneself to must include specific goals toward which one can work.
  - (E) Any cause not pursued by public officials, if it is to be pursued at all, must be pursued by members of the community.
5. Recently, highly skilled workers in Eastern Europe have left jobs in record numbers to emigrate to the West. It is therefore likely that skilled workers who remain in Eastern Europe are in high demand in their home countries.
- Which one of the following, if true, most seriously weakens the argument?
- (A) Eastern European factories prefer to hire workers from their home countries rather than to import workers from abroad.
  - (B) Major changes in Eastern European economic structures have led to the elimination of many positions previously held by the highly skilled emigrants.
  - (C) Many Eastern European emigrants need to acquire new skills after finding work in the West.

- (D) Eastern European countries plan to train many new workers to replace the highly skilled workers who have emigrated.
- (E) Because of the departure of skilled workers from Eastern European countries, many positions are now unfilled.

6. Historian: Alexander the Great should not be judged by appeal to current notions of justice. Alexander, an ancient figure of heroic stature, should be judged by the standards of his own culture. That is, did he live up to his culture's ideals of leadership? Did Alexander elevate the contemporary standards of justice? Was he, in his day, judged to be a just and wise ruler?

Student: But you cannot tell whether or not Alexander raised the contemporary standards of justice without invoking standards other than those of his own culture.

Which one of the following argumentative strategies does the student use in responding to the historian?

- (A) arguing that applying the historian's principle would require a knowledge of the past that is necessarily inaccessible to current scholarship
- (B) attempting to undermine the historian's principle by showing that some of its consequences are inconsistent with each other
- (C) showing that the principle the historian invokes, when applied to Alexander, does not justify the assertion that he was heroic
- (D) questioning the historian's motivation for determining whether a standard of behavior has been raised or lowered
- (E) claiming that one of the historian's criteria for judging Alexander is inconsistent with the principle that the historian has advanced

### Questions 7-8

Two paleontologists, Dr. Tyson and Dr. Rees, disagree over the interpretation of certain footprints that were left among other footprints in hardened volcanic ash at site G. Dr. Tyson claims they are clearly early hominid footprints since they show human characteristics: a squarish heel and a big toe immediately adjacent to the next toe. However, since the footprints indicate that if hominids made those prints they would have had to walk in an unexpected cross-stepping manner, by placing the left foot to the right of the right foot. Dr. Rees rejects Dr. Tyson's conclusion.

7. The disagreement between the two paleontologists is over which one of the following?
- (A) the relative significance of various aspects of the evidence
  - (B) the assumption that early hominid footprints are distinguishable from other footprints
  - (C) the possibility of using the evidence of footprints to determine the gait of the creature that made those footprints
  - (D) the assumption that evidence from one paleontologic site is enough to

support a conclusion

(E) the likelihood that early hominids would have walked upright on two feet

8. Which one of the following, if true, most seriously undermines Dr. Tyson's conclusion?
- (A) The foot prints showing human characteristics were clearly those of at least two distinct individuals.
- (B) Certain species of bears had feet very like human feet, except that the outside toe on each foot was the biggest toe and the innermost toe was the smallest toe.
- (C) Footprints shaped like a human's that do not show a cross-stepping pattern exist at site M, which is a mile away from site G, and the two sets of footprints are contemporaneous.
- (D) When the moist volcanic ash became sealed under additional layers of ash before hardening, some details of some of the footprints were erased.
- (E) Most of the other footprints at site G were of animals with hooves.
9. It is not known whether bovine spongiform encephalopathy (BSE), a disease of cattle invariably deadly to them, can be transmitted directly from one infected animal to another at all stages of the infection. If it can be, there is now a reservoir of infected cattle incubating the disease. There are no diagnostic tests to identify infected animals before the animals show overt symptoms. Therefore, if such direct transmission occurs, the disease cannot be eradicated by\_\_\_\_\_
- Which one of the following best completes the argument?
- (A) removing from the herd and destroying any diseased animal as soon as it shows the typical symptoms of advanced BSE
- (B) developing a drug that kills the agent that cause BSE, and then treating with that drug all cattle that might have the disease
- (C) destroying all cattle in areas where BSE occurs and raising cattle only in areas to which BSE is known not to have spread
- (D) developing a vaccine that confers lifelong immunity against BSE and giving it to all cattle, destroying in due course all those animals for which the vaccine protection came too late
- (E) developing a diagnostic test that does identify any infected animal and destroying all animals found to be infected
10. Auto industry executive: Statistics show that cars that were built smaller after 1977 to make them more fuel-efficient had a higher incidence of accident-related fatalities than did their earlier larger counterparts. For this reason we oppose recent guidelines that would require us to produce cars with higher fuel efficiency.

Which of the following, if true, would constitute the strongest objection to the executive's argument?



- (A) Even after 1977, large automobiles were frequently involved in accidents that caused death or serious injury.
- (B) Although fatalities in accidents involving small cars have increased since 1977, the number of accidents has decreased.
- (C) New computerized fuel systems can enable large cars to meet fuel efficiency standards established by the recent guidelines.
- (D) Modern technology can make small cars more fuel-efficient today than at any other time in their production history.
- (E) Fuel efficiency in models of large cars rose immediately after 1977 but has been declining ever since.

11. No one who lacks knowledge of a subject is competent to pass judgment on that subject. Since political know-how is a matter, not of adhering to technical rules, but of insight and style learned through apprenticeship and experience, only seasoned politicians are competent to judge whether a particular political policy is fair to all.

A major weakness of the argument is that it

- (A) relies on a generalization about the characteristic that makes someone competent to pass judgment
- (B) fails to give specific examples to illustrate how political know-how can be acquired
- (C) uses the term “apprenticeship” to describe what is seldom a formalized relationship
- (D) equates political know-how with understanding the social implications of political policies
- (E) assumes that when inexperienced politicians set policy they are guided by the advice of more experienced politicians

12. Impact craters caused by meteorites smashing into Earth have been found all around the globe, but they have been found in the greatest density in geologically stable regions. This relatively greater abundance of securely identified crater in geologically stable regions must be explained by the lower rates of destructive geophysical processes in those regions.

The conclusion is properly drawn if which one of the following is assumed?

- (A) A meteorite that strikes exactly the same spot as an earlier meteorite will obliterate all traces of the earlier impact.
- (B) Rates of destructive geophysical processes within any given region vary markedly throughout geological time.
- (C) The rate at which the Earth is struck by meteorites has greatly increased in geologically recent times.
- (D) Actual meteorite impacts have been scattered fairly evenly over the Earth’s surface in the course of Earth’s geological history.

(E) The Earth's geologically stable regions have been studied more intensively by geologists than have its less stable regions.

13. That the policy of nuclear deterrence has worked thus far is unquestionable. Since the end of the Second World War, the very fact that there were nuclear armaments in existence has kept major powers from using nuclear weapons, for fear of starting a worldwide nuclear exchange that would make the land of the power initiating it uninhabitable. The proof is that a third world war between superpowers has not happened.

Which one of the following, if true, indicates a flaw in the argument?

- (A) Maintaining a high level of nuclear armaments represents a significant drain on a country's economy.
- (B) From what has happened in the past, it is impossible to infer with certainty what will happen in the future, so an accident could still trigger a third world war between superpowers.
- (C) Continuing to produce nuclear weapons beyond the minimum needed for deterrence increases the likelihood of a nuclear accident.
- (D) The major powers have engaged in many smaller-scale military operations since the end of the Second World War, while refraining from a nuclear confrontation.
- (E) It cannot be known whether it was nuclear deterrence that worked, or some other factor, such as a recognition of the economic value of remaining at peace.

14. A survey of alumni of the class of 1960 at Aurora University yielded puzzling results. When asked to indicate their academic rank, half of the respondents reported that they were in the top quarter of the graduating class in 1960.

Which one of the following most helps account for the apparent contradiction above?

- (A) A disproportionately large number of high-ranking alumni responded to the survey.
- (B) Few, if any, respondents were mistaken about their class rank.
- (C) Not all the alumni who were actually in the top quarter responded to the survey.
- (D) Almost all of the alumni who graduated in 1960 responded to the survey.
- (E) Academic rank at Aurora University was based on a number of considerations in addition to average grades.

15. M: It is almost impossible to find a person between the ages of 85 and 90 who primarily uses the left hand.

Q: Seventy to ninety years ago, however, children were punished for using their left hands to eat or to write and were forced to use their right hands.

Q's response serves to counter any use by M of the evidence about 85 to 90 year

olds in supports of which one of the following hypotheses?

- (A) Being born right-handed confers a survival advantage.
- (B) Societal attitudes toward handedness differ at different times.
- (C) Forcing a person to switch from a preferred hand is harmless.
- (D) Handedness is a product of both genetic predisposition and social pressures.
- (E) Physical habits learned in school often persist in old age.

16. The seventeenth-century physicist Sir Isaac Newton is remembered chiefly for his treaties on motion and gravity. But Newton also conducted experiments secretly for many years based on the arcane theories of alchemy, trying unsuccessfully to transmute common metals into gold and produce rejuvenating elixirs. If the alchemists of the seventeenth century had published the results of their experiments, chemistry in the eighteenth century would have been more advanced than it actually was.

Which one of the following assumptions would allow the conclusion concerning eighteenth-century chemistry to be properly drawn?

- (A) Scientific progress is retarded by the reluctance of historians to acknowledge the failures of some of the great scientists.
- (B) Advances in science are hastened when reports of experiments, whether successful or not, are available for review by other scientists.
- (C) Newton's work on motion and gravity would not have gained wide acceptance if the results of his work in alchemy had also been made public.
- (D) Increasing specialization within the sciences makes it difficult for scientists in one field to understand the principles of other fields.
- (E) The seventeenth-century alchemists could have achieved their goals only if their experiments had been subjected to public scrutiny.

17. Sedimentary rock hardens within the earth's crust as layers of matter accumulate and the pressure of the layers above converts the layers below into rock. One particular layer of sedimentary rock that contains an unusual amount of the element iridium has been presented as support for a theory that a meteorite collided with the earth some sixty million years ago. Meteorites are rich in iridium compared to the earth's crust, and geologists theorize that a meteorite's collision with the earth raised a huge cloud of iridium-laden dust. The dust, they say, eventually settled to earth where it combined with other matter, and as new layers accumulated above it, it formed a layer of iridium-rich rock.

Which one of the following, if true, would counter the claim that the iridium-rich layer described in the passage is evidence for the meteorite collision theory?

- (A) The huge dust cloud described in the passage would have blocked the transmission of sunlight and lowered the earth's temperature.
- (B) A layer of sedimentary rock takes millions of years to harden.
- (C) Layers of sedimentary rock are used to determine the dates of prehistoric

events whether or not they contain iridium.

- (D) Sixty million years ago there was a surge in volcanic activity in which the matter spewed from the volcanoes formed huge iridium-rich dust clouds.
- (E) The iridium deposit occurred at about the same time that many animal species became extinct and some scientists have theorized that mass dinosaur extinctions were caused by a meteorite collision.

18. Mary, a veterinary student, has been assigned an experiment in mammalian physiology that would require her to take a healthy, anesthetized dog and subject it to a drastic blood loss in order to observe the physiological consequences of shock. The dog would neither regain consciousness nor survive the experiment. Mary decides not to do this assignment.

Mary's decision most closely accords with which one of the following principles?

- (A) All other things being equal, gratuitously causing any animal to suffer pain is unjustified.
  - (B) Taking the life of an animal is not justifiable unless doing so would immediately assist in saving several animal lives or in protecting the health of a person.
  - (C) The only sufficient justification for experimenting on animals is that future animal suffering is thereby prevented.
  - (D) Practicing veterinarians have a professional obligation to strive to prevent the unnecessary death of an animal except in cases of severely ill or injured animals whose prospects for recovery are dim.
  - (E) No one is ever justified in acting with the sole intention of causing the death of a living thing, be it animal or human.
19. A tree's age can be determined by counting the annual growth rings in its trunk. Each ring represents one year, and the ring's thickness reveals the relative amount of rainfall that year. Archaeologists successfully used annual rings to determine the relative ages of ancient tombs at Pazyryk. Each tomb was constructed from freshly cut logs, and the tombs builders were constrained by tradition to use only logs from trees growing in the sacred Pazyryk Valley.
- Which one of the following, if true, contributes most to an explanation of the archaeologists' success in using annual rings to establish the relative ages of the tombs at the Pazyryk site?
- (A) The Pazyryk tombs were all robbed during ancient times, but breakage of the tombs seals allowed the seepage of water, which soon froze permanently, thereby preserving the tombs' remaining artifacts.
  - (B) The Pazyryk Valley, surrounded by extremely high mountains, has a distinctive yearly pattern of rainfall, and so trees growing in the Pazyryk Valley have annual rings that are quite distinct from trees growing in nearby valleys.

- (C) Each log in the Pazyryk tombs has among its rings a distinctive sequence of twelve annual rings representing six drought years followed by three rainy years and three more drought years.
- (D) The archaeologists determined that the youngest tree used in any of the tombs was 90 years old and that the oldest tree was 450 years old.
- (E) All of the Pazyryk tombs contained cultural artifacts that can be dated to roughly 2300 years ago.

20. Experienced gardeners advise against planting snap peas after late April because peas do not develop properly in warm weather. This year, however, the weather was unusually cool into late June, and therefore the fact that these snap peas were planted in mid-May is unlikely to result in crop failure despite the experts' warnings.

The pattern of reasoning displayed above is most closely paralleled in which one of the following?

- (A) According to many gardening authorities, tomatoes should not be planted near dill because doing so is likely to affect their taste adversely; however, since these tomatoes were grown near dill and taste fine, there is clearly no reason to pay much attention to the so-called experts' advice.
- (B) Since African violets do not thrive in direct sunlight, it is said that in this region these plants should be placed in windows facing north rather than south; however, since these south-facing windows are well shaded by evergreen trees, the African violets placed in them are likely to grow satisfactorily.
- (C) Where flowers are to be planted under shade trees, gardening experts often advise using impatiens since impatiens does well in conditions of shade; however, it is unlikely to do well under maple trees since maple tree roots are so near the surface that they absorb all available moisture.
- (D) Most seeds tend to germinate at much higher rates when planted in warm soil than when planted in cold soil; spinach seeds, however, are unlikely to germinate properly if the soil is too warm, and therefore experts advise that spinach should be planted earlier than most vegetables.
- (E) House plants generally grow best in pots slightly larger than their existing root systems, so the usual advice is to repot when roots first reach the sides of the pot; this rule should not be followed with amaryllis plants, however, because they are likely to do best with tightly compressed roots.

21. Whenever a major political scandal erupts before an election and voters blame the scandal on all parties about equally, virtually all incumbents, from whatever party, seeking reelection are returned to office. However, when voters blame such a scandal on only one party, incumbents from that party are likely to be defeated by challengers from other parties. The proportion of incumbents who seek reelection is high and remarkably constant from election to election.

If the voters' reactions are guided by a principle, which one of the following



principles would best account for the contrast in reactions described above?

- (A) Whenever one incumbent is responsible for one major political scandal and another incumbent is responsible for another, the consequences for the two incumbents should be the same.
- (B) When a major political scandal is blamed on incumbents from all parties, that judgment is more accurate than any judgment that incumbents from only one party are to blame.
- (C) Incumbents who are rightly blamed for a major political scandal should not seek reelection, but if they do, they should not be returned to office.
- (D) Major political scandals can practically always be blamed on incumbents, but whether those incumbents should be voted out of office depends on who their challengers are.
- (E) When major political scandals are less the responsibility of individual incumbents than of the parties to which they belong, whatever party was responsible must be penalized when possible.

22. Once people habitually engaged in conversation: now the television competes for their attention. When the television is on, communication between family members stops. Where there is no communication, family ties become frayed and eventually snap. Therefore, the only solution is to get rid of the television.

Which one of the following is most closely parallel in its reasoning to the flawed reasoning in the argument above?

- (A) Once friendships thrived on shared leisure time. But contemporary economic pressures minimize the amount of free time people have and thus jeopardize many friendships.
- (B) Once people listened to the radio while pursuing other activities. Now they passively watch television. Therefore, radio was less distracting for most people than television is.
- (C) Once sports enthusiasts regularly engaged in sports, but now they watch spectator sports when they could be getting physical exercise. Without physical exercise, health deteriorates. Therefore, the only remedy is to eliminate spectator sports.
- (D) Once people were willing to tailor their day to the constraints of a bus or train schedule: now they are spoiled by the private car. The only solution is for government to offer financial incentives to encourage the use of public transportation.
- (E) Once people did their shopping in urban retail districts, where they combined their shopping with other errands. Now many people shop in suburban malls, where they concentrate on shopping exclusively. Therefore, shopping has become a leisure time activity.

23. In essence, all rent-control policies involve specifying a maximum rent that a landlord may charge for a dwelling. The rationale for controlling rents is to

protect tenants in situations where limited supply will cause rents to rise sharply in the face of increased demand. However, although rent control may help some tenants in the short run, it affects the rental-housing market adversely in the long run because landlords become reluctant to maintain the quality of their existing properties and even more reluctant to have additional rental-housing units built.

Which one of the following, if true, best explains the landlords' reluctance described above?

- (A) Tenants prefer low-quality accommodations with rent control to high-quality accommodations without it.
- (B) Rent control makes it very difficult for landlords to achieve reasonable returns on any investments in maintenance or in new construction.
- (C) Rent control is a common practice even though it does nothing to alleviate shortages in rental housing.
- (D) Rent control is generally introduced for political reasons and it takes political action to have it lifted again.
- (E) Tenants prefer rent control to the alternative of receiving direct government subsidies toward rents they cannot afford.

24. Certain minor peculiarities of language are used unconsciously by poets. If such peculiarities appear in the works of more than one poet, they are likely to reflect the language in common use during the poets' time. However, if they appear in the work of only one poet, they are likely to be personal idiosyncrasies. As such, they can provide a kind of "fingerprint" that allows scholars, by comparing a poem of previously unknown authorship to the work of a particular known poet, to identify the poem as the work of that poet.

For which one of the following reasons can the test described above never provide conclusive proof of the authorship of any poem?

- (A) The labor of analyzing peculiarities of language both in the work of a known poet and in a poem of unknown authorship would not be undertaken unless other evidence already suggested that the poem of unknown authorship was written by the known poet.
- (B) A peculiarity of language that might be used as an identifying mark is likely to be widely scattered in the work of a poet, so that a single poem not known to have been written by that poet might not include that peculiarity.
- (C) A peculiarity of language in a poem of unknown authorship could be evidence either that the poem was written by the one author known to use that peculiarity or that the peculiarity was not unique to that author.
- (D) Minor peculiarities of language contribute far less to the literary effect of any poem than such factors as poetic form, subject matter, and deliberately chosen wording.
- (E) A poet's use of some peculiarities of language might have been unconscious in some poems and conscious in other poems, and the two uses would be

indistinguishable to scholars at a later date.

25. Because of the recent transformation of the market. Quore, Inc., must increase productivity, 10 percent over the course of the next two years, or it will certainly go bankrupt. In fact, however, Quore's production structure is such that if a 10 percent productivity increase is possible, then a 20 percent increase is attainable. If the statements above are true, which one of the following must on the basis of them also be true?
- (A) It is only Quore's production structure that makes it possible for Quore to survive the transformation of the market.
  - (B) Quore will not go bankrupt if it achieves a productivity increase of 20 percent over the next two years.
  - (C) If the market had not been transformed, Quore would have required no productivity increase in order to avoid bankruptcy.
  - (D) Because of the transformation of the market, Quore will achieve a productivity increase of 10 percent over the next two years.
  - (E) If a 20 percent productivity increase is unattainable for Quore, then it must go bankrupt.

### SECTION III

**Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Terry: If you want to get a decent job, you should go to college.  
Mark: That is not true. There are other reasons to go to college than wanting to get a good job.  
Mark's response shows that he interpreted Terry's remarks to mean that
- (A) college is one of many places to get trained for a job
  - (B) decent jobs are obtained only by persons who have gone to college
  - (C) wanting to get a decent job is the only reason for going to college
  - (D) training for decent jobs is available only at colleges
  - (E) all people who want decent jobs go to college
2. Several studies have shown that hospitals are not all equally successful: patients are much more likely to die in some of them than in others. Since the hospitals in the studies had approximately equal per-patient funding, differences in the quality of care provided by hospital staff are probably responsible for the differences in mortality rates.  
Which one of the following, if true, casts the most doubt on the conclusion drawn above?
- (A) The staff in some of the hospitals studied had earned more advanced degrees, on average, than the staff in the other hospitals.

- (B) Patient populations vary substantially in average severity of illness from hospital to hospital.
- (C) The average number of years that staff members stay on at a given job varies considerably from one hospital to another.
- (D) Approximately the same surgical procedures were performed in each of the hospitals covered in the studies.
- (E) Mortality rates for hospital patients do not vary considerably from one region of the country to another.

Questions 3-4

The United States government generally tries to protect valuable natural resources. But one resource has been ignored for too long. In the United States, each bushel of corn produced might result in the loss of as much as two bushels of topsoil. Moreover, in the last 100 years, the topsoil in many states, which once was about fourteen inches thick, has been eroded to only six or eight inches. Nonetheless, federal expenditures for nationwide soil conservation programs have remained at ridiculously low levels. Total federal expenditures for nationwide soil conservation programs have been less than the allocations of some individual states.

3. Which one of the following best expresses the main point of the argument?
  - (A) Corn is not a cost-effective product and substitutes should be found where possible.
  - (B) A layer of topsoil only six to eight inches thick cannot support the continued cultivation of corn.
  - (C) Soil conservation is a responsibility of the federal government, not the states.
  - (D) The federal government's expenditures for soil conservation in the various states have been inequitable.
  - (E) The federal government should spend much more on soil conservation than it has been spending.
4. In stating the argument, the author does which one of the following?
  - (A) makes a detailed statistical projection of future topsoil loss
  - (B) makes a generalization about total reduction in topsoil depth in all states
  - (C) assumes that the United States government does not place a high value on its natural resources
  - (D) refrains from using slanted language concerning the level of federal expenditures
  - (E) compares state expenditures with federal expenditures
5. Animals with a certain behavioral disorder have unusually high level of aluminum in their brain tissue. Since a silicon-based compound binds to aluminum and prevents it from affecting the brain tissue. Animals can be cured of the disorder by being treated with the compound.

The argument is based on which one of the following assumptions?

- (A) Animals with the disorder have unusually high but invariable levels of aluminum in their brain tissue.
- (B) Aluminum is the cause of the disorder rather than merely an effect of it.
- (C) Introducing the compound into the brain tissue has no side effects.
- (D) The amount of the compound needed to neutralize the aluminum in an animal's brain tissue varies depending upon the species.
- (E) Aluminum is never present in normal brain tissue.

6. As air-breathing mammals, whales must once have lived on land and needed hind limbs capable of supporting the mammals' weight. Whales have the bare remnants of a pelvis. If animals have a pelvis, we expect them to have hind limbs. A newly discovered fossilized whale skeleton has very fragile hind limbs that could not have supported the animal's weight on land. This skeleton had a partial pelvis.

If the statements above are true, which one of the following, if also true, would most strongly support the conclusion that the fragile hind limbs are remnants of limbs that land-dwelling whales once had?

- (A) Whale bones older than the fossilized hind limbs confirm that ancient whales had full pelvises.
- (B) No skeletons of ancient whales with intact hind limbs capable of supporting the mammals' weight have ever been found.
- (C) Scientists are uncertain whether the apparently nonfunctioning limbs of other early mammals derived from once-functioning limbs of their ancestors.
- (D) Other large-bodied mammals like seals and sea lions maneuver on beaches and rocky coasts without fully functioning hind limbs.
- (E) Some smaller sea-dwelling mammals, such as modern dolphins, have no visible indications of hind limbs.

7. The stated goal of the government's funding program for the arts is to encourage the creation of works of artistic excellence. Senator Beton claims, however, that a government-funded artwork can never reflect the independent artistic conscience of the artist because artists, like anyone else who accepts financial support, will inevitably try to please those who control the distribution of that support. Senator Beton concludes that government funding of the arts not only is a burden on taxpayers but also cannot lead to the creation of works of true artistic excellence.

Which one of the following is an assumption on which Senator Beton's argument is based?

- (A) Most taxpayers have little or no interest in the creation of works of true artistic excellence.
- (B) Government funding of the arts is more generous than other financial support most artists receive.



- (C) Distribution of government funds for the arts is based on a broad agreement as to what constitutes artistic excellence.
- (D) Once an artist has produced works of true artistic excellence, he or she will never accept government funding.
- (E) A contemporary work of art that does not reflect the independent artistic conscience of the artist cannot be a work of true artistic excellence.
8. Older United States automobiles have been identified as contributing disproportionately to global air pollution. The requirement in many jurisdictions that automobiles pass emission-control inspections has had the effect of taking many such automobiles out of service in the United States, as they fail inspection and their owners opt to buy newer automobiles. Thus the burden of pollution such older United States automobiles contribute to the global atmosphere will be gradually reduced over the next decade.
- Which one of the following, if true, most seriously weakens the argument?
- (A) It is impossible to separate the air of one country or jurisdiction from that of others.
- (B) When automobiles that are now new become older, they will, because of a design change, cause less air pollution than older automobiles do now.
- (C) There is a thriving market for used older United States automobiles that are exported to regions that have no emission-control regulations.
- (D) The number of jurisdictions in the United States requiring automobiles to pass emission-control inspections is no longer increasing.
- (E) Even if all the older automobiles in the United States were retired from service, air pollution from United States automobiles could still increase if the total number of automobiles in use should increase significantly.
9. The journalistic practice of fabricating remarks after an interview and printing them within quotation marks, as if they were the interviewee's own words, has been decried as a form of unfair misrepresentation. However, people's actual spoken remarks rarely convey their ideas as clearly as does a distillation of those ideas crafted, after an interview, by a skilled writer. Therefore, since this practice avoids the more serious misrepresentation that would occur if people's exact words were quoted but their ideas only partially expressed, it is entirely defensible.

Which one of the following is a questionable technique used in the argument?

- (A) answering an exaggerated charge by undermining the personal authority of those who made that charge
- (B) claiming that the prestige of a profession provides ample grounds for dismissing criticisms of that profession
- (C) offering as an adequate defense of a practice an observation that discredits only one of several possible alternatives to that practice
- (D) concluding that a practice is right on the grounds that it is necessary

- (E) using the opponent's admission that a practice is sometimes appropriate as conclusive proof that that practice is never inappropriate
10. The reforms to improve the quality of public education that have been initiated on the part of suppliers of public education have been insufficient. Therefore, reforms must be demanded by consumers. Parents should be given government vouchers with which to pay for their children's education and should be allowed to choose the schools at which the vouchers will be spent. To attract students, academically underachieving schools will be forced to improve their academic offerings.

The argument assumes that

- (A) in selecting schools parents would tend to prefer a reasonable level of academic quality to greater sports opportunities or more convenient location
- (B) improvement in the academic offerings of schools will be enforced by the discipline of the job market in which graduating students compete
- (C) there is a single best way to educate students
- (D) children are able to recognize which schools are better and would influence their parents' decisions
- (E) schools would each improve all of their academic offerings and would not tend to specialize in one particular field to the exclusion of others
11. Professor Smith published a paper arguing that a chemical found in minute quantities in most drinking water had an adverse effect on the human nervous system. Existing scientific theory held that no such effect was possible because there was no neural mechanism for bringing it about. Several papers by well-known scientists in the field followed, unanimously purporting to prove Professor Smith wrong. This clearly shows that the scientific establishment was threatened by Professor Smith's work and conspired to discredit it.
- Which one of the following is the central flaw in the argument given by the author of the passage?
- (A) The author passes over the possibility that Professor Smith had much to gain should Professor Smith's discovery have found general acceptance.
- (B) The author fails to mention whether or not Professor Smith knew that the existence of the alleged new effect was incompatible with established scientific theory.
- (C) The author fails to show why the other scientists could not have been presenting evidence in order to establish the truth of the matter.
- (D) The author neglects to clarify what his or her relationship to Professor Smith is.
- (E) The author fails to indicate what, if any, effect the publication of Professor Smith's paper had on the public's confidence in the safety of most drinking water.

12. The number of North American children who are obese—that is, who have more body fat than do 85 percent of North American children their age—is steadily increasing, according to four major studies conducted over the past 15 years.
- If the finding reported above is correct, it can be properly concluded that
- (A) when four major studies all produce similar results, those studies must be accurate
  - (B) North American children have been progressively less physically active over the past 15 years
  - (C) the number of North American children who are not obese increased over the past 15 years
  - (D) over the past 15 years, the number of North American children who are underweight has declined
  - (E) the incidence of obesity in North American children tends to increase as the children grow older
13. Economist: Money, no matter what its form and in almost every culture in which it has been used, derives its value from its scarcity, whether real or perceived.
- Anthropologist: But cowrie shells formed the major currency in the Solomon Island economy of the Kwara'ae, and unlimited numbers of these shells washed up daily on the beaches to which the kwara'ae had access.
- Which one of the following, if true, about the Kwara'ae, best serves to resolve the apparently conflicting positions cited above?
- (A) During festivals they exchanged strings of cowrie-shell money with each other as part of a traditional ritual that honored their elders.
  - (B) They considered porpoise teeth valuable, and these were generally threaded on strings to be worn as jewelry.
  - (C) The shells used as money by men were not always from the same species of cowrie as those used as money by women.
  - (D) They accepted as money only cowrie shells that were polished and carved by a neighboring people, and such shell preparation required both time and skilled labor.
  - (E) After Western traders brought money in the form of precious-metal coins to the Solomon Islands, Cowrie-shell money continued to be used as one of the major media of exchange for both goods and services.
14. School superintendent: It is a sad fact that, until now, entry into the academically best high school in our district has been restricted to the children of people who were wealthy enough to pay the high tuition. Parents who were previously denied the option of sending their children to this school now have this option, since I am replacing the tuition requirement with a requirement that allows only those who live in the neighborhood of the school to attend.
- The superintendent's claim about the effect of replacing the tuition requirement relies on the assumption that

- (A) the residents of the school's neighborhood tend to be wealthy
  - (B) people other than those wealthy enough to have paid the old tuition are able to live in the neighborhood of the school
  - (C) people less wealthy than those who were able to pay the old tuition are in the majority in the district
  - (D) there are no high schools in the district other than the one referred to by the superintendent
  - (E) there are many people not wealthy enough to have paid the old tuition who wish to have their children attend the school
15. The Scorpio Miser with its special high-efficiency engine costs more to buy than the standard Scorpio sports car. At current fuel prices, a buyer choosing the Miser would have to drive it 60,000 miles to make up the difference in purchase price through savings on fuel. It follows that, if fuel prices fell, it would take fewer miles to reach the break-even point.
- Which one of the following arguments contains an error of reasoning similar to that in the argument above?
- (A) The true annual rate of earnings on an interest-bearing account is the annual rate of interest less the annual rate of inflation. Consequently, if the rate of inflation drops, the rate of interest can be reduced by an equal amount without there being a change in the true rate of earnings.
  - (B) For retail food stores, the Polar freezer, unlike the Arctic freezer, provides a consistent temperature that allows the store to carry premium frozen foods. Thus, if electricity rates fell, a lower volume of premium-food sales could justify choosing the Polar freezer.
  - (C) With the Roadmaker, a crew can repave a mile of decayed road in less time than with the competing model, which is, however, much less expensive. Reduced staffing levels made possible by the Roadmaker eventually compensate for its higher price. Therefore, the Roadmaker is especially advantageous where average wages are low.
  - (D) The improved strain of the Northland apple tree bears fruit younger and lives longer than the standard strain. The standard strain does grow larger at maturity, but to allow for this, standard trees must be spaced farther apart. Therefore, new plantings should all be of the improved strain.
  - (E) Stocks pay dividends, which vary from year to year depending on profits made. Bonds pay interest, which remains constant from year to year. Therefore, since the interest earned on bonds does not decrease when economic conditions decline, investors interested in a reliable income should choose bonds.
16. Approximately 7.6 million women who earn incomes have preschool-age children, and approximately 6.4 million women are the sole income earners for their families. These figures indicate that there are comparatively few income-

earning women who have preschool-age children but are not the sole income earners for their families.

A major flaw in the reasoning is that it

- (A) relies in figures that are too imprecise to support the conclusion drawn
- (B) overlooks the possibility that there is little or no overlap between the two populations of women cited
- (C) fails to indicate whether the difference between the two figures cited will tend to remain stable over time
- (D) ignores the possibility, that families with preschool-age children might also have older children
- (E) provides no information on families in which men are the sole income earners

17. Being articulate has been equated with having a large vocabulary. Actually, however, people with large vocabularies have no incentive for, and tend not to engage in, the kind of creative linguistic self-expression that is required when no available words seem adequate. Thus a large vocabulary is a hindrance to using language in a truly articulate way.

Which one of the following is an assumption made in the argument?

- (A) When people are truly articulate, they have the capacity to express themselves in situations in which their vocabularies seem inadequate.
- (B) People who are able to express themselves creatively in new situations have little incentive to acquire large vocabularies.
- (C) The most articulate people are people who have large vocabularies but also are able to express themselves creatively when the situation demands it.
- (D) In educating people to be more articulate, it would be futile to try to increase the size of their vocabularies.
- (E) In unfamiliar situations, even people with large Vocabularies often do not have specifically suitable words available.

Questions 18-19

Dr. Schilling: Those who advocate replacing my country's private health insurance system with nationalized health insurance because of the rising costs of medical care fail to consider the high human costs that consumers pay in countries with nationalized insurance: access to high-technology medicine is restricted. Kidney transplants and open-heart surgery—familiar life-saving procedures—are rationed. People are denied their right to treatments they want and need.

Dr. Laforte: Your country's reliance on private health insurance denies access even to basic, conventional medicine to the many people who cannot afford adequate health coverage. With nationalized insurance, rich and poor have equal access to life-saving medical procedures. And people's right to decent medical treatment regardless of income is not violated.



18. Dr. Schilling's and Dr. Laforte's statements provide the most support for holding that they would disagree about the truth of which one of the following?
- (A) People's rights are violated less when they are denied an available medical treatment they need because they lack the means to pay for it than when they are denied such treatment on noneconomic grounds.
  - (B) Where health insurance is provided by private insurance companies, people who are wealthy generally receive better health care than do people who are unable to afford health insurance.
  - (C) In countries that rely primarily on private health insurance to pay for medical costs, most people who would benefit from a kidney transplant receive one.
  - (D) In countries with nationalized health insurance, no one who needs a familiar medical treatment in order to stay alive is denied that treatment.
  - (E) Anyone who wants a particular medical treatment has a right to receive that treatment.
19. In responding to Dr. Schilling, Dr. Laforte employs which one of the following argumentative strategies?
- (A) showing that the objections raised by Dr. Schilling have no bearing on the question of which of the two systems under consideration is the superior system
  - (B) calling into question Dr. Schilling's status as an authority on the issue of whether consumers' access to medical treatments is restricted in countries with nationalized health insurance
  - (C) producing counterexamples to Dr. Schilling's claims that nationalized health insurance schemes extract high human costs from consumers
  - (D) demonstrating that Dr. Schilling's reasoning is persuasive only because of his ambiguous use of the key word "consumer"
  - (E) showing that the force of Dr. Schilling's criticism depends on construing the key notion of access in a particular limited way
20. A certain viral infection is widespread among children, and about 30 percent of children infected with the virus develop middle ear infections. Antibiotics, although effective in treating bacterial infections, have no effect on the virus. Yet when middle ear infections in children infected with the virus are treated with antibiotics, the ear infections often clear up.
- Which one of the following most helps to explain the success of the treatments with antibiotics?
- (A) Although some types of antibiotics fail to clear up certain infections, other types of antibiotics might provide effective treatment for those infections.
  - (B) Children infected with the virus are particularly susceptible to bacteria that infect the middle ear.
  - (C) Many children who develop middle ear infections are not infected with the virus.

- (D) Most viral infections are more difficult to treat than are most bacterial infections.
- (E) Among children not infected with the virus, fewer than 30 percent develop middle ear infections.

21. Naturalist: For decades we have known that the tuatara, a New Zealand reptile, has been approaching extinction on the South Island. But since South Island tuatara were thought to be of the same species as North Island tuatara there was no need to protect them. But new research indicates that the South Island tuatara are a distinct species, found only in that location. Because it is now known that if the South Island tuatara are lost an entire species will thereby be lost, human beings are now obliged to prevent their extinction, even if it means killing many of their unendangered natural predators.

Which one of the following principles most helps to justify the naturalists' argumentation?

- (A) In order to maximize the number of living things on Earth, steps should be taken to preserve all local populations of animals.
  - (B) When an animal is in danger of dying, there is an obligation to help save its life, if doing so would not interfere with the health or well-being of other animals or people.
  - (C) The threat of local extinction imposes no obligation to try to prevent that extinction, whereas the threat of global extinction does impose such an obligation.
  - (D) Human activities that either intentionally or unintentionally threaten the survival of an animal species ought to be curtailed.
  - (E) Species that are found in only one circumscribed geographical region ought to be given more care and attention than are other species because they are more vulnerable to extinction.
22. Nursing schools cannot attract a greater number of able applicants than they currently do unless the problems of low wages and high-stress working conditions in the nursing profession are solved. If the pool of able applicants to nursing school does not increase beyond the current level, either the profession will have to lower its entrance standards, or there will soon be an acute shortage of nurses. It is not certain, however, that lowering entrance standards will avert a shortage. It is clear that with either a shortage of nurses or lowered entrance standards of the profession, the current high quality of health care cannot be maintained.

Which one of the following can be properly inferred from the passage?

- (A) If the nursing profession solves the problems of low wages and high-stress working conditions, it will attract able applicants in greater numbers than it currently does.
- (B) The nursing profession will have to lower its entrance standards if the pool of

- able applicants to nursing school does not increase beyond the current level.
- (C) If the nursing profession solves the problems of low wages and high-stress working conditions, high quality health care will be maintained.
- (D) If the nursing profession fails to solve the problems of low wages and high-stress working conditions, there will soon be an acute shortage of nurses.
- (E) The current high quality of health care will not be maintained if the problems of low wages and high-stress working conditions in the nursing profession are not solved.

Questions 23-24

There are about 75 brands of microwave popcorn on the market; altogether, they account for a little over half of the money from sales of microwave food products. It takes three minutes to pop corn in the microwave, compared to seven minutes to pop corn conventionally. Yet by weight, microwave popcorn typically costs over five times as much as conventional popcorn. Judging by the popularity of microwave popcorn, many people are willing to pay a high price for just a little additional convenience.

23. If the statements in the passage are true. Which one of the following must also be true?
- (A) No single brand of microwave popcorn accounts for a large share of microwave food product sales.
- (B) There are more brands of microwave popcorn on the market than there are of any other microwave food product.
- (C) By volume, more microwave popcorn is sold than is conventional popcorn.
- (D) More money is spent on microwave food products that take three minutes or less to cook than on microwave food products that take longer to cook.
- (E) Of the total number of microwave food products on the market, most are microwave popcorn products.
24. Which one of the following statements, if true, would call into question the conclusion in the passage?
- (A) More than 50 percent of popcorn purchasers buy conventional popcorn rather than microwave popcorn.
- (B) Most people who prefer microwave popcorn do so because it is less fattening than popcorn that is popped conventionally in oil.
- (C) The price of microwave popcorn reflects its packaging more than it reflects the quality of the popcorn contained in the package.
- (D) The ratio of unpopped kernels to popped kernels is generally the same whether popcorn is popped in a microwave or conventionally in oil.
- (E) Because microwave popcorn contains additives not contained in conventional popcorn, microwave popcorn weighs more than an equal volume of conventional popcorn.

25. Situation: In the island nation of Bezun, the government taxes gasoline heavily in order to induce people not to drive. It uses the revenue from the gasoline tax to subsidize electricity in order to reduce prices charged for electricity.

Analysis: The greater the success achieved in meeting the first of these objectives, the less will be the success achieved in meeting the second.

The analysis provided for the situation above would be most appropriate in which one of the following situations?

- (A) A library charges a late fee in order to induce borrowers to return books promptly. The library uses revenue from the late fee to send reminders to tardy borrowers in order to reduce the incidence of overdue books.
- (B) A mail-order store imposes a stiff surcharge for overnight delivery in order to limit use of this option. The store uses revenue from the surcharge to pay the extra expenses it incurs for providing the overnight delivery service.
- (C) The park management charges an admission fee so that a park's users will contribute to the park's upkeep. In order to keep admission fees low, the management does not finance any new projects from them.
- (D) A restaurant adds a service charge in order to spare customers the trouble of individual tips. The service charge is then shared among the restaurant's workers in order to augment their low hourly wages.
- (E) The highway administration charges a toll for crossing a bridge in order to get motorists to use other routes. It uses the revenue from that toll to generate a reserve fund in order to be able one day to build a new bridge.

## TEST 5

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. If you have a large amount of money in the bank, your spending power is great. If your spending power is great, you are happy. So if you have a large amount of money in the bank, you are happy.
- Which one of the following most closely parallels the reasoning in the argument above?
- (A) If you have good health, you can earn a lot. If you can earn a lot, you can buy an expensive house. So if you have good health, you can have a comfortable life.
  - (B) If you drink too much alcohol, you will feel sick. If you drink too much alcohol, you will have no money left. So if you have no money left, you will feel sick.
  - (C) If you swim energetically, your heart rate increases. If your heart rate

increases, you are overexcited. So if you swim energetically, you are overexcited.

(D) If you take a great deal of exercise, you are physically fit. If you take a great deal of exercise, you are exhausted. So if you are physically fit, you are exhausted.

(E) If you have a large amount of money in the bank, you are confident about the future. If you are optimistic by nature, you are confident about the future. So if you have a large amount of money in the bank, you are optimistic by nature.

2. For a television program about astrology, investigators went into the street and found twenty volunteers born under the sign of Gemini who were willing to be interviewed on the program and to take a personality test. The test confirmed the investigators' personal impressions that each of the volunteers was more sociable and extroverted than people are on average. This modest investigation thus supports the claim that one's astrological birth sign influence one's personality.

Which one of the following, if true, indicates the most serious flaw in the method used by the investigators?

- (A) The personality test was not administrated or scored personally by the investigators.
- (B) People born under astrological signs other than Gemini have been judged by astrologers to be much less sociable than those born under Gemini.
- (C) The personal impressions the investigators first formed of other people have tended to be confirmed by the investigators' later experience of those people.
- (D) There is not likely to be a greater proportion of people born under the sign of Gemini on the street than in the population as a whole.
- (E) People who are not sociable and extroverted are not likely to agree to participate in such an investigation.

3. In Europe, schoolchildren devote time during each school day to calisthenics. North American schools rarely offer a daily calisthenics program. Tests prove that North American children are weaker, slower, and shorter-winded than European children. We must conclude that North American children can be made physically fit only if they participate in school calisthenics on a daily basis.

Which one of the following is assumed in the passage?

- (A) All children can be made physically fit by daily calisthenics.
- (B) All children can be made equally physically fit by daily calisthenics.
- (C) Superior physical fitness produces superior health.
- (D) School calisthenics are an indispensable factor in European children's superior physical fitness.
- (E) North American children can learn to eat a more nutritious diet as well as to exercise daily.



4. A work of architecture, if it is to be both inviting and functional for public use, must be unobtrusive, taking second place to the total environment. Modern architects, plagued by egoism, have violated this precept. They have let their strong personalities take over their work, producing buildings that are not functional for public use.

Which one of the statements below follows logically from the statements in the passage?

- (A) Unobtrusive architecture is both inviting and functional.
  - (B) Modern architects who let their strong personalities take over their work produce buildings that are not unobtrusive.
  - (C) An architect with a strong personality cannot produce buildings that functional well for the public.
  - (D) A work of architecture that takes second place to the environment functions well for public use.
  - (E) A work of architecture cannot simultaneously express its architect's personality and be functional for public use.
5. Observatory director: Some say that funding the megatelescope will benefit only the astronomers who will work with it. This dangerous point of view, applied to the work of Maxwell, Newton, or Einstein, would have stifled their research and deprived the world of beneficial applications, such as the development of radio, that followed from that research.

If the statements above are put forward as an argument in favor of development of the megatelescope, which one of the following is the strongest criticism of that argument?

- (A) It appeals to the authority of experts who cannot have known all the issues involved in construction of the megatelescope.
  - (B) It does not identify those opposed to development of the megatelescope.
  - (C) It launches a personal attack on opponents of the megatelescope by accusing them of having a dangerous point of view.
  - (D) It does not distinguish between the economic and the intellectual sense of "benefit."
  - (E) It does not show that the proposed megatelescope research is worthy of comparison with that of eminent scientists in its potential for applications.
6. The Transit Authority's proposal to increase fares by 40 percent must be implemented. Admittedly, this fare increase will impose a hardship on some bus and subway riders. But if the fare is not increased, service will have to be cut severely and that would result in an unacceptably large loss of ridership.

The passage employs which one of the following argumentative strategies?

- (A) It offers evidence that the recommended course of action would have no undesirable consequences.

- (B) It shows that a proponent of any alternative position would be forced into a contradiction.
- (C) It arrives at its conclusion indirectly by providing reasons for rejecting an alternative course of action.
- (D) It explains why the recommended course of action would not be subject to the objections raised against the alternative.
- (E) It justifies the conclusion by showing that such a course of action has proven effective in the past.
7. Those who participate in local politics include people who are genuinely interested in public service and people who are selfish opportunists. Everyone who participates in local politics has an influence on the community's values. If the statements above are true, which one of the following must also be true?
- (A) Some selfish opportunists have an influence on the community's values.
- (B) Some persons who are interested in public service do not have an influence on the community's values.
- (C) All those who have an influence on the community's values participate in local politics.
- (D) Some of those who influence the community's values neither are interested in public service nor are selfish opportunists.
- (E) All those who have an influence on the community's values are either interested in public service or are selfish opportunists.

Questions 8-9

Although nondairy coffee lighteners made with coconut oil contain 2 grams of saturated fat per tablespoon, or 7 times more than does whole milk, those lighteners usually contain no cholesterol. Yet one tablespoon of such lighteners causes the consumer's blood cholesterol to rise to a higher level than does an identical amount of whole milk, which contains 2 milligrams of cholesterol per tablespoon.

8. Which one of the following, if true, contributes most to an explanation of the apparent discrepancy noted above?
- (A) Nutritionists recommend that adults consume as little saturated fat as possible and no more than 250 milligrams of cholesterol a day.
- (B) One gram of saturated fat in food has roughly the same effect on blood cholesterol as 25 milligrams of cholesterol in food.
- (C) Light cream, a dairy product that contains 5 times more cholesterol than does whole milk, is often chosen as a lightener by consumers who normally prefer whole milk.
- (D) Certain nondairy coffee lighteners made without coconut oil contain less saturated fat and less cholesterol than does whole milk.
- (E) The lower the saturated fat content of dairy products, the less cholesterol they usually contain.

9. Manufacturers of coffee lighteners based on coconut oil claim that their products usually cause the typical consumer's blood cholesterol to rise to a lower level than does the use of whole milk as a lighteners. Which one of the following, if true, provides the most support for the manufacturers' claim?
- (A) Consumers of lighteners made with coconut oil who avoid other high-cholesterol foods and exercise more than average tend to have lower-than-average blood cholesterol levels.
  - (B) Coffee is frequently consumed with pastries and other rich desserts that themselves result in high blood cholesterol levels.
  - (C) One popular nondairy coffee lightener that is not based on coconut oil has reduced its fat content by 20 percent while keeping its cholesterol content at zero.
  - (D) Consumers typically add to their coffee substantially smaller quantities of coconut-oil-based lighteners than of whole milk.
  - (E) Most consumers are convinced that whole dairy products increase blood cholesterol and that nondairy coffee lighteners do not.
10. People with serious financial problems are so worried about money that they cannot be happy. Their misery makes everyone close to them—family, friends, colleagues—unhappy as well. Only if their financial problems are solved can they and those around them be happy.
- Which one of the following statements can be properly inferred from the passage?
- (A) Only serious problems make people unhappy.
  - (B) People who solve their serious financial problems will be happy.
  - (C) People who do not have serious financial problems will be happy.
  - (D) If people are unhappy, they have serious financial problems.
  - (E) If people are happy, they do not have serious financial problems.
11. It is often said that people should be rewarded for doing a given job in proportion to the effort it costs them to do it. However, a little reflection will show that this is, in fact, a very bad idea, since it would mean that those people with the least skill or natural aptitude for a particular task would be the ones given the most incentive to do it.
- Which one of the following argumentative strategies is used above?
- (A) stating a general principle and then presenting reasons in favor of adopting it
  - (B) providing evidence that where the principle under discussion has been adopted, the results usually have been undesirable
  - (C) demonstrating that a consequence that had been assumed to follow from the principle under consideration need not follow from it
  - (D) attempting to undermine a general principle by arguing that undesirable consequences would follow from it

(E) showing that, in practice, the principle under consideration could not be uniformly applied

12. Photovoltaic power plants produce electricity from sunlight. As a result of astonishing recent technological advances, the cost of producing electric power at photovoltaic power plants, allowing for both construction and operating costs, is one-tenth of what it was 20 years ago, whereas the corresponding cost for traditional plants, which burn fossil fuels, has increased. Thus, photovoltaic power plants offer a less expensive approach to meeting demand for electricity than do traditional power plants.

The conclusion of the argument is properly drawn if which one of the following is assumed?

- (A) The cost of producing electric power at traditional plants has increased over the past 20 years.
- (B) Twenty years ago, traditional power plants were producing 10 times more electric power than were photovoltaic plants.
- (C) None of the recent technological advances in producing electric power at photovoltaic plants can be applied to producing power at traditional plants.
- (D) Twenty years ago, the cost of producing electric power at photovoltaic plants was less than 20 times the cost of producing power at traditional plants.
- (E) The cost of producing electric power at photovoltaic plants is expected to decrease further, while the cost of producing power at traditional plants is not expected to decrease.
13. If that insect is a bee, it can only sting once. It only did sting once. So it is a bee. Which one of the following exhibits a pattern of reasoning most similar to that in the argument above?
- (A) Spring is here. It has to be, because when it is spring, I cannot stop sneezing; and I just sneezed.
- (B) When the sky is clear, the atmospheric pressure is high. At the moment, it is clearing up, so the atmospheric pressure is bound to be high soon.
- (C) Old and brittle paintings are always moved with extreme care. That particular painting is never moved with extreme care. So it must not be old and brittle.
- (D) Only one more thunderstorm was needed to ruin that roof. But the roof was still fine a month later. There must not have been any thunderstorm over that month.
- (E) To survive in the wild requires physical stamina like Mark's. All the same, Mark's fear of spiders would prevent his survival.
14. Pamela: Physicians training for a medical specialty serve as resident staff physicians in hospitals. They work such long hours—up to 36 consecutive hours—that fatigue impairs their ability to make the best medical decisions during the final portion of their shifts.

Quincy: Thousands of physicians now practicing have been trained according to the same regimen, and records show they generally made good medical decisions during their training periods. Why should what has worked in the past be changed now?

Which one of the following, if true, is the most effective counter Pamela might make to Quincy's argument?

- (A) The basic responsibilities of resident staff physicians in hospitals have not changed substantially over the past few decades.
- (B) Because medical reimbursement policies now pay for less recuperation time in hospitals, patients in hospitals are, on the average, more seriously ill during their stay than in the past.
- (C) It is important that emergency-room patients receive continuity of physician care, insofar as possible, over the critical period after admission, generally 24 hours.
- (D) The load of work on resident physicians-in-training varies according to the medical specialty for which each is being trained.
- (E) The training of physicians should include observation and recognition of the signs indicating a hospitalized patient's progress or decline over a period of at least 36 hours.

15. When a group of children who have been watching television programs that include acts of violence is sent to play with a group of children who have been watching programs that do not include acts of violence, the children who have been watching violent programs commit a much greater number of violent acts in their play than do the children who have been watching nonviolent programs. Therefore, children at play can be prevented from committing violent acts by not being allowed to watch violence on television.

The argument in the passage assumes which one of the following?

- (A) Television has a harmful effect on society.
- (B) Parents are responsible for the acts of their children.
- (C) Violent actions and passive observation of violent actions are not related.
- (D) There are no other differences between the two groups of children that might account for the difference in violent behavior.
- (E) Children who are treated violently will respond with violence.

16. It is repeatedly claimed that the dumping of nuclear waste poses no threat to people living nearby. If this claim could be made with certainty, there would be no reason for not locating sites in areas of dense population. But the policy of dumping nuclear waste only in the more sparsely populated regions indicates, at the very least, some misgiving about safety on the part of those responsible for policy.

Which one of the following, if true, would most seriously weaken the argument?

- (A) Evaluation plans in the event of an accident could not be guaranteed to work



- perfectly except where the population is small.
- (B) In the event of an accident, it is certain that fewer people would be harmed in a sparsely populated than in a densely populated area.
- (C) Dumping of nuclear waste poses fewer economic and bureaucratic problems in sparsely populated than in densely populated areas.
- (D) There are dangers associated with chemical waste, and it, too, is dumped away from areas of dense population.
- (E) Until there is no shred of doubt that nuclear dumps are safe, it makes sense to situate them where they pose the least threat to the public.
17. A society's infant mortality rate is an accepted indicator of that society's general health status. Even though in some localities in the United States the rate is higher than in many developing countries, in the United States overall the rate has been steadily declining. This decline does not necessarily indicate, however, that babies in the United States are now, on the average, healthier at birth than they were in the past.
- Which one of the following reasons, if true, most strongly supports the claim made above about the implications of the decline?
- (A) The figure for infant mortality is compiled as an overall rate and thus masks deficiencies in particular localities.
- (B) Low birth weight is a contributing factor in more than half of the infant deaths in the United States.
- (C) The United States has been developing and has achieved extremely sophisticated technology for saving premature and low-birth-weight babies, most of whom require extended hospital stays.
- (D) In eleven states of the United States, the infant mortality rate declined last year.
- (E) Babies who do not receive adequate attention from a caregiver fail to thrive and so they gain weight slowly.

### Questions 18-19

Like a number of other articles, Ian Ragnall's article relied on a recent survey in which over half the couples applying for divorces listed "money" as a major problem in their marriages. Ragnall's conclusion from the survey data is that financial problems are the major problem in marriages and an important factor contributing to high divorce rate. Yet couples often express other types of marital frustrations in financial terms. Despite appearances, the survey data do not establish that financial problems are the major problem in contemporary marriages.

18. Which one of the following sentences best expresses the main point of the passage?
- (A) Financial problems are not an important factor contributing to the divorce rate.

- (B) Marital problems are more easily solved by marriage counselors than by married couples on their own.
- (C) The conclusion drawn in Ragnall's article is inadequately justified.
- (D) Over half the couples applying for divorces listed money as a major problem in their marriages.
- (E) Many articles wrongly claim that financial problems are the major factor contributing to the divorce rate.
19. In the passage, the author does which one of the following?
- (A) undermines a conclusion drawn from statistical data by offering a specific counterexample
- (B) undermines a conclusion drawn from statistical data by offering an alternative explanation for some of the data
- (C) undermines a conclusion drawn from statistical data by showing that one cannot prove the presence of an emotion by using statistical methods
- (D) undermines a conclusion drawn from statistical data by criticizing the survey for which the data was gathered
- (E) undermines a conclusion by showing that couples cannot accurately describe their own problems
20. In Brazil, side-by-side comparisons of Africanized honeybees and the native honeybees have shown that the Africanized bees are far superior honey producers. Therefore, there is no reason to fear that domestic commercial honey production will decline in the United States if local honeybees are displaced by Africanized honeybees.
- Each of the following, if true, would weaken the argument EXCEPT:
- (A) The honeybees native to Brazil are not of the same variety as those most frequently used in the commercial beekeeping industry in the United States.
- (B) Commercial honey production is far more complicated and expensive with Africanized honeybees than it is with the more docile honeybees common in the United States.
- (C) If Africanized honeybees replace local honeybees, certain types of ornamental trees will be less effectively pollinated.
- (D) In the United States a significant proportion of the commercial honey supply comes from hobby beekeepers, many of whom are likely to abandon beekeeping with the influx of Africanized bees.
- (E) The area of Brazil where the comparative study was done is far better suited to the foraging habits of the Africanized honeybees than are most areas of the United States.
21. The public is well aware that high blood cholesterol levels raise the risk of stroke caused by blood clots. But a recent report concludes that people with low blood cholesterol levels are at increased risk of the other lethal type of stroke—cerebral

hemorrhage, caused when a brain artery bursts. The report suggests that because blood cholesterol plays a vital role in maintaining cell membranes, low blood cholesterol weakens artery walls, making them prone to rupture. The conclusion thus supports a long-standing contention by Japanese researchers that Western diets better protect against cerebral hemorrhage than do non-Western diets.

The argument is based on which one of the following assumptions?

- (A) Western diets are healthier than non-Western diets.
- (B) Western diets result in higher blood cholesterol levels than do non-Western diets.
- (C) High blood cholesterol levels preclude the weakening of artery walls.
- (D) Cerebral hemorrhages are more dangerous than strokes caused by blood clots.
- (E) People who have low blood pressure are at increased risk of cerebral hemorrhage.

22. Public reports by national commissions, governors' conference, and leadership groups have stressed the great need for better understanding of international affairs by the citizenry. If the country is to remain a leading nation in an era of international competitiveness, the need is undeniable. If there is such a need for the citizenry to have a better understanding of international affairs, then all of our new teachers must be prepared to teach their subject matter with an international orientation.

If all of the statements in the passage are true, which one of the following must also be true?

- (A) If the country is to remain a leading nation in an era of international competitiveness, then new teachers must be prepared to teach their subject matter with an international orientation.
- (B) If new teachers are prepared to teach their subject matter with an international orientation, then the country will remain a leading nation in an era of international competitiveness.
- (C) If there is better understanding of international affairs by the citizenry, then the country will remain a leading nation in an era of international competitiveness.
- (D) If the country is to remain a leading nation in an era of international competitiveness, then there is no need for the citizenry to have a better understanding of international affairs.
- (E) Public reports from various groups and commissions have stressed the need for a more international orientation in the education of teachers.

23. "DNA fingerprinting" is a recently-introduced biochemical procedure that uses a pattern derived from a person's genetic material to match a suspect's genetic material against that of a specimen from a crime scene. Proponents have claimed astronomically high odds against obtaining a match by chance alone. These odds

are based on an assumption that there is independence between the different characteristics represented by a single pattern.

Which one of the following, if true, casts the most doubt on the claim of the proponents of DNA fingerprinting?

- (A) The large amount of genetic material that people share with all other people and with other animals is not included in the DNA fingerprinting procedure.
- (B) There is generally accepted theoretical basis for interpreting the patterns produced by the procedure.
- (C) In the whole population there are various different subgroups, within each of which certain sets of genetic characteristics are shared.
- (D) The skill required of laboratory technicians performing the DNA fingerprinting procedure is not extraordinary.
- (E) In the investigation of certain genetic diseases, the techniques used in DNA fingerprinting have traced the transmission of the diseases among the living members of very large families.

24. Anthropologists assert that cultures advance only when independence replaces dependence—that is, only when imposition by outsiders is replaced by initiative from within. In other words, the natives of a culture are the only ones who can move that culture forward. Non-natives may provide valuable advice, but any imposition of their views threatens independence and thus progress. If one looks at individual schools as separate cultures, therefore, the key to educational progress is obvious\_\_\_\_\_

Which one of the following best completes the passage?

- (A) individual schools must be independent of outside imposition
- (B) some schools require more independence than others, depending on the initiative of their staffs and students
- (C) school system officials must tailor their initiatives for change to each individual school in the system
- (D) outsiders must be prevented from participation in schools' effort to advance
- (E) the more independent a school is, the more educational progress it will make

25. The public in the United States has in the past been conditioned to support a substantial defense budget by the threat of confrontation with the Eastern bloc. Now that that threat is dissolving, along with the Eastern bloc itself, it is doubtful whether the public can be persuaded to support an adequate defense budget.

Which one of the following indicates a weakness in the position expressed above?

- (A) It presupposes that public opinion can be manipulated indefinitely, without the public's becoming aware of that manipulation.
- (B) It refers to past and present events that do not have a causal connection with public support of the budget.

- (C) It assumes as fact what it seeks to establish by reasoning.
- (D) It fails to give any reason for the judgment it reaches.
- (E) It hinges on the term “adequate,” the precise meaning of which requires reevaluation in the new context.

### SECTION VI

**Time 35 minutes 25 Questions**

***Directions: The questions in this section are based on the reasoning contained in brief statements or passages...***

1. The translator of poetry must realize that word-for-word equivalents do not exist across languages, any more than piano sounds exist in the violin. The violin can, however, play recognizably the same music as the piano, but only if the violinist is guided by the nature and possibilities of the violin as well as by the original composition.

As applied to the act of translating poetry from one language into another, the analogy above can best be understood as saying that

- (A) poetry cannot be effectively translated because, unlike music, it is composed of words with specific meanings
  - (B) some languages are inherently more musical and more suitable to poetic composition than others
  - (C) the translator should be primarily concerned with reproducing the rhythms and sound patterns of the original, not with transcribing its meaning exactly
  - (D) the translator must observe the spirit of the original and also the qualities of expression that characterize the language into which the original is translated
  - (E) poetry is easier to translate if it focuses on philosophical insights or natural descriptions rather than on subjective impressions
2. Behind the hope that computers can replace teachers is the idea that the student’s understanding of the subject being taught consists in knowing facts and rules, the job of a teacher being to make the facts and rules explicit and convey them to the student, either by practice drills or by coaching. If that were indeed the way the mind works, the teacher could transfer facts and rules to the computer, which would replace the teacher as drillmaster and coach. But since understanding does not consist merely of knowing facts and rules, but of the grasp of the general concepts underlying them, the hope that the computer will eventually replace the teacher is fundamentally misguided.
- Which one of the following, if true, would most seriously undermine the author’s conclusion that computers will not eventually be able to replace teachers?
- (A) Computers are as good as teachers at drilling students on facts and rules.
  - (B) The job of a teacher is to make students understand the general concepts underlying specific facts and rules.



- (C) It is possible to program computers so that they can teach the understanding of general concepts that underlie specific facts and rules.
- (D) Because they are not subject to human error, computers are better than teachers at conveying facts and rules.
- (E) It is not possible for students to develop an understanding of the concepts underlying facts and rules through practice drills and coaching.
3. If the city council maintains spending at the same level as this year's, it can be expected to levy a sales tax of 2 percent next year. Thus, if the council levies a higher tax, it will be because the council is increasing its expenditure.
- Which one of the following exhibits a pattern of reasoning most closely similar to that of the argument above?
- (A) If house-building costs are not now rising, builders cannot be expected to increase the prices of houses. Thus, if they decrease the prices of houses, it will be because that action will enable them to sell a greater number of houses.
- (B) If shops wish to reduce shoplifting, they should employ more store detectives. Thus, if shops do not, they will suffer reduced profits because of their loss from stolen goods.
- (C) If the companies in the state do not increase their workers' wages this year, the prices they charge for their goods can be expected to be the same as they were last year. Thus, if the companies do increase prices, it will be because they have increased wages.
- (D) If airlines wish to make profits this year that are similar to last year's, they should not increase their prices this year. Thus, if they charge more, they should be expected to improve their services.
- (E) If newspaper publishers wish to publish good papers, they should employ good journalists. Thus, if they employ poor journalists, it will not be surprising if their circulation falls as a result.
4. The mind and the immune system have been shown to be intimately linked, and scientists are consistently finding that doing good deeds benefits one's immune system. The bone marrow and spleen, which produce the white blood cells needed to fight infection, are both connected by neural pathways to the brain. Recent research has shown that the activity of these white blood cells is stimulated by beneficial chemicals produced by the brain as a result of magnanimous behavior.
- The statements above, if true, support the view that
- (A) good deeds must be based on unselfish motives
- (B) lack of magnanimity is the cause of most serious illnesses
- (C) magnanimous behavior can be regulated by the presence or absence of certain chemicals in the brain
- (D) magnanimity is beneficial to one's own interests

(E) the number of white blood cells will increase radically if behavior is consistently magnanimous

5. The high cost of productions is severely limiting which operas are available to the public. These costs necessitate reliance on large corporate sponsors, who in return demand that only the most famous operas be produced. Determining which operas will be produced should rest only with ticket purchasers at the box office, not with large corporate sponsors. If we reduce production budgets so that operas can be supported exclusively by box-office receipts and donations from individuals, then the public will be able to see less famous operas.

Which one of the following, if true, would weaken the argument?

- (A) A few ticket purchasers go to the opera for the sake of going to the opera, not to see specific operatic productions.
- (B) The reduction of opera production budgets would not reduce the desire of large corporate sponsors to support operas.
- (C) Without the support of large corporate sponsors, opera companies could not afford to produce any but the most famous of operas.
- (D) Large corporate sponsors will stop supporting opera productions if they are denied control over which operas will be produced.
- (E) The combination of individual donations and box-office receipts cannot match the amounts of money obtained through sponsorship by large corporations.

6. When machines are invented and technologies are developed, they alter the range of choices open to us. The clock, for example, made possible the synchronization of human affairs, which resulted in an increase in productivity. At the same time that the clock opened up some avenues, it closed others. It has become harder and harder to live except by the clock, so that now people have no choice in the matter at all.

Which one of the following propositions is best illustrated by the example presented in the passage?

- (A) New machines and technologies can enslave as well as liberate us.
- (B) People should make a concerted effort to free themselves from the clock.
- (C) Some new machines and technologies bring us improvement to our lives.
- (D) The increase in productivity was not worth our dependence on the clock.
- (E) Most new machines and technologies make our lives synchronized and productive.

7. To become an expert on a musical instrument, a person must practice. If people practice a musical instrument for three hours each day, they will eventually become experts on that instrument. Therefore, if a person is an expert on a musical instrument, that person must have practiced for at least three hours each day.

Which one of the following most accurately describes a flaw in the reasoning above?

- (A) The conclusion fails to take into account that people who practice for three hours every day might not yet have reached a degree of proficiency that everyone would consider expert.
- (B) The conclusion fails to take into account that practicing for less than three hours each day may be enough for some people to become experts.
- (C) The conclusion fails to take into account that if a person has not practiced for at least three hours a day, the person has not become an expert.
- (D) The conclusion fails to take into account that three consecutive hours of daily practice is not recommended by all music teachers.
- (E) The conclusion fails to take into account that few people have the spare time necessary to devote three hours daily to practice.

8. On the basis of incontestable proof that car safety seats will greatly reduce the number of serious injuries sustained by children in car accidents, laws have been passed mandating the use of these seats. Unexpectedly, it has since been found that a large number of children who are riding in safety seats continue to receive serious injuries that safety seats were specifically designed to avoid, and in the prevention of which they in fact have proven to be effective.

Which one of the following, if true, could by itself adequately explain the unexpected finding reported in the passage?

- (A) Many parents are defying the law by not using safety seats for their children.
- (B) Children are more likely to make automobile trips now than they were before the introduction of the safety seat.
- (C) The high cost of child safety seats has caused many parents to delay purchasing them.
- (D) The car safety seat was not designed to prevent all types of injuries, so it is not surprising that some injuries are sustained.
- (E) The protection afforded by child safety seats depends on their being used properly, which many parents fail to do.

9. An easy willingness to tell funny stories or jokes about oneself is the surest mark of supreme self-confidence. This willingness, often not acquired until late in life, is even more revealing than is good-natured acquiescence in having others poke fun at one.

Which one of the following inference is most supported by the statements above?

- (A) A person who lacks self-confidence will enjoy neither telling nor hearing funny stories about himself or herself.
- (B) People with high self-confidence do not tell funny stories or jokes about others.
- (C) Highly self-confident people tell funny stories and jokes in order to let their

audience know that they are self-confident.

- (D) Most people would rather tell a funny story or joke than listen to one being told.
- (E) Telling funny stories or jokes about people in their presence is a way of expressing one's respect for them.

Questions 10-11

Nature constantly adjusts the atmospheric carbon level. An increase in the level causes the atmosphere to hold more heat, which causes more water to evaporate from the oceans, which causes increased rain. Rain washes some carbon from the air into the oceans, where it eventually becomes part of the seabed. A decrease in atmospheric carbon causes the atmosphere to hold less heat, which causes decreased evaporation from the oceans, which causes less rain, and thus less carbon is washed into the oceans. Yet some environmentalists worry that burning fossil fuels may raise atmospheric carbon to a dangerous level. It is true that a sustained increase would threaten human life. But the environmentalists should relax—nature will continually adjust the carbon level.

10. Each of the following can be inferred from the information in the passage EXCEPT:
- (A) A decrease in the level of atmospheric heat causes a decrease in the amount of carbon that rain washes into the oceans from the air.
  - (B) An increase in the level of carbon in the atmosphere causes increased evaporation of ocean water.
  - (C) An increase in the level of atmospheric heat causes increased rainfall.
  - (D) A decrease in the level of carbon in the atmosphere causes decreased evaporation of ocean water.
  - (E) A decrease in the level of atmospheric heat causes a decrease in the level of carbon in the atmosphere.
11. Which one of the following, if true, would most weaken the argument in the passage?
- (A) Plant life cannot survive without atmospheric carbon.
  - (B) It is not clear that breathing excess carbon in the atmosphere will have a negative effect on human life.
  - (C) Carbon is part of the chemical “blanket” that keeps the Earth warm enough to sustain human life.
  - (D) Breathing by animals releases almost 30 times as much carbon as does the burning of fossil fuels.
  - (E) The natural adjustment process, which occurs over millions of years, allows wide fluctuations in the carbon level in the short term.
12. The more television children watch, the less competent they are in mathematical

knowledge. More than a third of children in the United States watch television for more than five hours a day; in South Korea the figure is only 7 percent. But whereas less than 15 percent of children in the United States understand advanced measurement and geometric concept, 40 percent of South Korea children are competent in these areas. Therefore, if United States children are to do well in mathematics, they must watch less television.

Which one of the following is an assumption upon which the argument depends?

- (A) Children in the United States are less interested in advanced measurement and geometric concepts than are South Korea children.
- (B) South Korea children are more disciplined about doing schoolwork than are children in the United States.
- (C) Children who want to do well in advanced measurement and geometry will watch less than television.
- (D) A child's ability in advanced measurement and geometry increases if he or she watches less than one hour of television a day.
- (E) The instruction in advanced measurement and geometric concepts available to children in the United States is not substantially worse than that available to South Korea children.

Questions 13-14

The only way that bookstores can profitably sell books at below-market prices is to get the books at a discount from publishers. Unless bookstores generate a high sales volume, however, they cannot get discounts from publishers. To generate such volume, bookstores must either cater to mass tastes or have exclusive access to a large specialized market, such as medical market, or both.

13. Which one of the following can be properly inferred from the passage?
- (A) If a bookstore receives discounts from publishers, it will profitably sell books at below-market prices.
  - (B) A bookstore that caters to mass tastes or has exclusive access to a large specialized market will have a high sales volume.
  - (C) A bookstore that profitably sells books at below-market prices gets discounts from publishers.
  - (D) A bookstore that does not sell books at below-market prices does not get discounts from publishers.
  - (E) A bookstore that not only caters to mass tastes but also has exclusive access to a large specialized market cannot profitably sell books at below-market prices.
14. If all statements in the passage are true and if it is also true that a bookstore does not cater to mass tastes, which one of the following CANNOT be true?
- (A) The bookstore profitably sells some of its books at below-market prices.
  - (B) The bookstore does not profitably sell any of its books at below-market



prices.

- (C) Either the bookstore has exclusive access to a large specialized market or else it does not get a discount from any publishers.
- (D) The bookstore does not have exclusive access to a large specialized market but profitably sells some of its books at below-market prices.
- (E) The bookstore does not have exclusive access to a large specialized market, nor does it get a discount from any publishers.

15. Extinction is the way of nature. Scientists estimate that over half of the species that have ever come into existence on this planet were already extinct before humans developed even the most primitive of tools. This constant natural process of species emergence and extinction, however, is ignored by those who wish to trace the blame for more recent extinctions to humanity's use of technology, with its consequent effects on the environment. These people must be made to understand that the species that have become extinct in modern times would have become extinct by now even if humans had never acquired technology.

Which one of the following identifies a reasoning error in the passage?

- (A) The author mistakenly assumes that technology has not caused any harm to the environment.
  - (B) The author ignores the fact that some species that are not yet extinct are in danger of extinction.
  - (C) The author fails to consider that there are probably species in existence that have not yet been identified and studied by scientists.
  - (D) The author cites scientists who support the theory that over half of all species that ever existed have become extinct, but fails to mention any scientists who do not support that theory.
  - (E) The author provides no specific evidence that the species that have become extinct in modern times are the same species that would have become extinct in the absence of human technology.
16. The public is aware of the possibility of biases in the mass media and distrusts the media as too powerful. The body of information against which the public evaluates the plausibility of each new media report comes, however, from what the public has heard of through the mass media.

If the view above is correct, it provides a reason for accepting which one of the following conclusions?

- (A) If there is a pervasive bias in the presentation of news by the mass media, it would be hard for the public to discern that bias.
- (B) The mass media tailor their reports to confirm to a specific political agenda.
- (C) The biases that news media impose on reporting tend not to be conscious distortions but rather part of a sense they share about what is interesting and believable.
- (D) News reporters and their public hold largely the same views about what is

most important in society, because news reporters come out of that society.

- (E) When a news event occurs that contradicts a stereotype formerly incorporated into reporting by the mass media, the public is predisposed to believe reports of the event.

17. In a bureaucracy, all decisions are arrived at by a process that involves many people. There is no one person who has the authority to decide whether a project will process or not. As a consequence, in bureaucracies, risky projects are never undertaken.

The conclusion follows logically from the premises if which one of the following is assumed?

- (A) All projects in a bureaucracy require risk.  
(B) Decisive individuals choose not to work in a bureaucracy.  
(C) An individual who has decision-making power will take risks.  
(D) The only risky projects undertaken are those for which a single individual has decision-making power.  
(E) People sometimes take risks as individuals that they would not take as part of a group.
18. "Physicalists" expect that ultimately all mental functions will be explainable in neurobiological terms. Achieving this goal requires knowledge of how neurons and their basic functions, a knowledge of how neurons interact, and a delineation of the psychological faculties to be explained. At present, there is a substantial amount of fundamental knowledge about the basic functions of neurons, and the scope and character of such psychological capacities as visual perception and memory are well understood. Thus, as the physicalists claim, mental functions are bound to receive explanations in neurobiological terms in the near future.
- Which one of the following indicates an error in the reasoning in the passage?
- (A) The conclusion contradicts the claim of the physicalists.  
(B) The passage fails to describe exactly what is currently known about the basic functions of neurons.  
(C) The word "neurobiological" is used as though it had the same meaning as the word "mental."  
(D) The argument does not indicate whether it would be useful to explain mental functions in neurobiological terms.  
(E) The passage does not indicate that any knowledge has been achieved about how neurons interact.
19. Because a large disparity in pay between the public and private sectors has developed in recent years, many experienced and extremely capable government administrators have quit their posts and taken positions in private-sector management. Government will be able to recapture these capable administrators by raising salaries to a level comparable to those of the private sector. In that way,

the functioning of public agencies will be improved.

The position taken above presupposes which one of the following?

- (A) Experience gained from private-sector management will be very valuable in government administration.
- (B) The most important factor determining how well government agencies function is the amount of experience the administrators have.
- (C) Unless government action is taken, the disparity in pay between government administration and private-sector management will continue to increase.
- (D) People who moved from jobs in government administration to private-sector management would choose to change careers again.
- (E) If the disparity in pay between government administration and private-sector management increases, administrators will move to the public sector in large numbers.

20. Politician: Homelessness is a serious social problem, but further government spending to provide low-income housing is not the cure for homelessness. The most cursory glance at the real-estate section of any major newspaper is enough to show that there is no lack of housing units available to rent. So the frequent claim that people are homeless because of a lack of available housing is wrong.

That homelessness is a serious social problem figures in the argument in which one of the following ways?

- (A) It suggests an alternative prospective to the one adopted in the argument.
- (B) It sets out a problem the argument is designed to resolve.
- (C) It is compatible either with accepting the conclusion or with denying it.
- (D) It summarizes a position the argument as a whole is directed toward discrediting.
- (E) It is required in order to establish the conclusion.

21. Leona: If the average consumption of eggs in the United States were cut in half, an estimated 5,000 lives might be saved each year.

Thomas: How can that be? That would mean that if people adopt this single change in diet for ten years, the population ten years from now will be greater by 50,000 people than it otherwise would have been.

Which one of the following is a statement that Leona could offer Thomas to clarify her own claim and to address the point he has made?

- (A) It is possible for the population to grow by 5,000 people for every year if the base year chosen for purposes of comparison is one with unusually low population growth.
- (B) It is accurate to say that 5,000 lives have been saved as long as 5,000 people who would have died in a given year as a result of not changing their diet, did not do so-even if they died for some other reason.
- (C) If egg consumption were reduced by more than half, the estimated number of

lives saved each year could be even more than 5,000.

- (D) The actual rate of population growth depends not only on the birth rate, but also on changes in life expectancy.
- (E) For the average consumption of eggs to be cut by half, many individual consumers would have to cut their own consumption by much more than half.

22. The United States Food and Drug Administration (FDA) regulates the introduction of new therapeutic agents into the marketplace. Consequently, it plays a critical role in improving health care in the United States. While it is those in the academic and government research communities who engage in the long process of initial discovery and clinical testing of new therapeutic agents, it is the FDA's role and responsibility to facilitate the transfer of new discoveries from the laboratory to the marketplace. Only after the transfer can important new therapies help patients.

Which one of the following statements can be inferred from the passage?

- (A) The FDA is responsible for ensuring that any therapeutic agent that is marketed is then regulated.
  - (B) Before new therapeutic agents reach the marketplace they do not help patients.
  - (C) The research community is responsible for the excessively long testing period for new drugs, not the FDA.
  - (D) The FDA should work more closely with researchers to ensure that the quality of therapeutic agents is maintained.
  - (E) If a new medical discovery has been transferred from the laboratory to the marketplace, it will help patients.
23. In a new program, automobile owners in some neighborhoods whose cars are not normally driven between 1 A.M. and 5 A.M. can display a special decal in the cars' windows and authorize police to stop the cars during those hours to check the drivers' licenses. The theft rate for cars bearing such decals is much lower than had been usual for cars in those neighborhoods.

If it is concluded from the statements above that automobile theft has been reduced by the program, which one of the following would it be most important to answer in evaluating that conclusion?

- (A) Are owners who are cautious enough to join the program taking other special measures to protect their cars against theft?
- (B) In how many neighborhoods is the police program operating?
- (C) Are cars in neighborhoods that are actively participating in the program sometimes stolen during daylight hours?
- (D) Will owners who have placed decals on their cars' windows but who find it necessary to drive between 1 A.M. and 5 A.M. be harassed by police?
- (E) Are the neighborhoods in which the program has been put into effect a

representative cross section of neighborhoods with respect to the types of automobiles owned by residents?

24. It has been claimed that an action is morally good only if it benefits another person and was performed with that intention; whereas an action that harms another person is morally bad either if such harm was intended or if reasonable forethought would have shown that the action was likely to cause harm.
- Which one of the following judgments most closely confirms to the principle cited above?
- (A) Pamela wrote a letter attempting to cause trouble between Edward and his friends; this action of Pamela's was morally bad, even though the letter, in fact, had an effect directly opposite from the one intended.
  - (B) In order to secure a promotion, Jeffery devoted his own time to resolving a backlog of medical benefits claims; Jeffrey's action was morally good since it alone enabled Sara's claim to be processed in time for her to receive much-needed treatment.
  - (C) Intending to help her elderly neighbor by clearing his walkway after a snowstorm, Teresa inadvertently left ice on his steps; because of this exposed ice, her neighbor had a bad fall, thus showing that morally good actions can have bad consequences.
  - (D) Marilees, asked by a homeless man for food, gave the man her own sandwich; however, because the man tried to talk while he was eating the sandwich, it caused him to choke, and thus Marilees unintentionally performed a morally bad action.
  - (E) Jonathan agreed to watch his three-year-old niece while she played but, becoming engrossed in conversation, did not see her run into the street where she was hit by a bicycle; even though he intended no harm, Jonathan's action was morally bad.

## TEST 6

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. A law that is not consistently enforced does not serve its purpose. Law without enforcement is not law; it is merely statute—a promise of law. To institute real law is not merely to declare that such and such behavior is forbidden, it is also to punish those who violate that edict. Furthermore, those who enforce law must punish without favor for their friends or malice for their enemies. To punish only those one dislike while forgiving others is not to enforce law but to engage in the arbitrary and unjust exercise of power.

The main point of the passage is that instituting real law consists in



- (A) the exercise of power
  - (B) authorizing the enforcement of punishments
  - (C) the unbiased punishment of prohibited behavior
  - (D) understanding the purpose of law
  - (E) clearly defining unacceptable behavior
2. Physiological research has uncovered disturbing evidence linking a number of structural disorders to jogging. Among the ailments seemingly connected with this now-popular sport are spinal disk displacements, stress fractures of the feet and ankles, knee and hip joint deterioration, and tendonitis. Furthermore, these injuries do not occur exclusively among beginning runners—veteran joggers suffer an equal percentage of injuries. What the accumulating data suggest is that the human anatomy is not able to withstand the stresses of jogging.
- Which one of the following is an assumption of the argument?
- (A) The link between jogging and certain structural disorders appears to be a causal one.
  - (B) Jogging causes more serious disorders than other sports.
  - (C) The jogger's level of experience is a factor determining the likelihood of a jogging injury.
  - (D) Some sports are safer for the human body than jogging.
  - (E) The human species is not very durable.
3. All students at Pitcombe College were asked to label themselves conservative, liberal, or middle-of-the-road politically. Of the students, 25 percent labeled themselves conservative, 24 percent labeled themselves liberal, and 51 percent labeled themselves middle-of-the-road. When asked about a particular set of issues, however, 77 percent of the students endorsed what is generally regarded as a liberal position.
- If all of the statements above are true, which one of the following must also be true?
- (A) All students who labeled themselves liberal endorsed what is generally regarded as a liberal position on that set of issues.
  - (B) More students who labeled themselves middle-of-the road than students who labeled themselves liberal opposed what is generally regarded as a liberal position on that set of issues.
  - (C) The majority of students who labeled themselves middle-of-the-road opposed what is generally regarded as a liberal position on that set of issues.
  - (D) Some students who labeled themselves conservative endorsed what is generally regarded as a liberal position on that set of issues.
  - (E) Some students who labeled themselves liberal endorsed what is generally regarded as a conservative position on that set of issues.
4. Lenore: It is naive to think that historical explanations can be objective. In

evaluating evidence, historians are always influenced by their national, political, and class loyalties.

Victor: Still, the very fact that cases of biased thinking have been detected and sources of bias identified shows that there are people who can maintain objectivity.

Victor's response does not succeed as a rebuttal of Lenore's argument because his response

- (A) displays the same kind of biased thinking as that against which Lenore's argument it directed
- (B) does not address the special case of historians who purposely distort evidence in order to promote their own political objectives
- (C) fails to provide examples of cases in which biased thinking has been detected and the source of that bias identified
- (D) does not consider sources of bias in historical explanation other than those that are due to national, political, and class loyalties
- (E) overlooks the possibility that those who detect and identify bias are themselves biased in some way

5. The museum's night security guard maintains that the thieves who stole the portrait did not enter the museum at any point at or above ground level. Therefore, the thieves must have gained access to the museum from below ground level.

The flawed pattern of reasoning in the argument above is most similar to that in which one of the following?

- (A) The rules stipulate the participants in the contest be judged on both form and accuracy. The eventual winner was judged highest in neither category, so there must be a third criterion that judges were free to invoke.
- (B) The store's competitors claim that the store in selling off the shirts at those prices, neither made any profit nor broke even. Consequently, the store's customers must have been able to buy shirts there at less than the store's cost.
- (C) If the census is to be believed, the percentage of men who are married is higher than the percentage of women who are married. Thus, the census must show a higher number of men than of women overall.
- (D) The product label establishes that this insecticide is safe for both humans and pet. Therefore, the insecticide must also be safe for such wild mammals as deer and rabbits.
- (E) As had generally been expected, not all questionnaires were sent in by the official deadline. It follows that plans must have been made for the processing of questionnaires received late.

Questions 6-7

High-technology medicine is driving up the nation's health care costs. Recent advances in cataract surgery illustrate why this is occurring. Cataracts are a major cause of blindness, especially in elderly people. Ten years ago, cataract surgery was painful and not always effective. Thanks to the new technology used in cataract surgery, the operation now restores vision dramatically and is less expensive. These two factors have caused the number of cataract operations performed to increase greatly, which has, in turn, drive up the total amount spent on cataract surgery.

6. Which one of the following can be inferred from the passage?
- (A) Ten years ago, few people had successful cataract surgery.
  - (B) In the long run, the advantages of advanced medical technology are likely to be outweighed by the disadvantages.
  - (C) The total amount spent on cataract surgery has increased because the increased number of people electing to have the surgery more than offsets the decrease in cost per operation.
  - (D) Huge increases in the nation's health care costs are due primarily to increased demand for surgery for older people.
  - (E) Ten years ago, cataract surgery was affordable for more people than it was last year.
7. Each of the following, if true, would support a challenge to the author's explanation of the increase in the number of cataract operations EXCEPT:
- (A) The overall population of the nation has increased from what it was ten years ago.
  - (B) Any one individual's chance of developing cataracts is greater than it was ten years ago.
  - (C) The number of older people has increased during the last ten years.
  - (D) Today, health insurance covers cataract surgery for more people than it did ten years ago.
  - (E) People who have had unsuccessful cataract surgery are left with more seriously impaired vision than they had before the surgery.
8. Some companies in fields where skilled employees are hard to find make signing an "agreement not to compete" a condition of employment. In such an agreement the employee promises not to go work for a competing firm for a set period after leaving his or her current employer. Courts are increasingly ruling that these agreements are not binding. Yet paradoxically, for people who signed such agreements when working for competing firms, many firms are unwilling to consider hiring them during the period covered by the agreement.
- Which one of the following, if true, most helps to resolve the paradox?
- (A) Many companies will not risk having to become involved in lawsuits, even suits that they expect to have a favorable outcome.
  - (B) In some industries, for example the broadcast media, companies' main source

of new employees tends to be people who are already employed by competing firms.

- (C) Most companies that require their employees to sign agreements not to compete are aware that these documents are not legally binding.
- (D) Many people who have signed agreements not to compete are unwilling to renege on a promise by going to work for a competing firm.
- (E) Many companies consider their employees established relationships with clients and other people outside the company to be valuable company assets.

9. Many Ann: Our country should, above all, be strong. Strength gains the respect of other countries and makes a country admirable.

Inez: There are many examples in history of countries that were strong but used their strength to commit atrocities. We should judge a country by the morality of its actions, not by its strength. If the actions are morally good, the country is admirable.

Which one of the following is a presupposition that underlies Inez' argument?

- (A) At least one country is admirable.
- (B) Countries can not be both strong and moral.
- (C) It is possible to assign moral weight to the actions of countries.
- (D) The citizens of any country believe that whatever their country does is good.
- (E) Countries should impose their standards of morality on other countries by whatever means necessary.

10. All of John's friends say they know someone who has smoked 40 cigarettes a day for the past 40 years and yet who is really fit and well. John does not know anyone like that and it is quite certain that he is not unique among his friends in this respect.

If the statements in the passage are true, then which one of the following must also be true?

- (A) Smokers often lie about how much they smoke.
- (B) People often knowingly exaggerate without intending to lie.
- (C) All John's friends know the same lifelong heavy smoker.
- (D) Most of John's friends are not telling the truth.
- (E) Some of John's friends are not telling the truth.

11. For democracy to survive, it is imperative that the average citizen be able to develop informed opinions about important policy issues. In today's society, this means that citizens must be able to develop informed opinions on many scientific subjects, from ecosystems to defense system. Yet, as scientific knowledge advances, the average citizen is increasingly unable to absorb enough information to develop informed opinions on many important issues.

Of the following, which one follows logically from the passage?

- (A) Scientists have a duty to educate the public.
- (B) The survival of democracy is threatened by the advance of scientific knowledge.
- (C) Every citizen has a duty to and can become scientifically literate.
- (D) The most effective democracy is one that is the most scientifically unsophisticated.
- (E) Democracy will survive if there are at least some citizens who are capable of developing informed opinions on important scientific issues.

12. By dating fossils of pollen and beetles, which returned after an Ice Age glacier left an area, it is possible to establish an approximate date when a warmer climate developed. In one glacial area, it appears from the insect record that a warm climate developed immediately after the melting of the glacier. From the pollen record, however, it appears that the warm climate did not develop until long after the glacier disappeared.

Each one of the following, if true, helps to explain the apparent discrepancy EXCEPT:

- (A) Cold-weather beetle fossils can be mistaken for those of beetles that live in warm climates.
- (B) Warm-weather plants cannot establish themselves as quickly as can beetles in a new environment.
- (C) Beetles can survive in a relatively barren postglacial area by scavenging.
- (D) Since pollen spread unevenly in a new climate, researchers can mistake gaps in the pollen record as evidence of no new overall growth.
- (E) Beetles are among the oldest insect species and are much older than many warm-weather plants.

13. Using clean-coal technologies to “repower” existing factories promises ultimately a substantial reduction of polluting emissions, and will affect the full range of pollutants implicated in acid rain. The strategy of using these technologies could cut sulfur dioxide emission by more than 80 percent and nitrogen oxide emissions by more than 50 percent. The emission of smaller quantity of nitrogen pollutants would in turn reduce the formation of noxious ozone in the troposphere.

Which one of the following statements is an inference that can be drawn from the information given in the passage?

- (A) Sulfur dioxide emissions are the most dangerous pollutants implicated in acid rain.
- (B) Noxious ozone is formed in factories by chemical reactions involving sulfur dioxide.
- (C) Twenty percent of the present level of sulfur dioxide emissions in the atmosphere is not considered a harmful level.



- (D) A substantial reduction of polluting emissions will be achieved by the careful design of new factories.
- (E) The choice of technologies in factories could reduce the formation of noxious ozone in the troposphere.

14. Joshua Smith's new novel was criticized by the book editor for The Daily Standard as implausible. That criticism, like so many other criticisms from the same source in the past, is completely unwarranted, as anyone who has actually read the novel would agree. Each one of the incidents in which Smith's hero gets involved is the kind of incident that could very well have happened to someone or other.

Which one of the following is the most serious error of reasoning in the argument?

- (A) It relies on the assumption that a criticism can legitimately be dismissed as unwarranted if it is offended by someone who had previously displayed questionable judgment.
  - (B) It ignores the fact that people can agree about something even though what they agree about is not the case.
  - (C) It calls into question the intellectual integrity of the critic in order to avoid having to address the grounds on which the criticism is based.
  - (D) It takes for granted that a whole story will have a given characteristics if each of its parts has that characteristics.
  - (E) It attempts to justify its conclusion by citing reasons that most people would find plausible only if they were already convinced that the conclusion was true.
15. J. J. Thomson, the discoverer of the electron and a recipient of the Nobel Prize in physics, trained many physicists, among them seven Nobel Prize winners, 32 fellows of the Royal Society of London, and 83 professors of physics. This shows that the skills needed for creative research can be taught and learned.

Which one of the following is an assumption on which the argument depends?

- (A) J. J. Thomson was an internationally known physicist and scientists came from all over the world to work with him.
  - (B) All the scientists trained by J. J. Thomson were renowned for their creative scientific research.
  - (C) At least one of the eminent scientists trained by J. J. Thomson was not a creative researcher before coming to study with him.
  - (D) Creative research in physics requires research habits not necessary for creative research in other fields.
  - (E) Scientists who go on to be the most successful researchers often receive their scientific education in classes taught by renowned research scientists.
16. The ancient Romans understood the principles of water power very well and in

some outlying parts of their empire they made extensive and excellent use of water as an energy sources. This makes it all the more striking that the Romans made do without water power in regions dominated by large cities.

Which one of the following, if true, contributes most to an explanation of the difference described above in the Romans' use of water power?

- (A) The ancient Romans were adept at constructing and maintaining aqueducts that could carry quantities of water sufficient to supply large cities over considerable distances.
- (B) In the areas in which water power was not used water flow in rivers and streams was substantial throughout the year but nevertheless exhibited some seasonal variation.
- (C) Water power was relatively vulnerable to sabotage but any damage could be quickly and inexpensively repaired.
- (D) In most areas to which the use of water power was not extended other more traditional sources of energy continued to be used.
- (E) In heavily populated areas the introduction of water power would have been certain to cause social unrest by depriving large numbers of people of their livelihood.

17. From a book review: The authors blithely claim that there are "three basic ways to store energy: as heat, as electricity or as kinetic energy." However, I cannot call to mind any affective ways to store energy as electricity, whereas any capable student of physics could readily suggest a few more ways to store energy: chemical, gravitational, nuclear.

The reviewer makes which one of the following criticisms of a claim that appears in the book under review?

- (A) There is no reason to consider any particular way to store energy any more basic than any other.
- (B) The list given of ways to store energy is possibly inaccurate and certainly not exhaustive.
- (C) It is overly limiting to treat basic ways to store energy as a question unrelated to the question of effective ways to use energy.
- (D) What needs to be considered is not whether various ways to store energy are basic but whether they are effective.
- (E) Except possibly for electricity, all ways to store energy are equally effective and therefore equally basic.

18. There is no mystery as to why figurative painting revived in the late 1970s. People want to look at recognizable images. Sorting out art theories reflected in abstract paintings is no substitute for the sense of empathy that comes from looking at a realistic painting of a figure in a landscape. Perhaps members of the art-viewing public resented abstract art because they felt that its lack of realistic subject matter was a rejection of the viewers and their world.

Which one of the following most accurately expresses the main point of the passage?

- (A) Abstract paintings often include shapes or forms that are suggestive of real objects or emotions.
- (B) The art-viewing public wished to see traditional subjects treated in a nontraditional manner.
- (C) Paintings that depict a recognizable physical world rather than the emotional world of the artist's life require more artistic talent to create.
- (D) The general public is unable to understand the theories on which abstract painting is based.
- (E) The artistic preferences of the art-viewing public stimulated the revival.

19. Valitania's long-standing practice of paying high salaries to its elected politicians has had a disastrous effect on the level of integrity among politicians in that country. This is because the prospect of earning a high salary is always attractive to anyone whose primary aim in life is to make money, so that inevitably the wrong people must have been attracted into Valitanian politics: people who are more interested in making money than in serving the needs of the nation

Which one of the following, if true, would weaken the argument?

- (A) Many Valitanian candidates for elected office spend some of their own money to finance their campaigns.
- (B) Most Valitanian elective offices have four-year terms.
- (C) No more people compete for elected office when officeholders are paid well than when they are paid poorly.
- (D) Only politicians who rely on their offices for income tend to support policies that advance their own selfish interests.
- (E) Most of those who are currently Valitanian politicians could have obtained better-paid work outside politics.

Questions 20-21

Policy Adviser: Freedom of speech is not only a basic human right; it is also the only rational policy for this government to adopt. When ideas are openly aired, good ideas flourish, silly proposals are easily recognized as such, and dangerous ideas can be responded to by rational argument. Nothing is ever gained by forcing citizens to disseminate their thoughts in secret.

20. The policy adviser's method of persuasion, in recommending a policy of free speech to the government, is best described by which one of the following?
- (A) a circular justification of the idea of free speech as an idea that flourishes when free speech is allowed
  - (B) advocating respect for basic rights of citizens for its own sake
  - (C) a coupling of moral ideals with self-interest

- (D) a warning about the difficulty of suppressing the truth  
(E) a description of an ideal situation that cannot realistically be achieved
21. Which one of the following, if true, would most strengthen the argument?
- (A) Most citizens would tolerate some limits on freedom of speech.  
(B) With or without a policy of freedom of speech, governments respond to dangerous ideas irrationally.  
(C) Freedom of religion and freedom of assembly are also basic human rights that governments must recognize.  
(D) Governments are less likely to be overthrown if they openly adopt a policy allowing freedom of speech.  
(E) Great ideas have flourished in societies that repress free speech as often as in those that permit it.
22. The trustees of the Avonbridge summer drama workshop have decided to offer scholarships to the top 10 percent of local applicants and the top 10 percent of nonlocal applicants as judged on the basis of a qualifying audition. They are doing this to ensure that only the applicants with the most highly evaluated auditions are offered scholarships to the program.
- Which one of the following points out why the trustees' plan might not be effective in achieving its goal?
- (A) The best actors can also apply for admission to another program and then not enroll in the Avonbridge program.  
(B) Audition materials that produce good results for one actor may disadvantage another, resulting in inaccurate assessment.  
(C) The top 10 percent of local and nonlocal applicants might not need scholarships to the Avonbridge program.  
(D) Some of the applicants who are offered scholarships could have less highly evaluated auditions than some of the applicants who are not offered scholarships.  
(E) Dividing applicants into local and nonlocal groups is unfair because it favors nonlocal applicants.
23. Book Review: When I read a novel set in a city I know well, I must see that the writer knows the city as well as I do if I am to take that writer seriously. If the writer is faking, I know immediately and do not trust the writer. When a novelist demonstrates the required knowledge, I trust the story teller, so I trust the tale. This trust increases my enjoyment of a good novel. Peter Lee's second novel is set in San Francisco, in this novel, as in his first, Lee passes my test with flying colors.
- Which one of the following can be properly inferred from the passage?
- (A) The book reviewer enjoys virtually any novel written by a novelist whom she trusts.

- (B) If the book reviewer trusts the novelist as a storyteller, the novel in question must be set in a city the book reviewer knows well.
- (C) Peter Lee's first novel was set in San Francisco.
- (D) The book reviewer does not trust any novel set in a city that she does not know well.
- (E) The book reviewer does not believe that she knows San Francisco better than Peter Lee does.

24. Someone's benefiting from having done harm to another person is morally justifiable only if the person who was harmed knew that what was done could cause that harm but consented to its being done anyway.

Which of the following judgments most closely conforms to the principle above?

- (A) Attempting to avoid being kept after school as punishment for breaking a window, Sonia falsely claimed that her brother had broken it; Sonia's action was morally unjustifiable since it resulted in both children being kept after school for something only Sonia had done.
- (B) Since Ned would not have won the prize for best model airplane if Penny's brother had not inadvertently damaged her entry while playing with it, Ned is morally unjustified in accepting his prize.
- (C) Wesley, a doctor, persuade Max to take part in a medical experiment in which a new drug was being tested: since Wesley failed to warn Max about the serious side effects of the drug and the drug proved to have no other effects, Wesley was morally unjustified in using the results obtained from Max in his report.
- (D) Because Roger's mother suffered severe complications as a result of donating a kidney to him for lifesaving kidney transplant, it was morally unjustifiable for Roger to receive the transplant, even though his mother, herself a doctor, had been eager for the transplant to be performed.
- (E) For James, who was convicted of having defrauded a large number of people out of their savings and wrote a book about his scheme while in prison, to be denied the profits from his book would be morally unjustifiable since he was already been punished for his crime.

25. Certain governments subsidize certain basic agricultural products in order to guarantee an adequate domestic production of them. But subsidies encourage more intensive farming, which eventually leads to soil exhaustion and drastically reduced yields.

The situation above is most nearly similar to which one of the following situations with respect to the relationship between the declared intent of a government practice and a circumstance relevant to it?

- (A) Certain governments subsidize theaters in order to attract foreign tourists. But tourists rarely choose a destination for the theatrical performances it has to offer.



- (B) Certain governments restrict imports in order to keep domestic producers in business. But, since domestic producers do not have to face the full force of foreign competition, some domestic producers are able to earn inordinately high profits.
- (C) Certain governments build strong armed forces in order to forestall armed conflict, but in order to maintain the sort of discipline and morale that keeps armed forces strong, those forces must be used in actual combat periodically.
- (D) Certain governments reduce taxes on business in order to stimulate private investment. But any investment is to some extent a gamble, and new business ventures are not always as successful as their owners hoped.
- (E) Certain governments pass traffic laws in order to make travel safer. But the population-driven growth in volumes of traffic often has the effect of making travel less safe despite the passage of new traffic laws.

### SECTION III

**Time 35 minutes 26 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Roses always provide a stunning display of color, but only those flowers that smell sweet are worth growing in a garden. Some roses have no scent.  
Which one of the following conclusions can be properly drawn from the passage?
  - (A) Some flowers which provide a stunning display of color are not worth growing in a garden.
  - (B) All flowers with no scent provide a stunning display of color.
  - (C) Some flowers which are worth growing in a garden have no scent.
  - (D) Some roses which smell sweet are not worth growing in a garden.
  - (E) No sweet-smelling flower is worth growing in a garden unless it provides a stunning display of color.
2. The use of money causes a civilization to decline. That this is true is shown by the way the troubles of Western civilization began with the invention of money. While real money (gold and silver) is bad enough, imitation money (paper money) is a horror. The decline of Western civilization exactly parallels the increasing use of money—both real money and worthless paper money—as a substitute for things of intrinsic value.  
Which one of the following, if true, could contribute most to a refutation of the argument?
  - (A) People prefer using money to having a system in which goods are bartered for other goods of equal intrinsic value.
  - (B) Eastern cultures have used money, and Eastern civilizations have not declined.

- (C) The use of paper money encourages disregard for the value of work because the money itself has no intrinsic value.
- (D) The rate of exchange between gold and paper money has fluctuated greatly in Western civilization.
- (E) Some employers exchange goods for their employees' services in order to avoid the exchange of money.
3. Fire ants from Brazil now infest the southern United States. Unlike queen fire ants in Brazil, two queens in the United States share a nest. Ants from these nests are more aggressive than those from single-queen nests. By destroying virtually all insects in the nest area, these aggressive ants gain sole access to food sources, and the ant population skyrockets. Since certain predator insects in Brazil limit the fire-ant population there, importing such predator insects into the United States would be of overall benefit to the environment by stopping the increase of the fire-ant population in the United States.
- Each of the following is an assumption made in the argument EXCEPT:
- (A) The imported insects would not prove more damaging to the environment in the United States than are the fire ants themselves.
- (B) The predator insects from Brazil could survive in the ecological environment found in the United States.
- (C) The especially aggressive fire ants from the two-queen nests would not be able to destroy the Brazilian predator insects.
- (D) The predator insects would stop the increase of the ant population before the ants spread to states that are farther north.
- (E) The rate of increase of the fire-ant population would not exceed the rate at which the predator insects could kill the ants.
4. In an attempt to counter complaints that a certain pesticide is potentially hazardous to humans if absorbed into edible plants, the pesticide manufacturer has advertised that "ounce for ounce, the active ingredient in this pesticide is less toxic than the active ingredient in mouthwash."

Which one of the following, if true, indicates a weakness in the manufacturer's argument?

- (A) The ounce-for-ounce toxicity of the active ingredient in mouthwash is less than that of most products meant for external use by humans, such as nail polish or other cosmetics.
- (B) The quantity of toxins humans ingest by consuming plants treated with the pesticide is, on average, much higher than the quantity of toxins humans ingest by using mouthwash.
- (C) The container in which the pesticide is packaged clearly identifies the toxic ingredients and carries warnings about their potential danger to humans.
- (D) On average, the toxins present in the pesticide take longer than the toxins present in mouthwash to reach harmful levels in the human body.

- (E) Since the government began to regulate the pesticide industry over ten years ago, there has been a growing awareness of the dangers of toxins used in pesticides.

Questions 5-6

Four randomly chosen market research companies each produced population estimates for three middle-sized cities; the estimates of each company were then compared with those of the other companies. Two of the cities had relatively stable populations, and for them estimates of current population and of projected population in five years varied little from company to company. However, for the third city, which was growing rapidly, estimates varied greatly from company to company.

5. The passage provides the most support for which one of the following?
- (A) It is more difficult to estimate the population of middle-sized cities than of smaller cities.
  - (B) Population estimates for rapidly growing cities can be accurate enough to be useful for marketing.
  - (C) The rate of change in population of rapidly growing cities does not fluctuate.
  - (D) The market research companies are likely to be equally reliable in estimating the population of stable cities.
  - (E) Estimates of city's future population are likely to be more accurate than are estimates of that city's current population.
6. Which one of the following, if true, would best help explain why estimates of the current population of the rapidly growing city varied more than did current population estimates for the two other cities?
- (A) Population changes over time are more uniform from one district to another in the rapidly growing city than in the two other cities.
  - (B) The population of the rapidly growing city is increasing largely as a result of a high birth rate.
  - (C) The population of the rapidly growing city has a lower average age than the populations of either of the two other cities.
  - (D) All population estimates of the rapidly growing city were produced first by estimating the current populations of the city's districts and then by adding those estimates.
  - (E) Whereas the companies used different methods for estimating the current population of the rapidly growing city, the companies used the same method for the two other cities.
7. Head injury is the most serious type of injury sustained in motorcycle accidents. The average cost to taxpayers for medical care for nonhelmeted motorcycle-accident victims is twice that for their helmeted counterparts. Jurisdictions that have enacted motorcycle-helmet laws have reduced the incidence and severity of accident-related head injuries, thereby reducing the cost to taxpayers. Therefore,

to achieve similar cost reductions, other jurisdictions should enact motorcycle-helmet laws. For the same reason jurisdictions should also require helmets for horseback riders, since horseback-riding accidents are even more likely to cause serious head injury than motorcycle accidents are.

Which one of the following is an assumption upon which the author's conclusion concerning helmets for horseback riders depend?

- (A) Medical care for victims of horseback-riding accidents is financial drain on tax funds.
- (B) The higher rate of serious head injury suffered by victims of horseback-riding accidents is due to the difference in size between horses and motorcycles.
- (C) The medical costs associated with treating head injuries are higher than those for other types of injury.
- (D) Most fatalities resulting from horseback-riding and motorcycle accidents could have been prevented if the victims had been wearing helmets.
- (E) When deciding whether to enact helmet laws for motorcyclists and horseback riders, the jurisdiction's primary concerns is the safety of its citizens.

8. The senator has long held to the general principle that no true work of art is obscene, and thus that there is no conflict between the need to encourage free artistic expression and the need to protect the sensibilities of the public from obscenity. When well-known works generally viewed as obscene are cited as possible counterexamples, the senator justifies accepting the principle by saying that if these works really are obscene then they cannot be works of art.

The senator's reasoning contains which one of the following errors?

- (A) It seeks to persuade by emotional rather than intellectual means.
- (B) It contains an implicit contradiction.
- (C) It relies on an assertion of the senator's authority.
- (D) It assumes what it seeks to establish.
- (E) It attempts to justify a position by appeal to an irrelevant consideration.

9. Until he was dismissed amid great controversy, Hastings was considered one of the greatest intelligence agents of all time. It is clear that if his dismissal was justified, then Hastings was either incompetent or else disloyal. Soon after the dismissal, however, it was shown that he had never been incompetent. Thus, one is forced to conclude that Hastings must have been disloyal.

Which one of the following states an assumption upon which the argument depends?

- (A) Hastings's dismissal was justified.
- (B) Hastings was a high-ranking intelligence officer.
- (C) The dismissal of anyone who was disloyal would be justified.
- (D) Anyone whose dismissal was justified was disloyal.

- (E) If someone was disloyal or incompetent, then his dismissal was justified.
10. Anyone who fails to answer a patient's questions cannot be a competent physician. That is why I feel confident about my physician's competence: she carefully answers every one of my questions, no matter how trivial.
- Which one of the following most closely parallels the flawed reasoning in the argument above?
- (A) Anyone who grows up in a large family is accustomed to making compromises. Meredith is accustomed to making compromises, so she might have grown up in a large family.
- (B) Anyone who is not in favor of this proposal is ill informed on the issue. Jeanne opposes the proposal, so she is ill informed on the issue.
- (C) No one who likes music misses a performance of the symphony. Paul likes music, yet last week he missed a performance of the symphony.
- (D) Anyone who works two or more jobs is unable to find a balance between professional and personal life. Maggie has only one job, so she can find a balance between her professional and personal life.
- (E) No one who is hot-tempered and strong-willed will succeed in this business. Jeremy is strong-willed, so he will not succeed in this business.
11. The annual *Journal for Publication*, which often solicits articles, publishes only those articles that are both submitted before March 6 and written by certified psychoanalysts. Stevens, who publishes frequently in psychoanalytic literature, submitted an article to the *Journal* before March 6. This article was accepted for publication in the *Journal*.
- Which one of the following conclusions follows logically from the statement above?
- (A) Stevens is a psychoanalyst.
- (B) The *Journal* frequently accepts Stevens' articles.
- (C) Stevens is an authority on a large number of topics in psychoanalysis.
- (D) The *Journal* asked Stevens to write an article.
- (E) Stevens' recently accepted article will be interesting to *Journal* readers.

### Questions 12-13

Arguing that there was no trade between Europe and East Asia in the early Middle Ages because there are no written records of such trade is like arguing that the yeti, an apelike creature supposedly existing in the Himalayas, does not exist because there have been no scientifically confirmed sightings. A verifiable sighting of the yeti would prove that the creature does exist, but the absence of sightings cannot prove that it does not.

12. Which one of the following best expresses the point of the argument?
- (A) Evidence for the existence of trade between Europe and East Asia in the



early Middle Ages is, like evidence for the existence of the yeti, not scientifically confirmed.

- (B) In order to prove that in the early Middle Ages there was trade between Europe and East Asia it is necessary to find both Asian and European evidence that such trade existed.
  - (C) That trade between Europe and East Asia did not exist in the early Middle Ages cannot be established simply by the absence of a certain sort of evidence that this trade existed.
  - (D) The view that there was trade between Europe and East Asia in the early Middle Ages can only be disproved by showing that no references to this trade exist in surviving records.
  - (E) There is no more evidence that trade between Europe and East Asia existed in the early Middle Ages than there is that the yeti exists.
13. Which one of the following considerations, if true, best counters the argument?
- (A) Most of the evidence for the existence of trade between Europe and East Asia in the early Middle Ages is archaeological and therefore does not rely on written records.
  - (B) Although written records of trade in East Asia in the early Middle Ages survived, there are almost no Europe documents from that period that mention trade at all.
  - (C) Any trade between Europe and East Asia in the early Middle Ages would necessarily have been of very low volume and would have involved high-priced items, such as precious metals and silk.
  - (D) There have been no confirmed sightings of the yeti, but there is indirect evidence, such as footprints, which if it is accepted as authentic would establish the yeti's existence.
  - (E) There are surviving European and East Asian written records from the early Middle Ages that do not mention trade between the two regions but would have been very likely to do so if this trade had existed.

14. When the economy is in a recession, overall demand for goods and services is low. If overall demand for goods and services is low, bank interest rates are also low. Therefore, if bank interest rates are not low, the economy is not in a recession.

The reasoning in which one of the following most closely parallels the reasoning in the argument above?

- (A) If the restaurant is full, the parking lot will be full, and if the parking lot is full, the restaurant is full, so if the parking lot is not full, the restaurant is not full.
- (B) If the fish is ready, it is cooked all the way through, and if it is cooked through it will be white, so if the fish is not white, it is not ready.
- (C) If pterodactyls flew by flapping their wings, they must have been warm-

blooded, so if they were cold-blooded, they must have flown only by gliding, if they flew at all.

- (D) If you want to put in pleats, you will have to double the amount of material for the skirt, and that means you will have none left for the top, so if you put in pleats you will not be able to make the top.
- (E) If economic forecasters are right, there will be inflation, and if there is inflation, the governing party will lose the election, so if it does lose the election, the economic forecasters were right.

15. Twenty years ago the Republic of Rosinia produced nearly 100 million tons of potatoes, but last year the harvest barely reached 60 million tons. Agricultural researchers, who have failed to develop new higher yielding strains of potatoes, are to blame for this decrease, since they have been concerned only with their own research and not with the needs of Rosinia.

Which one of the following is an assumption on which the argument depends?

- (A) Any current attempts by agricultural researchers to develop higher-yielding potato strains are futile.
  - (B) Strains of potatoes most commonly grown in Rosinia could not have produced the yields last year that they once did.
  - (C) Agricultural researchers often find concrete solutions to practical problems when investigating seemingly unrelated questions.
  - (D) Wide fluctuations in the size of the potato crop over a twenty-year period are not unusual.
  - (E) Agricultural research in Rosinia is funded by government grants.
16. An ancient Pavonian text describes how an army of one million enemies of Pavonia stopped to drink at a certain lake and drank the lake dry. Recently, archaeologists discovered that water-based life was suddenly absent just after the event was alleged by the text to have occurred. On the basis of reading the text and an account of the archaeological evidence, some students concluded that the events described really took place.
- When one of the following is a questionable technique used by the students to reach their conclusion?
- (A) making a generalization about historical events on the basis of a single instance of that type of event
  - (B) ignoring available, potentially useful counterevidence
  - (C) rejecting a hypothesis because it is seemingly self-contradictory
  - (D) considering people and locations whose existence cannot be substantiated by modern historians
  - (E) taking evidence that a text has correctly described an effect to show that the text has correctly described the cause

17. Samples from the floor of a rock shelter in Pennsylvania were dated by analyzing

the carbon they contained. The dates assigned to samples associated with human activities formed a consistent series, beginning with the present and going back in time, a series that was correlated with the depth from which the samples came. The oldest and deepest sample was dated at 19,650 years before the present, plus or minus 2,400 years. Skeptic, viewing that date as too early and inconsistent with the accepted date of human migration into North America, suggested that the samples could have been contaminated by dissolved “old carbon” carried by percolating groundwater from nearby coal deposits.

Which one of the following considerations, if true, argues most strongly against the suggestion of the skeptics?

- (A) No likely mechanism of contamination involving percolating groundwater would have affected the deeper samples from the site without affecting the uppermost sample.
- (B) Not every application of the carbon-dating procedure has led to results that have been generally acceptable to scientists.
- (C) There is no evidence that people were using coal for fuel at any time when the deepest layer might have been laid down.
- (D) No sample in the series, when retested by the carbon-dating procedure, was assigned an earlier date than that assigned to a sample from a layer above it.
- (E) No North American site besides the one in Pennsylvania has ever yielded a sample to which the carbon-dating procedure assigned a date that was comparably ancient.

18. Those influenced by modern Western science take it for granted that a genuine belief in astrology is proof of a credulous and unscientific mind. Yet, in the past, people of indisputable intellectual and scientific brilliance accepted astrology as a fact. Therefore, there is no scientific basis for rejecting astrology.

The argument is most vulnerable to criticism on which one of the following grounds?

- (A) A belief can be consistent with the available evidence and accepted scientific theories at one time but not with the accepted evidence and theories of a later time.
- (B) Since it is controversial whether astrology has a scientific basis, any argument that attempts to prove that it has will be specious.
- (C) Although the conclusion is intended to hold in all cultures, the evidence advanced in its support is drawn only from those cultures strongly influenced by modern Western science.
- (D) The implicit assumption that all practitioners of Western science believe in astrology is false.
- (E) The fact that there might be legitimate nonscientific reasons for rejecting astrology has been overlooked.

19. Amy McConnell is considering running for election against the incumbent,

Gregory Lutz. If Lutz has a large campaign fund, then he is already far ahead, and McConnell will not run against him. If Lutz does not have a large campaign fund, McConnell will scrutinize Lutz's record for any hints of scandal that she could use against him. Anything of a scandalous nature would increase McConnell's chances of winning, and she would campaign for election. If Lutz has a clean record, however, McConnell will not run against him.

Given the information in the passage, which one of the following must be false?

- (A) Lutz does not have a large campaign fund, and McConnell does not run against him.
- (B) Lutz's record contains items that would increase McConnell's chances of winning, and she runs against him.
- (C) Lutz's record contains scandalous items, and McConnell does not run against him.
- (D) Lutz's record contains nothing that would increase McConnell's chances of winning, and she runs against him.
- (E) Lutz has a large campaign fund, and McConnell does not run against him.

20. Psychotherapy has been described as a form of moral coercion. However, when people are coerced, their ability to make choices is restricted, and the goal of psychotherapy is to enhance people's ability to make choices. Hence, psychotherapy cannot possibly be a form of coercion.

Which one of the following describes a flaw in the argument?

- (A) The position being argued against is redefined unfairly in order to make it an easier target.
- (B) Psychotherapy is unfairly criticized for having a single goal, rather than having many complex goals.
- (C) No allowance is made for the fact that the practice or results of psychotherapy might run counter to its goals.
- (D) The goals of psychotherapy are taken to justify any means that are used to achieve those goals.
- (E) It offers no argument to show that moral coercion is always undesirable.

21. Joel: A myth is a narrative told to convey a community's traditional wisdom. Myths are not generally told in the modern world because there are no longer bodies of generally accepted truths that can be conveyed in this way.

Giselle: Of course there are myths in the modern world. For example, there is the myth of the machine: we see the human body as a machine, to be fixed by mending defective parts. This may not be a narrative, but what medically trained specialist can deny the existence of that myth?

Which one of the following most accurately characterizes Giselle's response to Joel's statement?

- (A) It offers a scientific explanation to a problem of literary theory.

- (B) It points out a weakness in Joel's position by advancing an analogous position.
- (C) It is based on an unsupported distinction between traditional societies and the modern world.
- (D) It assumes that Joel is medically trained specialist.
- (E) It offers a counterexample that calls into question part of Joel's definition of myth.
22. The true scientific significance of a group of unusual fossils discovered by the paleontologist Charles Walcott is more likely to be reflected in a recent classification than it was in Walcott's own classification. Walcott was, after all, a prominent member of the scientific establishment. His classifications are thus unlikely to have done anything but confirm what established science had already taken to be true.
- Which one of the following most accurately describes a questionable technique used in the argument?
- (A) It draws conclusions about the merit of a position and about the content of that position from evidence about the position's source.
- (B) It cites two pieces of evidence, each of which is both questionable and unverifiable, and uses this evidence to support its conclusions.
- (C) It bases a conclusion on two premises that contradict each other and minimizes this contradiction by the vagueness of the terms employed.
- (D) It attempts to establish the validity of a claim, which is otherwise unsupported, by denying the truth of the opposite of that claim.
- (E) It analyzes the past on the basis of social and political categories that properly apply only to the present and uses the results of this analysis to support its conclusion.
23. Anthony: It has been established that over 80 percent of those who use heroin have a history of having used marijuana. Such evidence would seem to prove that smoking marijuana definitely leads to heroin use.
- Judith: Maybe smoking marijuana does lead to heroin use, but it is absurd to think that citing those statistics proves that it does. After all, 100 percent of the people who take up heroin had a previous history of drinking water.
- Judith's reply to Anthony's argument relies on which one of the following argumentative strategies?
- (A) offering evidence suggesting that the statistics Anthony cites in support of his conclusion are inaccurate
- (B) undermining the credibility of his conclusion by showing that it is a statement from which absurd consequences can be derived
- (C) providing an example to show that not everything that promotes heroin use is unsafe



- (D) demonstrating that Anthony's line of reasoning is flawed by showing such reasoning can lead to clearly false conclusions
- (E) calling into question the possibility of ever establishing causal connections solely on the basis of statistical evidence

24. Rumored declines in automobile-industry revenues are exaggerated. It is true that automobile manufactures' share of the industry's revenues fell from 65 percent two years ago to 50 percent today, but over the same period suppliers of automobile parts had their share increase from 15 percent to 20 percent and service companies (for example, distributors, dealers, and repairers) had their share increase from 20 percent to 30 percent.

Which one of the following best indicates why the statistics given above provide by themselves no evidence for the conclusion they are intended to support?

- (A) The possibility is left open that the statistics for manufactures' share of revenues come from a different source than the other statistics.
- (B) No matter what changes the automobile industry's overall revenues undergo, the total of all shares of these revenues must be 100 percent.
- (C) No explanation is given for why the revenue shares of different sectors of the industry changed.
- (D) Manufactures and parts companies depend for their revenue on dealers' success in selling cars.
- (E) Revenues are an important factor but are not the only factor in determining profits.

Questions 25-26

Proposals for extending the United States school year to bring it more in line with its European and Japanese counterparts are often met with the objection that curtailing the school's three-month summer vacation would violate an established United States tradition dating from the nineteenth century. However, this objection misses its mark. True, in the nineteenth century, the majority of schools closed for three months every summer, but only because they were in rural areas where successful harvests depended on children labor. If any policy could be justified by those appears to tradition, it would be the policy of determining the length of the school year according to the needs of the economy.

25. Which one of the following principles, if accepted, would provide the strongest justification for the conclusion?
- (A) That a given social policy has traditionally been in force justifies maintaining that policy only if doing so does not conflict with more pressing social needs.
  - (B) Appeals to its own traditions cannot excuse a country from the obligation to bring its practices in line with the legitimate expectations of the rest of the world.

- (C) Because appeals to tradition often serve to mask the real interests at issue, such appeals should be disregarded.
  - (D) Traditional principles should be discarded when they no longer serve the needs of the economy.
  - (E) The actual tradition embodied in a given practice can be accurately identified only by reference to the reasons that originally prompted that practice.
26. The argument counters the objection by
- (A) providing evidence to show that the objection relies on a misunderstanding about the amount of time each year United States schools traditionally have been closed
  - (B) calling into question the relevance of information about historical practices to current disputes about proposed social change
  - (C) arguing for an alternative understanding of the nature of the United States tradition regarding the length of the school year
  - (D) showing that those who oppose extending the school year have no genuine concern for tradition
  - (E) demonstrating that tradition justifies bringing the United States school year in line with that of the rest of the industrialized world

## TEST 7

### SECTION I

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Before the printing press, books could be purchased only in expensive manuscript copies. The printing press produced books that were significantly less expensive than the manuscript editions. The public's demand for printed books in the first years after the invention of the printing press was many times greater than demand had been for manuscript copies. This increase demonstrates that there was a dramatic jump in the number of people who learned how to read in the years after publishers first started producing books on the printing press.
- Which one of the following statements, if true, casts doubt on the argument?
- (A) During the first years after the invention of the printing press, letter writing by people who wrote without the assistance of scribes or clerks exhibited a dramatic increase.
  - (B) Books produced on the printing press are often found with written comments in the margins in the handwriting of the people who owned the books.
  - (C) In the first years after the printing press was invented, printed books were purchased primarily by people who had always bought and read expensive manuscripts but could afford a greater number of printed books for the same

money.

- (D) Books that were printed on the printing press in the first years after its invention often circulated among friends in informal reading clubs or libraries.
- (E) The first printed books published after the invention of the printing press would have been useless to illiterate people, since the books had virtually no illustrations.

2. Bevex, an artificial sweetener used only in soft drinks, is carcinogenic for mice, but only when it is consumed in very large quantities. To ingest an amount of Bevex equivalent to the amount fed to the mice in the relevant studies, a person would have to drink 25 cans of Bevex-sweetened soft drinks per day. For that reason, Bevex is in fact safe for people.

In order for the conclusion that Bevex is safe for people to be properly drawn, which of the following must be true?

- (A) Cancer from carcinogenic substances develops more slowly in mice than it does in people.
- (B) If all food additives that are currently used in foods were tested, some would be found to be carcinogenic for mice.
- (C) People drink fewer than 25 cans of Bevex-sweetened soda per day.
- (D) People can obtain important health benefits by controlling their weight through the use of artificially sweetened soft drinks.
- (E) Some of the studies done on Bevex were not relevant to the question of whether or not Bevex is carcinogenic for people.

3. Harry: Airlines have made it possible for anyone to travel around the world in much less time than was formerly possible.

Judith: That is not true. Many flights are too expensive for all but the rich.

Judith's response shows that she interprets Harry's statement to imply that

- (A) the majority of people are rich
- (B) everyone has an equal right to experience world travel
- (C) world travel is only possible via routes serviced by airlines
- (D) most forms of world travel are not affordable for most people
- (E) anyone can afford to travel long distances by air

4. Nutritionists have recommended that people eat more fiber. Advertisements for a new fiber-supplement pill state only that it contains "44 percent fiber".

The advertising claim is misleading in its selection of information on which to focus if which one of the following is true?

- (A) There are other products on the market that are advertised as providing fiber as a dietary supplement.
- (B) Nutritionists base their recommendation on medical findings that dietary

fiber protects against some kinds of cancer.

- (C) It is possible to become addicted to some kinds of advertised pills, such as sleeping pills and painkillers.
- (D) The label of the advertised product recommends taking 3 pills every day.
- (E) The recommended daily intake of fiber is 20 to 30 grams, and the pill contains one-third gram.

5. Many environmentalists have urged environmental awareness on consumers, saying that if we accept moral responsibility for our effects on the environment, then products that directly or indirectly harm the environment ought to be avoided. Unfortunately it is usually impossible for consumers to assess the environmental impact of a product, and thus impossible for them to consciously restrict their purchases to environmentally benign products. Because of this impossibility there can be no moral duty to choose products in the way these environmentalists urge, since\_\_\_\_\_

Which one of the following principles provides the most appropriate completion for the argument?

- (A) a moral duty to perform an action is never based solely on the effects the action will have on other people
  - (B) a person cannot possibly have a moral duty to do what he or she is unable to do
  - (C) moral considerations should not be the sole determinants of what products are made available to consumers
  - (D) the morally right action is always the one whose effects produce the least total harm
  - (E) where a moral duty exists, it supersedes any legal duty and any other kind of duty
6. Advertisement: Anyone who exercises knows from firsthand experience that exercise leads to better performance of such physical organs as the heart and lungs, as well as to improvement in muscle tone. And since your brain is a physical organ, your actions can improve its performance, too. Act now. Subscribe to Stimulus: read the magazine that exercises your brain.
- The Advertisement employs which one of the following argumentative strategies?
- (A) It cites experimental evidence that subscribing to the product being advertised has desirable consequences.
  - (B) It ridicules people who do not subscribe to *Stimulus* by suggesting that they do not believe that exercise will improve brain capacity.
  - (C) It explains the process by which the product being advertised brings about the result claimed for its use.
  - (D) It supports its recommendation by a careful analysis of the concept of exercise.

- (E) It implies that brains and muscle are similar in one respect because they are similar in another respect.

Questions 7- 8

Coherent solutions for the problem of reducing health-care costs cannot be found within the current piecemeal (done, made, or accomplished piece by piece or in a fragmentary way \*piecemeal reforms in the system\*) system of paying these costs. The reason is that this system gives health-care providers and insurers every incentive to shift, wherever possible, the costs of treating illness onto each other or any other party, including the patient. That clearly is the lesson of the various reforms of the 1980s: push in on one part of this pliable spending balloon and an equally expensive bulge pops up elsewhere. For example, when the government health-care insurance program for the poor cut costs by disallowing payments for some visits to physicians, patients with advanced illness later presented themselves at hospital emergency rooms in increased numbers.

7. The argument proceeds by
- (A) showing that shifting costs onto the patient contradicts the premise of health-care reimbursement
  - (B) attributing without justification fraudulent intent to people
  - (C) employing an analogy to characterize interrelationships
  - (D) denying the possibility of a solution by disparaging each possible alternative system
  - (E) demonstrating that cooperation is feasible by citing an instance
8. The argument provides the most support for which one of the following?
- (A) Under the conditions in which the current system operates, the overall volume of health-care costs could be shrunk, if at all, only by a comprehensive approach.
  - (B) Relative to the resources available for health-care funding, the income of the higher-paid health-care professionals is too high.
  - (C) Health-care costs are expanding to meet additional funds that have been made available for them.
  - (D) Advances in medical technology have raised the expected standards of medical care but have proved expensive.
  - (E) Since unfilled hospital beds contribute to overhead charges on each patient's bill, it would be unwise to hold unused hospital capacity in reserve for large-scale emergencies.
9. The commercial news media emphasize exceptional events such as airplane crashes at the expense of those such as automobile accidents, which occur far more frequently and represent a far greater risk to the public. Yet the public tends to interpret the degree of emphasis the news media give to these occurrences as indicating the degree of risk they represent.



If the statements above are true, which one of the following conclusions is more strongly supported by them?

- (A) Print media, such as newspapers and magazines, are a better source of information than are broadcast media.
- (B) The emphasis given in the commercial news media to major catastrophes is dictated by the public's taste for the extraordinary.
- (C) Events over which people feel they have no control are generally perceived as more dangerous than those which people feel they can avert or avoid.
- (D) Where commercial news media constitute the dominant source of information, public perception of risk does not reflect actual risk.
- (E) A massive outbreak of cholera will be covered more extensively by the news media than will the occurrence of a rarer but less serious disease.

10. A large group of hyperactive children whose regular diets included food containing large amounts of additives was observed by researchers trained to assess the presence or absence of behavior problems. The children were then placed on a low-additive diet for several weeks, after which they were observed again. Originally nearly 60 percent of the children exhibited behavior problems; after the change in diet, only 30 percent did so. On the basis of these data, it can be concluded that food additives can contribute to behavior problems in hyperactive children.

The evidence cited fails to establish the conclusion because

- (A) there is no evidence that the reduction in behavior problems was proportionate to the reduction in food-additive intake
- (B) there is no way to know what changes would have occurred without the change of diet, since only children who changed to a low-additive diet were studied
- (C) exactly how many children exhibited behavior problems after the change in diet cannot be determined, since the size of the group studied is not precisely given
- (D) there is no evidence that the behavior of some of the children was unaffected by additives
- (E) the evidence is consistent with the claim that some children exhibit more frequent behavior problems after being on the low-additive diet than they had exhibited when first observed

11. In 1990 major engine repairs were performed on 10 percent of the cars that had been built by the National Motor Company in the 1970s and that were still registered. However, the corresponding figure for the cars that the National Motor Company had manufactured in the 1960s was only five percent.

Which of the following, if true, most helps to explain the discrepancy?

- (A) Government motor vehicle regulations generally require all cars, whether old or new, to be inspected for emission levels prior to registration.

- (B) Owners of new cars tend to drive their cars more carefully than do owners of old cars.
- (C) The older a car is, the more likely it is to be discarded for scrap rather than repaired when major engine work is needed to keep the car in operation.
- (D) The cars that the National Motor Company built in the 1970s incorporated simplified engine designs that made the engines less complicated than those of earlier models.
- (E) Many of the repairs that were performed on the cars that the National Motor Company built in the 1960s could have been avoided if periodic routine maintenance had been performed.
12. No mathematician today would flatly refuse to accept the results of an enormous computation as an adequate demonstration of the truth of a theorem. In 1976, however, this was not the case. Some mathematicians at that time refused to accept the results of a complex computer demonstration of a very simple mapping theorem. Although some mathematicians still hold a strong belief that a simple theorem ought to have a short, simple proof, in fact, some simple theorems have required enormous proofs.
- If all of the statements in the passage are true, which one of the following must also be true?
- (A) Today, some mathematicians who believe that a simple theorem ought to have a simple proof would consider accepting the results of an enormous computation as a demonstration of the truth of a theorem.
- (B) Some individuals who believe that a simple theorem ought to have a simple proof are not mathematicians.
- (C) Today, some individuals who refuse to accept the results of an enormous computation as a demonstration of the truth of a theorem believe that a simple theorem ought to have a simple proof.
- (D) Some individuals who do not believe that a simple theorem ought to have a simple proof would not be willing to accept the results of an enormous computation as proof of a complex theorem.
- (E) Some nonmathematicians do not believe that a simple theorem ought to have a simple proof.
13. If you climb mountains, you will not live to a ripe old age. But you will be bored unless you climb mountains. Therefore, if you live to a ripe old age you will have been bored.
- Which of the following most closely parallels the reasoning in the arguments above?
- (A) If you do not try to swim, you will not learn how to swim. But you will not be safe in boats if you do not learn how to swim. Therefore, you must try to swim.
- (B) If you do not play golf, you will not enjoy the weekend. But you will be tired

next week unless you relax during the weekend. Therefore, to enjoy the weekend, you will have to relax by playing golf.

- (C) If you work for your candidate, you will not improve your guitar playing. But you will neglect your civic duty unless you work for your candidate. Therefore, if you improve your guitar playing, you will have neglected your civic duty.
- (D) If you do not train, you will not be a good athlete. But you will become exhausted easily unless you train. Therefore, if you train, you will not have become exhausted easily.
- (E) If you spend all of your money, you will not become wealthy. But you will become hungry unless you spend all of your money. Therefore, if you become wealthy, you will not become hungry.

14. Marine biologists had hypothesized that lobsters kept together in lobster traps eat one another in response to hunger. Periodic checking of lobster traps, however, has revealed instances of lobsters sharing traps together for weeks. Eight lobsters even shared one trap together for two months without eating one another. The marine biologists' hypothesis, therefore, is clearly wrong.

The argument against the marine biologists' hypothesis is based on which one of the following assumptions?

- (A) Lobsters not caught in lobster traps have been observed eating one another.
- (B) Two months is the longest known period during which eight or more lobsters have been trapped together.
- (C) It is unusual to find as many as eight lobsters caught together in one single trap.
- (D) Members of other marine species sometimes eat their own kind when no other food sources are available.
- (E) Any food that the eight lobsters in the trap might have obtained was not enough to ward off hunger.

15. Eight years ago hunting was banned in Greenfield County on the grounds that hunting endangers public safety. Now the deer population in the county is six times what it was before the ban. Deer are invading residential areas, damaging property and causing motor vehicle accidents that result in serious injury to motorists. Since there were never any hunting-related injuries in the county, clearly the ban was not only unnecessary but has created a danger to public safety that would not otherwise exist.

Which one of the following, if true, provides the strongest additional support for the conclusion above?

- (A) In surrounding counties, where hunting is permitted, the size of the deer population has not increased in the last eight years.
- (B) Motor vehicle accidents involving deer often result in damage to the vehicle, injury to the motorist, or both.

- (C) When deer populations increase beyond optimal size, disease and malnutrition become more widespread among the deer herds.
- (D) In residential areas in the county, many residents provide food and salt for deer.
- (E) Deer can cause extensive damage to ornamental shrubs and trees by chewing on twigs and saplings.
16. Comets do not give off their own light but reflect light from other sources, such as the Sun. Scientists estimate the mass of comets by their brightness: the greater a comet's mass, the more light that comet will reflect. A satellite probe, however, has revealed that the material of which Halley's comet is composed reflects 60 times less light per unit of mass than had been previously thought.
- The statements above, if true, give the most support to which one of the following?
- (A) Some comets are composed of material that reflects 60 times more light per unit of mass than the material of which Halley's comet is composed.
- (B) Previous estimates of the mass of Halley's comet which were based on its brightness were too low.
- (C) The total amount of light reflected from Halley's comet is less than scientists had previously thought.
- (D) The reflective properties of the material of which comets are composed vary considerably from comet to comet.
- (E) Scientists need more information before they can make a good estimate of the mass of Halley's comet.
17. Office manager: I will not order recycled paper for this office. Our letters to clients must make a good impression, so we cannot print them on inferior paper.
- Stationery supplier: recycled paper is not necessarily inferior. In fact, from the beginning, the finest paper has been made of recycled material. It was only in the 1850s that paper began to be made from wood fiber, and then only because there were no longer enough rags to meet the demand for paper.
- In which of the following ways does the stationer's response fail to address the office manager's objection to recycled paper?
- (A) It does not recognize that the office manager's prejudice against recycled paper stems from ignorance.
- (B) It uses irrelevant facts to justify a claim about the quality of the disputed product.
- (C) It assumes that the office manager is concerned about environmental issues.
- (D) It presupposes that the office manager understands the basic technology of paper manufacturing.
- (E) It ignores the office manager's legitimate concern about quality.

Question 18-19

When Alicia Green borrowed a neighbor's car without permission, the police merely gave her a warning. However, when Peter Foster did the same thing, he was charged with automobile theft. Peter came to the attention of the police because the car he was driving was hit by a speeding taxi. Alicia was stopped because the car she was driving had defective taillights. It is true that the car Peter took got damaged and the car Alicia took did not, but since it was the taxi that caused the damage this difference was not due to any difference in the blameworthiness of their behavior. Therefore, Alicia should also have been charged with automobile theft.

18. The statement that the car Peter took got damaged and the car Alicia took did not plays which one of the following roles in the argument?
- (A) It presents a reason that directly supports the conclusion.
  - (B) It justifies the difference in the actual outcome in the two cases.
  - (C) It demonstrates awareness of a fact on which a possible objection might be based.
  - (D) It illustrates a general principle on which the argument relies.
  - (E) It summarizes a position against which the argument is directed.
19. If all of the claims offered in support of the conclusion are accurate, each of the following could be true EXCEPT:
- (A) The interests of justice would have been better served if the police had released Peter Foster with a warning.
  - (B) Alicia Green had never before driven a car belonging to someone else without first securing the owner's permission.
  - (C) Peter Foster was hit by the taxi while he was running a red light, whereas Alicia Green drove with extra care to avoid drawing the attention of the police to the car she had taken.
  - (D) Alicia Green barely missed hitting a pedestrian when she sped through a red light ten minutes before she was stopped by the police for driving a car that had defective taillights.
  - (E) Peter Foster had been cited for speeding twice in the preceding month, whereas Alicia Green had never been cited for a traffic violation.
20. According to sources who can be expected to know, Dr. Maria Esposito is going to run in the mayoral election. But if Dr. Esposito runs, Jerome Krasman will certainly not run against her. Therefore Dr. Esposito will be the only candidate in the election.
- The flawed reasoning in the argument above most closely parallels that in which one of the following?
- (A) According to its management, Brown's Stores will move next year. Without Brown's being present, no new large store can be attracted to the downtown area. Therefore the downtown area will no longer be viable as a shopping district.



- (B) The press release says that the rock group Rollercoaster is playing a concert on Saturday. It won't be playing on Friday if it plays on Saturday. So Saturday will be the only day this week on which Rollercoaster will perform.
- (C) Joshua says the interviewing panel was impressed by Marilyn. But if they were impressed by Marilyn, they probably thought less of Sven. Joshua is probably right, and so Sven will probably not get the job.
- (D) An informant says that Rustimann was involved in the bank robbery. If Rustimann was involved, Jones was certainly not involved. Since these two are the only people who could have been involved. Rustimann is the only person the police need to arrest.
- (E) The review said that this book is the best one for beginners at programming. If this book is the best, that other one can't be as good. So this one is the book we should buy.
21. The initial causes of serious accidents at nuclear power plants have not so far been flaws in the advanced-technology portion of the plants. Rather, the initial causes have been attributed to human error, as when a worker at the Browns Mills reactor in the United States dropped a candle and started a fire, or to flaws in the plumbing, exemplified in a recent incident in Japan. Such everyday events cannot be thought unlikely to occur over the long run.
- Which of the following is most strongly supported by the statements above?
- (A) Now that nuclear power generation has become a part of everyday life, an ever-increasing yearly incidence of serious accidents at plants can be expected.
- (B) If nuclear power plants continue in operation, a serious accident at such a plant is not improbable.
- (C) The likelihood of human error at the operating consoles of nuclear power generators cannot be lessened by thoughtful design of dials, switches, and displays.
- (D) The design of nuclear power plants attempts to compensate for possible failures of the materials used in their construction.
- (E) No serious accident will be caused in the future by some flaw in the advanced-technology portion of a nuclear power plant.
22. There is a widespread belief that people can predict impending earthquakes from unusual animal behavior. Skeptics claim that this belief is based on selective coincidence: people whose dogs behaved oddly just before an earthquake will be especially likely to remember that fact. At any given time, the skeptics say, some of the world's dogs will be behaving oddly.
- Clarification of which one of the following issues would be most important to an evaluation of the skeptics' position?
- (A) Which is larger, the number of skeptics or the number of people who believe

- that animal behavior can foreshadow earthquakes?
- (B) Are there means other than the observation of animal behavior that nonscientists can use to predict earthquakes?
- (C) Are there animals about whose behavior people know too little to be able to distinguish unusual from everyday behavior?
- (D) Are the sorts of behavior supposedly predictive of earthquakes as pronounced in dogs as they are in other animals?
- (E) Is the animal behavior supposedly predictive of earthquakes specific to impending earthquakes or can it be any kind of unusual behavior?
23. Defendants who can afford expensive private defense lawyers have a lower conviction rate than those who rely on court-appointed public defenders. This explains why criminals who commit lucrative crimes like embezzlement or insider trading are more successful at avoiding conviction than are street criminals.
- The explanation offered above would be more persuasive if which one of the following were true?
- (A) Many street crimes, such as drug dealing, are extremely lucrative and those committing them can afford expensive private lawyers.
- (B) Most prosecutors are not competent to handle cases involving highly technical financial evidence and have more success in prosecuting cases of robbery or simple assault.
- (C) The number of criminals convicted of street crimes is far greater than the number of criminals convicted of embezzlement or insider trading.
- (D) The percentage of defendants who actually committed the crimes of which they are accused is no greater for publicly defended than for privately defended defendants.
- (E) Juries, out of sympathy for the victims of crimes, are much more likely to convict defendants accused of violent crimes than they are to convict defendants accused of “victimless” crimes or crimes against property.
24. Many major scientific discoveries of the past were the product of serendipity, the chances discovery of valuable findings that investigators had not purposely sought. Now, however, scientific research tends to be so costly that investigators are heavily dependent on large grants to fund their research. Because such grants require investigators to provide the grant sponsors with clear projections of the outcome of the proposed research, investigators ignore anything that does not directly bear on the funded research. Therefore, under the prevailing circumstances, serendipity can no longer play a role in scientific discovery.
- Which one of the following is an assumption on which the argument depends?
- (A) Only findings that an investigator purposely seeks can directly bear on that investigator’s research.
- (B) In the past few scientific investigators attempted to make clear predictions of

the outcome of their research.

- (C) Dependence on large grants is preventing investigators from conducting the type of scientific research that those investigators would personally prefer.
- (D) All scientific investigators who provide grant sponsors with clear projections of the outcome of their research receive at least some of the grants for which they apply.
- (E) In general the most valuable scientific discoveries are the product of serendipity.

25. Police statistics have shown that automobile antitheft devices reduce the risk of car theft, but a statistical study of automobile theft by the automobile insurance industry claims that cars equipped with antitheft devices are, paradoxically, more likely to be stolen than cars that are not so equipped.

Which one of the following, if true, does the most to resolve the apparent paradox?

- (A) Owners of stolen cars almost invariably report the theft immediately to the police but tend to delay notifying their insurance company, in the hope that the vehicle will be recovered.
- (B) Most cars that are stolen are not equipped with antitheft devices, and most cars that are equipped with antitheft devices are not stolen.
- (C) The most common automobile antitheft devices are audible alarms, which typically produce ten false alarms for every actual attempted theft.
- (D) Automobile owners who have particularly theft-prone cars and live in areas of greatest incidence of car theft are those who are most likely to have antitheft devices installed.
- (E) Most automobile thefts are the work of professional thieves against whose efforts antitheft devices offer scant protection.

#### SECTION IV

**Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. In 1974 the speed limit on highways in the United States was reduced to 55 miles per hour in order to save fuel. In the first 12 months after the change, the rate of highway fatalities dropped 15 percent, the sharpest one-year drop in history. Over the next 10 years, the fatality rate declined by another 25 percent. It follows that the 1974 reduction in the speed limit saved many lives.

Which of the following, if true, most strengthens the argument?

- (A) The 1974 fuel shortage cut driving sharply for more than a year.
- (B) There was no decline in the rate of highway fatalities during the twelfth year following the reduction in the speed limit.
- (C) Since 1974 automobile manufacturers have been required by law to install

lifesaving equipment, such as seat belts, in all new cars.

- (D) The fatality rate in highway accidents involving motorists driving faster than 55 miles per hour is much higher than in highway accidents that do not involve motorists driving at such speeds.
- (E) Motorists are more likely to avoid accidents by matching their speed to that of the surrounding highway traffic than by driving at faster or slower speeds.

2. Some legislators refuse to commit public funds for new scientific research if they cannot be assured that the research will contribute to the public welfare. Such a position ignores the lessons of experience. Many important contributions to the public welfare that resulted from scientific research were never predicted as potential outcomes of that research. Suppose that a scientist in the early twentieth century had applied for public funds to study molds: who would have predicted that such research would lead to the discovery of antibiotics—one of the greatest contributions ever made to the public welfare?

Which one of the following most accurately expresses the main point of the argument?

- (A) The committal of public funds for new scientific research will ensure that the public welfare will be enhanced.
  - (B) If it were possible to predict the general outcome of a new scientific research effort, then legislators would not refuse to commit public funds for that effort.
  - (C) Scientific discoveries that have contributed to the public welfare would have occurred sooner if public funds had been committed to the research that generated those discoveries.
  - (D) In order to ensure that scientific research is directed toward contributing to the public welfare, legislators must commit public funds to new scientific research.
  - (E) Lack of guarantees that new scientific research will contribute to the public welfare is not sufficient reason for legislators to refuse to commit public funds to new scientific research.
3. When workers do not find their assignments challenging, they become bored and so achieve less than their abilities would allow. On the other hand, when workers find their assignments too difficult, they give up and so again achieve less than what they are capable of achieving. It is, therefore, clear that no worker's full potential will ever be realized.

Which one of the following is an error of reasoning contained in the argument?

- (A) mistakenly equating what is actual and what is merely possible
- (B) assuming without warrant that a situation allows only two possibilities
- (C) relying on subjective rather than objective evidence
- (D) confusing the coincidence of two events with a causal relation between the

two

(E) depending on the ambiguous use of a key term

4. Our tomato soup provides good nutrition: for instance, a warm bowl of it contains more units of vitamin C than does a serving of apricots or fresh carrots!

The advertisement is misleading if which one of the following is true?

- (A) Few people depend exclusively on apricots and carrots to supply vitamin C to their diets.
- (B) A liquid can lose vitamins if it stands in contact with the air for a protracted period of time.
- (C) Tomato soup contains important nutrients other than vitamin C.
- (D) The amount of vitamin C provided by a serving of the advertised soup is less than the amount furnished by a serving of fresh strawberries.
- (E) Apricots and fresh carrots are widely known to be nutritious, but their contribution consists primarily in providing a large amount of vitamin A, not a large amount of vitamin C.

Questions 5-6

The government provides insurance for individuals' bank deposits, but requires the banks to pay the premiums for the insurance. Since it is depositors who primarily benefit from the security this insurance provides, the government should take steps to ensure that depositors who want this security bear the cost of it and thus should make depositors pay the premiums for insuring their own accounts.

5. Which one of the following principles, if established, would do most to justify drawing the conclusion of the argument on the basis of the reasons offered in its support?
- (A) The people who stand to benefit from an economic service should always be made to bear the costs of that service.
- (B) Any rational system of insurance must base the size of premiums on the degree of risk involved.
- (C) Government-backed security for investors, such as bank depositors, should be provided only when it does not reduce incentives for investors to make responsible investments.
- (D) The choice of not accepting an offered service should always be available, even if there is no charge for the service.
- (E) The government should avoid any actions that might alter the behavior of corporations and individuals in the market.
6. Which of the following is assumed by the argument?
- (A) Banks are not insured by the government against default on the loans the banks make.
- (B) Private insurance companies do not have the resources to provide banks or



individual with deposit insurance.

- (C) Banks do not always cover the cost of the deposit-insurance premiums by paying depositors lower interest rates on insured deposits than the banks would on uninsured deposits.
- (D) The government limits the insurance protection it provides by insuring accounts up to a certain legally defined amount only.
- (E) The government does not allow banks to offer some kinds of accounts in which deposits are not insured.

7. When individual students are all treated equally in that they have identical exposure to curriculum material, the rate, quality, and quantity of learning will vary from student to student. If all students are to master a given curriculum, some of them need different types of help than others, as any experienced teacher knows.

If the statements above are both true, which one of the following conclusions can be drawn on the basis of them?

- (A) Unequal treatment, in a sense, of individual students is required in order to ensure equality with respect to the educational tasks they master.
- (B) The rate and quality of learning, with learning understood as the acquiring of the ability to solve problems within a given curriculum area, depend on the quality of teaching an individual student receives in any given curriculum.
- (C) The more experienced the teacher is, the more the students will learn.
- (D) All students should have identical exposure to learn the material being taught in any given curriculum.
- (E) Teachers should help each of their students to learn as much as possible.

8. George: Some scientists say that global warming will occur because people are releasing large amounts of carbon dioxide into the atmosphere by burning trees and fossil fuels. We can see, though, that the predicted warming is occurring already. In the middle of last winter, we had a month of springlike weather in our area, and this fall, because of unusually mild temperatures, the leaves on our town's trees were three weeks late in turning color.

Which one of the following would it be most relevant to investigate in evaluating the conclusion of George's argument?

- (A) whether carbon dioxide is the only cause of global warming
- (B) when leaves on the trees in the town usually change color
- (C) what proportion of global emissions of carbon dioxide is due to the burning of trees by humans
- (D) whether air pollution is causing some trees in the area to lose their leaves
- (E) whether unusually warm weather is occurring elsewhere on the globe more frequently than before

9. Student representative: Our university, in expelling a student who verbally

harassed his roommate, has erred by penalizing the student for doing what he surely has a right to do: speak his mind!

Dean of students: But what you're saying is that our university should endorse verbal harassment. Yet surely if we did that, we would threaten the free flow of ideas that is the essence of university life.

Which one of the following is a questionable technique that the dean of students uses in attempting to refute the student representative?

- (A) challenging the student representative's knowledge of the process by which the student was expelled
- (B) invoking a fallacious distinction between speech and other sorts of behavior
- (C) misdescribing the student representative's position, thereby making it easier to challenge
- (D) questioning the motives of the student representative rather than offering reasons for the conclusion defended
- (E) relying on a position of power to silence the opposing viewpoint with a threat

10. Famous personalities found guilty of many types of crimes in well-publicized trials are increasingly sentenced to the performance of community service, though unknown defendants convicted of similar crimes almost always serve prison sentences. However, the principle of equality before the law rules out using fame and publicity as relevant considerations in the sentencing of convicted criminals. The statements above, if true, most strongly support which one of the following conclusions?

- (A) The principle of equality before the law is rigorously applied in only a few types of criminal trials.
- (B) The number of convicted celebrities sentenced to community service should equal the number of convicted unknown defendants sentenced to community service.
- (C) The principle of equality before the law can properly be overridden by other principles in some cases.
- (D) The sentencing of celebrities to community service instead of prison constitutes a violation of the principle of equality before the law in many cases.
- (E) The principle of equality before the law does not allow for leniency in sentencing.

11. Scientific research at a certain university was supported in part by an annual grant from a major foundation. When the university's physics department embarked on weapons-related research, the foundation, which has a purely humanitarian mission, threatened to cancel its grant. The university then promised that none of the foundation's money would be used for the weapons research, whereupon the foundation withdrew its threat, concluding that the weapons research would not benefit from the foundation's grants.

Which one of the following describes a flaw in the reasoning underlying the foundation's conclusion?

- (A) It overlooks the possibility that the availability of the foundation's money for humanitarian uses will allow the university to redirect other funds from humanitarian uses to weapons research.
  - (B) It overlooks the possibility that the physics department's weapons research is not the only one of the university's research activities with other than purely humanitarian purposes.
  - (C) It overlooks the possibility that the university made its promise specifically in order to induce the foundation to withdraw its threat.
  - (D) It confuses the intention of not using a sum of money for a particular purpose with the intention of not using that sum of money at all.
  - (E) It assumes that if the means to achieve an objective are humanitarian in character, then the objective is also humanitarian in character.
12. To suit the needs of corporate clients, advertising agencies have successfully modified a strategy originally developed for political campaigns. This strategy aims to provide clients with free publicity and air time by designing an advertising campaign that is controversial, thus drawing prime-time media coverage and evoking public comment by officials.
- The Statements above, if true, most seriously undermine which one of the following assertions?
- (A) The usefulness of an advertising campaign is based solely on the degree to which the campaign's advertisements persuade their audiences.
  - (B) Only a small percentage of eligible voters admit to being influenced by advertising campaigns in deciding how to vote.
  - (C) Campaign managers have transformed political campaigns by making increasing use of strategies borrowed from corporate advertising campaigns.
  - (D) Corporations are typically more concerned with maintaining public recognition of the corporate name than with enhancing goodwill toward the corporation.
  - (E) Advertising agencies that specialize in campaigns for corporate clients are not usually chosen for political campaigns.
13. The National Association of Fire Fighters says that 45 percent of homes now have smoke detectors, whereas only 30 percent of homes had them 10 years ago. This makes early detection of house fires no more likely, however, because over half of the domestic smoke detectors are either without batteries or else inoperative for some other reason.
- In order for the conclusion above to be properly drawn, which one of the following assumptions would have to be made?
- (A) Fifteen percent of domestic smoke detectors were installed less than 10 years ago.

- (B) The number of fires per year in homes with smoke detectors has increased.
- (C) Not all of the smoke detectors in homes are battery operated.
- (D) The proportion of domestic smoke detectors that are inoperative has increased in the past ten years.
- (E) Unlike automatic water sprinklers, a properly functioning smoke detector cannot by itself increase fire safety in a home.

14. Advertisement: HomeGlo Paints, Inc., has won the prestigious Golden Paintbrush Award—given to the one paint manufacturer in the country that has increased the environmental safety of its product most over the past three years—for HomeGlo Exterior Enamel. The Golden Paintbrush is awarded only on the basis of thorough tests by independent testing laboratories. So when you choose HomeGlo Exterior Enamel, you will know that you have chosen the most environmentally safe brand of paint manufactured in this country today.

The flawed reasoning in the advertisement most closely parallels that in which one of the following?

- (A) The ZXC audio system received the overall top ranking for looks, performance, durability, and value in *Listeners' Report* magazine's ratings of currently produced systems. Therefore, the ZXC must have better sound quality than any other currently produced sound system.
  - (B) Morning Sunshine breakfast cereal contains, ounce for ounce, more of the nutrients needed for a healthy diet than any other breakfast cereal on the market today. Thus, when you eat Morning Sunshine, you will know you are eating the most nutritious food now on the market.
  - (C) The number of consumer visits increased more at Countryside Market last year than at any other market in the region. Therefore, Countryside's profits must also have increased more last year than those of any other market in the region.
  - (D) Jerrold's teachers recognize him as the student who has shown more academic improvement than any other student in the junior class this year. Therefore, if Jerrold and his classmates are ranked according to their current academic performance, Jerrold must hold the highest ranking.
  - (E) Margaret Durring's short story "The Power Lunch" won three separate awards for best short fiction of the year. Therefore, any of Margaret Durring's earlier stories certainly has enough literary merit to be included in an anthology of the best recent short fiction.
15. The consistency of ice cream is adversely affected by even slight temperature changes in the freezer. To counteract this problem, manufacturers add stabilizers to ice cream. Unfortunately, stabilizers, though inexpensive, adversely affect flavor. Stabilizers are less needed if storage temperatures are very low. However, since energy costs are constantly going up, those costs constitute a strong incentive in favor of relatively high storage temperatures.

Which one of the following can be properly inferred from the passage?

- (A) Even slight deviations from the proper consistency for ice cream sharply impair its flavor.
- (B) Cost considerations favor sacrificing consistency over sacrificing flavor.
- (C) It would not be cost effective to develop a new device to maintain the constancy of freezer temperatures.
- (D) Stabilizers function well only at very low freezer temperatures.
- (E) Very low, stable freezer temperatures allow for the best possible consistency and flavor of ice cream.

16. Edwina: True appreciation of Mozart's music demands that you hear it exactly as he intended it to be heard; that is, exactly as he heard it. Since he heard it on eighteenth-century instruments, it follows that so should we.

Alberto: But what makes you think that Mozart ever heard his music played as he had intended it to be played? After all, Mozart was writing at a time when the performer was expected, as a matter of course, not just to interpret but to modify the written score.

Alberto adopts which one of the following strategies in criticizing Edwina's position?

- (A) He appeals to an academic authority in order to challenge the factual basis of her conclusion.
- (B) He attacks her judgment by suggesting that she does not recognize the importance of the performer's creativity to the audience's appreciation of a musical composition.
- (C) He defends a competing view of musical authenticity.
- (D) He attacks the logic of her argument by suggesting that the conclusion she draws does not follow from the premises she sets forth.
- (E) He offers a reason to believe that one of the premises of her argument is false.

17. Since the introduction of the Impanian National Health Scheme, Impanians (or their private insurance companies) have had to pay only for the more unusual and sophisticated medical procedures. When the scheme was introduced, it was hoped that private insurance to pay for these procedures would be available at modest cost, since the insurers would no longer be paying for the bulk of health care costs, as they had done previously. Paradoxically, however, the cost of private health insurance did not decrease but has instead increased dramatically in the years since the scheme's introduction.

Which one of the following, if true, does most to explain the apparently paradoxical outcome?

- (A) The National Health scheme has greatly reduced the number of medical claims handled annually by Impania's private insurers, enabling these firms to reduce overhead costs substantially.



- (B) Before the National Health scheme was introduced, more than 80 percent of all Impanian medical costs were associated with procedures that are now covered by the scheme.
- (C) Impanians who previously were unable to afford regular medical treatment now use the National Health scheme, but the number of Impanians with private health insurance has not increased.
- (D) Impanians now buy private medical insurance only at times when they expect that they will need care of kinds not available in the National Health scheme.
- (E) The proportion of total expenditures within Impania that is spent on health care has declined since the introduction of the National Health scheme.
18. In clinical trials of new medicines, half of the subjects receive the drug being tested and half receive a physiologically inert substance—a placebo. Trials are designed with the intention that neither subjects nor experimenters will find out which subjects are actually being given the drug being tested. However, this intention is frequently frustrated because\_\_\_\_\_
- Which one of the following, if true, most appropriately completes the explanation?
- (A) often the subjects who receive the drug being tested develop symptoms that the experimenters recognize as side effects of the physiologically active drug
- (B) subjects who believe they are receiving the drug being tested often display improvements in their conditions regardless of whether what is administered to them is physiologically active or not
- (C) in general, when the trial is intended to establish the experimental drug's safety rather than its effectiveness, all of the subjects are healthy
- (D) when a trial runs a long time, few of the experimenters will work on it from inception to conclusion
- (E) the people who are subjects for clinical trials must, by law, be volunteers and must be informed of the possibility that they will receive a placebo
19. It takes 365.25 days for the Earth to make one complete revolution around the sun. Long-standing convention makes a year 365 days long, with an extra day added every fourth year, and the year is divided into 52 seven-day weeks. But since 52 times 7 is only 364, anniversaries do not fall on the same day of the week each year. Many scheduling problems could be avoided if the last day of each year and an additional day every fourth year belonged to no week, so that January 1 would be a Sunday every year.
- The proposal above, once put into effect, would be most likely to result in continued scheduling conflicts for which one of the following groups?
- (A) people who have birthdays or other anniversaries on December 30 or 31
- (B) employed people whose strict religious observances require that they refrain

- from working every seventh day
- (C) school systems that require students to attend classes a specific number of days each year
- (D) employed people who have three-day breaks from work when holidays are celebrated on Mondays or Fridays
- (E) people who have to plan events several years before those events occur
20. Graphologists claim that it is possible to detect permanent character traits by examining people's handwriting. For example, a strong cross on the "t" is supposed to denote enthusiasm. Obviously, however, with practice and perseverance people can alter their handwriting to include this feature. So it seems that graphologists must hold that permanent character traits can be changed.
- The argument against graphology proceeds by
- (A) citing apparently incontestable evidence that leads to absurd consequences when conjoined with the view in question
- (B) demonstrating that an apparently controversial and interesting claim is really just a platitude
- (C) arguing that a particular technique of analysis can never be effective when the people analyzed know that it is being used
- (D) showing that proponents of the view have no theoretical justification for the view
- (E) attacking a technique by arguing that what the technique is supposed to detect can be detected quite readily without it

Questions 21-22

Historian: There is no direct evidence that timber was traded between the ancient nations of Poran and Nayal, but the fact that a law setting tariffs on timber imports from Poran was enacted during the third Nayalese dynasty does suggest that during that period a timber trade was conducted.

Critic: Your reasoning is flawed. During its third dynasty, Nayal may well have imported timber from Poran, but certainly on today's statute books there remain many laws regulating activities that were once common but in which people no longer engage.

21. The critic's response to the historian's reasoning does which one of the following?
- (A) It implies an analogy between the present and the past.
- (B) It identifies a general principle that the historian's reasoning violates.
- (C) It distinguishes between what has been established as a certainty and what has been established as a possibility.
- (D) It establishes explicit criteria that must be used in evaluating indirect

evidence.

- (E) It points out the dissimilar roles that law plays in societies that are distinct from one another.

22. The critic's response to the historian is flawed because it
- (A) produces evidence that is consistent with there not having been any timber trade between Poran and Nayal during the third Nayalese dynasty
  - (B) cites current laws without indicating whether the laws cited are relevant to the timber trade
  - (C) fails to recognize that the historian's conclusion was based on indirect evidence rather than direct evidence
  - (D) takes no account of the difference between a law's enactment at a particular time and a law's existence as part of a legal code at a particular time
  - (E) accepts without question that assumption about the purpose of laws that underlies the historian's argument
23. The workers at Bell Manufacturing will shortly go on strike unless the management increases their wages. As Bell's president is well aware, however, in order to increase the worker's wages, Bell would have to sell off some of its subsidiaries. So, some of Bell's subsidiaries will be sold.
- The conclusion above is properly drawn if which one of the following is assumed?
- (A) Bell Manufacturing will begin to suffer increased losses.
  - (B) Bell's management will refuse to increase its worker's wages.
  - (C) The workers at Bell Manufacturing will not be going on strike.
  - (D) Bell's president has the authority to offer the workers their desired wage increase.
  - (E) Bell's workers will not accept a package of improved benefits in place of their desired wage increase.
24. One sure way you can tell how quickly a new idea—for example, the idea of "privatization"—is taking hold among the population is to monitor how fast the word or words expressing that particular idea are passing into common usage. Professional opinions of whether or not words can indeed be said to have passed into common usage are available from dictionary editors, who are vitally concerned with this question.
- The method described above for determining how quickly a new idea is taking hold relies on which one of the following assumptions?
- (A) Dictionary editors are not professionally interested in words that are only rarely used.
  - (B) Dictionary editors have exact numerical criteria for telling when a word has passed into common usage.
  - (C) For a new idea to take hold, dictionary editors have to include the relevant

word or words in their dictionaries.

(D) As a word passes into common usages, its meaning does not undergo any severe distortions in the process.

(E) Words denoting new ideas tend to be used before the ideas denoted are understood.

25. Because migrant workers are typically not hired by any one employer for longer than a single season, migrant workers can legally be paid less than the minimum hourly wage that the government requires employers to pay all their permanent employees. Yet most migrant workers work long hours each day for eleven or twelve months a year and thus are as much full-time workers as are people hired on a year-round basis. Therefore, the law should require that migrant workers be paid the same minimum hourly wage that other full-time workers must be paid.

The pattern of reasoning displayed above most closely parallels that displayed in which one of the following arguments?

(A) Because day-care facilities are now regulated at the local level, the quality of care available to children in two different cities can differ widely. Since such differences in treatment clearly are unfair, day care should be federally rather than locally regulated.

(B) Because many rural areas have few restrictions on development, housing estates in such areas have been built where no adequate supply of safe drinking water could be ensured. Thus, rural areas should adopt building codes more like those large cities have.

(C) Because some countries regulate gun sales more strictly than do other countries, some people can readily purchase a gun, whereas others cannot. Therefore, all countries should cooperate in developing a uniform international policy regarding gun sales.

(D) Because it is a democratic principle that laws should have the consent of those affected by them, liquor laws should be formulated not by politicians but by club and restaurant owners, since such laws directly affect the profitability of their businesses.

(E) Because food additives are not considered drugs, they have not had to meet the safety standards the government applies to drugs. But food additives can be as dangerous as drugs. Therefore, food additives should also be subject to safety regulations as stringent as those covering drugs.

## TEST 8

### SECTION II

Time 35 minutes 24 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Parent 1: Ten years ago, children in communities like ours did not date until they were thirteen to fifteen years old. Now our nine to eleven year olds are dating. Obviously, children in communities like ours are becoming romantically interested in members of the opposite sex at an earlier age today than they did ten years ago.

Parent 2: I disagree. Our nine to eleven year olds do not want to date, but they feel intense peer pressure to act grown up by dating.

Parent 2, in responding to Parent 1, does which one of the following?

- (A) draws a conclusion about a new phenomenon by comparing it to a phenomenon that is known and understood
  - (B) refutes a generalization about nine- to eleven-year-old children by means of an exceptional case overlooked by Parent 1
  - (C) assumes that nine- to eleven-year-old children are as interested in dating as thirteen- to fifteen-year-old children
  - (D) provides an alternative explanation for the changes in children's dating described by Parent 1
  - (E) criticizes Parent 1 as a proponent of a claim rather than criticizing the claim itself
2. All cattle ranchers dislike long winters.  
All ski resort owners like long winters because long winters mean increased profits.  
Some lawyers are cattle ranchers.  
Which one of the following statements, if true, and added to those above, most supports the conclusion that no ski resort owners are lawyers?
- (A) Some cattle ranchers are lawyers.
  - (B) Some people who dislike long winters are not cattle ranchers.
  - (C) All lawyers are cattle ranchers.
  - (D) All people who dislike long winters are cattle ranchers.
  - (E) All people with increasing profits own ski resorts.

3. Citizen of Mooresville: Mooresville's current city council is having a ruinous effect on municipal finances. Since a majority of the incumbents are running for reelection, I am going to campaign against all these incumbents in the upcoming city council election. The only incumbent I will support and vote for is the one who represents my own neighborhood, because she has the experience necessary to ensure that our neighborhoods interests are served. If everyone in Mooresville would follow my example, we could substantially change the council's membership.

Assuming that each citizen of Mooresville is allowed to vote only for a city council representative from his or her own neighborhood, for the council's membership to be changed substantially, it must be true that



- (A) at least some other voters in Mooresville do not make the same exception for their own incumbent in the upcoming election
- (B) most of the eligible voters in Mooresville vote in the upcoming election
- (C) few of the incumbents on the Mooresville city council have run for reelection in previous elections
- (D) all of the seats on the Mooresville city council are filled by incumbents whose terms are expiring
- (E) none of the challengers in the upcoming election for seats on Mooresville's city council are better able to serve the interests of their neighborhoods than were the incumbents

4. Marianna: The problem of drunk driving has been somewhat ameliorated by public education and stricter laws. Additional measures are nevertheless needed. People still drive after drinking, and when they do, the probability is greatly increased that they will cause an accident involving death or serious injury.

David: I think you exaggerate the dangers of driving while drunk. Actually, a driver who is in an automobile accident is slightly less likely to be seriously injured if drunk than if sober.

In responding to Marianna's argument, David makes which one of the following errors of reasoning?

- (A) He contradicts himself.
- (B) He assumes what he is seeking to establish.
- (C) He contradicts Marianna's conclusion without giving any evidence for his point of view.
- (D) He argues against a point that is not one that Marianna was making.
- (E) He directs his criticism against the person making the argument rather than directing it against the argument itself.

5. From a magazine article: Self-confidence is a dangerous virtue: it often degenerates into the vice of arrogance. The danger of arrogance is evident to all who care to look. How much more humane the twentieth century would have been without the arrogant self-confidence of a Hitler or a Stalin.

The author attempts to persuade by doing all of the following EXCEPT:

- (A) Using extreme cases to evoke an emotional response
- (B) Introducing value-laden terms, such as "vice"
- (C) Illustrating the danger of arrogance
- (D) Appealing to authority to substantiate an assertion
- (E) Implying that Hitler's arrogance arose from self-confidence

6. A study was designed to establish what effect, if any, the long-term operation of offshore oil rigs had on animal life on the bottom of the sea. The study compared the sea-bottom communities near rigs with those located in control sites several

miles from any rig and found no significant differences. The researchers concluded that oil rigs had no adverse effect on sea-bottom animals.

Which one of the following, if true, most seriously weakens the researcher's conclusion?

- (A) Commercially important fish depend on sea-bottom animals for much of their food, so a drop in catches of these fish would be evidence of damage to sea-bottom communities.
  - (B) The discharge of oil from offshore oil rigs typically occurs at the surface of the water, and currents often carry the oil considerable distances before it settles on the ocean floor.
  - (C) Contamination of the ocean floor from sewage and industrial effluent does not result in the destruction of all sea-bottom animals but instead reduces species diversity as well as density of animal life.
  - (D) Only part of any oil discharged into the ocean reaches the ocean floor: some oil evaporates, and some remains in the water as suspended drops.
  - (E) Where the ocean floor consists of soft sediment, contaminating oil persists much longer than where the ocean floor is rocky.
7. Scientists are sometimes said to assume that something is not the case until there is proof that it is the case. Now suppose the question arises whether a given food additive is safe. At that point, it would be neither known to be safe nor known not to be safe. By the characterization above, scientists would assume the additive not to be safe because it has not been proven safe. But they would also assume it to be safe because it has not been proven otherwise. But no scientist could assume without contradiction that a given substance is both safe and not safe: so this characterization of scientists is clearly wrong.
- Which one of the following describes the technique of reasoning used above?
- (A) A general statement is argued to be false by showing that it has deliberately been formulated to mislead.
  - (B) A statement is argued to be false by showing that taking it to be true leads to implausible consequences.
  - (C) A statement is shown to be false by showing that it directly contradicts a second statement that is taken to be true.
  - (D) A general statement is shown to be uninformative by showing that there are as many specific instances in which it is false as there are instances in which it is true.
  - (E) A statement is shown to be uninformative by showing that it supports no independently testable inferences.
8. During the 1980s the homicide rate in Britain rose by 50 percent. The weapon used usually was a knife. Potentially lethal knives are sold openly and legally in many shops. Most homicide deaths occur as a result of unpremeditated assaults within the family. Even if these are increasing, they would probably not result in

deaths if it were not for the prevalence of such knives. Thus the blame lies with the permissiveness of the government that allows such lethal weapons to be sold.

Which one of the following is the strongest criticism of the argument above?

- (A) There are other means besides knives, such as guns or poison, that can be used to accomplish homicide by a person who intends to cause the death of another.
- (B) It is impossible to know how many unpremeditated assaults occur within the family, since many are not reported to the authorities.
- (C) Knives are used in other homicides besides those that result from unpremeditated assaults within the family.
- (D) The argument assumes without justification that the knives used to commit homicide are generally purchased as part of a deliberate plan to commit murder or to inflict grievous harm on a family member.
- (E) If the potentially lethal knives referred to are ordinary household knives, such knives were common before the rise in the homicide rate; but if they are weaponry, such knives are not generally available in households.

9. Nutritionist: Vitamins synthesized by chemists are exactly the same as vitamins that occur naturally in foods. Therefore, it is a waste of money to pay extra for brands of vitamin pills that are advertised as made of higher-quality ingredients or more natural ingredients than other brands are.

The nutritionist's advice is based on which one of the following assumptions?

- (A) It is a waste of money for people to supplement their diets with vitamin pills.
- (B) Brands of vitamin pills made of natural ingredients always cost more money than brands that contain synthesized vitamins.
- (C) All brands of vitamin pills contain some synthesized vitamins.
- (D) Some producers of vitamin pills are guilty of false advertising.
- (E) There is no nonvitamin ingredient in vitamin pills whose quality makes one brand worth more money than another brand.

10. Most people are indignant at the suggestion that they are not reliable authorities about their real wants. Such self-knowledge, however, is not the easiest kind of knowledge to acquire. Indeed, acquiring it often requires hard and even potentially risky work. To avoid such effort, people unconsciously convince themselves that they want what society says they should want.

The main point of the argument is that

- (A) acquiring self-knowledge can be risky
- (B) knowledge of what one really wants is not as desirable as it is usually thought to be
- (C) people cannot really want what they should want
- (D) people usually avoid making difficult decisions
- (E) people are not necessarily reliable authorities about what they really want

11. Since 1945 pesticide use in the United States has increased tenfold despite an overall stability in number of acres planted. During the same period, crop loss from insects has approximately doubled, from about seven to thirteen percent. Which one of the following, if true, contributes most to explaining the paradoxical findings above?
- (A) Extension agents employed by state governments to advise farmers have recently advocated using smaller amounts of pesticide, though in past years they promoted heavy pesticide use.
  - (B) While pesticide-resistant strains of insects were developing, crop rotation, which for insects disrupts a stable food supply, was gradually abandoned because farmers' eligibility to receive government crop subsidies depended on continuing to plant the same crop.
  - (C) Since 1970 the pesticides most lethal to people have generally been replaced by less-lethal chemicals that are equally effective against insects and have a less-damaging effect on the fish in streams fed by water that runs off from treated agricultural fields.
  - (D) Because farmers' decisions about how much land to plant are governed by their expectations about crop prices at harvest time, the amount of pesticide they apply also depends in part on expected crop prices.
  - (E) Although some pesticides can be removed from foodstuffs through washing, others are taken up into the edible portion of plants, and consumers have begun to boycott foods containing pesticides that cannot be washed off.
12. In discussing the pros and cons of monetary union among several European nations, some politicians have claimed that living standards in the countries concerned would first have to converge if monetary union is not to lead to economic chaos. This claim is plainly false, as is demonstrated by the fact that living standards diverge widely between regions within countries that nevertheless have stable economies. In attempting to refute the politicians' claim, the author does which one of the following?
- (A) argues that those making the claim are mistaken about a temporal relationship that has been observed
  - (B) presents an earlier instance of the action being considered in which the predicted consequences did not occur
  - (C) argues that the feared consequence would occur regardless of what course of action was followed
  - (D) gives an example of a state of affairs, assumed to be relevantly similar, in which the allegedly incompatible elements coexist
  - (E) points out that if an implicit recommendation is followed, the claim can be neither shown to be true nor shown to be false
13. Because some student demonstrations protesting his scheduled appearance have

resulted in violence, the president of the Imperialist Society has been prevented from speaking about politics on campus by the dean of student affairs. Yet to deny anyone the unrestricted freedom to speak is to threaten everyone's right to free expression. Hence the dean's decision has threatened everyone's right to free expression.

The pattern of reasoning displayed above is most closely paralleled in which one of the following?

- (A) Dr. Pacheco saved a child's life by performing emergency surgery. But surgery rarely involves any risk to the surgeon. Therefore, if an act is not heroic unless it requires the actor to take some risk, Dr. Pacheco's surgery was not heroic.
  - (B) Because anyone who performs an act of heroism acts altruistically rather than selfishly, a society that rewards heroism encourages altruism rather than pure self-interest.
  - (C) In order to rescue a drowning child, Isabel jumped into a freezing river. Such acts of heroism performed to save the life of one enrich the lives of all. Hence, Isabel's action enriched the lives of all.
  - (D) Fire fighters are often expected to perform heroically under harsh conditions. But no one is ever required to act heroically. Hence, fire fighters are often expected to perform actions they are not required to perform.
  - (E) Acts of extreme generosity are usually above and beyond the call of duty. Therefore, most acts of extreme generosity are heroic, since all actions that are above and beyond the call of duty are heroic.
14. Professor: Members of most species are able to communicate with other members of the same species, but it is not true that all communication can be called "language." The human communication system unquestionably qualifies as language. In fact, using language is a trait without which we would not be human.
- Student: I understand that communication by itself is not language, but how do you know that the highly evolved communication systems of songbirds, dolphins, honeybees, and apes, for example, are not languages?
- The student has interpreted the professor's remarks to mean that
- (A) different species can have similar defining traits
  - (B) every human trait except using language is shared by at least one other species
  - (C) not all languages are used to communicate
  - (D) using language is a trait humans do not share with any other species
  - (E) humans cannot communicate with members of other species

Questions 15-16

Environmentalist: An increased number of oil spills and the consequent damage to the environment indicate the need for stricter safety standards for the oil industry. Since



the industry refuses to take action, it is the national government that must regulate industry safety standards. In particular, the government has to at least require oil companies to put double hulls on their tankers and to assume financial responsibility for accidents.

Industry representative: The industry alone should be responsible for devising safety standards because of its expertise in handling oil and its understanding of the cost entailed. Implementing the double-hull proposal is not currently feasible because it creates new safety issues. Furthermore, the cost would be burdensome to the industry and consumers.

15. Which one of the following is an assumption on which the argument of the environmentalist depends?
- (A) The only effective sources of increased stringency in safety standards for oil tankers are action by the industry itself or national government regulation.
  - (B) The requirement of two hulls on oil tankers, although initially costly, will save money over time by reducing cleanup costs.
  - (C) The oil industry's aging fleet of tankers must either be repaired or else replaced.
  - (D) Government safety regulations are developed in a process of negotiation with industry leaders and independent experts.
  - (E) Environmental concerns outweigh all financial considerations when developing safety standards.
16. Which one of the following, if true, most strongly supports the industry representative's position against the environmentalist's position?
- (A) Recently a double-hulled tanker loaded with oil was punctured when it ran aground, but no oil was released.
  - (B) Proposed government regulation would mandate the creation of regional response teams within the Coast Guard to respond to oil spills and coordinate cleanup activities.
  - (C) Proposed legislation requires that new tankers have double hulls but that existing tankers either be refitted with double hulls in the next 20 years or else be retired.
  - (D) Fumes can become trapped between the two hull layers of double-hulled tankers, and the risk of explosions that could rupture the tankers hull is thereby increased.
  - (E) From now on, the oil industry will be required by recent legislation to finance a newly established oil-spill cleanup fund.
17. Biographer: Arnold's belief that every offer of assistance on the part of his colleagues was a disguised attempt to make him look inadequate and that no expression of congratulations on his promotion should be taken at face value may seem irrational. In fact, this belief was a consequence of his early experiences

with an admired older sister who always made fun of his ambitions and achievements. In light of this explanation, therefore, Arnold's stubborn belief that his colleagues were duplicitous emerges as clearly justified.

The flawed reasoning in the biographer's argument is most similar to that in which one of the following?

- (A) The fact that top executives generally have much larger vocabularies than do their subordinates explains why Sheldon's belief, instilled in him during his childhood, that developing a large vocabulary is the way to get to the top in the world of business is completely justified.
  - (B) Emily suspected that apples are unhealthy ever since she almost choked to death while eating an apple when she was a child. Now, evidence that apples treated with certain pesticides can be health hazards shows that Emily's long-held belief is fully justified.
  - (C) As a child, Joan was severely punished whenever she played with her father's prize Siamese cat. Therefore, since this information makes her present belief that cats are not good pets completely understandable, that belief is justified.
  - (D) Studies show that when usually well-behaved children become irritable, they often exhibit symptoms of viral infections the next day. The suspicion, still held by many adults, that misbehavior must always be paid for is thus both explained and justified.
  - (E) Sumayia's father and mother were both concert pianists, and as a child, Sumayia knew several other people trying to make careers as musicians. Thus Sumayia's opinion that her friend Anthony lacks the drive to be a successful pianist is undoubtedly justified.
18. The television documentary went beyond the save-the-wildlife pieties of some of those remote from East Africa and showed that in a country pressed for food, the elephant is a pest, and an intelligent pest at that. There appears to be no way to protect East African farms from the voracious foraging of night-raiding elephant herds. Clearly this example illustrates that\_\_\_\_\_

Which one of the following most logically completes the paragraph?

- (A) the preservation of wildlife may endanger human welfare
- (B) it is time to remove elephants from the list of endangered species
- (C) television documentaries are incapable of doing more than reiterating accepted pieties
- (D) farmers and agricultural agents should work closely with wildlife conservationists before taking measures to control elephants
- (E) it is unfair that people in any country should have to endure food shortages

Questions 19-20

Oxygen-18 is a heavier-than-normal isotope of oxygen. In a rain cloud, water

molecules containing oxygen-18 are rarer than water molecules containing normal oxygen. But in rainfall, a higher proportion of all water molecules containing oxygen-18 than of all water molecules containing ordinary oxygen descends to earth. Consequently, scientists were surprised when measurements along the entire route of rain clouds' passage from above the Atlantic Ocean, the site of their original formation, across the Amazon forests, where it rains almost daily, showed that the oxygen-18 content of each of the clouds remained fairly constant.

19. Which one of the following statements, if true, best helps to resolve the conflict between scientists' expectations, based on the known behavior of oxygen-18, and the result of their measurements of the rain clouds' oxygen-18 content?
- (A) Rain clouds above tropical forests are poorer in oxygen-18 than rain clouds above unforested regions.
  - (B) Like the oceans, tropical rain forests can create or replenish rain clouds in the atmosphere above them.
  - (C) The amount of rainfall over the Amazon rain forests is exactly the same as the amount of rain originally collected in the clouds formed above the Atlantic Ocean.
  - (D) The amount of rain recycled back into the atmosphere from the leaves of forest vegetation is exactly the same as the amount of rain in river runoffs that is not recycled into the atmosphere.
  - (E) Oxygen-18 is not a good indicator of the effect of tropical rain forests on the atmosphere above them.
20. Which one of the following inferences about an individual rain cloud is supported by the passage?
- (A) Once it is formed over the Atlantic, the rain cloud contains more ordinary oxygen than oxygen-18.
  - (B) Once it has passed over the Amazon, the rain cloud contains a greater-than-normal percentage of oxygen-18.
  - (C) The clouds rainfall contains more oxygen-18 than ordinary oxygen.
  - (D) During a rainfall, the cloud must surrender the same percentage of its ordinary oxygen as of its oxygen-18.
  - (E) During a rainfall, the cloud must surrender more of its oxygen-18 than it retains.
21. It is very difficult to prove today that a painting done two or three hundred years ago, especially one without a signature or with a questionably authentic signature, is indubitably the work of this or that particular artist. This fact gives the traditional attribution of a disputed painting special weight, since that attribution carries the presumption of historical continuity. Consequently, an art historian arguing for a deattribution will generally convince other art historians only if he or she can persuasively argue for a specific reattribution.

Which one of the following, if true, most strongly supports the position that the

traditional attribution of a disputed painting should not have special weight?

- (A) Art dealers have always been led by economic self-interest to attribute any unsigned paintings of merit to recognized masters rather than to obscure artists.
- (B) When a painting is originally created, there are invariably at least some eyewitnesses who see the artist at work, and thus questions of correct attribution cannot arise at that time.
- (C) There are not always clearly discernible differences between the occasional inferior work produced by a master and the very best work produced by a lesser talent.
- (D) Attribution can shape perception inasmuch as certain features that would count as marks of greatness in a master's work would be counted as signs of inferior artistry if a work were attributed to a minor artist.
- (E) Even though some masters had specialists assist them with certain detail work, such as depicting lace, the resulting works are properly attributed to the masters alone.

22. Much of the best scientific research of today shows that many of the results of earlier scientific work that was regarded in its time as good are in fact mistaken. Yet despite the fact that scientists are above all concerned to discover the truth, it is valuable for today's scientists to study firsthand accounts of earlier scientific work.

Which one of the following, if true, would best reconcile the two statements above?

- (A) Many firsthand accounts of earlier, flawed scientific work are not generally known to be mistaken.
- (B) Lessons in scientific methodology can be learned by seeing how earlier scientific work was carried out, sometimes especially when the results of that work are known to be incorrect.
- (C) Scientists can make valuable contributions to the scientific work of their time even if the results of their work will later be shown to be mistaken.
- (D) There are many scientists today who are not thoroughly familiar with earlier scientific research.
- (E) Some of the better scientific research of today does not directly address earlier scientific work.

23. Teachers are effective only when they help their students become independent learners. Yet not until teachers have the power to make decisions in their own classrooms can they enable their students to make their own decisions. Students' capability to make their own decisions is essential to their becoming independent learners. Therefore, if teachers are to be effective, they must have the power to make decisions in their own classrooms.

According to the argument, each of the following could be true of teachers who

have enabled their students to make their own decisions EXCEPT:

- (A) Their students have not become independent learners.
- (B) They are not effective teachers.
- (C) They are effective teachers.
- (D) They have the power to make decisions in their own classrooms.
- (E) They do not have the power to make decisions.

24. Dr. Ruiz: Dr. Smith has expressed outspoken antismoking views in public. Even though Dr. Smith is otherwise qualified, clearly she cannot be included on a panel that examines the danger of secondhand cigarette smoke. As an organizer of the panel, I want to ensure that the panel examines the issue in an unbiased manner before coming to any conclusion.

Which one of the following, if true, provides the strongest basis for countering Dr. Ruiz' argument that Dr. Smith should not be included on the panel?

- (A) A panel composed of qualified people with strong but conflicting views on a particular topic is more likely to reach an unbiased conclusion than a panel composed of people who have kept their views, if any, private.
- (B) People who hold strong views on a particular topic tend to accept new evidence on that topic only if it supports their views.
- (C) A panel that includes one qualified person with publicly known strong views on a particular topic is more likely to have lively discussions than a panel that includes only people with no well-defined views on that topic.
- (D) People who have expressed strong views in public on a particular topic are better at raising funds to support their case than are people who have never expressed strong views in public.
- (E) People who have well-defined strong views on a particular topic prior to joining a panel are often able to impose their views on panel members who are not committed at the outset to any conclusion.

#### SECTION IV

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Biotechnology companies say that voluntary guideline for their industry are sufficient to ensure that no harm will result when a genetically altered organism is released into the environment. It is foolish, however, to rely on assurances from producers of genetically altered organisms that their products will not be harmful. Therefore, a biotechnology company should be required to apply to an independent regulatory board composed of scientists outside the biotechnology industry for the right to sell newly created organisms.

Which one of the following principles, if accepted, most strongly justifies drawing the conclusion above?



- (A) Voluntary guidelines are sufficient to regulate activities that pose little danger to the environment.
- (B) People who engage in an activity and have a financial stake in that activity should not be the sole regulators of that activity.
- (C) Methods that result in harm to the environment must sometimes be used in order to avoid even greater harm.
- (D) A company is obligated to ensure the effectiveness of its products but not their environmental safety.
- (E) Issues of environmental protection are so important that they should not be left to scientific experts.
2. Zoo director: The city is in a financial crisis and must reduce its spending. Nevertheless, at least one reduction measure in next year's budget, cutting City Zoos funding in half, is false economy. The zoo's current budget equals less than 1 percent of the city's deficit, so withdrawing support from the zoo does little to help the city's financial situation. Furthermore, the zoo, which must close if its budget is cut, attracts tourists and tax dollars to the city. Finally, the zoo adds immeasurably to the city's cultural climate and thus makes the city an attractive place for business to locate.
- Which one of the following is the main conclusion of the zoo director's argument?
- (A) Reducing spending is the only means the city has of responding to the current financial crisis.
- (B) It would be false economy for the city to cut the zoo's budget in half.
- (C) City Zoo's budget is only a very small portion of the city's entire budget.
- (D) The zoo will be forced to close if its budget is cut.
- (E) The city's educational and cultural climate will be irreparably damaged if the zoo is forced to close.
3. A cat will not be affectionate toward people unless it is handled when it is a kitten. Since the cat that Paula plans to give to her friend was handled when it was a kitten, that cat will be affectionate toward people.
- The flawed reasoning in the argument above most closely parallels that in which one of the following?
- (A) Tulip bulbs will not produce flowers unless they are chilled for two months. Since the tulip bulbs in the clay pot were not chilled for two months, these bulbs will not produce flowers.
- (B) Beets do not grow well unless the soil in which they are grown contains trace amounts of boron. Since the beets in this plot are growing well, the soil in the plot must contain trace amounts of boron.
- (C) Fruit trees will not produce much fruit unless they are pruned properly. That the fruit trees at the local orchard produce a large amount of fruit proves that they have been pruned properly.

- (D) Cranberries will not thrive unless they are grown in bogs. Since the cranberries in this area are not grown in bogs, these cranberries will not thrive.
- (E) Grass seeds will not germinate well unless they are pressed firmly into the ground. The grass seeds sown in this yard were pressed firmly into the ground, so they will germinate well.

4. Until recently, anthropologists generally agreed that higher primates originated about 30 million years ago in the Al Fayyum region of Egypt. However, a 40-million-year old fossilized fragment of a lower jawbone discovered in Burma (now called Myanmar) in 1978 was used to support the theory that the earliest higher primates originated in Burma. However, the claim is premature, for \_\_\_\_\_
- Which one or the following, if true, is the most logical completion of the paragraph above?

- (A) there are no more primate species in Burma than there are in Egypt
- (B) several anthropologists, using different dating methods, independently confirmed the estimated age of the jawbone fragment
- (C) higher primates cannot be identified solely by their lower jawbones
- (D) several prominent anthropologists do not believe that higher primates could have originated in either Egypt or Burma
- (E) other archaeological expeditions in Burma have unearthed higher-primate fossilized bone fragments that are clearly older than 40 million years

5. The ends of modern centuries have been greeted with both apocalyptic anxieties and utopian fantasies. It is not surprising that both reactions have consistently proven to be misplaced. After all, the precise time when a century happens to end cannot have any special significance, since the Gregorian calendar, though widely used, is only one among many that people have devised.

Which one of the following, if true, could be substituted for the reason cited above while still preserving the force of the argument?

- (A) It is logically impossible for both reactions to be correct at the same time.
- (B) What is a utopian fantasy to one group of people may well be, for another group of people, a realization of their worst fears.
- (C) The number system based on the number ten, in the absence of which one hundred years would not have the appearance of being a significant period of time, is by no means the only one that people have created.
- (D) The firm expectation that something extraordinary is about to happen can make people behave in a manner that makes it less likely that something extraordinary will happen.
- (E) Since a century far exceeds the normal human life span, people do not live long enough to learn from mistakes that they themselves made one hundred years before.

6. People who listen to certain recordings of music are in danger of being unduly influenced by spoken messages that have been recorded backwards on the records or tapes.

A consequence of the view above is that

- (A) the spoken messages must be louder than the music on the recordings
- (B) backwards messages can be added to a recording while still preserving all of the musical qualities of the recorded performance
- (C) the recordings on which such messages appear are chosen for this purpose either because they are especially popular or because they introduce a trancelike state
- (D) if such messages must be comprehended to exert influence, then people must be able to comprehend spoken messages recorded backwards
- (E) when people listen to recorded music, they pay full attention to the music as it plays

7. Advertisement: Over 80 percent of the people who test-drive a Zenith car end up buying one. So be warned: you should not test-drive a Zenith unless you are prepared to buy one, because if you so much as drive a Zenith around the block, there is a better than 80 percent chance you will choose to buy it.

If the advertisement is interpreted as implying that the quality of the car is unusually impressive, which one of the following, if true, most clearly casts doubt on that implication?

- (A) Test-drives of Zenith cars are, according to Zenith sales personnel, generally more extensive than a drive around the block and encounter varied driving conditions.
- (B) Usually dealers have enough Zenith models in stock that prospective purchasers are able to test-drive the exact model that they are considering for purchase.
- (C) Those who take test-drives in cars are, in overwhelming proportions, people who have already decided to buy the model driven unless some fault should become evident.
- (D) Almost 90 percent of the people who purchase a car do not do so on the day they take a first test-drive but do so after another test-drive.
- (E) In some Zenith cars, a minor part has broken within the first year, and Zenith dealers have issued notices to owners that the dealers will replace the part with a redesigned one at no cost to owners.

8. In Malsenia sales of classical records are soaring. The buyers responsible for this boom are quite new to classical music and were drawn to it either by classical scores from television commercials or by theme tunes introducing major sports events on television. Audiences at classical concerts, however, are continually shrinking in Malsenia. It can be concluded from this that the new Malsenian converts to classical music, having initially experienced this music as recorded

music, are most comfortable with classical music as recorded music and really have no desire to hear live performances.

The argument assumes which one of the following?

- (A) To sell well in Malsenia, a classical record must include at least one piece familiar from television.
- (B) At least some of the new Malsenian buyers of classical records have available to them the option of attending classical concerts.
- (C) The number of classical concerts performed in Malsenia has not decreased in response to smaller audiences.
- (D) The classical records available in Malsenia are, for the most part, not recordings of actual public concerts.
- (E) Classical concerts in Malsenia are not limited to music that is readily available on recordings.

9. Brain scans of people exposed to certain neurotoxins reveal brain damage identical to that found in people suffering from Parkinson's disease. This fact shows not only that these neurotoxins cause this type of brain damage, but also that the brain damage itself causes Parkinson's disease. Thus brain scans can be used to determine who is likely to develop Parkinson's disease.

The argument contains which one of the following reasoning errors?

- (A) It fails to establish that other methods that can be used to diagnose Parkinson's disease are less accurate than brain scans.
- (B) It overestimates the importance of early diagnosis in determining appropriate treatments for people suffering from Parkinson's disease.
- (C) It mistakes a correlation between the type of brain damage described and Parkinson's disease for a causal relation between the two.
- (D) It assumes that people would want to know as early as possible whether they were likely to develop Parkinson's disease.
- (E) It neglects to specify how the information provided by brain scans could be used either in treating Parkinson's disease or in monitoring the progression of the disease.

10. Almost all of the books published in the past 150 years were printed on acidic paper. Unfortunately, every kind of acidic paper gradually destroys itself due to its very acidity. This process of deterioration can be slowed if the books are stored in a cool, dry environment. Techniques, which are now being developed, to deacidify books will probably be applied only to books with historical significance.

If all of the statements in the passage above are true, which one of the following must also be true?

- (A) If a book was published in the past 150 years and is historically insignificant, it will probably deteriorate completely.

- (B) Almost all of the books published in the past 150 years will gradually destroy themselves.
- (C) Almost all of the books that gradually deteriorate are made of acidic paper.
- (D) If a book is of historical significance and was printed before 150 years ago, it will be deacidified.
- (E) Books published on acidic paper in 1900 should now all be at about the same state of deterioration.

11. Civil libertarian: The categorical prohibition of any nonviolent means of expression inevitably poisons a society's intellectual atmosphere. Therefore, those advocating censorship of all potentially offensive art are pursuing a course that is harmful to society.

Censorship advocate: You're wrong, because many people are in agreement about what constitutes potentially offensive art.

The censorship advocate's rebuttal is flawed because it

- (A) attempts to extract a general rule from a specific case
  - (B) extracts an erroneous principle from a commonly held belief
  - (C) attacks the civil libertarians character instead of the argument
  - (D) relies on an irrelevant reason for rejecting the civil libertarian's argument
  - (E) uses hyperbolic inflammatory language that obscures the issue at hand
12. Although most species of nondomestic mammals in Australia are marsupials, over 100 species—including seals, bats, and mice—are not marsupials but placentals. It is clear, however, that these placentals are not native to this island continent: all nonhuman placentals except the dingo, a dog introduced by the first humans that settled Australia, are animals whose ancestors could swim long distances, fly, or float on driftwood.
- The conclusion above is properly drawn if which one of the following is assumed?
- (A) Some marsupials now found in Australia might not be native to that continent, but rather might have been introduced to Australia by some other means.
  - (B) Humans who settled Australia probably introduced many of the placental mammal species now present on that Continent.
  - (C) The only Australian placentals that could be native to Australia would be animals whose ancestors could not have reached Australia from elsewhere.
  - (D) No marsupials now found in Australia can swim long distances, fly, or float on driftwood.
  - (E) Seals, bats, and mice are typically found only in areas where there are no native marsupials.

13. I. Room air conditioners produced by Japanese manufacturers tend to be more reliable than those produced by United States manufacturers.



II. The average lifetime of room air conditioners produced by United States manufacturers is about fifteen years, the same as that of room air conditioners produced by Japanese manufacturers.

Which one of the following, if true, would best reconcile the two statements above?

- (A) Reliability is a measure of how long a product functions without needing repair.
- (B) Production facilities of firms designated as United States manufacturers are not all located in the United States.
- (C) Damage to room air conditioners during shipping and installation does not occur with great frequency in the United States or in Japan.
- (D) Room air conditioners have been manufactured for a longer time in the United States than in Japan.
- (E) Japanese manufacturers often use more reliable components in their room air conditioners than do United States manufacturers.

14. In 1980 there was growing concern that the protective ozone layer over the Antarctic might be decreasing and thereby allowing so much harmful ultraviolet radiation to reach the Earth that polar marine life would be damaged. Some government officials dismissed these concerns, since statistics indicated that global atmospheric ozone levels remained constant.

The relevance of the evidence cited by the government officials in support of their position would be most seriously undermined if it were true that

- (A) most species of plant and animal life flourish in warm climates rather than in the polar regions
- (B) decreases in the amount of atmospheric Ozone over the Antarctic ice cap tend to be seasonal rather than constant
- (C) decreases in the amount of atmospheric ozone were of little concern before 1980
- (D) quantities of atmospheric ozone shifted away from the polar caps, correspondingly increasing ozone levels in other regions
- (E) even where the amount of atmospheric ozone is normal, some ultraviolet light reaches the Earth's surface

15. Goodbody, Inc., is in the process of finding tenants for its newly completed Parrot Quay commercial development, which will make available hundreds of thousands of square feet of new office space on what was formerly derelict property outside the financial center of the city. Surprisingly enough, the coming recession, though it will hurt most of the city's businesses, should help Goodbody to find tenants.

Which one of the following, if true, does most to help resolve the apparent paradox?

- (A) Businesses forced to economize by the recession will want to take advantage of the lower rents available outside the financial center.

- (B) Public transportation links the financial center with the area around Parrot Quay.
- (C) The area in which the Parrot Quay development is located became derelict after the heavy industry that used to be there closed down in a previous recession.
- (D) Many of Goodbody's other properties are in financial center and will become vacant if the recession is severe enough to force Goodbody's tenants out of business.
- (E) The recession is likely to have the most severe effect not on service industries, which require a lot of office space, but on manufacturers.

Questions 16-17

Dr. Kim: Electronic fetal monitors, now routinely used in hospital delivery rooms to check fetal heartbeat, are more intrusive than ordinary stethoscopes and do no more to improve the chances that a healthy baby will be born. Therefore, the additional cost of electronic monitoring is unjustified and such monitoring should be discontinued.

Dr. Anders: I disagree. Although you and I know that both methods are capable of providing the same information, electronic monitoring has been well worth the cost. Doctors now know the warning signs they need to listen for with stethoscopes, but only because of what was learned from using electronic monitors.

16. Which one of the following principles, if accepted, would provide the most support for Dr. Kim's contention that the use of electronic fetal monitors should be discontinued?
- (A) Hospitals should discontinue the routine use of a monitoring method whenever an alternative method that provides more information becomes available.
  - (B) Monitoring procedures should be routinely used in delivery rooms only if they provide information of a kind that is potentially useful in ensuring that a healthy baby will be born.
  - (C) When two methods available to hospitals provide the same kind of information, the more intrusive method should not be used.
  - (D) When the use of a medical device has enabled doctors to learn something that improves the chances that babies will be born healthy, that device is well worth its cost.
  - (E) Routinely used medical procedures should be reevaluated periodically to be sure that these procedures provide reliable information.
17. As a reply to Dr. Kim's argument, Dr. Anders' response is inadequate because it
- (A) misses the point at issue
  - (B) assumes what it sets out to prove
  - (C) confuses high cost with high quality

- (D) overestimates the importance of technology to modern medicine
- (E) overlooks the fact that a procedure can be extensively used without being the best procedure available

18. Professor Hartley's new book on moral philosophy contains numerous passages that can be found verbatim in an earlier published work by Hartley's colleague, Professor Lawrence. Therefore in view of the fact that these passages were unattributed in Hartley's book, Hartley has been dishonest in not acknowledging the intellectual debt owed to Lawrence.

Which one of the following is an assumption on which the argument is based?

- (A) Hartley could not have written the new book without the passages in question.
  - (B) While writing the new book, Hartley had access to the manuscript of Lawrence's book.
  - (C) A book on moral philosophy should contain only material representing the author's own convictions.
  - (D) Lawrence did not get the ideas in the passages in Question or did not get their formulations originally from Hartley.
  - (E) Hartley considered the passages in question to be the best possible expressions of the ideas they contain.
19. People who receive unsolicited advice from someone whose advantage would be served if that advice is taken should regard the proffered advice with skepticism unless there is good reason to think that their interests substantially coincide with those of the advice giver in the circumstance in question.

This principle, if accepted, would justify which one of the following judgments?

- (A) After learning by chance that Harriet is looking for a secure investment for her retirement savings, Floyd writes to her recommending the R&M Company as an especially secure investment. But since Floyd is the sole owner of R&M, Harriet should reject his advice out of hand and invest the savings elsewhere.
- (B) While shopping for a refrigerator, Ramon is approached by a salesperson who, on the basis of her personal experience, warns him against the least expensive model. However, the salesperson's commission increases with the price of the refrigerator sold, so Ramon should not reject the least expensive model on the salesperson's advice alone.
- (C) Mario wants to bring pastry to Yvette's party, and when he consults her Yvette suggests that he bring his favorite chocolate fudge brownies from the local bakery. However, since Yvette also prefers those brownies to any other pastry, Mario would be wise to check with others before following her recommendation.
- (D) Sara overhears Ron talking about a course he will be teaching and interrupts to recommend a textbook for his course. However, even though Sara and

Ron each wrote a chapter of' this textbook, since the book's editor is a personal friend of Sara's, Ron should investigate further before deciding whether it is the best textbook for his course.

- (E) Mel is buying fish for soup. Joel, who owns the fish market where Mel is a regular and valued customer, suggests a much less expensive fish than the fish Mel herself prefers. Since if Mel follows Joel's advice, Joel will make less profit on the sale than he would have otherwise, Mel should follow his recommendation.

20. Last year the county park system failed to generate enough revenue to cover its costs. Any business should be closed if it is unprofitable, but county parks are not businesses. Therefore, the fact that county parks are unprofitable does not by itself justify closing them.

The pattern of reasoning in the argument above is most closely paralleled in which one of the following?

- (A) A prime-time television series should be canceled if it fails to attract a large audience, but the small audience attracted by the documentary series is not sufficient reason to cancel it, since it does not air during prime time.
- (B) Although companies that manufacture and market automobiles in the United States must meet stringent air-quality standards, the OKESA company should be exempt from these standards since it manufactures bicycles in addition to automobiles.
- (C) Although the province did not specifically intend to prohibit betting on horse races when it passed a law prohibiting gambling, such betting should be regarded as being prohibited because it is a form of gambling.
- (D) Even though cockatiels are not, strictly speaking, members of the parrot family, they should be fed the same diet as most parrots since the cockatiel's dietary needs are so similar to those of parrots.
- (E) Since minors are not subject to the same criminal laws as are adults, they should not be subject to the same sorts of punishments as those that apply to adults.
21. Jane: Professor Harper's ideas for modifying the design of guitars are of no value because there is no general agreement among musicians as to what a guitar should sound like and, consequently, no widely accepted basis for evaluating the merits of a guitar's sound.

Mark: What's more, Harper's ideas have had enough time to be adopted if they really resulted in superior sound. It took only ten years for the Torres design for guitars to be almost universally adopted because of the improvement it makes in tonal quality.

Which one of the following most accurately describes the relationship between Jane's argument and Mark's argument?

- (A) Mark's argument shows how a weakness in Jane's argument can be

overcome.

- (B) Mark's argument has a premise in common with Jane's argument.
- (C) Mark and Jane use similar techniques to argue for different conclusions.
- (D) Mark's argument restates Jane's argument in other terms.
- (E) Mark's argument and Jane's argument are based on conflicting suppositions.

Questions 22-23

Doctors in Britain have long suspected that patients who wear tinted eyeglasses are abnormally prone to depression and hypochondria. Psychological tests given there to hospital patients admitted for physical complaints like heart pain and digestive distress confirmed such a relationship. Perhaps people whose relationship to the world is psychologically painful choose such glasses to reduce visual stimulation, which is perceived as irritating. At any rate, it can be concluded that when such glasses are worn, it is because the wearer has a tendency to be depressed or hypochondriacal.

22. The argument assumes which one of the following?
- (A) Depression is not caused in some cases by an organic condition of the body.
  - (B) Wearers do not think of the tinted glasses as a means of distancing themselves from other people.
  - (C) Depression can have many causes, including actual conditions about which it is reasonable for anyone to be depressed.
  - (D) For hypochondriacs wearing tinted glasses, the glasses serve as a visual signal to others that the wearer's health is delicate.
  - (E) The tinting does not dim light to the eye enough to depress the wearer's mood substantially.
23. Each of the following, if true, weakens the argument EXCEPT:
- (A) Some people wear tinted glasses not because they choose to do so but because a medical condition of their eyes forces them to do so.
  - (B) Even a depressed or hypochondriacal person can have valid medical complaints, so a doctor should perform all the usual objective tests in diagnosing such persons.
  - (C) The confirmatory tests were not done for places such as western North America where the usual quality of light differs from that prevailing in Britain.
  - (D) Fashions with respect to wearing tinted glasses differ in different parts of the world.
  - (E) At the hospitals where the tests were given, patients who were admitted for conditions less ambiguous than heart pain or digestive distress did not show the relationship between tinted glasses and depression or hypochondria.
24. The only fossilized bones of large prey found in and around settlements of early humans bear teeth marks of nonhuman predators on areas of the skeleton that had



the most meat, and cut marks made by humans on the areas that had the least meat. The predators that hunted large prey invariably are the meatiest parts of the carcasses, leaving uneaten remains behind.

If the information above is true, it provides the most support for which one of the following?

- (A) Early humans were predators of small prey, not of large prey.
- (B) Early humans ate fruits and edible roots as well as meat.
- (C) Early humans would have been more effective hunters of large prey if they had hunted in large groups rather than individually.
- (D) Early humans were not hunters of large prey but scavenged the uneaten remains of prey killed by other predators.
- (E) Early humans were nomadic, and their settlements followed the migratory patterns of predators of large prey.

25. George: A well-known educator claims that children who are read to when they are very young are more likely to enjoy reading when they grow up than are children who were not read to. But this claim is clearly false. My cousin Emory was regularly read to as a child and as an adult he seldom reads for pleasure, whereas no one read to me and reading is now my favorite form of relaxation.

Ursula: You and Emory prove nothing in this case. Your experience is enough to refute the claim that all avid adult readers were read to as children, but what the educator said about reading to children is not that sort of claim.

Which one of the following describes a flaw in Georges reasoning?

- (A) He treats his own experience and the experiences of other members of his own family as though they have more weight as evidence than do the experiences of other people.
- (B) He does not distinguish between the quality and the quantity of the books that adults read to Emory when Emory was a child.
- (C) He overlooks the well-known fact that not all reading is equally relaxing.
- (D) He fails to establish that the claim made by this particular educator accurately reflects the position held by the majority of educators.
- (E) He attempts to refute a general claim by reference to nonconforming cases, although the claim is consistent with the occurrence of such cases.

## TEST 9

### SECTION I

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Of all of the surgeons practicing at the city hospital, the chief surgeon has the

worst record in terms of the percentage of his patients who die either during or immediately following an operation performed by him. Paradoxically, the hospital's administrators claim that he is the best surgeon currently working at the hospital.

Which one of the following, if true, goes farthest toward showing that the administrators' claim and the statistic cited might both be correct?

- (A) Since the hospital administrators appoint the chief surgeon, the administrators are strongly motivated to depict the chief surgeon they have chosen as a wise choice.
  - (B) In appointing the current chief surgeon, the hospital administrators followed the practice, well established at the city hospital, of promoting one of the surgeons already on staff.
  - (C) Some of the younger surgeons on the city hospital's staff received part of their training from the current chief surgeon.
  - (D) At the city hospital those operations that inherently entail the greatest risk to the life of the patient are generally performed by the chief surgeon.
  - (E) The current chief surgeon has a better record of patients' surviving surgery than did his immediate predecessor.
2. Between 1971 and 1975, the government office that monitors drug companies issued an average of 60 citations a year for serious violations of drug-promotion laws. Between 1976 and 1980, the annual average for issuance of such citations was only 5. This decrease indicates that the government office was, on average, considerably more lax in enforcing drug-promotion laws between 1976 and 1980 than it was between 1971 and 1975.

The argument assumes which one of the following?

- (A) The decrease in the number of citations was not caused by a decrease in drug companies violations of drug-promotion laws.
  - (B) A change in enforcement of drug-promotion laws did not apply to minor violations.
  - (C) The enforcement of drug-promotion laws changed in response to political pressure.
  - (D) The government office should not issue more than an average of 5 citations a year to drug companies for serious violations of drug-promotion laws.
  - (E) Before 1971 the government office issued more than 60 citations a year to drug companies for serious violations of drug-promotion laws.
3. Sheila: Health experts generally agree that smoking a tobacco product for many years is very likely to be harmful to the smoker's health.

Tim: On the contrary, smoking has no effect on health at all: although my grandfather smoked three cigars a day from the age of fourteen, he died at age ninety-six.

A major weakness of Tim's counterargument is that his counterargument

- (A) attempts to refute a probabilistic conclusion by claiming the existence of a single counterexample
  - (B) challenges expert opinion on the basis of specific information unavailable to experts in the field
  - (C) describes an individual case that is explicitly discounted as an exception to the experts' conclusion
  - (D) presupposes that longevity and health status are unrelated to each other in the general population
  - (E) tacitly assumes that those health experts who are in agreement on this issue arrived at that agreement independently of one another
4. The case of the French Revolution is typically regarded as the best evidence for the claim that societies can reap more benefit than harm from a revolution. But even the French Revolution serves this role poorly, since France at the time of the Revolution had a unique advantage. Despite the Revolution, the same civil servants and functionaries remained in office, carrying on the day-to-day work of government, and thus many of the disruptions that revolutions normally bring were avoided.
- Which one of the following most accurately characterizes the argumentative strategy used in the passage?
- (A) demonstrating that the claim argued against is internally inconsistent
  - (B) supporting a particular position on the basis of general principles
  - (C) opposing a claim by undermining evidence offered in support of that claim
  - (D) justifying a view through the use of a series of persuasive examples
  - (E) comparing two positions in order to illustrate their relative strengths and weaknesses
5. A person can develop or outgrow asthma at any age. In children under ten, asthma is twice as likely to develop in boys. Boys are less likely than girls to outgrow asthma, yet by adolescence the percentage of boys with asthma is about the same as the percentage of girls with asthma because a large number of girls develop asthma in early adolescence.
- Assuming the truth of the passage, one can conclude from it that the number of adolescent boys with asthma is approximately equal to the number of adolescent girls with asthma, if one also knows that
- (A) a tendency toward asthma is often inherited
  - (B) children who develop asthma before two years of age are unlikely to outgrow it
  - (C) there are approximately equal numbers of adolescent boys and adolescent girls in the population
  - (D) the development of asthma in childhood is not closely related to climate or environment

(E) the percentage of adults with asthma is lower than the percentage of adolescents with asthma

6. Harry Trevalga: You and your publication have unfairly discriminated against my poems. I have submitted thirty poems in the last two years and you have not published any of them! It is all because I won the Fenner Poetry Award two years ago and your poetry editor thought she deserved it.

Publisher: Ridiculous! Our editorial policy and practice is perfectly fair, since our poetry editor judges all submissions for publication without ever seeing the names of the poets, and hence cannot possibly have known who wrote your poems.

The publisher makes which one of the following assumptions in replying to Trevalga's charges of unfair discrimination?

- (A) The poetry editor does not bear a grudge against Harry Trevalga for his winning the Fenner Poetry Award.
- (B) It is not unusual for poets to contribute many poems to the publisher's publication without ever having any accepted for publication.
- (C) The poetry editor cannot recognize the poems submitted by Harry Trevalga as his unless Trevalga's name is attached to them.
- (D) The poetry editor's decisions on which poems to publish are not based strictly on judgments of intrinsic merit.
- (E) Harry Trevalga submitted his poems to the publisher's publication under his pen name.
7. In a study of the effect of radiation from nuclear weapons plants on people living in areas near them, researchers compared death rates in the areas near the plants with death rates in areas that had no such plants. Finding no difference in these rates, the researchers concluded that radiation from the nuclear weapons plants poses no health hazards to people living near them.
- Which one of the following, if true, most seriously weakens the researchers' argument?
- (A) Nuclear power plants were not included in the study.
- (B) The areas studied had similar death rates before and after the nuclear weapons plants were built.
- (C) Exposure to nuclear radiation can cause many serious diseases that do not necessarily result in death.
- (D) Only a small number of areas have nuclear weapons plants.
- (E) The researchers did not study the possible health hazards of radiation on people who were employed at the nuclear weapons plants if those employees did not live in the study areas.
8. It was once believed that cells grown in laboratory tissue cultures were essentially immortal. That is, as long as all of their needs were met, they would continue

dividing forever. However, it has been shown that normal cells have a finite reproductive limit. A human liver cell, for example, divides 60 times and then stops. If such a cell divides 30 times and then is put into a deep freeze for months or even years. It “remembers” where it stopped dividing. After thawing, it divides another 30 times—but no more.

If the information above is accurate, a liver cell in which more than 60 divisions took place in a tissue culture CANNOT be which one of the following?

- (A) an abnormal human liver cell
  - (B) a normal human liver cell that had been frozen after its first division and afterward thawed
  - (C) a normal cell that came from the liver of an individual of a nonhuman species and had never been frozen
  - (D) a normal liver cell that came from an individual of a nonhuman species and had been frozen after its first division and afterward thawed
  - (E) an abnormal cell from the liver of an individual of a nonhuman species
9. Complaints that milk bottlers take enormous markups on the bottled milk sold to consumers are most likely to arise when least warranted by the actual spread between the price that bottlers pay for raw milk and the price at which they sell bottled milk. The complaints occur when the bottled-milk price rises, yet these price increases most often merely reflect the rising price of the raw milk that bottlers buy from dairy farmers. When the raw-milk price is rising, the bottlers’ markups are actually smallest proportionate to the retail price. When the raw-milk price is falling, however, the markups are greatest.

If all of the statements above are true, which one of the following must also be true on the basis of them?

- (A) Consumers pay more for bottled milk when raw-milk prices are falling than when these prices are rising.
- (B) Increases in dairy farmers’ cost of producing milk are generally not passed on to consumers.
- (C) Milk bottlers take substantially greater markups on bottled milk when its price is low for an extended period than when it is high for an extended period.
- (D) Milk bottlers generally do not respond to a decrease in raw-milk prices by straightaway proportionately lowering the price of the bottled milk they sell.
- (E) Consumers tend to complain more about the price they pay for bottled milk when dairy farmers are earning their smallest profits.

### Questions 10-11

If the public library shared by the adjacent towns of Redville and Glenwood were relocated from the library’s current, overcrowded building in central Redville to a larger, available building in central Glenwood, the library would then be within



walking distance of a larger number of library users. That is because there are many more people living in central Glenwood than in central Redville, and people generally will walk to the library only if it is located close to their homes.

10. Which one of the following, if true, most strengthens the argument?
- (A) The public library was located between Glenwood and Redville before being moved to its current location in central Redville.
  - (B) The area covered by central Glenwood is approximately the same size as that covered by central Redville.
  - (C) The building that is available in Glenwood is smaller than an alternative building that is available in Redville.
  - (D) Many of the people who use the public library do not live in either Glenwood or Redville.
  - (E) The distance that people currently walk to get to the library is farther than what is generally considered walking distance.
11. Which one of the following, if true, most seriously weakens the argument?
- (A) Many more people who currently walk to the library live in central Redville than in central Glenwood.
  - (B) The number of people living in central Glenwood who would use the library if it were located there is smaller than the number of people living in central Redville who currently use the library.
  - (C) The number of people using the public library would continue to increase steadily if the library were moved to Glenwood.
  - (D) Most of the people who currently either drive to the library or take public transportation to reach it would continue to do so if the library were moved to central Glenwood.
  - (E) Most of the people who currently walk to the library would remain library users if the library were relocated to central Glenwood.
12. Light utility trucks have become popular among consumers who buy them primarily for the trucks' rugged appearance. Yet although these trucks are tough-looking, they are exempt from the government's car-safety standards that dictate minimum roof strength and minimum resistance to impact. Therefore, if involved in a serious high-impact accident, a driver of one of these trucks is more likely to be injured than is a driver of a car that is subject to these government standards.
- The argument depends on the assumption that
- (A) the government has established safety standards for the construction of light utility trucks
  - (B) people who buy automobiles solely for their appearance are more likely than other people to drive recklessly
  - (C) light utility trucks are more likely than other kinds of vehicles to be involved in accidents that result in injuries

- (D) the trucks' rugged appearance is deceptive in that their engines are not especially powerful
- (E) light utility trucks are less likely to meet the car-safety standards than are cars that are subject to the standards
13. Five years ago, during the first North American outbreak of the cattle disease CXC, the death rate from the disease was 5 percent of all reported cases, whereas today the corresponding figure is over 18 percent. It is clear, therefore, that during these past 5 years, CXC has increased in virulence.
- Which one of the following, if true, most substantially weakens the argument?
- (A) Many recent cattle deaths that have actually been caused by CXC have been mistakenly attributed to another disease that mimics the symptoms of CXC.
- (B) During the first North American outbreak of the disease, many of the deaths reported to have been caused by CXC were actually due to other causes.
- (C) An inoculation program against CXC was recently begun after controlled studies showed inoculation to be 70 percent effective in preventing serious cases of the illness.
- (D) Since the first outbreak, farmers have learned to treat mild cases of CXC and no longer report them to veterinarians or authorities.
- (E) Cattle that have contracted and survived CXC rarely contract the disease a second time.

Questions 14-15

Economist: Some policymakers believe that our country's continued economic growth requires a higher level of personal savings than we currently have. A recent legislative proposal would allow individuals to set up savings accounts in which interest earned would be exempt from taxes until money is withdrawn from the account. Backers of this proposal claim that its implementation would increase the amount of money available for banks to loan at a relatively small cost to the government in lost tax revenues. Yet, when similar tax-incentive programs were tried in the past, virtually all of the money invested through them was diverted from other personal savings, and the overall level of personal savings was unchanged.

14. The passage as a whole provides the most support for which one of the following conclusions?
- (A) Backers of the tax-incentive proposal undoubtedly have some motive other than their expressed aim of increasing the amount of money available for banks to loan.
- (B) The proposed tax incentive is unlikely to attract enough additional money into personal savings accounts to make up for the attendant loss in tax revenues.
- (C) A tax-incentive program that resulted in substantial loss of tax revenues would be likely to generate a large increase in personal savings.

- (D) The economy will be in danger unless some alternative to increased personal savings can be found to stimulate growth.
- (E) The government has no effective means of influencing the amount of money that people are willing to put into savings accounts.
15. The author criticizes the proposed tax-incentive program by
- (A) challenging a premise on which the proposal is based
  - (B) pointing out a disagreement among policymakers
  - (C) demonstrating that the proposal's implementation is not feasible
  - (D) questioning the judgment of the proposal's backers by citing past cases in which they had advocated programs that have proved ineffective
  - (E) disputing the assumption that a program to encourage personal savings is needed
16. Although all birds have feathers and all birds have wings, some birds do not fly. For example, penguins and ostriches use their wings to move in a different way from other birds. Penguins use their wings only to swim under water at high speeds. Ostriches use their wings only to run with the wind by lifting them as if they were sails.
- Which one of the following is most parallel in its reasoning to the argument above?
- (A) Ancient philosophers tried to explain not how the world functions but why it functions. In contrast, most contemporary biologists seek comprehensive theories of how organisms function, but many refuse to speculate about purpose.
  - (B) Some chairs are used only as decorations, and other chairs are used only to tame lions. Therefore, not all chairs are used for sitting in despite the fact that all chairs have a seat and some support such as legs.
  - (C) Some musicians in a symphony orchestra play the violin, and others play the viola, but these are both in the same category of musical instruments, namely string instruments.
  - (D) All cars have similar drive mechanisms, but some cars derive their power from solar energy, whereas others burn gasoline. Thus, solar-powered cars are less efficient than gasoline-powered ones.
  - (E) Sailing ships move in a different way from steamships. Both sailing ships and steamships navigate over water, but only sailing ships use sails to move over the surface.

Questions 17-18

Jones: Prehistoric wooden tools found in South America have been dated to 13,000 years ago. Although scientists attribute these tools to peoples whose ancestors first crossed into the Americas from Siberia to Alaska, this cannot be correct. In order to have reached a site so far south, these peoples must have been migrating southward

well before 13,000 years ago. However, no such tools dating to before 13,000 years ago have been found anywhere between Alaska and South America.

Smith: Your evidence is inconclusive. Those tools were found in peat bogs, which are rare in the Americas. Wooden tools in soils other than peat bogs usually decompose within only a few years.

17. The point at issue between Jones and Smith is
- (A) whether all prehistoric tools that are 13,000 years or older were made of wood
  - (B) whether the scientists' attribution of tools could be correct in light of Jones's evidence
  - (C) whether the dating of the wooden tools by the scientists could be correct
  - (D) how long ago the peoples who crossed into the American from Siberia to Alaska first did so
  - (E) whether Smith's evidence entails that the wooden tools have been dated correctly
18. Smith responds to Jones by
- (A) citing several studies that invalidate Jones's conclusion
  - (B) accusing Jones of distorting the scientists' position
  - (C) disputing the accuracy of the supporting evidence cited by Jones
  - (D) showing that Jones's evidence actually supports the denial of Jones's conclusion
  - (E) challenging an implicit assumption in Jones's argument
19. Editorial: It is clear that if this country's universities were living up to both their moral and their intellectual responsibilities, the best-selling publications in most university bookstores would not be frivolous ones like *TV Today* and *Gossip Review*. However, in most university bookstores the only publication that sells better than *Gossip Review* is *TV Today*.
- If the statements in the editorial are true, which one of the following must also be true on the basis of them?
- (A) People who purchase publications that are devoted primarily to gossip or to television programming are intellectually irresponsible.
  - (B) It is irresponsible for university bookstores to carry publications such as *Gossip Review* and *TV Today*.
  - (C) Most people who purchase publications at university bookstores purchase either *TV Today* or *Gossip Review*.
  - (D) Many people who attend this country's universities fail to live up to both their moral and their intellectual responsibilities.
  - (E) At least some of this country's universities are not meeting their moral responsibilities or their intellectual responsibilities or both.

Questions 20-21

Saunders: Everyone at last week's neighborhood association meeting agreed that the row of abandoned and vandalized houses on Carlton Street posed a threat to the safety of our neighborhood. Moreover, no one now disputes that getting the houses torn down eliminated that threat. Some people tried to argue that it was unnecessary to demolish what they claimed were basically sound buildings, since the city had established a fund to help people in need of housing buy and rehabilitate such buildings. The overwhelming success of the demolition strategy, however, proves that the majority, who favored demolition, were right and that those who claimed that the problem could and should be solved by rehabilitating the houses were wrong.

20. Which one of the following principles, if established, would determine that demolishing the houses was the right decision or instead would determine that the proposal advocated by the opponents of demolition should have been adopted?
- (A) When what to do about an abandoned neighborhood building is in dispute, the course of action that would result in the most housing for people who need it should be the one adopted unless the building is believed to pose a threat to neighborhood safety.
  - (B) When there are two proposals for solving a neighborhood problem, and only one of them would preclude the possibility of trying the other approach if the first proves unsatisfactory, then the approach that does not foreclose the other possibility should be the one adopted.
  - (C) If one of two proposals for renovating vacant neighborhood buildings requires government funding whereas the second does not, the second proposal should be the one adopted unless the necessary government funds have already been secured.
  - (D) No plan for eliminating a neighborhood problem that requires demolishing basically sound houses should be carried out until all other possible alternatives have been thoroughly investigated.
  - (E) No proposal for dealing with a threat to a neighborhood's safety should be adopted merely because a majority of the residents of that neighborhood prefer that proposal to a particular counterproposal.
21. Saunders' reasoning is flawed because it
- (A) relies on fear rather than on argument to persuade the neighborhood association to reject the policy advocated by Saunders' opponents
  - (B) fails to establish that there is anyone who could qualify for city funds who would be interested in buying and rehabilitating the houses
  - (C) mistakenly equates an absence of vocal public dissent with the presence of universal public support
  - (D) offers no evidence that the policy advocated by Saunders' opponents would not have succeeded if it had been given the chance
  - (E) does not specify the precise nature of the threat to neighborhood safety



supposedly posed by the vandalized houses

22. For the writers who first gave feudalism its name, the existence of feudalism presupposed the existence of a noble class. Yet there cannot be a noble class, properly speaking, unless both the titles that indicate superior, noble status and the inheritance of such titles are sanctioned by law. Although feudalism existed in Europe as early as the eighth century, it was not until the twelfth century, when many feudal institutions were in decline, that the hereditary transfer of legally recognized titles of nobility first appeared.

The statements above, if true, most strongly support which one of the following claims?

- (A) To say that feudalism by definition requires the existence of a nobility is to employ a definition that distorts history.
  - (B) Prior to the twelfth century, the institution of European feudalism functioned without the presence of a dominant class.
  - (C) The fact that a societal group has a distinct legal status is not in itself sufficient to allow that group to be properly considered a social class.
  - (D) The decline of feudalism in Europe was the only cause of the rise of a European nobility.
  - (E) The prior existence of feudal institutions is a prerequisite for the emergence of a nobility, as defined in the strictest sense of the term.
23. Mayor Smith, one of our few government officials with a record of outspoken, informed, and consistent opposition to nuclear power plant construction projects, has now declared herself in favor of building the nuclear power plant at Littletown. If someone with her past antinuclear record now favors building this power plant, then there is good reason to believe that it will be safe and therefore should be built.

The argument is vulnerable to criticism on which one of the following grounds?

- (A) It overlooks the possibility that not all those who fail to speak out on issues of nuclear power are necessarily opposed to it.
- (B) It assumes without warrant that the qualities enabling a person to be elected to public office confer on that person a grasp of the scientific principles on which technical decisions are based.
- (C) It fails to establish that a consistent and outspoken opposition is necessarily an informed opposition.
- (D) It leads to the further but unacceptable conclusion that any project favored by Mayor Smith should be sanctioned simply on the basis of her having spoken out in favor of it.
- (E) It gives no indication of either the basis of Mayor Smith's former opposition to nuclear power plant construction or the reasons for her support for the Littletown project.

24. Advertisement: In today's world, you make a statement about the person you are by the car you own. The message of the SKX Mach-5 is unambiguous: Its owner is Dynamic, Aggressive, and Successful. Shouldn't you own an SKX Mach-5?
- If the claims made in the advertisement are true, which one of the following must also be true on the basis of them?
- (A) Anyone who is dynamic and aggressive is also successful.
  - (B) Anyone who is not both dynamic and successful would misrepresent himself or herself by being the owner of an SKX Mach-5.
  - (C) People who buy the SKX Mach-5 are usually more aggressive than people who buy other cars.
  - (D) No car other than the SKX Mach-5 announces that its owner is successful.
  - (E) Almost no one would fail to recognize the kind of person who would choose to own an SKX Mach-5.
25. The great medieval universities had no administrators, yet they endured for centuries. Our university has a huge administrative staff, and we are in serious financial difficulties. Therefore, we should abolish the positions and salaries of the administrators to ensure the longevity of the university.
- Which one of the following arguments contains flawed reasoning that most closely parallels the flawed reasoning in the argument above?
- (A) No airplane had jet engines before 1940, yet airplanes had been flying since 1903. Therefore, jet engines are not necessary for the operation of airplanes.
  - (B) The novelist's stories began to be accepted for publication soon after she started using a computer to write them. You have been having trouble getting your stories accepted for publication, and you do not use a computer. To make sure your stories are accepted for publication, then, you should write them with the aid of a computer.
  - (C) After doctors began using antibiotics, the number of infections among patients dropped drastically. Now, however, resistant strains of bacteria cannot be controlled by standard antibiotics. Therefore, new methods of control are needed.
  - (D) A bicycle should not be ridden without a helmet. Since a good helmet can save the rider's life, a helmet should be considered the most important piece of bicycling equipment.
  - (E) The great cities of the ancient world were mostly built along waterways. Archaeologists searching for the remains of such cities should therefore try to determine where major rivers used to run.

#### SECTION IV

**Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. The cafeteria at Acme Company can offer only four main dishes at lunchtime, and the same four choices have been offered for years. Recently mushroom casserole was offered in place of one of the other main dishes for two days, during which more people chose mushroom casserole than any other main dish. Clearly, if the cafeteria wants to please its customers, mushroom casserole should replace one of the regular dishes as a permanent part of the menu.

The argument is most vulnerable to criticism on the grounds that it fails to consider

- (A) the proportion of Acme Company employees who regularly eat lunch in the company cafeteria
  - (B) whether any of the ingredients used in the cafeteria's recipe for mushroom casserole are included in any of the regular main dishes
  - (C) a desire for variety as a reason for people's choice of mushroom casserole during the days it was offered
  - (D) what foods other than main dishes are regularly offered at lunchtime by the cafeteria
  - (E) whether other meals besides lunch are served in the Acme Company cafeteria
2. When old-growth forests are cleared of tall trees, more sunlight reaches the forest floor. This results in a sharp increase in the population of leafy shrubs on which the mule deer depend for food. Yet mule deer herds that inhabit cleared forests are less well-nourished than are herds living in old-growth forests.

Which one of the following, if true, most helps to resolve the apparent paradox?

- (A) Mule deer have enzyme-rich saliva and specialized digestive organs that enable the deer to digest tough plants inedible to other deer species.
  - (B) Mule deer herds that inhabit cleared forests tend to have more female with young offspring and fewer adult males than do other mule deer populations.
  - (C) Mule deer populations are spread throughout western North America and inhabit hot, sunny climates as well as cool, wet climates.
  - (D) As plants receive more sunlight, they produce higher amounts of tannins, compounds that inhibit digestion of the plants' proteins.
  - (E) Insect parasites, such as certain species of ticks, that feed primarily on mule deer often dwell in trees, from which they drop onto passing deer.
3. Genevieve: Increasing costs have led commercial airlines to cut back on airplane maintenance. Also, reductions in public spending have led to air traffic control centers being underfunded and understaffed. For these and other reasons it is becoming quite unsafe to fly, and so one should avoid doing it.

Harold: Your reasoning may be sound, but I can hardly accept your conclusion when you yourself have recently been flying on commercial airlines even more than before.

Which one of the following relies on a questionable technique most similar to that used in Harold's reply to Genevieve?

- (A) David says that the new film is not very good, but he has not seen it himself, so I don't accept his opinion.
- (B) A long time ago Maria showed me a great way to cook lamb, but for medical reasons she no longer eats red meat, so I'll cook something else for dinner tonight.
- (C) Susan has been trying to persuade me to go rock climbing with her, claiming that it's quite safe, but last week she fell and broke her collarbone, so I don't believe her.
- (D) Pat has shown me research that proves that eating raw green vegetables is very beneficial and that one should eat them daily, but I don't believe it, since she hardly ever eats raw green vegetables.
- (E) Gabriel has all the qualifications we have specified for the job and has much relevant work experience, but I don't believe we should hire him, because when he worked in a similar position before his performance was mediocre.
4. All people residing in the country of Gradara approve of legislation requiring that certain hazardous waste be disposed of by being burned in modern high-temperature incinerators. However, waste disposal companies planning to build such incinerators encounter fierce resistance to their applications for building permits from the residents of every Gradaran community that those companies propose as an incinerator site.
- Which one of the following, if true, most helps to explain the residents' simultaneously holding both of the positions ascribe them?
- (A) High-temperature incineration minimizes the overall risk to the human population of the country from the wastes being disposed of, but it concentrates the remaining risk in a small number of incineration sites.
- (B) High-temperature incineration is more expensive than any of the available alternatives would be and the higher costs would be recovered through higher product prices.
- (C) High-temperature incineration will be carried out by private companies rather than by a government agency so that the government will not be required to police itself.
- (D) The toxin fumes generated within a high-temperature incinerator can be further treated so that all toxic residues from a properly operating incinerator are solids.
- (E) The substantial cost of high-temperature incineration can be partially offset by revenue from sales of electric energy generated as a by-product of incineration.
5. Elena: While I was at the dog show, every dog that growled at me was a white poodle, and every white poodle I saw growled at me.
- Which one of the following can be properly inferred from Elena's statement?
- (A) The only white dogs that Elena saw at the dog show were poodles.

- (B) There were no gray poodles at the dog show.
- (C) At the dog show, no gray dogs growled at Elena.
- (D) All the white dogs that Elena saw growled at her.
- (E) Elena did not see any gray poodles at the dog show.

Questions 6-7

Derek: We must exploit available resources in developing effective anticancer drugs such as the one made from mature Pacific yew trees. Although the yew population might be threatened, the trees should be harvested now, since an effective synthetic version of the yew's anticancer chemical could take years to develop.

Lola: Not only are mature yews very rare, but most are located in areas where logging is prohibited to protect the habitat of the endangered spotted owl. Despite our eagerness to take advantage of a new medical breakthrough, we should wait for a synthetic drug rather than threaten the survival of both the yew and the owl, which could have far-reaching consequences for an entire ecosystem.

6. Which one of the following is the main point at issue between Lola and Derek?
  - (A) whether the harvesting of available Pacific yews would have far-reaching environmental repercussions
  - (B) whether the drugs that are effective against potentially deadly diseases should be based on synthetic rather than naturally occurring chemicals
  - (C) whether it is justifiable to wait until a synthetic drug can be developed when the capacity for producing the yew-derived drug already exists
  - (D) the extent of the environmental disaster that would result if both the Pacific yew and the spotted owl were to become extinct
  - (E) whether environmental considerations should ever have any weight when human lives are at stake
7. Lola's position most closely conforms to which one of the following principles?
  - (A) Unless people's well-being is threatened, there should be no higher priority than preserving endangered plant and animal populations.
  - (B) Medical researchers should work with environmentalists to come to an agreement about the fate of the Pacific yew and the spotted owl.
  - (C) Environmental concerns should play a role in decisions concerning medical research only if human lives are not at stake.
  - (D) Only medical breakthroughs that could save human lives would justify threatening the environment.
  - (E) Avoiding actions that threaten an entire ecosystem takes precedence over immediately providing advantage to a restricted group of people.
8. The director of a secondary school where many students were having severe academic problems impaneled a committee to study the matter. The committee reported that these students were having academic problems because they spent



large amounts of time on school sports and too little time studying. The director then prohibited all students who were having academic problems from taking part in sports in which they were active. He stated that this would ensure that such students would do well academically.

The reasoning on which the director bases his statement is not sound because he fails to establish that

- (A) some students who spend time on sports do not have academic problems
- (B) all students who do well academically do so because of time saved by not participating in sports
- (C) at least some of the time the students will save by not participating in sports will be spent on solving their academic problems
- (D) no students who do well academically spend time on sports
- (E) the quality of the school's sports program would not suffer as a result of the ban

9. It can safely be concluded that there are at least as many trees in Seclee as there are in Martown.

From which one of the following does the conclusion logically follow?

- (A) More trees were planted in Seclee in the past two years than in Martown.
- (B) Seclee is the region within which Martown is located.
- (C) Martown is suffering from an epidemic of tree-virus infection.
- (D) The average annual rainfall for Seclee is greater than the average annual rainfall for Martown.
- (E) The average number of trees cut down annually in Martown is higher than in Seclee.

### Questions 10-11

A distemper virus has caused two-thirds of the seal population in the North Sea to die since May 1988. The explanation for the deaths cannot rest here, however. There must be a reason the normally latent virus could prevail so suddenly: clearly the severe pollution of the North Sea waters must have weakened the immune system of the seals so that they could no longer withstand the virus.

10. The argument concerning the immune system of the seals presupposes which one of the following?
- (A) There has been a gradual decline in the seal population of the North Sea during the past two centuries.
  - (B) No further sources of pollution have been added since May 1988 to the already existing sources of pollution in the North Sea.
  - (C) There was no sudden mutation in the distemper virus which would have allowed the virus successfully to attack healthy North Sea seals by May 1988.

- (D) Pollution in the North Sea is no greater than pollution in the Mediterranean Sea, off the coast of North America, or in the Sea of Japan.
- (E) Some species that provide food for the seals have nearly become extinct as a result of the pollution.
11. Which one of the following, if true, most strongly supports the explanation given in the argument?
- (A) At various times during the last ten years, several species of shellfish and seabirds in the North Sea have experienced unprecedented steep drops in population.
- (B) By reducing pollution at its source, Northern Europe and Scandinavia have been taking the lead in preventing pollution from reaching the waters of the North Sea.
- (C) For many years, fish for human consumption have been taken from the waters of the North Sea.
- (D) There are two species of seal found throughout the North Sea area, the common seal and the gray seal.
- (E) The distemper caused by the virus was a disease that was new to the population of North Sea seals in May 1988, and so the seals' immune systems were unprepared to counter it.
12. It is clear that none of the volleyball players at yesterday's office beach party came to work today since everyone who played volleyball at that party got badly sunburned and no one at work today is even slightly sunburned.
- Which one of the following exhibits a pattern of reasoning that most closely parallels that in the argument above?
- (A) Since everyone employed by TRF who was given the opportunity to purchase dental insurance did so and everyone who purchased dental insurance saw a dentist, it is clear that no one who failed to see a dentist is employed by TRF.
- (B) Since no one who was promoted during the past year failed to attend the awards banquet, evidently none of the office managers attended the banquet this year since they were all denied promotion.
- (C) Since the Donnelly report was not finished on time, no one in John's group could have been assigned to contribute to that report since everyone in John's group has a reputation for getting assignments in on time.
- (D) Everyone with an office on the second floor works directly for the president and, as a result, no one with a second floor office will take a July vacation because no one who works for the president will be able to take time off during July.
- (E) Since all of the people who are now on the MXM Corporation payroll have been employed in the same job for the past five years, it is clear that no one who frequently changes jobs is likely to be hired by MXM.

Questions 13-14

The dean of computing must be respected by the academic staff and be competent to oversee the use of computers on campus. The only deans whom academics respect are those who hold doctoral degrees, and only someone who really knows about computers can competently oversee the use of computers on campus. Furthermore, the board of trustees has decided that the dean of computing must be selected from among this university's staff. Therefore, the dean of computing must be a professor from this university's computer science department.

13. Which one of the following is an assumption on which the argument depends?
- (A) Academics respect only people who hold doctoral degrees.
  - (B) All of this university's professors have obtained doctoral degrees.
  - (C) At this university, every professor who holds a doctoral degree in computer science really knows about computers.
  - (D) All academics who hold doctoral degrees are respected by their academic colleagues.
  - (E) Among this university's staff members with doctoral degrees, only those in the computer science department really know about computers.
14. Which one of the following statements, if true, would weaken the argument?
- (A) There are members of this university's staff who hold doctoral degrees and who are not professors but who really know about computers.
  - (B) There are members of this university's philosophy department who do not hold doctoral degrees but who really know about computers.
  - (C) Computer science professors who hold doctoral degrees but who are not members of this university's staff have applied for the position of dean of computing.
  - (D) Several members of the board of trustees of this university do not hold doctoral degrees.
  - (E) Some members of the computer science department at this university are not respected by academics in other departments.

Questions 15-16

Consumer advocate: Under the current absence of government standards for food product labeling, manufacturers are misleading or deceiving consumers by their product labeling. For example, a certain brand of juice is labeled "fresh orange juice," yet the product is made from water, concentrate, and flavor enhancers. Since "fresh" as applied to food products is commonly understood to mean pure and unprocessed, labeling that orange juice "fresh" is unquestionably deceptive.

Manufacturer: Using words somewhat differently than they are commonly used is not deceptive. After all, "fresh" can also mean never frozen. We cannot be faulted for failing to comply with standards that have not been officially formulated. When the

government sets clear standards pertaining to product labeling, we will certainly comply with them.

15. On the basis of their statements above, the consumer advocate and the manufacturer are committed to disagreeing about the truth of which one of the following statements?
- (A) In the absence of government standards, common understanding is the arbiter of deceptive labeling practices.
  - (B) Truthful labeling practices that reflect common standards of usage can be established by the government.
  - (C) The term “fresh” when it is applied to food products is commonly understood to mean pure and unprocessed.
  - (D) Terms that apply to natural foods can be truthfully applied to packaged foods.
  - (E) Clear government standards for labeling food products will ensure truthful labeling practices.
16. Which one of the following principle, if established, would contribute most to a defense of the manufacturer’s position against that of the consumer advocate?
- (A) In the absence of government definitions for terms used in product labeling, common standards of understanding alone should apply.
  - (B) Government standards for truthful labeling should always be designed to reflect common standards of understanding.
  - (C) People should be free to the extent that it is legal to do so, to exploit to their advantages the inherent ambiguity and vagueness in language.
  - (D) When government standards and common standards for truthful labeling are incompatible with each other, the government standards should always take precedence.
  - (E) In their interpretation of language, consumers should never presume that vagueness indicates an attempt to deceive on the part of manufacturers unless those manufacturers would reap large benefits from successful deception.
17. Certain items—those with that hard-to-define quality called exclusivity—have the odd property, when they become available for sale, of selling rapidly even though they are extremely expensive. In fact, trying to sell such an item fast by asking too low a price is a serious error, since it calls into question the very thing—exclusivity—that is supposed to be the item’s chief appeal. Therefore, given that a price that will prove to be right is virtually impossible for the seller to gauge in advance, the seller should make sure that any error in the initial asking price is in the direction of setting the price too high.

The argument recommends a certain pricing strategy on the grounds that

- (A) this strategy lacks a counterproductive feature of the rejected alternative

- (B) this strategy has all of advantages of the rejected alternative, but fewer of its disadvantages
  - (C) experience has proven this strategy to be superior, even though the reasons for this superiority elude analysis
  - (D) this strategy does not rely on prospective buyers estimates of value
  - (E) the error associated with this strategy, unlike the error associated with the rejected alternative, is likely to go unnoticed
18. In order to control the deer population, a biologist has proposed injecting female deer during breeding season with 10 milligrams of a hormone that would suppress fertility. Critics have charged that the proposal poses health risks to people who might eat the meat of treated deer and thereby ingest unsafe quantities of the hormone. The biologist has responded to these critics by pointing out that humans can ingest up to 10 milligrams of the hormone a day without any adverse effects, and since no one would eat even one entire deer a day, the treatment would be safe.
- The biologist's response to critics of the proposal is based on which one of the following assumptions?
- (A) People would be notified of the time when deer in their area were to be treated with the hormone.
  - (B) The hormone that would be injected into the deer is chemically similar to hormones used in human contraceptives.
  - (C) Hunting season for deer could be scheduled so that it would not coincide with breeding season.
  - (D) The hormone in question does not occur naturally in the female deer that would be injected.
  - (E) Most people do not consider deer meat to be part of their daily diet and eat it only on rare occasions.
19. A recent survey conducted in one North American city revealed widespread concern about the problems faced by teenagers today. Seventy percent of the adults surveyed said they would pay higher taxes for drug treatment programs, and 60 percent said they were willing to pay higher taxes to improve the city's schools. Yet in a vote in that same city, a proposition to increase funding for schools by raising taxes failed by a narrow margin to win majority approval.
- Which one of the following factors, if true, would LEAST contribute to an explanation of the discrepancy described above?
- (A) The survey sample was not representative of the voters who voted on the proposition.
  - (B) Many of the people who were surveyed did not respond truthfully to all of the questions put to them.
  - (C) The proposition was only part of a more expensive community improvement program that voters had to accept or reject in total.



- (D) A proposition for increasing funds for local drug treatment centers also failed to win approval.
- (E) The proposition to raise taxes for schools was couched in terminology that many of the voters found confusing.

Questions 20-21

So-called environmentalists have argued that the proposed Golden Lake Development would interfere with bird-migration patterns. However, the fact that these same people have raised environmental objections to virtually every development proposal brought before the council in recent years indicates that their expressed concern for bird-migration patterns is nothing but a mask for their antidevelopment, antiprogess agenda. Their claim, therefore, should be dismissed without further consideration.

20. Which one of the following questionable argumentative techniques is employed in the passage?
- (A) taking the failure of a given argument to establish its conclusion as the basis for claiming that the view expressed by that conclusion is false
  - (B) rejecting the conclusion of an argument on the basis of a claim about the motives of those advancing the argument
  - (C) using a few exceptional cases as the basis for a claim about what is true in general
  - (D) misrepresenting evidence that supports the position the argument is intended to refute
  - (E) assuming that what is true of a group as a whole is necessarily true of each member of that group
21. For the claim that the concern expressed by the so-called environmentalists is not their real concern to be properly drawn on the basis of the evidence cited, which one of the following must be assumed?
- (A) Not every development proposal opposed in recent years by these so-called environmentalists was opposed because they believed it to pose a threat to the environment.
  - (B) People whose real agenda is to block development wherever it is proposed always try to disguise their true motives.
  - (C) Anyone who opposes unrestricted development is an opponent of progress.
  - (D) The council has no reason to object to the proposed Golden Lake Development other than concern about the development's effect on bird-migration patterns.
  - (E) When people say that they oppose a development project solely on environmental grounds, their real concern almost always lies elsewhere.
22. Psychologists today recognize childhood as a separate stage of life which can only be understood in its own terms, and they wonder why the Western world took so long to see the folly of regarding children simply as small, inadequately

socialized adults. Most psychologists, however, persist in regarding people 70 to 90 years old as though they were 35 year olds who just happen to have white hair and extra leisure time. But old age is as fundamentally different from young adulthood and middle age as childhood is—a fact attested to by the organization of modern social and economic life. Surely it is time, therefore, to acknowledge that serious research into the unique psychology of advanced age has become indispensable.

Which one of the following principles, if established, would provide the strongest backing for the argument?

- (A) Whenever current psychological practice conflicts with traditional attitudes toward people, those traditional attitudes should be changed to bring them in line with current psychological practice.
  - (B) Whenever two groups of people are so related to each other that any member of the second group must previously have been a member of the first, people in the first group should not be regarded simply as deviant members of the second group.
  - (C) Whenever most practitioners of a given discipline approach a particular problem in the same way, that uniformity is good evidence that all similar problems should also be approached in that way.
  - (D) Whenever a society's economic life is so organized that two distinct times of life are treated as being fundamentally different from one another, each time of life can be understood only in terms of its own distinct psychology.
  - (E) Whenever psychologists agree that a single psychology is inadequate for two distinct age groups, they should be prepared to show that there are greater differences between the two age groups than there are between individuals in the same age group.
23. Sabina: The words used in expressing facts affect neither the facts nor the conclusions those facts will support. Moreover, if the words are clearly defined and consistently used, the actual words chosen make no difference to an argument's soundness. Thus, how an argument is expressed can have no bearing on whether it is a good argument.

Emile: Badly chosen words can make even the soundest argument a poor one. After all, many words have social and political connotations that influence people's response to claims expressed in those words, regardless of how carefully and explicitly those words are defined. Since whether people will acknowledge a fact is affected by how the fact is expressed, the conclusions they actually draw are also affected.

The point at issue between Emile and Sabina is whether

- (A) defining words in one way rather than another can alter either the facts or the conclusions the facts will justify
- (B) a word can be defined without taking into account its social and political connotations

- (C) a sound argument in support of a given conclusion is a better argument than any unsound argument for that same conclusion
- (D) it would be a good policy to avoid using words that are likely to lead people either to misunderstand the claims being made or to reason badly about those claims
- (E) a factor that affects neither the truth of an argument's premises nor the logical relation between its premises and its conclusion can cause an argument to be a bad one

24. Most disposable plastic containers are now labeled with a code number (from 1 to 9) indicating the type or quality of the plastic. Plastics with the lowest code numbers are the easiest for recycling plants to recycle and are thus the most likely to be recycled after use rather than dumped in landfills. Plastics labeled with the highest numbers are only rarely recycled. Consumers can make a significant long-term reduction in the amount of waste that goes unrecycled, therefore, by refusing to purchase those products packaged in plastic containers labeled with the highest code numbers.

Which one of the following, if true, most seriously undermines the conclusion above?

- (A) The cost of collecting, sorting, and recycling discarded plastics is currently higher than the cost of manufacturing new plastics from virgin materials.
  - (B) Many consumers are unaware of the codes that are stamped on the plastic containers.
  - (C) A plastic container almost always has a higher code number after it is recycled than it had before recycling because the recycling process causes a degradation of the quality of the plastic.
  - (D) Products packaged in plastics with the lowest code numbers are often more expensive than those packaged in the higher-numbered plastics.
  - (E) Communities that collect all discarded plastic containers for potential recycling later dump in landfills plastics with higher-numbered codes only when it is clear that no recycler will take them.
25. Despite a steady decrease in the average number of hours worked per person per week, the share of the population that reads a daily newspaper has declined greatly in the past 20 years. But the percentage of the population that watches television daily has shown a similarly dramatic increase over the same period. Clearly, increased television viewing has caused a simultaneous decline in newspaper reading.
- Which one of the following, if true, would be most damaging to the explanation given above for the decline in newspaper reading?
- (A) There has been a dramatic increase over the past 20 years in the percentage of people who tell polltakers that television is their primary source of information about current events.

- (B) Of those members of the population who do not watch television, the percentage who read a newspaper every day has also shown a dramatic decrease.
- (C) The time people spend with the books and newspapers they read has increased, on average, from 1 to 3 hours per week in the past 20 years.
- (D) People who spend large amounts of time each day watching television are less able to process and remember printed information than are those who do not watch television.
- (E) A typical television set is on 6 hours a day, down from an average of 6 1/2 hours a day 5 years ago.

## TEST 10

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Crimes in which handguns are used are more likely than other crimes to result in fatalities. However, the majority of crimes in which handguns are used do not result in fatalities. Therefore, there is no need to enact laws that address crimes involving handguns as distinct from other crimes.  
The pattern of flawed reasoning displayed in the argument above most closely resembles that in which one of the following?
  - (A) Overweight people are at higher risk of developing heart disease than other people. However, more than half of all overweight people never develop heart disease. Hence it is unnecessary for physicians to be more careful to emphasize the danger of heart disease to their overweight patients than to their other patients.
  - (B) Many people swim daily in order to stay physically fit. Yet people who swim daily increase their risk of developing ear infections. Hence people who want to remain in good health are better off not following fitness programs that include swimming daily.
  - (C) Most physicians recommend a balanced diet for those who want to remain in good health. Yet many people find that nontraditional dietary regiments such as extended fasting do their health no serious harm. Therefore, there is no need for everyone to avoid nontraditional dietary regiments.
  - (D) Food rich in cholesterol and fat pose a serious health threat to most people. However, many people are reluctant to give up eating foods that they greatly enjoy. Therefore, people who refuse to give up rich foods need to spend more time exercising than do other people.
  - (E) Many serious health problems are the result of dietary disorders. Yet these disorders are often brought about by psychological factors. Hence people

suffering from serious health problems should undergo psychological evaluation.

2. Tall children can generally reach high shelves easily. Short children can generally reach high shelves only with difficulty. It is known that short children are more likely than are tall children to become short adults. Therefore, if short children are taught to reach high shelves easily, the proportion of them who become short adults will decrease.

A reasoning error in the argument is that the argument

- (A) attributes a characteristic of an individual member of a group to the group as a whole
- (B) presupposes that which is to be proved
- (C) refutes a generalization by mean of an exceptional case
- (D) assumes a causal relationship where only a correlation has been indicated
- (E) take lack of evidence for the existence of a state of affairs as evidence that there can be no such state of affairs

3. Balance is particularly important when reporting the background of civil wars and conflicts. Facts must not be deliberately manipulated to show one party in a favorable light, and the views of each side should be fairly represented. This concept of balance, however, does not justify concealing or glossing over basic injustices in an effort to be even-handed. If all the media were to adopt such a perverse interpretation of balanced reporting, the public would be given a picture of a world where each party in every conflict had an equal measure of justice on its side, contrary to our experience of life and, indeed, our common sense.

Which one of the following best expresses the main point of the argument?

- (A) Balanced reporting presents the public with a picture of the world in which all sides to a conflict have equal justification.
- (B) Balanced reporting requires impartially revealing injustices where they occur no less than fairly presenting the views of each party in a conflict.
- (C) Our experience of life shows that there are indeed cases in which conflicts arise because of an injustice, with one party clearly in the wrong.
- (D) Common sense tells us that balance is especially needed when reporting the background of civil wars and conflicts.
- (E) Balanced reporting is an ideal that cannot be realized, because judgments of balance are necessarily subjective.

4. Data from satellite photographs of the tropical rain forest in Melonia show that last year the deforestation rate of this environmentally sensitive zone was significantly lower than in previous years. The Melonian government, which spent millions of dollars last year to enforce laws against burning and cutting of the forest, is claiming that the satellite data indicate that its increased efforts to halt the destruction are proving effective.



Which one of the following, if true, most seriously undermines the government's claim?

- (A) Landowner opposition to the government's antideforestation efforts grew more violent last year in response to the increased enforcement.
- (B) Rainfall during the usually dry 6-month annual burning season was abnormally heavy last year.
- (C) Government agents had to issue fines totaling over \$9 million to 3,500 violators of burning-and-cutting regulations.
- (D) The inaccessibility of much of the rain forest has made it impossible to confirm the satellite data by direct observation from the field.
- (E) Much of the money that was designated last year for forest preservation has been spent on research and not on enforcement.

5. Advertisement: Northwoods Maple Syrup, made the old-fashioned way, is simply tops for taste. And here is the proof: in a recent market survey, 7 out of every 10 shoppers who expressed a preference said that Northwoods was the only maple syrup for them, no ifs, ands, or buts.

Of the following, which one is the strongest reason why the advertisement is potentially misleading?

- (A) The proportion of shoppers expressing no preference might have been very small.
- (B) Other brands of maple syrup might also be made the old-fashioned way.
- (C) No market survey covers more than a sizable minority of the total population of consumers.
- (D) The preference for the Northwoods brand might be based on such a factor as an exceptionally low price.
- (E) Shoppers who buy syrup might buy only maple syrup.

6. In the summer of 1936 a polling service telephoned 10,000 United States voters and asked how they planned to vote in the coming presidential election. The survey sample included a variety of respondents—rural and urban, male and female, from every state. The poll predicted that Alfred Landon would soundly defeat Franklin Roosevelt. Nevertheless, Roosevelt won in a landslide.

Which one of the following, if true, best explains why the poll's prediction was inaccurate?

- (A) The interviewers did not reveal their own political affiliation to the respondents.
- (B) Only people who would be qualified to vote by election time were interviewed, so the survey sample was not representative of the overall United States population.
- (C) The survey sample was representative only of people who could afford telephones at a time when phone ownership was less common than it is

today.

- (D) No effort was made to determine the respondents' political affiliations.
- (E) Because the poll asked only for respondents' candidate preference, it collected no information concerning their reasons for favoring Landon or Roosevelt.

7. Waste management companies, which collect waste for disposal in landfills and incineration plants, report that disposable plastics make up an ever-increasing percentage of the waste they handle. It is clear that attempts to decrease the amount of plastic that people throw away in the garbage are failing.

Which one of the following, if true, most seriously weakens the argument?

- (A) Because plastics create harmful pollutants when burned, an increasing percentage of the plastics handled by waste management companies are being disposed of in landfills.
- (B) Although many plastics are recyclable, most of the plastics disposed of by waste management companies are not.
- (C) People are more likely to save and reuse plastic containers than containers made of heavier materials like glass or metal.
- (D) An increasing proportion of the paper, glass, and metal cans that waste management companies used to handle is now being recycled.
- (E) While the percentage of products using plastic packaging is increasing, the total amount of plastic being manufactured has remained unchanged.

8. Most of the ultraviolet radiation reaching the Earth's atmosphere from the Sun is absorbed by the layer of stratospheric ozone and never reaches the Earth's surface. Between 1969 and 1986, the layer of stratospheric ozone over North America thinned, decreasing by about 3 percent. Yet the average level of ultraviolet radiation measured at research stations across North America decreased over the same period.

Which one of the following, if true, best reconciles the apparently discrepant facts described above?

- (A) Ultraviolet radiation increases the risk of skin cancer and cataracts; the incidence of skin cancer and cataracts increased substantially between 1969 and 1986.
- (B) Between 1969 and 1986, the layer of stratospheric ozone over Brazil thinned, and the average level of ultraviolet radiation reaching the Earth's surface in Brazil increased.
- (C) Manufactured chlorine chemicals thin the layer of stratospheric ozone.
- (D) Ozone pollution, which absorbs ultraviolet radiation, increased dramatically between 1969 and 1986.
- (E) Thinning of the layer of stratospheric ozone varies from one part of the world to another and from year to year.

Questions 9-10

The number of aircraft collisions on the ground is increasing because of the substantial increase in the number of flights operated by the airlines. Many of the fatalities that occur in such collisions are caused not by the collision itself, but by an inherent flaw in the cabin design of most aircraft, in which seats, by restricting access to emergency exits, impede escape. Therefore, to reduce the total number of fatalities that result annually from such collisions, the airlines should be required to remove all seats that restrict access to emergency exits.

9. Which one of the following, if true, provides the most support for the proposal?
- (A) The number of deaths that occurred in theater fires because theater patrons could not escape was greatly reduced when theaters were required to have aisles leading to each exit.
  - (B) Removing the seats that block emergency exits on aircraft will require a costly refitting of aircraft cabins.
  - (C) In the event of fire, public buildings equipped with smoke detectors have fewer fatalities than do public buildings not so equipped.
  - (D) In the event of collision, passengers on planes with a smaller passenger capacity generally suffer more serious injury than do passengers on planes with a larger passenger capacity.
  - (E) The safety belts attached to aircraft seats function to protect passengers from the full force of impact in the event of a collision.
10. Which one of the following proposals, if implemented together with the proposal made in the passage, would improve the prospects for achieving the stated objective of reducing fatalities?
- (A) The airlines should be required, when buying new planes, to buy only planes with unrestricted access to emergency exits.
  - (B) The airlines should not be permitted to increase further the number of flights in order to offset the decrease in the number of seats on each aircraft.
  - (C) Airport authorities should be required to streamline their passenger check-in procedures to accommodate the increased number of passengers served by the airlines.
  - (D) Airport authorities should be required to refine security precautions by making them less conspicuous without making them less effective.
  - (E) The airlines should not be allowed to increase the ticket price for each passenger to offset the decrease in the number of seats on each aircraft.
11. Recently discovered fossil evidence casts doubt on the evolutionary theory that dinosaurs are more closely related to reptiles than to other classes of animals. Fossils show that some dinosaurs had hollow bones—a feature found today only in warm-blooded creatures, such as birds, that have a high metabolic rate. Dinosaurs had well-developed senses of sight and hearing, which is not true of

present-day cold-blooded creatures like reptiles. The highly arched mouth roof of some dinosaurs would have permitted them to breathe while eating, as fast-breathing animals, such as birds, need to do. Today, all fast-breathing animals are warm-blooded. Finally, fossils reveal that many dinosaurs had a pattern of growth typical of warm-blooded animals.

The argument in the passage proceeds by

- (A) attempting to justify one position by demonstrating that an opposing position is based on erroneous information
- (B) establishing a general principle that it then uses to draw a conclusion about a particular case
- (C) dismissing a claim made about the present on the basis of historical evidence
- (D) assuming that if all members of a category have a certain property then all things with that property belong to the category
- (E) presenting evidence that a past phenomenon is more similar to one rather than the other of two present-day phenomena

12. Purebred dogs are prone to genetically determined abnormalities. Although such abnormalities often can be corrected by surgery, the cost can reach several thousand dollars. Since nonpurebred dogs rarely suffer from genetically determined abnormalities, potential dog owners who want to reduce the risk of incurring costly medical bills for their pets would be well advised to choose nonpurebred dogs.

Which one of the following, if true, most seriously weakens the argument?

- (A) Most genetically determined abnormalities in dogs do not seriously affect a dog's general well-being.
- (B) All dogs, whether purebred or nonpurebred, are subject to the same common nongenetically determined diseases.
- (C) Purebred dogs tend to have shorter natural life spans than do nonpurebred dogs.
- (D) The purchase price of nonpurebred dogs tends to be lower than the purchase price of purebred dogs.
- (E) A dog that does not have genetically determined abnormalities may nevertheless have offspring with such abnormalities.

13. Criticism that the press panders to public sentiment neglects to consider that the press is a profit-making institution. Like other private enterprises, it has to make money to survive. If press were not profit-making, who would support it? The only alternative is subsidy and, with it, outside control. It is easy to get subsidies for propaganda, but no one will subsidize honest journalism.

It can be properly inferred from the passage that if the press is

- (A) not subsidized, it is in no danger of outside control
- (B) not subsidized, it will not produce propaganda

- (C) not to be subsidized, it cannot be a profit-making institution
- (D) to produce honest journalism, it must be profit-making institution
- (E) to make a profit, it must produce honest journalism

Questions 14-15

Lucien: Public-housing advocates claim that the many homeless people in this city are proof that there is insufficient housing available to them and therefore that more low-income apartments are needed. But that conclusion is absurd. Many apartments in my own building remain unrented and my professional colleagues report similar vacancies where they live. Since apartments clearly are available, homelessness is not a housing problem. Homelessness can, therefore, only be caused by people's inability or unwillingness to work to pay the rent.

Maria: On the contrary, all recent studies show that a significant percentage of this city's homeless people hold regular jobs. These are people who lack neither will nor ability.

14. Lucien's argument against the public-housing advocates' position is most vulnerable to which one of the following criticisms?
- (A) It offers no justification for dismissing as absurd the housing advocates' claim that there are many homeless people in the city.
  - (B) It treats information acquired through informal conversations as though it provided evidence as strong as information acquired on the basis of controlled scientific studies.
  - (C) It responds to a claim in which "available" is used in the sense of "affordable" by using "available" in the sense of "not occupied."
  - (D) It overlooks the possibility that not all apartment buildings have vacant apartments for rent.
  - (E) It fails to address the issue, raised by the public-housing advocates' argument, of who would pay for the construction of more low-income housing.
15. Maria responds to Lucien's argument by
- (A) challenging the accuracy of the personal experiences he offers in support of his position
  - (B) showing that a presupposition of his argument is false
  - (C) presenting evidence that calls into question his motives for adopting the view he holds
  - (D) demonstrating that the evidence he offers supports a conclusion other than the conclusion he draws from it
  - (E) offering an alternative explanation for the facts he cites as evidence supporting his conclusion
16. Some people take their moral cues from governmental codes of law; for them, it is inconceivable that something that is legally permissible could be immoral.



Those whose view is described above hold inconsistent beliefs if they also believe that

- (A) law does not cover all circumstances in which one person morally wrongs another
- (B) a legally impermissible action is never morally excusable
- (C) governmental officials sometimes behave illegally
- (D) the moral consensus of a society is expressed in its laws
- (E) some governmental regulations are so detailed that they are burdensome to the economy

17. Certain instruments used in veterinary surgery can be made either of stainless steel or of nylon. In a study of such instruments, 10 complete sterilizations of a set of nylon instruments required 3.4 times the amount of energy used to manufacture that set of instruments, whereas 50 complete sterilizations of a set of stainless steel instruments required 2.1 times the amount of energy required to manufacture that set of instruments.

If the statements above are true, each of the following could be true EXCEPT:

- (A) The 50 complete sterilizations of nylon instruments used more energy than did the 50 complete sterilizations of the stainless steel instruments.
  - (B) More energy was required for each complete sterilization of the nylon instruments than was required to manufacture the nylon instruments.
  - (C) More nylon instruments than stainless steel instruments were sterilized in the study.
  - (D) More energy was used to produce the stainless steel instruments than was used to produce the nylon instruments.
  - (E) The total cost of 50 complete sterilizations of the stainless steel instruments was greater than the cost of manufacturing the stainless steel instruments.
18. A local group had planned a parade for tomorrow, but city hall has not yet acted on its application for a permit. The group had applied for the permit well in advance, had made sure their application satisfied all the requirements, and was clearly entitled to a permit. Although the law prohibits parades without a permit, the group plans to proceed with its parade. The group's leader defended its decision by appealing to the principle that citizens need not refrain from actions that fail to comply with the law if they have made a good-faith effort to comply but are prevented from doing so by government inaction.
- Which one of the following actions would be justified by the principle to which the leader of the group appealed in defending the decision to proceed?
- (A) A chemical-processing company commissioned an environmental impact report on its plant. The report described foul odors emanating from the plant but found no hazardous wastes being produced. Consequently, the plant did not alter its processing practices.
  - (B) A city resident applied for rezoning of her property so that she would build a

bowling alley in a residential community. She based her application on the need for recreational facilities in the community. Her application was turned down by the zoning board, so she decided to forgo construction.

- (C) The law requires that no car be operated without a certain amount of insurance coverage. But since the authorities have been unable to design an effective procedure for prosecuting owners of cars that are driven without insurance, many car owners are allowing their insurance to lapse.
- (D) a real-estate developer obtained a permit to demolish a historic apartment building that had not yet been declared a governmentally protected historic landmark. Despite the protests of citizens' groups, the developer then demolished the building.
- (E) A physician who had been trained in one country applied for a license to practice medicine in another country. Although he knew he met all the qualifications for this license, he had not yet received it one year after he applied for it. He began to practice medicine without the license in the second country despite the law's requirement for a license.

Questions 19-20

A university should not be entitled to patent the inventions of its faculty members. Universities, as guarantors of intellectual freedom, should encourage the free flow of ideas and the general dissemination of knowledge. Yet a university that retains the right to patent the inventions of its faculty members has a motive to suppress information about a potentially valuable discovery until the patent for it has been secured. Clearly, suppressing information concerning such discoveries is incompatible with the university's obligation to promote the free flow of ideas.

19. Which one of the following is an assumption that the argument makes?
- (A) Universities are the only institutions that have an obligation to guarantee intellectual freedom.
  - (B) Most inventions by university faculty members would be profitable if patented.
  - (C) Publication of reports on research is the only practical way to disseminate information concerning new discoveries.
  - (D) Universities that have a motive to suppress information concerning discoveries by their faculty members will occasionally act on that motive.
  - (E) If the inventions of a university faculty member are not patented by that university, then they will be patented by the faculty member instead.
20. The claim that a university should not be entitled to patent the inventions of its faculty members plays which one of the following roles in the argument?
- (A) It is the conclusion of the argument.
  - (B) It is a principle from which the conclusion is derived.
  - (C) It is an explicit assumption.

- (D) It is additional but nonessential information in support of one of the premises.
- (E) It is a claim that must be demonstrated to be false in order to establish the conclusion.

21. English and the Austronesian language Mbarbaram both use the word “dog” for canines. These two languages are unrelated, and since speakers of the two languages only came in contact with one another long after the word “dog” was first used in this way in either language, neither language could have borrowed the word from the other. Thus this case shows that sometimes when languages share words that are similar in sound and meaning the similarity is due neither to language relatedness nor to borrowing.

The argument requires that which one of the following be assumes?

- (A) English and Mbarbaram share no words other than “dog.”
  - (B) Several languages besides English and Mbarbaram use “dog” as the word for canines.
  - (C) Usually when two languages share a word, those languages are related to each other.
  - (D) There is no third language from which both English and Mbarbaram borrowed the word “dog.”
  - (E) If two unrelated languages share a word, speakers of those two languages must have come in contact with one another at some time.
22. Politician: From the time our party took office almost four years ago the number of people unemployed city-wide increased by less than 20 percent. The opposition party controlled city government during the four preceding years, and the number of unemployed city residents rose by over 20 percent. Thus, due to our leadership, fewer people now find themselves among the ranks of the unemployed, whatever the opposition may claim.
- The reasoning in the politician’s argument is most vulnerable to the criticism that
- (A) the claims made by the opposition are simply dismissed without being specified
  - (B) no evidence has been offered to show that any decline in unemployment over the past four years was uniform throughout all areas of the city
  - (C) the issue of how much unemployment in the city is affected by seasonal fluctuations is ignored
  - (D) the evidence cited in support of the conclusion actually provides more support for the denial of the conclusion
  - (E) the possibility has not been addressed that any increase in the number of people employed is due to programs supported by the opposition party
23. A poor farmer was fond of telling his children: “In this world, you are either rich or poor, and you are either honest or dishonest. All poor farmers are honest.

Therefore, all rich farmers are dishonest.”

The farmer’s conclusion is properly drawn if the argument assumes that

- (A) every honest farmer is poor
- (B) every honest person is a farmer
- (C) everyone who is dishonest is a rich farmer
- (D) everyone who is poor is honest
- (E) every poor person is a farmer

24. Journalist: Can you give me a summary of the novel you are working on?

Novelist: Well, I assume that by “summary” you mean something brief and not a version of the novel itself. The reason I write novels is that what I want to communicate can be communicated only in the form of a novel. So I am afraid I cannot summarize my novel for you in a way that would tell you what I am trying to communicate with this novel.

Which one of the following exhibits a pattern of reasoning that is most parallel to that used by the novelist?

- (A) Only if a drawing can be used as a guide by the builder can it be considered a blueprint. This drawing of the proposed building can be used as a guide by the builder, so it can be considered a blueprint.
- (B) Only a statement that does not divulge company secrets can be used as a press release. This statement does not divulge company secrets, but it is uninformative and therefore cannot be used as a press release.
- (C) Watching a travelog is not the same as traveling. But a travelog confers some of the benefits of travel without the hardships of travel. So many people just watch travelogs and do not undergo the hardships of travel.
- (D) Only a three-dimensional representation of a landscape can convey the experience of being in that landscape. A photograph taken with a traditional camera is not three-dimensional. Therefore a photograph taken with a traditional camera can never convey the experience of being in a landscape.
- (E) A banquet menu foretells the content of a meal, but some people collect menus in order to remind themselves of great meals they have eaten. Thus a banquet menu has a function not only before, but also after, a meal has been served.

25. Medical research findings are customarily not made public prior to their publication in a medical journal that has had them reviewed by a panel of experts in a process called peer review. It is claimed that this practice delays public access to potentially beneficial information that, in extreme instances, could save lives. Yet prepublication peer review is the only way to prevent erroneous and therefore potentially harmful information from reaching a public that is ill equipped to evaluate medical claims on its own. Therefore, waiting until a medical journal has published the research findings that have passed peer review is the price that must be paid to protect the public from making decisions based

on possibly substandard research.

The argument assumes that

- (A) unless medical research findings are brought to peer review by a medical journal, peer review will not occur
- (B) anyone who does not serve on medical review panel does not have the necessary knowledge and expertise to evaluate medical research finding
- (C) the general public does not have access to the medical journals in which research findings are published
- (D) all medical research findings are subjected to prepublication peer review
- (E) peer review panels are sometimes subject to political and professional pressures that can make their judgments less than impartial

#### SECTION IV

**Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. People who accuse the postal service of incompetence and inefficiency while complaining of the proposed five-cent increase in postal rates do not know a bargain when they see one. Few experiences are more enjoyable than reading a personal letter from a friend. Viewed in this way, postal service is so underpriced that a five-cent increase is unworthy of serious debate.

The reasoning in the argument is flawed because the argument

- (A) suggests that the postal service is both competent and efficient, but does not establish how competence and efficiency should be measured
- (B) claims that the proposed increase is insignificant but does not say at what level the increase would be worthy of serious debate
- (C) confuses the value of the object delivered with the value of delivering that object
- (D) appeals to an outside authority for support of a premise that should be established by argument
- (E) fails to establish whether or not the critics of the postal service are employees of the postal service

2. When a study of aspirin's ability to prevent heart attacks in humans yielded positive results, researchers immediately submitted those results to a medical journal, which published them six weeks later. Had the results been published sooner, many of the heart attacks that occurred during the delay could have been prevented.

The conclusion drawn above would be most undermined if it were true that

- (A) the medical journal's staff worked overtime in order to publish the study's results as soon as possible
- (B) studies of aspirin's usefulness in reducing heart attacks in laboratory animals



remain inconclusive

- (C) people who take aspirin regularly suffer a higher-than-average incidence of stomach ulcers
- (D) the medical journal's official policy is to publish articles only after an extensive review process
- (E) a person's risk of suffering a heart attack drops only after that person has taken aspirin regularly for two years

3. It might seem that an airline could increase profits by reducing airfares on all its flights in order to encourage discretionary travel and thus fill planes. Offers of across-the-board discount fares have, indeed, resulted in the sale of large numbers of reduced-price tickets. Nevertheless such offers have, in the past, actually cut the airline's profits.

Which one of the following, if true, most helps to resolve the apparent discrepancy described above?

- (A) Fewer than 10 percent of all air travelers make no attempt to seek out discount fares.
- (B) Fares for trips between a large city and a small city are higher than those for trips between two large cities even when the distances involved are the same.
- (C) Across-the-board discounts in fares tend to decrease revenues on flights that are normally filled, but they fail to attract passengers to unpopular flights.
- (D) Only a small number of people who have never before traveled by air are persuaded to do so on the basis of across-the-board discount fares.
- (E) It is difficult to devise an advertising campaign that makes the public aware of across-the-board discount fares while fully explaining the restrictions applied to those discount fares.

4. Only if the electorate is moral and intelligent will a democracy function well.

Which one of the following can be logically inferred from the claim above?

- (A) If the electorate is moral and intelligent, then a democracy will function well.
- (B) Either a democracy does not function well or else the electorate is not moral or not intelligent.
- (C) If the electorate is not moral or not intelligent, then a democracy will not function well.
- (D) If a democracy does not function well, then the electorate is not moral or not intelligent.
- (E) It cannot, at the same time, be true that the electorate is moral and intelligent and that a democracy will not function well.

5. Infants younger than six months who have normal hearing can readily distinguish between acoustically similar sounds that are used as part of any language—not only those used in the language spoken by the people who raise them. Young

adults can readily distinguish between such sounds only in languages that they regularly use. It is known that the physiological capacity to hear begins to deteriorate after infancy. So the observed difference in the abilities of infants and young adult to distinguish between acoustically similar speech sounds must be the result of the physiological deterioration of hearing.

The reasoning in the argument is flawed because the argument

- (A) sets an arbitrary cutoff point of six months for the age below which infants are able to distinguish acoustically similar speech sounds
- (B) does not explain the procedures used to measure the abilities of two very different populations
- (C) ignores the fact that certain types of speech sounds occur in almost all languages
- (D) assumes that what is true of a group of people taken collectively is also true of any individual with that group
- (E) takes a factor that might contribute to an explanation of the observed difference as a sufficient explanation for that difference

6. The economies of some industrialized countries face the prospect of large labor shortages in the decades ahead. Meanwhile, these countries will have a vast number of experienced and productive older workers who, as things stand, will be driven from the work force upon reaching the age of sixty-five by the widespread practice of requiring workers to retire at that age. Therefore, if the discriminatory practice of mandatory retirement at age sixty-five were eliminated, the labor shortages facing these economies would be averted.

The argument assumes that

- (A) older workers have acquired skills that are extremely valuable and that their younger colleagues lack
- (B) workers in industrialized countries are often unprepared to face the economic consequences of enforced idleness
- (C) a large number of workers in some industrialized countries would continue working beyond the age of sixty-five if workers in those countries were allowed to do so
- (D) mandatory retirement at age sixty-five was first instituted when life expectancy was considerable lower than it is today
- (E) a substantial proportion of the population of officially retired workers is actually engaged in gainful employment

7. The incidence in Japan of most types of cancer is remarkably low compared to with in North America, especially considering that Japan has a modern life-style, industrial pollution included. The cancer rates, however, for Japanese people who immigrate to North America and adopt the diet of North Americans approximate the higher cancer rates prevalent in North America.

If the statements above are true, they provide the most support for which one of

the following?

- (A) The greater the level of industrial pollution in a country, the higher that country's cancer rate will tend to be.
- (B) The stress of life in North America is greater than that of life in Japan and predisposes to cancer.
- (C) The staple foods of the Japanese diet contain elements that cure cancer.
- (D) The relatively low rate of cancer among people in Japan does not result from a high frequency of a protective genetic trait among Japanese people.
- (E) The higher cancer rates of Japanese immigrants to North America are caused by fats in the North American diet.

8. A translation invariably reflects the writing style of the translator. Sometimes when a long document needs to be translated quickly, several translators are put to work on the job, each assigned to translate part of the document. In these cases, the result is usually a translation marked by different and often incompatible writing styles. Certain computer programs for language translation that work without the intervention of human translation can finish the job faster than human translators and produce a stylistically uniform translation with an 80 percent accuracy rate. Therefore, when a long document needs to be translated quickly, it is better to use a computer translation program than human translators.

Which one of the following issues would be LEAST important to resolve in evaluating the argument?

- (A) whether the problem of stylistic variety in human translation could be solved by giving stylistic guidelines to human translators
- (B) whether numerical comparisons of the accuracy of translations can reasonably be made
- (C) whether computer translation programs, like human translators, each have their own distinct writing style
- (D) whether the computer translation contains errors of grammar and usage that drastically alter the meaning of the text
- (E) how the accuracy rate of computer translation programs compares with that of human translators in relation to the users' needs

### Questions 9-10

Myrna: People should follow diets in which fat represents no more than 30 percent of total calories, not the 37 percent the average diet in this country contains.

Roland: If everyone in the country followed your recommendation during his or her entire life, just 0.2 percent would lengthen their lives at all, and then only by an average of 3 months. Modifying our diet is not worthwhile. A lifetime of sacrifice spent eating an unappealing low-fat diet is too high a price to pay for the chance of extending that sacrifice for 3 months.

Myrna: But for everyone who dies early from a high-fat diet, many more people suffer

from serious chronic diseases because they followed such diets.

9. Myrna responds to Roland by
- (A) disputing the correctness of the facts cited by Roland and offering facts that she considers correct
  - (B) showing that the factors considered by Roland are not the only ones relevant in evaluating her recommendation
  - (C) demonstrating that the statistics used by Roland to dispute her recommendation are inaccurate
  - (D) suggesting that Roland's evidence derives from unreliable sources
  - (E) pointing out that Roland's argument assumes the very proposition it sets out to prove
10. Roland's argument assumes that
- (A) it is desirable to live in such a way as to lengthen life as much as possible
  - (B) a low-fat diet cannot readily be made appealing and satisfying to a person who follows it regularly
  - (C) diet is the only relevant factor to consider in computing influences on length of life
  - (D) the difference in tastiness between a diet in which fat represents 30 percent of total calories and one in which it represents 37 percent is not noticeable
  - (E) not everyone in the country eats the average diet
11. Some critics claim that it is unfair that so many great works of art are housed in huge metropolitan museums, since the populations served by these museums already have access to a wide variety of important artwork. But this criticism is in principle unwarranted because the limited number of masterpieces makes wider distribution of them impractical. Besides, if a masterpiece is to be fully appreciated, it must be seen alongside other works that provide a social and historical context for it.
- Which one of the following, if established, could most logically serve as the principle appealed to in the argument countering the critics' claim?
- (A) In providing facilities to the public, the goal should be to ensure that as many as possible of those people who could benefit from the facilities are able to do so.
  - (B) In providing facilities to the public, the goal should be to ensure that the greatest possible number of people gain the greatest benefit possible from them.
  - (C) It is unreasonable to enforce a redistribution of social goods that involves depriving some members of society of these goods in order to supply others.
  - (D) For it to be reasonable to criticize an arrangement as unfair, there must be a more equitable arrangement that is practically attainable.
  - (E) A work of art should be displayed in conditions resembling as closely as

possible those in which the work was originally intended to be displayed.

12. Some accountants calculate with simple adding machines, and some use complex computers. One can perform more calculations in less time with a computer than with an adding machine. Therefore, assuming the costs of using the two types of machines are equal, an accountant who uses a computer generally can earn more per hour than an accountant who uses an adding machine.

Which one of the following is an assumption that would make the conclusion in the passage a logical one?

- (A) More accountants use computers than use adding machines.
  - (B) The more hours an accountant spends on the job, the more money he or she will earn.
  - (C) The more calculations an accountant performs, the more money he or she will earn.
  - (D) An accountant who uses an adding machine can charge a higher hourly rate than one who uses a computer.
  - (E) In general, accountants vary in terms of the number of calculations they make and the amount of money they earn.
13. This summer, Jennifer, who has worked at KVZ Manufacturing for just over three years, plans to spend with her family the entire four weeks of paid vacation to which she is entitled this year. Anyone who has worked at KVZ Manufacturing for between one and four years is automatically entitled to exactly three weeks paid vacation each year but can apply up to half of any vacation time that remains unused at the end of one year to the next year's vacation.
- If the statements above are all true, which one of the following must also be true on the basis of them?
- (A) Jennifer did not use two weeks of the paid vacation time to which she was entitled past year.
  - (B) If Jennifer continues to work for KVZ Manufacturing, she will only be entitled to three weeks paid vacation next year.
  - (C) The majority of KVZ's employees use each year all of the paid vacation time to which they are entitled.
  - (D) Last year Jennifer took only one week of the paid vacation time to which she was entitled.
  - (E) KVZ Manufacturing sometimes allows extra vacation time to employees who need to spend more time with their families.
14. A careful review of hospital fatalities due to anesthesia during the last 20 years indicates that the most significant safety improvements resulted from better training of anesthetists. Equipment that monitors a patient's oxygen and carbon dioxide levels was not available in most operating rooms during the period under review. Therefore, the increased use of such monitoring equipment in operating



rooms will not significantly cut fatalities due to anesthesia.

A flaw in the argument is that

- (A) the evidence cited to show that one factor led to a certain result is not sufficient to show that a second factor will not also lead to that result
  - (B) the reasons given in support of the conclusion presuppose the truth of that conclusion
  - (C) the evidence cited to show that a certain factor was absent when a certain result occurred does not show that the absence of that factor caused that result
  - (D) the evidence cited in support of the conclusion is inconsistent with other information that is provided
  - (E) the reason indicated for the claim that one event caused a second more strongly supports the claim that both events were independent effects of a third event
15. New types of washing machines designed to consume less energy also extract less water from laundry during their final spin cycles than do washing machines that consume somewhat more energy. The wetter the laundry, the more energy required to dry it in an automatic dryer. Thus using these new types of washing machines could result in an overall increase in the energy needed to wash and dry a load of laundry.
- In which one of the following is the pattern of reasoning most parallel to that in the argument above?
- (A) The more skill required to operate a machine, the harder it is to find people able to do it, and thus the more those people must be paid. Therefore, if a factory installs machines that require highly skilled operators, it must be prepared to pay higher wages.
  - (B) There are two routes between Centerville and Mapletown, and the scenic route is the longer route. Therefore, a person who is not concerned with how long it will take to travel between Centerville and Mapletown will probably take the scenic route.
  - (C) The more people who work in the library's reading room, the noisier the room becomes; and the noisier the working environment, the less efficiently people work. Therefore, when many people are working in the reading room, those people are working less efficiently.
  - (D) Pine is a less expensive wood than cedar but is more susceptible to rot. Outdoor furniture made from wood susceptible to rot must be painted with more expensive paint. Therefore, building outdoor furniture from pine rather than cedar could increase the total cost of building and painting the furniture.
  - (E) The more weights added to an exercise machine, the greater the muscle strength needed to work out on the machine. Up to a point, using more

muscle strength can make a person stronger. Thus an exercise machine with more weights can, but does not necessarily, make a person stronger.

Questions 16-17

G: The group of works exhibited in this year's Metropolitan Art Show reveals a bias in favor of photographers. Equal numbers of photographers, sculptors, and painters submitted works that met the traditional criteria for the show, yet more photographs were exhibited than either sculptures or paintings. As you know, each artist was allowed to submit work in one medium only.

H: How could there have been bias? All submitted works that met the traditional criteria—and only those works—were exhibited in the show.

16. If both G's assertions and H's assertion are true, which one of the following must also be true?
- (A) More photographers than sculptors or painters submitted works to be considered for exhibition in the Metropolitan Art Show.
  - (B) All the works submitted for the Metropolitan Art Show met the traditional criteria for the show.
  - (C) The quality of photographs exhibited in the metropolitan Art Show was inferior to the quality of the sculptures or paintings exhibited.
  - (D) Some of the photographs submitted for the Metropolitan Art Show did not meet the traditional criteria for the show.
  - (E) More works that met the traditional criteria for the Metropolitan Art Show were submitted by photographers than by sculptors or painters.
17. Which one of the following, if true, most strongly supports G's allegation of bias?
- (A) If an artist has had one of his or her works exhibited in the Metropolitan Art Show, that artist has an advantage in getting commissions and selling works over artists who have never had a work exhibited in the show.
  - (B) The fee for entering photographs in the Metropolitan Art Show was \$25 per work submitted, while the fee for each painting or sculpture submitted was \$75.
  - (C) The committee that selected from the submitted works the ones to be exhibited in this year's Metropolitan Art Show had four members: one photographer, one sculptor, one painter, and one who works in all three media but is the least known of the four members.
  - (D) Reviews of this year's Metropolitan Art Show that appeared in major newspapers and magazines tended to give more coverage to the photographs in the show than to the sculptures and paintings that were exhibited.
  - (E) In previous years, it has often happened that more paintings or more sculptures were exhibited in the Metropolitan Art Show than photographs, even though the total number of works exhibited each year does not vary widely.

Questions 18-19

Marcus: For most ethical dilemmas the journalist is likely to face, traditional journalistic ethics is clear, adequate, and essentially correct. For example, when journalists have uncovered newsworthy information, they should go to press with it as soon as possible. No delay motivated by the journalists' personal or professional interests is permissible.

Anita: Well, Marcus, of course interesting and important information should be brought before the public—that is a journalist's job. But in the typical case, where a journalist has some information but is in a quandary about whether it is yet important or "newsworthy," this guidance is inadequate.

18. The point made by Anita's statements is most accurately expressed by which one of the following?
- (A) Marcus's claim that traditional journalistic ethics is clear for most ethical dilemmas in journalism is incorrect.
  - (B) A typical case illustrates that Marcus is wrong in claiming that traditional journalistic ethics is essentially correct for most ethical dilemmas in journalism.
  - (C) The ethical principle that Marcus cites does not help the journalist in a typical kind of situation in which a decision needs to be made.
  - (D) There are common situations in which a journalist must make a decision and in which no principle of journalistic ethics can be of help.
  - (E) Traditional journalistic ethics amounts to no more than an unnecessarily convoluted description of the journalist's job.
19. In order to conclude properly from Anita's statements that Marcus' general claim about traditional journalistic ethics is incorrect, it would have to be assumed that
- (A) whether a piece of information is or is not newsworthy can raise ethical dilemmas for journalists
  - (B) there are circumstances in which it would be ethically wrong for a journalist to go to press with legitimately acquired, newsworthy information
  - (C) the most serious professional dilemmas that a journalist is likely to face are not ethical dilemmas
  - (D) there are no ethical dilemmas that a journalist is likely to face that would not be conclusively resolved by an adequate system of journalistic ethics
  - (E) For a system of journalistic ethics to be adequate it must be able to provide guidance in every case in which a journalist must make a professional decision

Questions 20-21

Of every 100 burglar alarms police answer, 99 are false alarms. This situation causes an enormous and dangerous drain on increasingly scarce public resources. Each false

alarm wastes an average of 45 minutes of police time. As a result police are consistently taken away from responding to other legitimate calls for service, and a disproportionate share of police service goes to alarm system users, who are mostly businesses and affluent homeowners. However, burglar alarm systems, unlike car alarm systems, are effective in deterring burglaries, so the only acceptable solution is to fine burglar alarm system owners the cost of 45 minutes of police time for each false alarm their systems generate.

20. The statement that burglar alarm systems, unlike car alarm systems, are effective in deterring burglaries plays which one of the following roles in the argument?
- (A) It justifies placing more restrictions on owners of burglar alarms than on owners of car alarms.
  - (B) It provides background information needed to make plausible the claim that the number of burglar alarms police are called on to answer is great enough to be a drain on public resources.
  - (C) It provides a basis for excluding as unacceptable one obvious alternative to the proposal of fining owners of burglar alarm systems for false alarms.
  - (D) It gives a reason why police might be more inclined to respond to burglar alarms than to car alarms.
  - (E) It explains why a disproportionate number of the burglar alarms responded to by police come from alarm systems owned by businesses.
21. On the basis of the premises advanced, which one of the following principles, if established, would provide the most justification for the concluding recommendation?
- (A) No segment of a community should be permitted to engage in a practice that has been shown to result in a disproportionate share of police service being devoted to that segment of the community.
  - (B) When public resources are in short supply, any individual who wants special services from public agencies such as police and fire departments should be required to pay for those services if he or she can afford to do so.
  - (C) Police departments are not justified in improving service to one segment of the community at the expense of other segments of the community unless doing so reduces the crime level throughout the entire area served.
  - (D) Anyone who directly benefits from a service provided by public employees should be required to reimburse the general public fund an amount equivalent to the average cost providing that service.
  - (E) If receipt of a service results in the waste of scarce public resources and people with other legitimate needs are disadvantaged in consequence, the recipient of that service should compensate the public for the resources wasted.
22. When butterfat was considered nutritious and healthful, a law was enacted requiring that manufacturers use the term “imitation butter” to indicate butter

whose butterfat content had been diminished through the addition of water. Today, it is known that the high cholesterol content of butterfat makes it harmful to human health. Since the public should be encouraged to eat foods with lower rather than higher butterfat content and since the term “imitation” with its connotations of falsity deters many people from purchasing products so designated, manufacturers who wish to give reduced-butterfat butter the more appealing name of “lite butter” should be allowed to do so.

Which one of the following, if true, most seriously undermines the argument?

- (A) The manufacturers who prefer to use the word “lite” instead of “imitation” are motivated principally by the financial interest of their stock holders.
- (B) The manufacturers who wish to call their product “lite butter” plan to change the composition of the product so that it contains more water than it now does.
- (C) Some individuals who need to reduce their intake of cholesterol are not deterred from using the reduced-butterfat product by the negative connotations of the term “imitation.”
- (D) Cholesterol is only one of many factors that contribute to the types of health problems with which the consumption of excessive amounts of cholesterol is often associated.
- (E) Most people deterred from eating “imitation butter” because of its name choose alternatives with a lower butterfat content than this product has.

23. Farm animals have certain behavioral tendencies that result from the evolutionary history of these species. By imposing on these animals a type of organization that conflicts with their behavioral tendencies, current farm-management practices cause the animals more pain and distress than do practices that more closely conform to the animals’ behavioral tendencies. Because the animals tend to resist this type of organization, current practices can also be less efficient than those other farm-management practices.

If the statements above are true, which one of the following can be properly inferred from them?

- (A) Some of the behavioral tendencies of farm animals can be altered by efficient farm-management practices.
- (B) In order to implement efficient farm-management practices, it is necessary to be familiar with the evolutionary history of farm animals.
- (C) In order to create farm-management practices that cause less pain and distress to farm animals, a significant loss of efficiency will be required.
- (D) Farm-management practices that cause the least amount of pain and distress to farm animals are also the most efficient management practices.
- (E) Some changes in farm-management practices that lessen the pain and distress experienced by farm animals can result in gains in efficiency.

24. It now seems clear that the significant role initially predicted for personal



computers in the classroom has not become fact. One need only look to the dramatic decline in sales of computers for classroom use in the past year for proof that the fad has passed.

Which one of the following arguments contains flawed reasoning parallel to that in the argument above?

- (A) Clearly government legislation mandating the reduction of automobile emissions has been at least partially successful, as is demonstrated by the fact that the air of the 20 largest cities now contains smaller amounts of the major pollutants mentioned in the legislation than it did before the legislation was passed.
  - (B) Mechanical translation from one language into another, not merely in narrow contexts such as airline reservations but generally, is clearly an idea whose time has come. Since experts have been working on the problem for 40 years, it is now time for the accumulated expertise to achieve a breakthrough.
  - (C) Sales of computers for home use will never reach the levels optimistically projected by manufacturers. The reason is that home use was envisioned as encompassing tasks, such as menu planning and checkbook reconciliation, that most homemakers perform in much simpler ways than using a computer would require.
  - (D) It is apparent that consumers have tired of microwave ovens as quickly as they initially came to accept this recent invention. In contrast to several years of increasing sales following the introduction of microwave ovens, sales of microwave ovens flattened last year, indicating that consumers have found relatively little use for these devices.
  - (E) Creating incentives for a particular kind of investment inevitably engenders boom-and-bust cycles. The evidence is in the recent decline in the value of commercial real estate, which shows that, although the government can encourage people to put up buildings, it cannot guarantee that those buildings will be fully rented or sold.
25. Scientists attempting to replicate certain controversial results reported by a group of experienced researchers failed to get the same results as those reported. The conclusion drawn from this by the scientists who conducted the replication experiments was that the originally reported results had been due to faulty measurements.
- The argument of the scientists who conducted the replication experiments assumes that
- (A) the original experiments had not been described in sufficient detail to make an exact replication possible
  - (B) the fact that originally reported results aroused controversy made it highly likely that they were in error
  - (C) the theoretical principles called into question by the originally reported

- results were themselves based on weak evidence
- (D) the replication experiments were not so likely as the original experiments to be marred by faulty measurements
- (E) the researchers who originally reported the controversial results had themselves observed those results only once

## TEST 11

### SECTION I

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Educational television is a contradiction in terms. While a classroom encourages social interaction, television encourages solitude. School is centered on the development of language, but television depends upon constantly changing visual images. And in a classroom, fun is merely a means to an end, but on television it is the end in itself.  
Upon which one of the following assumptions does the author rely in the passage?  
(A) The classroom should not be a place where anyone has fun.  
(B) Only experiences that closely resemble what takes place in the school environment can be educational.  
(C) Television programs reinforce some of the values of the school environment.  
(D) Educational television programs are better than most other television programs.  
(E) The potential of television as a powerful learning tool has not yet been realized.
2. Switching to “low-yield” cigarettes, those that yield less nicotine, tar, and carbon monoxide than regular cigarettes when tested on a standard machine, does not, in general, reduce the incidence of heart attack. This result is surprising, since nicotine and carbon monoxide have been implicated as contributing to heart disease.  
Which one of the following, if true, most helps to resolve the apparent discrepancy?  
(A) Smoking low-yield cigarettes has become fashionable, as relatively healthier styles of life have become more popular than those that have been identified as risky.  
(B) For those who are themselves smokers, inhaling the smoke of others is not generally a significant factor contributing to an increased risk of heart disease.  
(C) Nicotine does not contribute as much as to heart disease as does carbon

monoxide.

- (D) Carbon monoxide and cigarette tar are not addictive substances.
- (E) People who switch from high-yield to low-yield cigarettes often compensate by increasing the number and depth of puffs in order to maintain their accustomed nicotine level.

Questions 3-4

Sally: I cannot study at a university where there is an alcohol problem. So unless something is done about the alcohol problem at this university, I'll have to transfer to a university where there are no fraternities.

Yolanda: I don't agree that fraternities are responsible for the alcohol problem at this university. Alcohol problems exist at all universities, including those where there are no fraternities. We all should become more aware of alcohol abuse. It's not simply a fraternity problem; it's a cultural problem.

3. Which one of the following is an assumption on which Sally's argument depends?
  - (A) Most universities have fraternities.
  - (B) Nothing will be done about the alcohol problem at Sally's university.
  - (C) Alcohol problems are becoming more widespread at universities.
  - (D) Some fraternity members who drink alcohol beverages are too young to do so legally.
  - (E) There could be universities that have no alcohol problems.
4. In the conversation, Yolanda does which one of the following?
  - (A) She argues that if people become more aware of alcohol abuse, fewer people will themselves abuse alcohol.
  - (B) She makes an overly broad generalization from one university to all universities.
  - (C) She concludes that because alcohol problems are cultural problems, they cannot be fraternity problems.
  - (D) She tries to undermine what she supposes to be Sally's position by pointing out that alcohol problems occur even at universities where there are no fraternities.
  - (E) She suggests that even if alcohol problems existed only at universities with fraternities, she would still conclude that alcoholism is a cultural rather than a fraternity problem.
5. Some people have questioned why the Homeowners Association is supporting Cooper's candidacy for mayor. But if the Association wants a mayor who will attract more businesses to the town, Cooper is the only candidate it could support. So, since the Association is supporting Cooper, it must have a goal of attracting more businesses to the town.

The reasoning in the argument is in error because

- (A) the reasons the Homeowners Association should want to attract more businesses to the town are not given
- (B) the Homeowners Association could be supporting Cooper's candidacy for reasons unrelated to attracting businesses to the town
- (C) other groups besides the Homeowners Association could be supporting Cooper's candidacy
- (D) the Homeowners Association might discover that attracting more businesses to the town would not be in the best interest of its members
- (E) Cooper might not have all of the skills that are needed by a mayor who wants to attract businesses to a town

6. Advertisement: Most power hedge trimmers on the market do an adequate job of trimming hedges. But many power hedge trimmers are dangerous to operate and can cause serious injury when used by untrained operators. Bolter Industries' hedge trimmer has been tested by National Laboratories, the most trusted name in safety testing. So you know, if you buy a Bolter's, you are buying a power hedge trimmer whose safety is assured.

The answer to which one of the following questions would be most useful in evaluating the truth of the conclusion drawn in the advertisement?

- (A) Has National Laboratories performed safety tests on other machines made by Bolter Industries?
- (B) How important to the average buyer of a power hedge trimmer is safety of operation?
- (C) What were the results of National Laboratories' tests of Bolter Industries' hedge trimmer?
- (D) Are there safer ways of trimming a hedge than using a power hedge trimmer?
- (E) Does any other power hedge trimmer on the market do a better job of trimming hedges than does Bolter Industries hedge trimmer?

7. Slash-and-burn agriculture involves burning several acres of forest, leaving vegetable ash that provides ample fertilizer for three or four years of bountiful crops. On the cleared land nutrients leach out of the soil, however, and the land becomes too poor to support agriculture. New land is then cleared by burning and the process starts again. Since most farming in the tropics uses this method, forests in this region will eventually be permanently eradicated.

The argument depends on the assumption that

- (A) forests in the tropics do not regenerate well enough to restore themselves once they have been cleared by the slash-and-burn method
- (B) some other methods of agriculture are not as destructive to the environment in tropical regions as the slash-and-burn method is
- (C) forests in the tropics are naturally deficient in nutrients that are needed to support the growth of plants that are not native to those regions

- (D) slash-and-burn agriculture is particularly suitable for farming in tropical areas
- (E) slash-and-burn agriculture produces a more bountiful crop than do other agriculture methods for the first year

8. Of 2,500 people who survived a first heart attack, those who did not smoke had their first heart attack at a median age of 62. However, of those 2,500, people who smoked two packs of cigarettes a day had their first heart attack at a median age of 51. On the basis of this information, it can be concluded that nonsmokers tend to have a first heart attack eleven years later than do people who smoke two packs of cigarettes a day.

The conclusion is incorrectly drawn from the information given because this information does not include

- (A) the relative severity of heart attacks suffered by smokers and nonsmokers
  - (B) the nature of the different medical treatments that smokers and nonsmokers received after they had survived their first heart attack
  - (C) how many of the 2,500 people studied suffered a second heart attack
  - (D) the earliest age at which a person who smoked two packs a day had his or her first heart attack
  - (E) data on people who did not survive a first heart attack
9. Paleontologists have discovered fossils of centipedes that are 414 million years old. These fossils are at least 20 million years older than the earliest land-dwelling animals previously identified. The paleontologists are confident that these centipedes lived on land, even though the fossilized centipedes were discovered in rock that also contained fossilized remains of animals known to be water-dwelling.
- The paleontologists' view would be LEAST supported by the truth of which one of the following?
- (A) The legs of the fossilized centipedes were particularly suited to being a means of locomotion on land.
  - (B) All of the centipedes that had previously been discovered were land dwellers.
  - (C) The rock in which the fossilized centipedes were found was formed from mud flats that were occasionally covered by river water.
  - (D) Fossils of the earliest land-dwelling animals that had previously been identified were found in rock that did not contain fossilized remains of water-dwelling animals.
  - (E) Fossils of spiders with respiratory systems adapted only to breathing air were found in the same rock as the centipede fossils.
10. Broadcaster: Our radio station has a responsibility to serve the public interest. Hence, when our critics contend that our recent expose of events in the private lives of local celebrities was excessively intrusive, we can only reply that the



overwhelming public interest in these matters makes it our responsibility to publicize them.

Which one of the following is a flaw in the broadcaster's defense of the radio station's practice?

- (A) assuming without argument that there is a right to privacy
- (B) ignoring grounds for criticism of the expose aside from intrusion into people's private lives
- (C) intentionally failing to specify what is meant by "excessively intrusive"
- (D) confusing legal responsibility with moral obligation
- (E) improperly exploiting an ambiguity in the phrase "public interest"

Questions 11-12

The fire that destroyed the Municipal Building started before dawn this morning, and the last fire fighters did not leave until late this afternoon. No one could have been anywhere in the vicinity of a fire like that one and fail to notice it. Thomas must have seen it, whatever he now says to the contrary. He admits that, as usual, he went from his apartment to the library this morning, and there is no way for him to get from his apartment to the library without going past the Municipal Building.

11. The main conclusion of the argument is that
  - (A) Thomas was in the vicinity of the fire this morning
  - (B) Thomas claimed not to have seen the fire
  - (C) Thomas saw the fire this morning
  - (D) Thomas went directly from his apartment to the library this morning
  - (E) Thomas went by the Municipal Building this morning
12. The argument employs which one of the following reasoning techniques?
  - (A) presenting several different pieces of evidence each of which by itself would allow the conclusion to be properly drawn
  - (B) establishing that one thing occurred by showing that another thing occurred and that this second thing was enough to ensure the occurrence of the first thing
  - (C) justifying a claim that a view held by someone else is false by explaining why that view, despite its falsity, is a tempting one for that person to hold under the circumstances
  - (D) relying on evidence that a certain kind of event has regularly occurred in the past as a basis for concluding that an event of that kind occurred in the present case
  - (E) drawing a general conclusion about what is possible in a certain kind of situation on the basis of firsthand experience with one such situation
13. Editorial: In rejecting the plan proposed by parliament to reform the electoral process, the president clearly acted in the best interests of the nation. Anyone who

thinks otherwise should remember that the president made this decision knowing it would be met with fierce opposition at home and widespread disapproval abroad. All citizens who place the nation's well-being above narrow partisan interests will applaud this courageous action.

The reasoning in the editorial is in error because

- (A) it confused a quality that is merely desirable in a political leader with a quality that is essential to effective political decision-making
  - (B) it fails to distinguish between evidence concerning the courage required to make a certain decision and evidence concerning the wisdom of making that decision
  - (C) it ignores the likelihood that many citizens have no narrow partisan interest in the proposed election reform plan
  - (D) it overlooks the possibility that there was strong opposition to the parliament's plan among members of the president's own party
  - (E) it depends on the unwarranted assumption that any plan proposed by a parliament will necessarily serve only narrow partisan interests
14. Once consumers recognize that a period of inflation has begun, there is generally an increase in consumer spending. This increase can be readily explained by consumers' desire not to postpone purchases that will surely increase in price. But during protracted periods of inflation, consumers eventually begin to put off making even routine purchases, despite the fact that consumers continue to expect price to rise and despite the fact that salaries also rise during inflationary periods. Which one of the following, if true, most helps to explain the apparent inconsistency in consumer behavior described above?
- (A) During times of inflation consumers save more money than they do in noninflationary periods.
  - (B) There is usually a lag between the leading economic indicators first signaling the onset of an inflationary period and consumers' recognition of its onset.
  - (C) No generalization that describes human behavior will be true of every type of human behavior.
  - (D) If significant numbers of consumers are unable to make purchases, prices will eventually fall but salaries will not be directly affected.
  - (E) Consumers' purchasing power decreases during periods of protracted inflation since salaries do not keep pace with prices.

Questions 15-16

A favored theory to explain the extinction of dinosaurs, together with many other species, has been the globally catastrophic collision of a large asteroid with the Earth. Supporting evidence is an extraterrestrial chemical element in a layer of dust found worldwide at a geological level laid down contemporaneously with the supported event. A new competing theory contends that any asteroid impact was irrelevant,

because it was massive volcanic activity that caused the extinctions by putting enough dust into the atmosphere to cool the planet. The Decean region of India contains extensive volcanic flows that occurred within the same time period as the supposed asteroid impact and the extinctions.

15. The new theory assumes that
- (A) the massive volcanic activity was not caused by the impact of an asteroid
  - (B) no individual dinosaurs survived the impact of the asteroid, if it occurred
  - (C) the extinctions took place over a longer time period than they would have if caused by the impact of an asteroid
  - (D) other volcanic eruptions were not occurring at the same time as those in the Decean region
  - (E) it is not possible to determine which would have occurred first, the volcanic flows in the Decean region or the supposed impact of an asteroid
16. Which one of the following, if true, most of strongly indicates that the asteroid-impact theory is at least incomplete, if not false?
- (A) Large concentrations of dinosaur nests with fossil eggs found in Alberta indicate that at least some species of dinosaurs congregated in large groups during some part of their lives.
  - (B) Dinosaur remains indicate that some species of dinosaur could have migrated in herds over wide ranges, so that they could have traveled to escape the local effects of certain catastrophes.
  - (C) Legends from many cultures, such as the Greek legend that Cadmus raised an army by sowing dragons' teeth in the ground, show that various accident peoples worldwide were familiar with the fossils of dinosaurs.
  - (D) In the Gobi desert in China, where now only small animals can eke out an existence, fossil dinosaur skeletons 27 feet long were found in circumstances indicating that the climate there was as dry when the dinosaurs lived as it is now.
  - (E) The fossil record in Montano from below the layer of extraterrestrial dust shows a diminution over time in dinosaur species from 35 to 13, and dinosaur teeth found above the dust layer show a diminution in species from 13 to 5.
17. A contract, whether expressed or unexpressed, exists when two parties engage with each other for the reciprocal transfer of benefits. Thus, in accepting support from public funds, an artist creates at least an unexpressed contract between himself or herself and the public, and the public can rightly expect to benefit from the artist's work.
- Which one of the following most accurately describes an error in reasoning in the passage?
- (A) attempting to justify a rule of conduct on the grounds that it confers benefits

- on all of the parties involved
- (B) concluding that a definition is fully applicable to a situation when it is known only that the situation conforms partially to that definition
  - (C) speaking only in abstract terms about matters that involve contingencies and that must be judged on a case-by-case basis
  - (D) confusing the type of mental or emotional activity in which an individual can engage with the mental or emotional states that can characterize groups of individuals
  - (E) treating an issue that requires resolution through political processes as if it were merely a matter of opinion
18. People cannot be morally responsible for things over which they have no control. Therefore, they should not be held morally responsible for any inevitable consequences of such things, either. Determining whether adults have any control over the treatment they are receiving can be difficult. Hence in some cases it can be difficult to know whether adults bear any moral responsibility for the way they are treated. Everyone, however, sometimes acts in ways that are an inevitable consequence of treatment received as an infant and infants clearly cannot control, and so are not morally responsible for, the treatment they receive.
- Anyone making the claims above would be logically committed to which one of the following further claims?
- (A) An infant should never be held morally responsible for an action that infant has performed.
  - (B) There are certain commonly performed actions for which no one performing those actions should ever be held morally responsible.
  - (C) Adults who claim that they have no control over the treatment they are receiving should often be held at least partially responsible for being so treated.
  - (D) If a given action is within a certain person's control that person should be held morally.
  - (E) No adult should be held morally responsible for every action he or she performs.
19. Fares on the city-run public buses in Greenville are subsidized by city tax revenues, but among the beneficiaries of the low fares are many people who commute from outside the city to jobs in Greenville. Some city councilors argue that city taxes should be used primarily to benefit the people who pay them, and therefore that bus fares should be raised enough to cover the cost of the service. Each of the following, if true, would weaken the argument advanced by the city councilors EXCEPT:
- (A) Many businesses whose presence in the city is beneficial to the city's taxpayers would relocate outside the city if public-transit fare were more expensive.

- (B) By providing commuters with economic incentives to drive to work, higher transit fares would worsen air pollution in Greenville and increase the cost of maintaining the city's streets.
- (C) Increasing transit fares would disadvantage those residents of the city whose low incomes make them exempt from city taxes, and all city councilors agree that these residents should be able to take advantage of city-run services.
- (D) Voters in the city, many of whom benefit from the low transit fares, are strongly opposed to increasing local taxes.
- (E) People who work in Greenville and earn wages above the nationally mandated minimum all pay the city wage tax of 5 percent.

20. Government official: Clearly, censorship exists if we, as citizens, are not allowed to communicate what we are ready to communicate at our own expense or if other citizens are not permitted access to our communications at their own expense. Public unwillingness to provide funds for certain kinds of scientific, scholarly, or artistic activities cannot, therefore, be described as censorship.

The flawed reasoning in the government official's argument is most parallel to that in which one of the following?

- (A) All actions that cause unnecessary harm to others are unjust: so if a just action causes harm to others, that action must be necessary.
- (B) Since there is more to good manners than simply using polite forms of address, it is not possible to say on first meeting a person whether or not that person has good manners.
- (C) Acrophobia, usually defined as a morbid fear of heights, can also mean a morbid fear of sharp objects. Since both fears have the same origin.
- (D) There is no doubt that a deed is heroic if the doer risks his or her own life to benefit another person. Thus an action is not heroic if only thing it endangers is the reputation of the doer.
- (E) Perception of beauty in an object is determined by past and present influences on the mind of the beholder. Thus an object can be called beautiful, since not everyone will see beauty in it.

21. The Japanese *haiku* is defined as a poem of three lines with five syllables in the first line, seven syllables in the second line, and five syllables in the third line. English poets tend to ignore this fact. Disregarding syllable count, they generally call any three-line English poem with a "*haiku* feel" a *haiku*. This demonstrates that English poets have little respect for foreign traditions, even those from which some of their own poetry derives.

The reasoning is flawed because it

- (A) confuses matters of objective fact with matters of subjective feeling
- (B) draws a conclusion that is broader in scope than is warranted by the evidence advanced



- (C) relies on stereotypes instead of presenting evidence
- (D) overlooks the possibility that the case it cites is not unique
- (E) fails to acknowledge that ignoring something implies a negative judgment about that thing

Questions 22-23

No one knows what purposes, if any, dreams serve, although there are a number of hypotheses. According to one hypothesis, dreams are produced when the brain is erasing “parasitic connections” (meaningless, accidental associations between ideas), which accumulate during the day and which would otherwise clog up our memories. Interestingly, the only mammal that does not have rapid eye movement sleep, in which we humans typically have our most vivid dreams, is the spiny anteater, which has been seen as anomalous in that it has a very large brain relative to the animal’s size. This fact provides some confirmation for the parasitic-connection hypothesis, since the hypothesis predicts that for an animal that did not dream to have an effective memory that animal would need extra memory space for the parasitic connections.

22. The parasitic-connection hypothesis, if true, most strongly supports which one of the following?
- (A) The animals with the smallest brains spend the most time sleeping.
  - (B) Immediately after a person awakens from normal sleep, her or his memory contains virtually no accidental associations between ideas.
  - (C) When a mammal that would normally dream is prevented from dreaming, the functioning of its memory will be impaired.
  - (D) Insofar as a person’s description of a dream involves meaningful associations between ideas, it is an inaccurate description.
  - (E) All animals other than the spiny anteater dream.
23. The reasoning in the argument most closely conforms to which one of the following principles?
- (A) Facts about one species of animal can provide confirmation for hypothesis about all species that are similar in all relevant respects to the particular species in question.
  - (B) A hypothesis from which several predictions can be drawn as logical conclusions is confirmed only when the majority of these predictions turn out to be true.
  - (C) A hypothesis about the purpose of an action or object is confirmed when it is shown that the hypothesized purpose is achieved with the help of the action or object and could not be achieved without that action or object.
  - (D) A hypothesis is partially confirmed whenever a prediction derived from that hypothesis provides an explanation for an otherwise unexplained set of facts.
  - (E) When several competing hypotheses exist, one of them is confirmed only

when it makes a correct prediction that its rivals fail to make.

24. The body of anyone infected by virus X will, after a week, produce antibodies to fight the virus; the antibodies will increase in number for the next year or so. There is now a test that reliably indicates how many antibodies are present in a person's body. If positive, this test can be used during the first year of infection to estimate to within a month how long that person has had the virus.
- Which one of the following conclusions is best supported by the statements above?
- (A) Antibodies increase in number only until they have defeated the virus.
  - (B) Without the test for antibodies, there is no way of establishing whether a person has virus X.
  - (C) Antibodies are produced only for viral infections that cannot be fought by any other body defenses.
  - (D) If a person remains infected by virus X indefinitely, there is no limit to the number of antibodies that can be present in the person's body.
  - (E) Anyone infected by virus X will for a time fail to exhibit infection if tested by the antibody test.
25. Large inequalities in wealth always threaten the viability of true democracy, since wealth is the basis of political power, and true democracy depends on the equal distribution of political power among all citizens.
- The reasoning in which one of the following arguments most closely parallels the reasoning in the argument above?
- (A) Consumer culture and an emphasis on technological innovation are a dangerous combination, since together they are uncontrollable and lead to irrational excess.
  - (B) If Sara went to the bookstore every time her pocket was full, Sara would never have enough money to cover her living expenses, since books are her love and they are getting very expensive.
  - (C) It is very difficult to write a successful science fiction novel that is set in the past, since historical fiction depends on historical accuracy, whereas science fiction does not.
  - (D) Honesty is important in maintaining friendships. But sometimes honesty can lead to arguments, so it is difficult to predict the effect a particular honesty act will have on a friendship.
  - (E) Repeated encroachments on one's leisure time by a demanding job interfere with the requirements of good health. The reason is that good health depends on regular moderate exercise, but adequate leisure time is essential to regular exercise.

#### SECTION IV

**Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

Questions 1-2

A physician who is too thorough in conducting a medical checkup is likely to subject the patient to the discomfort and expense of unnecessary tests. One who is not thorough enough is likely to miss some serious problem and therefore give the patient a false sense of security. It is difficult for physicians to judge exactly how thorough they should be. Therefore, it is generally unwise for patients to have medical checkups when they do not feel ill.

1. Which one of the following, if true, would most seriously weaken the argument in the passage?
  - (A) Some serious diseases in their early stages have symptoms that physicians can readily detect.
  - (B) Under the pressure of reduced reimbursements, physicians have been reducing the average amount of time they spend on each medical checkup.
  - (C) Patients not medically trained are unable to judge for themselves what degree of thoroughness is appropriate for physicians in conducting medical checkups.
  - (D) Many people are financially unable to afford regular medical checkups.
  - (E) Some physicians sometimes exercise exactly the right degree of thoroughness in performing a medical checkup.
2. Which one of the following, if true, would provide the most support for the conclusion in the passage?
  - (A) Not all medical tests entail significant discomfort.
  - (B) Sometimes unnecessary medical tests cause healthy people to become ill.
  - (C) Some patients refuse to accept a physician's assurance that the patient is healthy.
  - (D) The more complete the series of tests performed in a medical checkup, the more likely it is that a rare disease, if present, will be discovered.
  - (E) Physicians can eliminate the need to order certain tests by carefully questioning patients and rejecting some possibilities on that basis.
3. People often pronounce a word differently when asked to read written material aloud than when speaking spontaneously. These differences may cause problems for those who develop computers that recognize speech. Usually the developers "train" the computers by using samples of written material read by the people who will be using the compute.

The observations above provide most evidence for the conclusion that

  - (A) It will be impossible to develop computers that decode spontaneous speech.
  - (B) When reading written material, people who have different accents pronounce

the same word in the same way as one another.

- (C) Computers may be less reliable in decoding spontaneous speech than in decoding samples that have been read aloud.
- (D) A “trained” computer never correctly decodes the spontaneous speech of a person whose voice sample was used to train it.
- (E) Computers are now able to interpret oral speech without error.

4. One of the requirements for admission to the Lunnville Roller Skating Club is a high degree of skill in roller skating. The club president has expressed concern that the club may have discriminated against qualified women in its admissions this year. Yet half of the applicants admitted to the club this year were women. This proves that there was no discrimination against qualified women applicants in the club’s admissions this year.

Which one of the following is an assumption on which the conclusion of the argument depends?

- (A) Only a few applicants were found to be qualified and were admitted to the club this year.
- (B) No more than half of all the roller skaters in Lunnville are women.
- (C) No more than half of all the roller skaters in Lunnville are men.
- (D) This year no more than half of the applicants who met all the qualifications for admission to the club were women.
- (E) This year no more than half of the members of the club’s committee that makes decisions about applicants’ qualifications were men.

5. When girls are educated in single-sex secondary schools, they tend to do better academically than girls who attend mixed-sex schools. Since Alice achieved higher grades than any other woman in her first year at the university, she was probably educated at a single-sex school.

Which one of the following most closely parallels the flawed reasoning used in the argument above?

- (A) When students have individual tutoring in math, they usually get good grades on their final exams. Celia had individual tutoring in math so she will probably get a good grade.
- (B) When babies are taught to swim, they have more than the average number of ear infections as they grow up. Janice has more ear infections than any other person at the local swimming club, so she probably was taught to swim when she was a baby.
- (C) When children study music at an early age, they later tend to appreciate a wide variety of music, so the talent of future musicians is best fostered at an early age.
- (D) When children practice their piano scales for half an hour each day, they usually pass their piano exams. Sally practices scales for less than half an hour each day, so she will probably fail her piano exam.

(E) When children have parents who help them with their homework, they usually do well in school. Therefore, having help with homework is probably the cause of high academic achievement.

6. In the past century, North America has shifted its main energy source first from wood to coal, then from coal to oil and natural gas. With each transition, the newly dominant fuel has had less carbon and more hydrogen than its predecessor had. It is logical to conclude that in the future the main energy source will be pure hydrogen.

Which one of the following expresses a general principle that could underlie the argument?

- (A) If series of transitions from one state of a system to another state of that system is allowed to continue without interference, the initial state of the series will eventually recur.
- (B) If each of two desirable attributes belongs to a useful substance, then the most useful form of that substance will have those two attributes in equal amounts.
- (C) If the second stage of a process has been completed more quickly than the first stage, the third stage of that process will be completed more quickly than the second stage.
- (D) If each step in a series of changes involves a decrease of one attribute of the thing undergoing the change and an increase of another, the series will terminate with the first attribute eliminated and only the second attribute present.
- (E) If one substance is better for a certain purpose than another substance is, then the best substance for that purpose is one that includes among its attributes all of the attributes of the first substance and none of the attributes of the second substance.

### Questions 7-8

X: Since many chemicals useful for agriculture and medicine derive from rare or endangered plant species, it is likely that many plant species that are now extinct could have provide us with substances that would have been a boon to humanity. Therefore, if we want to ensure that chemicals from plants are available for use in the future, we must make more serious efforts to preserve for all time our natural resource.

Y: But living things are not our “resources.” Yours is a selfish approach to conservation. We should rather strive to preserve living species because they deserve to survive, not because of the good they can do us.

7. Which one of the following is an issue about which X and Y disagree?
- (A) Whether the benefits humans derive from exploring non-human species provides a good reason for preserving non-human species.



- (B) Whether the cost of preserving plant species outweighs the cost of artificially synthesizing chemicals that could otherwise be derived from those species.
  - (C) Whether it is prudent to conserve natural resources.
  - (D) Whether humans should make efforts to prevent the extinction of living species.
  - (E) Whether all non-human species are equally valuable as natural resources.
8. X's argument relies on which one of the following assumptions?
- (A) Medicine would now be more advanced than it is if there had been a serious conservation policy in the past.
  - (B) All living things exist to serve humankind.
  - (C) The use of rare and endangered plant species as a source for chemicals will not itself render those species extinct.
  - (D) The only way to persuade people to preserve natural resources is to convince them that it is in their interest to do so.
  - (E) Few, if any, plant species have been saved from extinction through human efforts.
9. There is relatively little room for growth in the overall carpet market, which is tied to the size of the population. Most who purchase carpet do so only once or twice, first in their twenties or thirties, and then perhaps again in their fifties or sixties. Thus as the population ages, companies producing carpet will be able to gain market share in the carpet market only through purchasing competitors, and not through more aggressive marketing.
- Which one of the following, if true, casts the most doubt on the conclusion above?
- (A) Most of the major carpet producers market other floor coverings as well.
  - (B) Most established carpet producers market several different brand names and varieties, and there is no remaining niche in the market for new brands to fill.
  - (C) Two of the three mergers in the industry's last ten years led to a decline in profits and revenues for the newly merged companies.
  - (D) Price reductions, achieved by cost-cutting in production, by some of the dominant firms in the carpet market are causing other producers to leave the market altogether.
  - (E) The carpet market is unlike most markets in that consumers are becoming increasingly resistant to new patterns and styles.
10. Decision makers tend to have distinctive styles. One such style is for the decision maker to seek the widest possible input from advisers and to explore alternatives while making up his or her mind. In fact, decision makers of this sort will often argue vigorously for a particular idea, emphasizing its strong points and downplaying its weaknesses, not because they actually believe in the idea but

because they want to see if their real reservations about it are idiosyncratic or are held independently by their advisers.

Which one of the following is most strongly supported by the statement above?

- (A) If certain decision makers' statements are quoted accurately and at length; the content of the quote could nonetheless be greatly at variance with the decision eventually make.
- (B) Certain decision makers do not know which ideas they do not really believe in until after they have presented a variety of ideas to their advisers.
- (C) If certain decision makers dismiss an idea out of hand, it must be because its weaknesses are more pronounced than any strong points it may have.
- (D) Certain decision makers proceed in a way that makes it likely that they will frequently decide in favor of ideas in which they do not believe.
- (E) If certain decision makers' advisers know the actual beliefs of those they advise, those advisers will give better advice than they would if they did not know those beliefs.

Questions 11-12

The foreign minister of Zeria announced today that her country was severing diplomatic relations with Nandalo because of Nandalo's flagrant violations of human rights. But Zeria continues to maintain diplomatic relations with many countries that the minister knows to have far worse human-rights records than Nandalo does. Therefore, despite the foreign minister's claim, this latest diplomatic move cannot be explained exclusively by Zeria's commitment to upholding human rights.

11. Which one of the following, if true, provides the most support for the argument in the passage?
- (A) The country that currently buys most of Zeria's exports recently suggested that it might severely restrict its imports from Zeria unless Zeria broke off Diplomatic relations with Nandalo.
  - (B) Two weeks after the Zerian minister's announcement, several other countries cited human-rights violations as a reason for severing diplomatic relations with Nandalo.
  - (C) More countries have expressed concern over reported human-rights violations in Nandalo than have expressed concern over human-rights violations in Zeria.
  - (D) Nandalo has considered accusing Zeria of violating the human rights of Nandalo citizens living in Zeria.
  - (E) The opposition party in Zeria has long advocated severing trade relations with countries that systematically violate human rights but has opposed severing diplomatic relations.
12. The argumentative structure of which one of the following most closely parallels that of the argument in the passage?

- (A) Henry's parents insist that he eat breakfast before leaving for school because not doing so would be bad for his health. But his parents themselves almost never eat breakfast, so their insistence cannot be completely explained by their concern for his health.
- (B) Professor Walsh says that only typed term papers will be accepted because most handwriting is difficult to read. But since she lectures from handwritten notes, her policy cannot be exclusively explained by any difficulty she has with handwritten material.
- (C) James claims that he stole only because he was hungry. But although hunger could account for stealing if food could not be readily obtained in any other way, in this case food was otherwise readily available, and so James theft cannot be completely explained by his hunger.
- (D) Armand declined Helen's invitation to dinner on the grounds that socializing with coworkers is imprudent. But since Armand went to a movie with another coworker, Maria, that same evening, his expressed concern for prudence cannot fully explain his refusal.
- (E) It is often asserted that there are fewer good teachers than there used to be because teachers' salaries have reached a new low. But teachers have always been poorly paid, so low salaries cannot fully explain this perceived decline in the effectiveness of teachers.
13. Few politicians will support legislation that conflicts with their own self-interest. A case in point is August Frenson, who throughout his eight terms in office consistently opposed measures limiting the advantage incumbents enjoy over their challengers. Therefore, if such measures are to be enacted, they must result from direct popular vote rather from legislative action.
- The case of August Frenson plays which one of the following roles in the argument?
- (A) It provides evidence, the falsity of which would guarantee the falsity of the author's conclusion.
- (B) It is cited as an example illustrating the generalization that is invoked.
- (C) It gives essential background information concerning a measure being advocated.
- (D) It demonstrates the extent to which incumbents have the advantage over challengers.
- (E) It gives an example of the limits of direct popular vote.
14. In a learning experiment a researcher ran rats through a maze. Some of the rats were blind, others deaf, others lacked a sense of smell, and others had no sensory deficiencies: yet all the rats learned the task in much the same amount of time. Of the senses other than sight, hearing, and smell, only kinesthesia had not previously been shown to be irrelevant to maze-learning. The researcher concluded on the basis of these facts that kinesthesia, the sensation of bodily

movement, is sufficient for maze-learning.

The researcher's reasoning is most vulnerable to which one of the following criticisms?

- (A) The small differences in proficiency found by the researcher did not appear to fall into a systematic pattern by group.
  - (B) The possibility that the interaction of kinesthesia with at least one other sense is required for maze-learning cannot be ruled out on the basis of the data above.
  - (C) It can be determined from the data that rats who are deprived of one of their sources of sensory stimulation become more reliant on kinesthesia than they had been, but the data do not indicate how such a transference takes place.
  - (D) It can be determined from the data that rats can learn to run mazes by depending on kinesthesia alone, but the possibility that rats respond to non-kinesthetic stimulation is not ruled out.
  - (E) It can be determined from the data that maze-learning in rats depends on at least two sources of sensory stimulation, one of which is kinesthesia, but which of the remaining sources must also be employed is not determinable.
15. New legislation would require a seven-day waiting period in the sale of handguns to private individuals, in order that records of prisons could be checked and the sale of handguns to people likely to hurt other people thereby prevented. People opposed to this legislation claim that prison records are so full of errors that the proposed law would prevent as many law-abiding citizens as criminals from having access to handguns.
- If the claim made by people opposed to the new legislation is true, which one of the following is a principle that, if established, would do the most to justify opposition to the new legislation on the basis of that claim?
- (A) The rights of law-abiding citizens are more worthy of protection than are the rights of criminals.
  - (B) Nothing should be done to restrict potential criminals at the cost of placing restrictions on law-abiding citizens.
  - (C) Legislation should not be enacted if no benefit could accrue to society as a result of that legislation.
  - (D) No restrictions should be placed on the sale of merchandise unless sale of that merchandise could endanger innocent people.
  - (E) Even citizens who are neither fugitives nor felons should not be permitted to own a handgun unless they have received adequate training.

Questions 16-17

The Gulches is an area of volcanic rock that is gashed by many channels that lead downhill from the site of a prehistoric glacier to a river. The channels clearly were cut by running water. It was once accepted as fact that the cutting occurred gradually, as

the glacier melted. But one geologist theorized that the channels were cut in a short time by an enormous flood. The channels do show physical evidence of having been formed quickly, but the flood theory was originally rejected because scientists knew of no natural process that could melt so much ice so quickly. Paradoxically, today the scientific community accepts the flood theory even though scientists still do not know of a process that can melt so much ice so quickly.

16. Which one of the following is supported by the information in the passage?
- (A) Only running water can cause deep channels in volcanic rock.
  - (B) The river did not exist before the channels were cut.
  - (C) Geologists cannot determine the amount of heat required to melt a glacier quickly.
  - (D) The physical effects of water on rock vary with the speed with which those effects are produced.
  - (E) Geologists are compelled to reject physical evidence when it leads to an unexplainable conclusion.
17. Which one of the following, if true, most helps to resolve the apparent paradox in the passage?
- (A) Ripples, which indicate that the channels were cut by water, have been discovered in the floors of the channels.
  - (B) The Gulches is known to be similar in certain respects to many other volcanic rock formations.
  - (C) More than one glacier was present in the area during prehistoric times.
  - (D) Volcanic rock is more easily cut by water than are other forms of rock.
  - (E) Scientists now believe that the prehistoric glacier dammed a source of water, created a huge lake in the process, and then retreated.
18. Advertisement: Attention pond owners! Ninety-eight percent of mosquito larvae in a pond die within minutes after the pond has been treated with BTI. Yet BTI is not toxic to fish, birds, animals, plants, or beneficial insects. So by using BTI regularly to destroy their larvae, you can greatly reduce populations of pesky mosquitoes that hatch in your pond, and you can do so without diminishing the populations of fish, frogs, or beneficial insects in and around the pond.
- Which one of the following is an assumption on which the argument depends?
- (A) The most effective way to control the numbers of mosquitoes in a given area is to destroy the mosquito larvae in that area.
  - (B) Populations of mosquitoes are not dependent on a single body of water within an area as a place for their larvae to hatch and develop.
  - (C) There are no insect pests besides mosquitoes that pond owners might want to eliminate from in and around their pond.
  - (D) The effectiveness of BTI in destroying mosquito larvae in a pond does not require the pond owner's strict adherence to specific application procedures.



(E) The fish, frogs, and beneficial insects in and around a pond-owner's pond do not depend on mosquito larvae as an important source of food.

19. Many people change their wills on their own every few years, in response to significant changes in their personal or financial circumstances. This practice can create a problem for the executor when these people are careless and do not date their wills: the executor will then often know neither which one of several undated wills is the most recent, nor whether the will drawn up last has ever been found. Therefore, people should not only date their wills but also state in any new will which will it supersedes, for then there would not be a problem to begin with.

The reasoning in the argument is flawed because the argument

- (A) treats a partial solution to the stated problem as though it were a complete solution
- (B) fails to distinguish between prevention of a problem and successful containment of the adverse effects that the problem might cause
- (C) proposes a solution to the stated problem that does not actually solve the problem but merely makes someone else responsible for solving the problem
- (D) claims that a certain action would be a change for the better without explicitly considering what negative consequences the action might have
- (E) proposes that a certain action be based on information that would be unavailable at the time proposed for that action

20. Some flowering plant species, entirely dependent on bees for pollination, lure their pollinators with abundant nectar and pollen, which are the only source of food for bees. Often the pollinating species is so highly adapted that it can feed from—and thus pollinate—only a single species of plant. Similarly, some plant species have evolved flowers that only a single species of bee can pollinate—an arrangement that places the plant species at great risk of extinction. If careless applications of pesticides destroy the pollinating bee species, the plant species itself can no longer reproduce.

The information above, if true, most strongly supports which one of the following?

- (A) The earliest species of flowering plants appeared on Earth contemporaneously with the earliest bee species.
- (B) If the sole pollinator of a certain plant species is in no danger of extinction, the plant species it pollinates is also unlikely to become extinct.
- (C) Some bees are able to gather pollen and nectar from any species of plant.
- (D) The blossoms of most species of flowering plants attract some species of bees and do not attract others.
- (E) The total destruction of the habitat of some plant species could cause some bee species to become extinct.

21. The proper way to plan a scientific project is first to decide its goal and then to plan the best way to accomplish that goal. The United States space station project does not conform to this ideal. When the Cold War ended, the project lost its original purpose, so another purpose was quickly grafted onto the project, that of conducting limited-gravity experiments, even though such experiments can be done in an alternative way. It is, therefore, abundantly clear that the space station should not be built.

The reasoning in the argument is flawed because the argument

- (A) attacks the proponents of a claim rather than arguing against the claim itself
  - (B) presupposes what it sets out to prove
  - (C) faults planners for not foreseeing a certain event, when in fact that event was not foreseeable
  - (D) contains statements that lead to a self-contradiction
  - (E) concludes that a shortcoming is fatal, having produced evidence only of the existence of that shortcoming
22. Only an expert in some branch of psychology could understand why Patrick is behaving irrationally. But no expert is certain of being able to solve someone else's problem. Patrick wants to devise a solution to his own behavioral problem. Which one of the following conclusions can be validly drawn from the passage?
- (A) Patrick does not understand why he is behaving in this way.
  - (B) Patrick is not an expert in psychology.
  - (C) Patrick is not certain of being able to devise a solution to his own behavioral problem.
  - (D) Unless Charles is an expert in some branch of psychology, Charles should not offer a solution to Patrick's behavioral problem.
  - (E) If Charles is certain of being able to solve Patrick's behavioral problem, then Charles does not understand why Patrick is behaving in this way.
23. Throughout European history famines have generally been followed by period of rising wages, because when a labor force is diminished, workers are more valuable in accordance with the law of supply and demand. The Irish potato famine of the 1840s is an exception; it resulted in the death or emigration of half of Ireland's population, but there was no significant rise in the average wages in Ireland in the following decade.
- Which one of the following, if true, would LEAST contribute to an explanation of the exception to the generalization?
- (A) Improved medical care reduced the mortality rate among able-bodied adults in the decade following the famine to below prefamine levels.
  - (B) Eviction policies of the landowners in Ireland were designed to force emigration of the elderly and infirm, who could not work, and to retain a high percentage of able-bodied workers.

- (C) Advances in technology increased the efficiency of industry and agriculture, and so allowed maintenance of economic output with less demand for labor.
- (D) The birth rate increased during the decade following the famine, and this compensated for much of the loss of population that was due to the famine.
- (E) England, which had political control of Ireland, legislated artificially low wages to provide English-owned industry and agriculture in Ireland with cheap labor.
24. When the rate of inflation exceeds the rate of return on the most profitable investment available, the difference between those two rates will be the percentage by which, at a minimum, the value of any investment will decline. If in such a circumstance the value of a particular investment declines by more than that percentage. It must be true that \_\_\_\_\_
- Which one of the following logically completes the argument?
- (A) the rate of inflation has risen
- (B) the investment in question is becoming less profitable
- (C) the investment in question is less profitable than the most profitable investment available
- (D) the rate of return on the most profitable investment available has declined
- (E) there has been a change in which particular investment happens to be the most profitable available
25. Philosopher: The eighteenth-century thesis that motion is absolute asserts that the change in an object's position over time could be measured without reference to the position of any other object. A well-respected physicist, however, claims that this thesis is incoherent. Since a thesis that is incoherent cannot be accepted as a description of reality, motion cannot be absolute.
- The argument uses which one of the following argumentative techniques?
- (A) attempting to persuade by the mere use of technical terminology
- (B) using experimental results to justify a change in definition
- (C) relying on the authority of an expert to support a premise
- (D) inferring from what has been observed to be the case under experimental conditions to what is in principle true
- (E) generalizing from what is true in one region of space to what must be true in all regions of space

## TEST 12

### SECTION II

Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

Question 1-2

1. Sea turtles nest only at their own birthplaces. After hatching on the beach, the turtles enter the water to begin their far-ranging migration, only returning to their birthplace to nest some 15 to 30 years later. It has been hypothesized that newborn sea turtles learn the smell of their environment, and it is this smell that stimulates the turtles to return to nest.

Which one of the following, if true, would cast the most serious doubt on the hypothesis in the passage?

- (A) Beaches on which sea turtles nest tend to be in secluded locations such as on islands.
  - (B) Sea turtles exposed to a variety of environments under experimental conditions preferred the environment that contained sand from their own birthplaces.
  - (C) Electronic tags attached to sea turtles did not alter their nesting patterns.
  - (D) Unlike other types of turtles, sea turtles have a well-developed sense of smell.
  - (E) Sea turtles that have their sense of smell destroyed by exposure to petroleum products returned to nest at their own birthplaces.
2. Which one of the following would be most important to know in evaluating the hypothesis in the passages?
- (A) how long the expected life span of sea turtles
  - (B) what the maximum migration range of the sea turtles is
  - (C) whether many beaches on which sea turtles were hatched have since been destroyed by development
  - (D) before returning to the nest, sea turtles are outside the area where the smell of their birthplace would be perceptible
  - (E) whether both sex of sea turtles are actively involved in the nesting process
3. For Juanita to get to the zoo she must take either the number 12 bus or else the subway. Everyone knows that the number 12 bus is not running this week; so although Juanita generally avoids using the subway, she must have used it today, since she was seen at the zoo this afternoon.
- The method of the argument is to
- (A) assert that if something is true, it will be known to be true
  - (B) demonstrate that certain possibilities are not exclusive
  - (C) show that something is the case by ruling out the only alternative
  - (D) explain why an apparent exception to a general rule is not a real
  - (E) substitutes a claim about what invariably occurs for a claim about what typically occurs

4. If the regulation of computer networks is to be modeled on past legislation, then

its model must be either legislation regulating a telephone system or else legislation regulating a public broadcasting service. If the telephone model is used, computer networks will be held responsible only for ensuring that messages get transmitted. If the public broadcast model is used, computer networks will additionally be responsible for the content of those messages. Yet a computer network serves both these sorts of functions: it can serve as a private message service or as a publicly accessible information service. Thus neither of these models can be appropriate for computer networks.

The passage is structured to lead to which one of the following conclusions?

- (A) Regulation of computer networks is required in order to ensure the privacy of the messages transmitted through such networks.
- (B) The regulation of computer networks should not be modeled on any single piece of past legislation.
- (C) Computer networks were developed by being modeled on both telephone systems and television networks.
- (D) Legislators who do not have extensive experience with computers should not attempt to write legislation regulating computer networks.
- (E) A computer network merely duplicates the functions of a telephone systems and a television system.

5. The government has proposed a plan requiring young people to perform services to correct various current social ills, especially those in education and housing. Government service, however, should be compelled only in response to a direct threat to the nation's existence. For that reason, the proposed program should not be implemented.

Which one of the following is an assumption on which the government depends?

- (A) Government-required service by young people cannot correct all social ills.
- (B) The nation's existence is directly threatened only in times of foreign attack.
- (C) Crises in education and housing constitute a threat to the nation's existence.
- (D) The nation's young people believe that current social ills pose no direct threat to the nation's existence.
- (E) Some of the social ills that currently afflict the nation do not pose a direct threat to the nation's existence.

6. Cigarette smoking has been shown to be a health hazard; therefore, governments should ban all advertisements that promote smoking.

Which one of the following principles, if established, most strongly supports the argument?

- (A) Advertisements should not be allowed to show people doing things that endanger their health.
- (B) Advertisers should not make misleading claims about the healthfulness of their products.



- (C) Advertisements should disclose the health hazards associated with the products they promote.
- (D) All products should conform to strict government health and safety standards.
- (E) Advertisements should promote only healthful products.
7. Every adult male woolly monkey is larger than even the largest female woolly monkey. In colonies of woolly monkeys, any adult male will dominate any female.
- If the statements above are true, which one of the following must on the basis of them be true of woolly monkeys in colonies?
- (A) Size is the primary determinant of relations of dominance among woolly monkeys.
- (B) Some large adolescent male woolly monkeys dominate some smaller females of the species.
- (C) If a male woolly monkey is larger than a female of the species, that male will dominate that female.
- (D) If a female woolly monkey dominates a male of the species, the dominated male monkey is not an adult.
- (E) An adult male woolly monkey can dominate a female of the species only if that female is also an adult.
8. S: Our nation is becoming too averse to risk. We boycott any food reported to contain a toxic chemical, even though the risk, as a mathematical ratio, might be minimal. With this mentality, Columbus would never have sailed west.
- T: A risk-taker in one context can be risk-averse in another: the same person can drive recklessly, but refuse to eat food not grown organically.
- T responds to S by showing that
- (A) a distinction should be made between avoidable and unavoidable risks
- (B) aversion to risk cannot be reliably assessed without reference to context
- (C) there is confusion about risk in the minds of many members of the public
- (D) mathematical odds concerning risk give an unwarranted impression of precision
- (E) risk cannot be defined in relation to perceived probable benefit
9. Any announcement authorized by the head of the department is important. However, announcements are sometimes issued, without authorization, by people other than the head of the department, so some announcements will inevitably turn out not to be important.
- The reasoning is flawed because the argument
- (A) does not specify exactly which communications are to be classified as announcements

- (B) overlooks the possibility that people other than the head of the department have the authority to authorize announcements
- (C) leaves open the possibility that the head of the department never, in fact, authorizes any announcements
- (D) assumes without warrant that just because satisfying a given condition is enough to ensure an announcement's importance, satisfying that condition is necessary for its importance
- (E) fails to distinguish between the importance of the position someone holds and the importance of what that person may actually be announcing on a particular occasion

Questions 10-11

The labeling of otherwise high-calorie foods as “sugar-free,” based on the replacement of all sugar by artificial sweeteners, should be prohibited by law. Such a prohibition is indicated because many consumers who need to lose weight will interpret the label “sugar-free” as synonymous with “low in calories” and harm themselves by building weight-loss diets around foods labeled “sugar-free.” Manufacturers of sugar-free foods are well aware of this tendency on the part of consumers.

10. Which one of the following principles, if established, most helps to justify the conclusion in the passage?
- (A) Product labels that are literally incorrect should be prohibited by law, even if reliance on those labels is not likely to cause harm to consumers.
  - (B) Product labels that are literally incorrect, but in such an obvious manner that no rational consumer would rely on them, should nevertheless be prohibited by law.
  - (C) Product labels that are literally correct but cannot be interpreted by the average buyer of the product without expert help should be prohibited by law.
  - (D) Product labels that are literally correct but will predictably be misinterpreted by some buyers of the product to their own harm should be prohibited by law.
  - (E) Product labels that are literally correct, but only on one of two equally accurate interpretations, should be prohibited by law if buyers tend to interpret the label in the way that does not match the product's actual properties.
11. Which one of the following, if true, provides the strongest basis for challenging the conclusion in the passage?
- (A) Food manufacturers would respond to a ban on the label “sugar-free” by reducing the calories in sugar-free products by enough to be able to promote those products as diet foods.

- (B) Individuals who are diabetic need to be able to identify products that contain no sugar by reference to product labels that expressly state that the product contains no sugar.
- (C) Consumers are sometimes slow to notice changes in product labels unless those changes are themselves well advertised.
- (D) Consumers who have chosen a particular weight-loss diet tend to persist with this diet if they have been warned not to expect very quick results.
- (E) Exactly what appears on a product label is less important to consumer behavior than is the relative visual prominence of the different pieces of information that the label contains.
12. In the Centerville Botanical Gardens, all tulip trees are older than any maples. A majority, but not all, of the garden's sycamores are older than any of its maples. All the garden's maples are older than any of its dogwoods.
- If the statements above are true, which one of the following must also be true of trees in the Centerville Botanical Gardens?
- (A) Some dogwoods are as old as the youngest tulip trees.
- (B) Some dogwoods are as old as the youngest sycamores.
- (C) Some sycamores are not as old as the oldest dogwoods.
- (D) Some tulip trees are not as old as the oldest sycamores.
- (E) Some sycamores are not as old as the youngest tulip trees.
13. Emissions from automobiles that burn gasoline and automobiles that burn diesel fuel are threatening the quality of life on our planet, contaminating both urban air and global atmosphere. Therefore, the only effective way to reduce such emissions is to replace the conventional diesel fuel and gasoline used in automobiles with cleaner-burning fuels, such as methanol, that create fewer emissions.
- Which one of the following is an assumption on which the argument depends?
- (A) Reducing the use of automobiles would not be a more effective means to reduce automobile emissions than the use of methanol.
- (B) There is no fuel other than methanol that is cleaner-burning than both diesel fuel and gasoline.
- (C) If given a choice of automobile fuels, automobile owners would not select gasoline over methanol.
- (D) Automobile emissions constitute the most serious threat to the global environment.
- (E) At any given time there is a direct correlation between the level of urban air pollution and the level of contamination present in the global atmosphere.
14. Dr. Libokov: Certain islands near New Zealand are home to the tuatara, reptiles that are the sole surviving members of the sphenodontidans. Sphenodontidans were plentiful throughout the world during the age of the dinosaurs. But the

survival of sphenodontidans near New Zealand, and their total disappearance elsewhere, is no mystery. New Zealand and nearby islands have no native land mammals. Land mammals, plentiful elsewhere, undoubtedly became major predators of sphenodontidans and their eggs, leading to their extinction.

Dr. Santos: In fact, the tuatara thrive only on a few islands near New Zealand. On all those where land mammals, such as rats, dogs, or cats, have been introduced in recent years, the tuatara are now extinct or nearly so.

Which one of the following most accurately characterizes Dr. Santos' response to the hypothesis advanced by Dr. Libokov?

- (A) It identifies a flaw in Dr. Libokov's reasoning.
  - (B) It restates Dr. Libokov's major hypothesis and thus adds nothing to it.
  - (C) It contradicts one of Dr. Libokov's assertions.
  - (D) It offers a hypothesis that is incompatible with Dr. Libokov's position.
  - (E) It provides additional evidence in support of Dr. Libokov's hypothesis.
15. A standard problem for computer security is that passwords that have to be typed on a computer keyboard are comparatively easy for unauthorized users to steal or guess. A new system that relies on recognizing the voices of authorized users apparently avoids this problem. In a small initial trial, the system never incorrectly accepted someone seeking access to the computer's data. Clearly, if this result can be repeated in an operational setting, then there will be a way of giving access to those people who are entitled to access and to no one else.
- The reasoning above is flawed because it
- (A) makes a faulty comparison, in that a security system based on voice recognition would not be expected to suffer from the same problems as one that relied on passwords entered from a keyboard
  - (B) bases a general conclusion on a small amount of data
  - (C) fails to recognize that a security system based on voice recognition could easily have applications other than computer security
  - (D) ignores the possibility that the system sometimes denies access to people who are entitled to access
  - (E) states its conclusion in a heavily qualified way
16. Body temperature varies over a 24-hour period, with a low point roughly between 4 a.m. and 5 a.m. Speed of reaction varies in line with body temperature, such that whenever body temperature is low, speed of reaction is low. If low body temperature caused slow reaction, the speed of reaction should increase if we artificially raised body temperature during the period 4 a.m. to 5 a.m. But the speed of reaction does not increase.

Which one of the following conclusions can properly be drawn from the above statements?

- (A) Low speeds of reaction cause low body temperature.

- (B) Low speeds of reaction do not cause low body temperature.
- (C) Low body temperatures do not cause low speeds of reaction.
- (D) Low body temperatures cause low speeds of reaction.
- (E) Artificially raising body temperature causes increased speed of reaction.
17. Of the two proposals for solving the traffic problems on Main Street, Chen's plan is better for the city as a whole, as is clear from the fact that the principal supporter of Ripley's plan is Smith Stores. Smith Stores, with its highly paid consultants, knows where its own interest lies and, moreover, has supported its own interests in the past, even to the detriment of the city as a whole.
- The faulty reasoning in which one of the following is most parallel to that in the argument above?
- (A) Surely Centreville should oppose adoption of the regional planning commission's new plan since it is not in Centreville's interest, even though it might be in the interest of some towns in the region.
- (B) The school board should support the plan for the new high school since this plan was recommended by the well-qualified consultants whom the school board hired at great expense.
- (C) Of the two budget proposals, the mayor's is clearly preferable to the city council's, since the mayor's budget addresses the needs of the city as a whole, whereas the city council is protecting special interests.
- (D) Nomura is clearly a better candidate for college president than Miller, since Nomura has the support of the three deans who best understand the president's job and with whom the president will have to work most closely.
- (E) The planned light-rail system will clearly serve suburban areas well, since its main opponent is the city government, which has always ignored the needs of the suburbs and sought only to protect the interests of the city.

Questions 18-19

The format of network television news programs generally allows advocates of a point of view only 30 seconds to convey their message. Consequently, regular watchers become accustomed to thinking of issues in terms only of slogans and catch phrases, and so the expectation of careful discussion of public issues gradually disappears from their awareness. The format of newspaper stories, on the other hand, leads readers to pursue details of stories headed by the most important facts and so has the opposite effect on regular readers—that of maintaining the expectation of careful discussion of public issues. Therefore, in contrast to regular newspaper reading, regular watching of network television news programs increases the tendency to think of public issues in oversimplified terms.

18. The argument assumes which one of the following?
- (A) Viewers of network television news programs would be interested in seeing advocates of opposing views present their positions at length.



- (B) Since it is not possible to present striking images that would symbolize events for viewers, and since images hold sway over words in television, television must oversimplify.
  - (C) It is not possible for television to present public issues in a way that allows for the nuanced presentation of diverse views and a good-faith interchange between advocates of opposing views.
  - (D) In network television news reports, it is not usual for a reporter to offer additional factual evidence and background information to develop a story in which opposing views are presented briefly by their advocates.
  - (E) Television news reporters introduce more of their own biases into news stories than do newspaper reporters.
19. Which one of the following, if true, most seriously weakens the argument?
- (A) Regular watchers of network television news programs are much more likely than other people to be habitual readers of newspapers.
  - (B) Including any 30-second quotations from proponents of diverse views, the total amount of time devoted to a single topic on regular network television news programs averages less than one and a half minutes.
  - (C) The format of network television news programs does not include roundtable discussion of issues among informed proponents of diverse views.
  - (D) Television news reports tend to devote equal time to discussion of opposing views.
  - (E) People who watch the most television, measured in average number of hours of watching per week, tend not to be regular readers of newspapers.

Questions 20-21

A recent report on an environmental improvement program was criticized for focusing solely on pragmatic solutions to the large number of significant problems that plague the program instead of seriously trying to produce a coherent vision for the future of the program. In response the report's authors granted that the critics had raised a valid point but explained that, to do anything at all, the program needed continued government funding, and that to get such funding the program first needed to regain a reputation for competence.

20. The basic position taken by the report's authors on the criticism leveled against the report is that
- (A) addressing the critics' concern now would be premature
  - (B) the critics' motives are self-serving
  - (C) the notion of a coherent vision would be inappropriate to a program of the sort at issue
  - (D) the authors of the report are more knowledgeable than its critics
  - (E) giving the report a single focus is less desirable than the critics claim

21. Which one of the following, if true, would best serve the critics of the report in their attempt to undermine the position taken by the report's authors?
- (A) The government does not actually provide a full 100 percent of the program's funding.
  - (B) The program will continue to have numerous serious problems precisely because it lacks a coherent vision for its future.
  - (C) The program had a coherent vision at its inception, but that vision has proved impossible to sustain.
  - (D) The government has threatened to cut off funding for the program but has not acted yet on this threat.
  - (E) The program has acquired a worse reputation for incompetence than it deserves.
22. Oil company representative: We spent more money on cleaning the otters affected by our recent oil spill than has been spent on any previous marine mammal rescue project. This shows our concern for the environment.
- Environmentalist: You have no such concern. Your real concern is evident in your admission to the press that news photographs of oil-covered otters would be particularly damaging to your public image, which plays an important role in your level of sales.
- The environmentalist's conclusion would be properly drawn if it were true that the
- (A) oil company cannot have more than one motive for cleaning the otters affected by the oil spill
  - (B) otter population in the area of the oil spill could not have survived without the cleaning project
  - (C) oil company has always shown a high regard for its profits in choosing its courses of action
  - (D) government would have spent the money to clean the otters if the oil company had not agreed to do it
  - (E) oil company's efforts toward cleaning the affected otters have been more successful than have such efforts in previous projects to clean up oil spills
23. A group of scientists studying calcium metabolism in laboratory rats discovered that removing the rats' parathyroid glands resulted in the rats' having substantially lower than normal levels of calcium in their blood. This discovery led the scientists to hypothesize that the function of the parathyroid gland is to regulate the level of calcium in the blood by raising that level when it falls below the normal range. In a further experiment, the scientists removed not only the parathyroid gland but also the adrenal gland from rats. They made the surprising discovery that the level of calcium in the rats' blood decreased much less sharply than when the parathyroid gland alone was removed.

Which one of the following, if true, explains the surprising discovery in a way

most consistent with the scientists' hypothesis?

- (A) The adrenal gland acts to lower the level of calcium in the blood.
- (B) The adrenal gland and the parathyroid gland play the same role in regulating calcium blood levels.
- (C) The absence of a parathyroid gland causes the adrenal gland to increase the level of calcium in the blood.
- (D) If the adrenal gland, and no other gland, of a rat were removed, the rat's calcium level would remain stable.
- (E) The only function of the parathyroid gland is to regulate the level of calcium in the blood.

24. Since Mayor Drabble always repays her political debts as soon as possible, she will almost certainly appoint Lee to be the new head of the arts commission. Lee has wanted that job for a long time, and Drabble owes Lee a lot for his support in the last election.

Which one of the following is an assumption on which the argument depends?

- (A) Mayor Drabble has no political debt that is both of longer standing than the one she owes to Lee and could as suitably be repaid by an appointment to be the new head of the arts commission.
- (B) There is no one to whom Mayor Drabble owes a greater political debt for support in the last election than the political debt she owes to Lee.
- (C) Lee is the only person to whom Mayor Drabble owes a political debt who would be willing to accept an appointment from her as the new head of the arts commission.
- (D) Whether Lee is qualified to head the arts commission is irrelevant to Mayor Drabble's decision.
- (E) The only way that Mayor Drabble can adequately repay her political debt to Lee is by appointing him to head the arts commission.

25. The fact that tobacco smoke inhaled by smokers harms the smokers does not prove that the much smaller amount of tobacco smoke inhaled by nonsmokers who share living space with smokers harms the nonsmokers to some degree. Many substances, such as vitamin A, are toxic in large quantities but beneficial in small quantities.

In which one of the following is the pattern of reasoning most similar to that in the argument above?

- (A) The fact that a large concentration of bleach will make fabric very white does not prove that a small concentration of bleach will make fabric somewhat white. The effect of a small concentration of bleach may be too slight to change the color of the fabric.
- (B) Although a healthful diet should include a certain amount of fiber, it does not follow that a diet that includes large amounts of fiber is more healthful than one that includes smaller amounts of fiber. Too much fiber can interfere

with proper digestion.

- (C) The fact that large amounts of chemical fertilizers can kill plants does not prove that chemical fertilizers are generally harmful to plants. It proves only that the quantity of chemical fertilizer used should be adjusted according to the needs of the plants and the nutrients already in the soil.
- (D) From the fact that five professional taste testers found a new cereal product tasty, it does not follow that everyone will like it. Many people find broccoli a tasty food, but other people have a strong dislike for the taste of broccoli.
- (E) Although watching television for half of every day would be a waste of time, watching television briefly every day is not necessarily even a small waste of time. After all, it would be a waste to sleep half of every day, but some sleep every day is necessary.

26. Why should the government, rather than industry or universities, provide the money to put a network of supercomputers in place? Because there is a range of problems that can be attacked only with the massive data-managing capacity of a supercomputer network. No business or university has the resources to purchase by itself enough machines for a whole network, and no business or university wants to invest in a part of a network if no mechanism exists for coordinating establishment of the network as a whole.

Which one of the following indicates a weakness in the argument?

- (A) It does not furnish a way in which the dilemma concerning the establishment of the network can be resolved.
- (B) It does not establish the impossibility of creating a supercomputer network as an international network.
- (C) It fails to address the question of who would maintain the network if the government, rather than industry or universities, provides the money for establishing it.
- (D) It takes for granted and without justification that it would enhance national preeminence in science for the government to provide the network.
- (E) It overlooks the possibility that businesses or universities, or both, could cooperate to build the network.

#### SECTION IV

#### **Time 35 minutes 24 Questions**

***Directions: The questions in this section are based on the reasoning contained in brief statements or passages...***

1. Megatrash Co., the country's largest waste-disposal company, has been sued by environmental groups who have accused the firm of negligent handling of hazardous waste. The fines and legal fees that have resulted from the legal attacks against Megatrash have cost the company substantial amounts of money. Surprisingly, as successful lawsuits against the company have increased in number, the company has grown stronger and more profitable.

Which one of the following, if true, does the most to resolve the apparent paradox?

- (A) Although waste-disposal firms merely handle but do not generate toxic waste, these firms have been held legally responsible for environmental damage caused by this waste.
- (B) Megatrash has made substantial contributions to environmental causes, as have other large waste-disposal companies.
- (C) Some of the judgments against Megatrash have legally barred it from entering the more profitable areas of the waste-management business.
- (D) The example of Megatrash's legal entanglements has driven most of the company's competitors from the field and deterred potential rivals from entering it.
- (E) In cases in which Megatrash has been acquitted of charges of negligence, the company has paid more in legal fees than it would have been likely to pay in fines.

2. Lewis: Those who do not learn from past mistakes—their own and those of others—are condemned to repeat them. In order to benefit from the lessons of history, however, we first have to know history. That is why the acquisition of broad historical knowledge is so important.

Morris: The trouble is that the past is infinitely various. From its inexhaustible storehouse of events it is possible to prove anything or its contrary.

The issue that Morris raises in objecting to Lewis' view is whether

- (A) there are any uncontested historical facts
- (B) historical knowledge can be too narrow to be useful
- (C) history teaches any unequivocal lessons
- (D) there are conventional criteria for calling a past action a mistake
- (E) events in the present are influenced by past events

3. A group of scientists who have done research on the health effects of food irradiation has discovered no evidence challenging its safety. Supporters of food irradiation have cited this research as certain proof that food irradiation is a safe practice.

A flaw in the reasoning of the supporters of food irradiation is that they

- (A) assume that the scientists doing the research set out to prove that food irradiation is an unsafe practice
- (B) are motivated by a biased interest in proving the practice to be safe
- (C) overlook the possibility that objections about safety are not the only possible objections to the practice
- (D) neglect to provide detailed information about the evidence used to support the conclusion
- (E) use the lack of evidence contradicting a claim as conclusive evidence for that



claim

4. Cooking teacher: Lima beans generally need about an hour of boiling to reach the proper degree of doneness. The precise amount of time it takes depends on size: larger beans require a longer cooking time than smaller beans do. It is important that lima beans not be overcooked since overcooking robs beans of many of their nutrients. Undercooking should also be avoided, since undercooked beans cannot be completely digested.

If the statements above are true, they most strongly support which one of the following?

- (A) Lima beans that are completely digestible have lost many of their nutrients in cooking.
- (B) The nutrients that are lost when lima beans are overcooked are the same as those that the body fails to assimilate when lima beans are not completely digested.
- (C) Large lima beans, even when fully cooked, are more difficult to digest than small lima beans.
- (D) Lima beans that are added to the pot together should be as close to the same size as possible if they are to yield their full nutritional value.
- (E) From the standpoint of good nutrition, it is better to overcook than to undercook lima beans.

Questions 5-6

Large quantities of lead dust can be released during renovations in houses with walls painted with lead-based paint. Because the dust puts occupants at high risk of lead poisoning, such renovations should be done only in unoccupied houses by contractors who are experienced in removing all traces of lead from houses and who have the equipment to protect themselves from lead dust. Even when warned, however, many people will not pay to have someone else do renovations they believe they could do less expensively themselves. Therefore, *Homeowners' Journal* should run an article giving information to homeowners on how to reduce the risk of lead poisoning associated with do-it-yourself renovation.

5. Which one of the following, if true, argues most strongly against the passage's recommendation about an article?
- (A) Most homeowners know whether or not the walls of their houses are painted with lead-based paint, even if the walls were painted by previous owners.
  - (B) Most people who undertake do-it-yourself renovation projects do so for the satisfaction of doing the work themselves and so are unlikely to hire a professional to do that sort of work.
  - (C) Whenever information on do-it-yourself home renovation is published, many people who would otherwise hire professionals decide to perform the renovations themselves, even when there are risks involved.

- (D) In many areas, it is difficult to find professional renovators who have the equipment and qualifications to perform safely renovations involving lead dust.
- (E) When professionally done home renovations are no more expensive than do-it-yourself renovations, most people choose to have their homes renovated by professionals.
6. Which one of the following principles most helps to justify the passage's recommendation about an article?
- (A) Potentially dangerous jobs should always be left to those who have the training and experience to perform them safely, even if additional expense results.
- (B) If people refuse to change their behavior even when warned that they are jeopardizing their health, information that enables them to minimize the risks of that behavior should be made available to them.
- (C) A journal for homeowners should provide its readers with information on do-it-yourself projects only if such projects do not entail substantial risks.
- (D) No one should be encouraged to perform a potentially dangerous procedure if doing so could place any other people at risk.
- (E) People who are willing to do work themselves and who are competent to do so should not be discouraged from doing that work.
7. The scientific theory of evolution has challenged the view of human origin as divine creation and sees us as simply descended from the same ancestors as the apes. While science and technology have provided brilliant insights into our world and eased our everyday life, they have simultaneously deprived us of a view in which our importance is assured. Thus, while science has given us many things, it has taken away much that is also greatly valued.
- Which one of the following is assumed in the passage?
- (A) Science and technology are of less value than religion.
- (B) People have resisted the advances of science and technology.
- (C) The assurance that people are important is highly valued.
- (D) The world was a better place before the advent of science and technology.
- (E) The need of people to feel important is now met by science and technology.

### Questions 8-9

That long-term cigarette smoking can lead to health problems including cancer and lung disease is a scientifically well-established fact. Contrary to what many people seem to believe, however, it is not necessary to deny this fact in order to reject the view that tobacco companies should be held either morally or legally responsible for the poor health of smokers. After all, excessive consumption of candy undeniably leads to such health problems as tooth decay, but no one seriously believes that candy eaters who get cavities should be able to sue candy manufacturers.

8. The main point of the argument is that
- (A) no one should feel it necessary to deny the scientifically well-established fact that long-term cigarette smoking can lead to health problems
  - (B) people who get cavities should not be able to sue candy manufacturers
  - (C) the fact that smokers' health problems can be caused by their smoking is not enough to justify holding tobacco companies either legally or morally responsible for those problems
  - (D) excessive consumption of candy will lead to health problems just as surely as long-term cigarette smoking will
  - (E) if candy manufacturers were held responsible for tooth decay among candy eaters then tobacco companies should also be held responsible for health problems suffered by smokers
9. The reasoning in the argument is most vulnerable to criticism on the grounds that it
- (A) fails to establish that the connection between tooth decay and candy eating is as scientifically well documented as that between smoking and the health problems suffered by smokers
  - (B) depends on the obviously false assumption that everyone who gets cavities does so only as a result of eating too much candy
  - (C) leaves undefined such critical qualifying terms as "excessive" and "long-term"
  - (D) attributes certain beliefs to "many people" without identifying the people who allegedly hold those beliefs
  - (E) fails to address the striking differences in the nature of the threat to health posed by tooth decay on the one hand and cancer and lung disease on the other
10. Lydia: Each year, thousands of seabirds are injured when they become entangled in equipment owned by fishing companies. Therefore, the fishing companies should assume responsibility for funding veterinary treatment for the injured birds.
- Jonathan: Your feelings for the birds are admirable. Your proposal, however, should not be adopted because treatment of the most seriously injured birds would inhumanely prolong the lives of animals no longer able to live in the wild, as all wildlife should.
- Jonathan uses which one of the following techniques in his response to Lydia?
- (A) He directs a personal attack against her rather than addressing the argument she advances.
  - (B) He suggests that her proposal is based on self-interest rather than on real sympathy for the injured birds.
  - (C) He questions the appropriateness of interfering with wildlife in any way,

even if the goal of the interference is to help.

- (D) He attempts to discredit her proposal by discussing its implications for only those birds that it serves least well.
- (E) He evades discussion of her proposal by raising the issue of whether her feelings about the birds are justified.

11. Logging industry official: Harvesting trees from old-growth forests for use in manufacture can reduce the amount of carbon dioxide in the atmosphere, since when large old trees die in the forest they decompose, releasing their stored carbon dioxide. Harvesting old-growth forests would, moreover, make room for rapidly growing young trees, which absorb more carbon dioxide from the atmosphere than do trees in old-growth forests.

Which one of the following, if true, most seriously weakens the official's argument?

- (A) Many old-growth forests are the home of thousands of animal species that would be endangered if the forests were to be destroyed.
- (B) Much of the organic matter from old-growth trees, unusable as lumber, is made into products that decompose rapidly.
- (C) A young tree contains less than half the amount of carbon dioxide that is stored in an old tree of the same species.
- (D) Much of the carbon dioxide present in forests is eventually released when wood and other organic debris found on the forest floor decompose.
- (E) It can take many years for the trees of a newly planted forest to reach the size of those found in existing old-growth forests.

12. A survey of a group of people between the ages of 75 and 80 found that those who regularly played the card game bridge tended to have better short-term memory than those who did not play bridge. It was originally concluded from this that playing bridge can help older people to retain and develop their memory. However, it may well be that bridge is simply a more enjoyable game for people who already have good short-term memory and who are thus more inclined to play.

In countering the original conclusion the reasoning above uses which one of the following techniques?

- (A) challenging the representativeness of the sample surveyed
- (B) conceding the suggested relationship between playing bridge and short-term memory, but questioning whether any conclusion about appropriate therapy can be drawn
- (C) arguing that the original conclusion relied on an inaccurate understanding of the motives that the people surveyed have for playing bridge
- (D) providing an alternative hypothesis to explain the data on which the original conclusion was based
- (E) describing a flaw in the reasoning on which the original conclusion was

based

13. There are tests to detect some of the rare genetic flaws that increase the likelihood of certain diseases. If these tests are performed, then a person with a rare genetic flaw that is detected can receive the appropriate preventive treatment. Since it costs the health-care system less to prevent a disease than to treat it after it has occurred, widespread genetic screening will reduce the overall cost of health care. The argument assumes which one of the following?
- (A) The cost of treating patients who would, in the absence of screening, develop diseases that are linked to rare genetic flaws would be more than the combined costs of widespread screening and preventive treatment.
  - (B) Most diseases linked to rare genetic flaws are preventable.
  - (C) The resources allocated by hospitals to the treatment of persons with diseases linked to genetic flaws will increase once screening is widely available.
  - (D) Even if the genetic tests are performed, many people whose rare genetic flaws are detected will develop diseases linked to the flaws as a consequence of not receiving the appropriate preventive treatment.
  - (E) If preventive treatment is given to patients with rare genetic flaws, additional funds will be available for treating the more common diseases.
14. In the 1960s paranoia was viewed by social scientists as ungrounded fear of powerlessness, and the theme of paranoia as it relates to feelings of powerlessness was dominant in films of that period. In the 1970s paranoia instead was viewed by social scientists as a response to real threats from society. Films of this period portray paranoia as a legitimate response to a world gone mad. Which one of the following is a conclusion that the statements above, if true, most strongly support?
- (A) Images of paranoia presented in films made in a period reflect trends in social science of that period.
  - (B) Responses to real threats can, and often do, degenerate into groundless fears.
  - (C) The world is becoming more and more threatening.
  - (D) Paranoia is a condition that keeps changing along with changes in society.
  - (E) The shift in perception by social scientists from the 1960s to the 1970s resulted from an inability to find a successful cure for paranoia.
15. A certain experimental fungicide causes no harm to garden plants, though only if it is diluted at least to ten parts water to one part fungicide. Moreover, this fungicide is known to be so effective against powdery mildew that it has the capacity to eliminate it completely from rose plants. Thus this fungicide, as long as it is sufficiently diluted, provides a means of eliminating powdery mildew from rose plants that involves no risk of harming the plants. Which one of the following is an assumption on which the argument depends?
- (A) There is not an alternative method, besides application of this fungicide, for



- eliminating powdery mildew from rose plants without harming the plants.
- (B) When the fungicide is sufficiently diluted, it does not present any risk of harm to people, animals, or beneficial insects.
- (C) Powdery mildew is the only fungal infection that affects rose plants.
- (D) If a fungicide is to be effective against powdery mildew on rose plants, it must eliminate the powdery mildew completely.
- (E) The effectiveness of the fungicide does not depend on its being more concentrated than one part in ten parts of water.
16. When glass products are made from recycled glass, the resulting products can be equal in quality to glass products made from quartz sand, the usual raw material. When plastics are recycled, however, the result is inevitably a plastic of a lower grade than the plastic from which it is derived. Moreover, no applications have been found for grades of plastic that are lower than the currently lowest commercial grade.
- Which one of the following is a conclusion that can be properly drawn from the statements above?
- (A) Products cannot presently be made out of plastic recycled entirely from the currently lowest commercial grade.
- (B) It is impossible to make glass products from recycled glass that are equal in quality to the best glass products made from the usual raw material.
- (C) Glass products made from recycled glass are less expensive than comparable products made from quartz sand.
- (D) Unless recycled plastic bears some symbol revealing its origin, not even materials scientists can distinguish it from virgin plastic.
- (E) The difference in quality between different grades of glass is not as great as that between different grades of plastic.

Questions 17-18

Teacher: Journalists who conceal the identity of the sources they quote stake their professional reputations on what may be called the logic of anecdotes. This is so because the statements reported by such journalists are dissociated from the precise circumstances in which they were made and thus will be accepted for publication only if the statements are high in plausibility or originality or interest to a given audience—precisely the properties of a good anecdote.

Student: But what you are saying, then, is that the journalist need not bother with sources in the first place. Surely, any reasonably resourceful journalist can invent plausible, original, or interesting stories faster than they can be obtained from unidentified sources.

17. The student's response contains which one of the following reasoning flaws?
- (A) confusing a marginal journalistic practice with the primary work done by journalists

- (B) ignoring the possibility that the teacher regards as a prerequisite for the publication of an unattributed statement that the statement have actually been made
  - (C) confusing the characteristics of reported statements with the characteristics of the situations in which the statements were made
  - (D) judging the merits of the teacher's position solely by the most extreme case to which the position applies
  - (E) falsely concluding that if three criteria, met jointly, assure an outcome, then each criterion, met individually, also assures that outcome
18. Which one of the following, if true, most strengthens the teacher's argument?
- (A) A journalist undermines his or her own professional standing by submitting for publication statements that, not being attributed to a named source, are rejected for being implausible, unoriginal, or dull.
  - (B) Statements that are attributed to a fully identified source make up the majority of reported statements included by journalists in stories submitted for publication.
  - (C) Reported statements that are highly original will often seem implausible unless submitted by a journalist who is known for solid, reliable work.
  - (D) Reputable journalists sometimes do not conceal the identity of their sources from their publishers but insist that the identity of those sources be concealed from the public.
  - (E) Journalists who have special access to sources whose identity they must conceal are greatly valued by their publishers.
19. The proposal to extend clinical trials, which are routinely used as systematic tests of pharmaceutical innovations, to new surgical procedures should not be implemented. The point is that surgical procedures differ in one important respect from medicinal drugs: a correctly prescribed drug depends for its effectiveness only on the drug's composition, whereas the effectiveness of even the most appropriate surgical procedure is transparently related to the skills of the surgeon who uses it.
- The reasoning in the argument is flawed because the argument
- (A) does not consider that new surgical procedures might be found to be intrinsically more harmful than the best treatment previously available
  - (B) ignores the possibility that the challenged proposal is deliberately crude in a way designed to elicit criticism to be used in refining the proposal
  - (C) assumes that a surgeon's skills remain unchanged throughout the surgeon's professional life
  - (D) describes a dissimilarity without citing any scientific evidence for the existence of that dissimilarity
  - (E) rejects a proposal presumably advanced in good faith without acknowledging any such good faith

20. If the majority of the residents of the apartment complex complain that their apartments are infested with ants, then the management of the complex will have to engage the services of an exterminator. But the majority of the residents of the complex indicate that their apartments are virtually free of ants. Therefore, the management of the complex will not have to engage the services of an exterminator.

Which one of the following arguments contains a flawed pattern of reasoning parallel to that contained in the argument above?

- (A) A theater will be constructed in the fall if funds collected are at least sufficient to cover its cost. To date, the funds collected exceed the theater's cost, so the theater will be constructed in the fall.
  - (B) The number of flights operated by the airlines cannot be reduced unless the airlines can collect higher airfares. But people will not pay higher airfares, so it is not the case that the number of flights will be reduced.
  - (C) In order for the company to start the proposed building project, both the town council and the mayor must approve. Since the mayor has already approved, the building project will be started soon.
  - (D) Most employees will attend the company picnic if the entertainment committee is successful in getting a certain band to play at the picnic. But that band will be out of the country on the day of the picnic, so it is not true that most employees will attend.
  - (E) Either the school's principal or two-thirds of the parent council must approve a change in the school dress code in order for the code to be changed. Since the principal will not approve a change in the dress code, the code will not be changed.
21. When the supply of a given resource dwindles, alternative technologies allowing the use of different resources develop, and demand for the resource that was in short supply naturally declines. Then the existing supplies of that resource satisfy whatever demand remains. Among the once-dwindling resources that are now in more than adequate supply are flint for arrowheads, trees usable for schooner masts, and good mules. Because new technologies constantly replace old ones, we can never run out of important natural resources.

Which one of the following, if true, most seriously undermines the conclusion?

- (A) The masts and hulls of some sailing ships built today are still made of wood.
- (B) There are considerably fewer mules today than there were 100 years ago.
- (C) The cost of some new technologies is often so high that the companies developing them might actually lose money at first.
- (D) Dwindling supplies of a natural resource often result in that resource's costing more to use.
- (E) The biological requirements for substances like clean air and clean water are unaffected by technological change.

22. Paulsville and Longtown cannot both be included in the candidate's itinerary of campaign stops. The candidate will make a stop in Paulsville unless Salisbury is made part of the itinerary. Unfortunately, a stop in Salisbury is out of the question. Clearly, then, a stop in Longtown can be ruled out.

The reasoning in the argument above most closely parallels that in which one of the following arguments?

- (A) The chef never has both fresh radishes and fresh green peppers available for the chief's salad at the same time. If she uses fresh radishes, she also uses spinach. But currently there is no spinach to be had. It can be inferred, then, that she will not be using fresh green peppers.
  - (B) Tom will definitely support Parker if Mendoza does not apply; and Tom will not support both Parker and Chung. Since, as it turns out, Mendoza will not apply, it follows that Chung will not get Tom's support.
  - (C) The program committee never selects two plays by Shaw for a single season. But when they select a play by Coward, they do not select any play by Shaw at all. For this season, the committee has just selected a play by Shaw, so they will not select any play by Coward.
  - (D) In agricultural pest control, either pesticides or the introduction of natural enemies of the pest, but not both, will work. Of course, neither will be needed if pest-resistant crops are planted. So if pesticides are in fact needed, it must be that there are no natural enemies of the pest.
  - (E) The city cannot afford to build both a new stadium and the new road that would be needed to get there. But neither of the two projects is worth doing without the other. Since the city will not undertake any but worthwhile projects, the new stadium will not be constructed at this time.
23. A study of adults who suffer from migraine headaches revealed that a significant proportion of the study participants suffer from a complex syndrome characterized by a set of three symptoms. Those who suffer from the syndrome experienced excessive anxiety during early childhood. As adolescents, these people began experiencing migraine headaches. As these people approached the age of 20, they also began to experience recurring bouts of depression. Since this pattern is invariant, always with excessive anxiety at its beginning, it follows that excessive anxiety in childhood is one of the causes of migraine headaches and depression in later life.

The reasoning in the argument is vulnerable to criticism on which one of the following grounds?

- (A) It does not specify the proportion of those in the general population who suffer from the syndrome.
- (B) It fails to rule out the possibility that all of the characteristic symptoms of the syndrome have a common cause.
- (C) It makes a generalization that is inconsistent with the evidence.
- (D) It fails to demonstrate that the people who participated in the study are

representative of migraine sufferers.

- (E) It does not establish why the study of migraine sufferers was restricted to adult participants.

24. Mainstream economic theory holds that manufacturers, in deciding what kinds of products to manufacture and what form those products should have, simply respond to the needs and desires of consumers. However, most major manufacturers manipulate and even create consumer demand, as anyone who watches television knows. Since even mainstream economic theorists watch television, their motive in advancing this theory must be something other than disinterested concern for scientific truth.

The claim that manufacturers manipulate and create consumer demand plays which one of the following roles in the argument?

- (A) It is one of the claims on which the conclusion is based.  
(B) It is the conclusion of the argument.  
(C) It states the position argued against.  
(D) It states a possible objection to the argument's conclusion.  
(E) It provides supplementary background information.

## TEST 13

### SECTION I

Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. It is probably within the reach of human technology to make the climate of Mars inhabitable. It might be several centuries before people could live there, even with breathing apparatuses, but some of the world's great temples and cathedrals took centuries to build. Research efforts now are justified if there is even a chance of making another planet inhabitable. Besides, the intellectual exercise of understanding how the Martian atmosphere might be changed could help in understanding atmospheric changes inadvertently triggered by human activity on Earth.

The main point of the argument is that

- (A) it is probably technologically possible for humankind to alter the climate of Mars  
(B) it would take several centuries to make Mars even marginally inhabitable  
(C) making Mars inhabitable is an effort comparable to building a great temple or cathedral  
(D) research efforts aimed at discovering how to change the climate of Mars are justified



- (E) efforts to change the climate of Mars could facilitate understanding of the Earth's climate

Questions 2-3

Adults have the right to vote; so should adolescents. Admittedly, adolescents and adults are not the same. But to the extent that adolescents and adults are different, adults cannot be expected to represent the interests of adolescents. If adults cannot represent the interests of adolescents, then only by giving adolescents the vote will these interests be represented.

2. The argument relies on which one of the following assumptions?
- (A) The right to vote is a right that all human beings should have.
  - (B) Adolescents and adults differ in most respects that are important.
  - (C) Adolescents should have their interests represented.
  - (D) Anyone who has the right to vote has all the right an adult has.
  - (E) Adolescents have never enjoyed the right to vote.
3. The statement that adolescents and adults are not the same plays which one of the following roles in the argument?
- (A) It presents the conclusion of the argument.
  - (B) It makes a key word in the argument more precise.
  - (C) It illustrates a consequence of one of the claims that are used to support the conclusion.
  - (D) It distracts attention from the point at issue.
  - (E) It concedes a point that is then used to support the conclusion.
4. When deciding where to locate or relocate, business look for an educated work force, a high level of services, a low business-tax rate, and close proximity to markets and raw materials. However, although each of these considerations has approximately equal importance, the lack of proximity either to markets or to raw materials often causes municipalities to lose prospective business, whereas having a higher-than-average business-tax rate rarely has this effect.
- Which one of the following, if true, most helps to resolve the apparent discrepancy in the statements above?
- (A) Taxes paid by business constitute only a part of the tax revenue collected by most municipalities.
  - (B) In general, the higher the rate at which municipalities tax businesses, the more those municipalities spend on education and on providing services to businesses.
  - (C) Businesses sometimes leave a municipality after that municipality has raised its taxes on businesses.
  - (D) Members of the work force who are highly educated are more likely to be willing to relocate to secure work than are less highly educated workers.

- (E) Businesses have sometimes tried to obtain tax reductions from municipalities by suggesting that without such a reduction the business might be forced to relocate elsewhere.

Questions 5-6

Oscar: I have been accused of plagiarizing the work of Ethel Myers in my recent article. But that accusation is unwarranted. Although I admit I used passages from Myers's book without attribution, Myers gave me permission in private correspondence to do so.

Millie: Myers cannot give you permission to plagiarize. Plagiarism is wrong, not only because it violates author's rights to their own words, but also because it misleads readers: it is fundamentally a type of lie. A lie is no less a lie if another person agrees to the deception.

5. Which of the following principles, if established, would justify Oscar's judgment?
- (A) A writer has no right to quote passage from another published source if the author of that other source has not granted the writer permission to do so.
  - (B) The writer of an article must cite the source of all passages that were not written by that writer if those passages are more than a few sentences long.
  - (C) Plagiarism is never justified, but writers are justified in occasionally quoting without attribution the work of other writers if the work quoted has not been published.
  - (D) An author is entitled to quote freely without attribution the work of a writer if that writer relinquishes his or her exclusive right to the material.
  - (E) Authors are entitled to quote without attribution passages that they themselves have written and published in other books or articles.
6. Millie uses which one of the following argumentative strategies in contesting Oscar's position?
- (A) analyzing plagiarism in a way that undermines Oscar's position
  - (B) invoking evidence to show that Oscar did quote Myers' work without attribution
  - (C) challenging Oscar's ability to quote Myers' work without attribution
  - (D) citing a theory of rights that prohibits plagiarism and suggesting that Oscar is committed to that theory
  - (E) showing that Oscar's admission demonstrates his lack of credibility
7. Soil scientists studying the role of compost in horticulture have found that, while compost is useful for building soil structure, it does not supply large enough quantities of the nutrients essential for plant growth to make it a replacement for fertilizer. Many home gardeners, however, have found they can grow healthy and highly productive plants in soil that lacked essential nutrients by enriching the

soil with nothing but compost.

Which one of the following, if true, most helps to explain the discrepant findings of the soil scientists and the home gardeners?

- (A) The findings of soil scientists who are employed by fertilizer manufacturers do not differ widely from those of scientists employed by the government or by universities.
- (B) Compost used in research projects is usually made from leaves and grass clipping only, whereas compost used in home gardens is generally made from a wide variety of ingredients.
- (C) Most plants grown in home gardens and in scientists' test plots need a favorable soil structure, as well as essential nutrients, in order to thrive.
- (D) The soil in test plots, before it is adjusted in the course of experiments, tends to contain about the same quantities of plant nutrients as does soil in home gardens to which no compost or fertilizer has been added.
- (E) Some of the varieties of plants grown by home gardeners require greater quantities of nutrients in order to be healthy than do the varieties of plants generally grown by the soil scientists in test plots.

8. At Happywell, Inc., last year the average annual salary for dieticians was \$50,000, while the average annual salary for physical therapists was \$42,000. The average annual salary for all Happywell employees last year was \$40,000.

If the information above is correct, which one of the following conclusions can properly be drawn on the basis of it?

- (A) There were more physical therapists than dieticians at Happywell last year.
- (B) There was no dietician at Happy well last year who earned less than the average for a physical therapist.
- (C) At least one Happywell employee earned less than the average for a physical therapist last year.
- (D) At least one physical therapist earned less than the lowest-paid Happywell dietician last year.
- (E) At least one dietician earned more than the highest-paid Happywell physical therapist last year.

9. Since multinational grain companies operate so as to maximize profits, they cannot be relied to initiate economic changes that would reform the world's food-distribution system. Although it is true that the actions of multinational companies sometimes do result in such economic change, this result is incidental, arising not from the desire for reform but from the desire to maximize profits. The maximization of profits normally depends on a stable economic environment, one that discourages change.

The main point of the argument is that

- (A) the maximization of profits depends on a stable economic environment

- (B) when economic change accompanies business activity, that change is initiated by concern for the profit motive
- (C) multinational grain companies operates so as to maximize profits
- (D) the world's current food-distribution system is not in need of reform
- (E) multinational grain companies cannot be relied on to initiate reform of the world's food-distribution system
10. Stage performances are judged to be realistic to the degree that actors reproduce on stage the behaviors generally associated by audiences with the emotional states of the characters portrayed. Traditional actors imitate those behaviors, whereas Method actors, through recollection of personal experience, actually experience the same emotions that their characters are meant to be experiencing. Audiences will therefore judge the performances of Method actors to be more realistic than the performances of traditional actors.
- Which one of the following is an assumption on which the argument depends?
- (A) Performances based on an actor's own experience of emotional states are more likely to affect an audience's emotions than are performances based on imitations of the behaviors generally associated with those emotional states.
- (B) The behavior that results when a Method actor feels a certain emotion will conform to the behavior that is generally associated by audiences with that emotion.
- (C) Realism is an essential criterion for evaluating the performances of both traditional actors and Method actors.
- (D) Traditional actors do not aim to produce performances that are realistic representations of a character's emotional states.
- (E) In order to portray a character, a Method actor need not have had experiences identical to those of the character portrayed.
11. The demand for used cars has risen dramatically in Germany in recent years. Most of this demand is generated by former East Germans who cannot yet afford new cars and for whom cars were generally unavailable prior to unification. This demand has outstripped supply and thus has exerted an upward pressure on the prices of used cars. Consequently, an increasing number of former West Germans, in order to take advantage of the improved market, will be selling the cars they have owned for several years. Hence, the German new-car market will most likely improve soon as well.
- Which one of the following, if true, would most help to support the conclusion about the German new-car market?
- (A) The demand for old cars in former West Germany is greater than the demand for new cars in former East Germany.
- (B) In most European countries, the sale of a used car is subject to less tax than is the sale of a new car.
- (C) Most Germans own very few cars in the course of their lives.

- (D) Most former West Germans purchase new cars once they sell their used cars.
- (E) Many former East Germans prefer to buy cars imported from North America because they are generally larger than European cars.
12. In 1980 health officials began to publicize the adverse effects of prolonged exposure to the sun, and since then the number of people who sunbathe for extended periods of time has decreased considerably each year. Nevertheless, in 1982 there was a dramatic rise in newly reported cases of melanoma, a form of skin cancer found mostly in people who have had prolonged exposure to the sun. Which one of the following, if true, helps to resolve the apparent discrepancy in the information above?
- (A) Before 1980 a considerable number of the people who developed melanoma as a result of prolonged exposure to the sun were over forty years of age.
- (B) Before 1980, when most people had not yet begun to avoid prolonged exposure to the sun, sunbathing was widely thought to be healthful.
- (C) In 1982 scientists reported that the body's need for exposure to sunlight in order to produce vitamin D, which helps prevent the growth of skin cancers, is less than was previously thought.
- (D) In 1982 medical researchers perfected a diagnostic technique that allowed them to detect the presence of melanoma much earlier than had previously been possible.
- (E) Since 1980, those people who have continued to sunbathe for extended periods of time have used sunblocks that effectively screen out the ultraviolet rays that help cause melanoma.
13. The tiny country of Minlandia does not produce its own television programming. Instead, the citizens of Minlandia, who generally are fluent not only in their native Minlandian, but also in Boltese, watch Boltese-language television programs from neighboring Bolta. Surveys show that the Minlandians spend on average more hours per week reading for pleasure and fewer hours per week watching television than people anywhere else in the world. A prominent psychologist accounts for the survey results by explaining that people generally prefer to be entertained in their native language even if they are perfectly fluent in other languages.
- The explanation offered by the psychologist accounts for the Minlandian's behavior only if which one of the following is assumed?
- (A) Some Minlandians derive no pleasure from watching television in a language other than their native Minlandian.
- (B) The study of Boltese is required of Minlandian children as part of their schooling.
- (C) The proportion of bilingual residents to total population is greater in Minlandia than anywhere else in the world.
- (D) At least some of what the Minlandians read for pleasure is in the Minlandian



language.

- (E) When Minlandians watch Boltese television programs, they tend to ignore the fact that they are hearing a foreign language spoken.

14. Morris High School has introduced a policy designed to improve the working conditions of its new teachers. As a result of this policy, only one-quarter of all part-time teachers now quit during their first year. However, a third of all full-time teachers now quit during their first year. Thus, more full-time than part-time teachers at Morris now quit during their first year.

The argument's reasoning is questionable because the argument fails to rule out the possibility that

- (A) before the new policy was instituted, more part-time than full-time teachers at Morris High School used to quit during their first year  
(B) before the new policy was instituted, the same number of full-time teachers as part-time teachers at Morris High School used to quit during their first year  
(C) Morris High School employs more new full-time teachers than new part-time teachers  
(D) Morris High School employs more new part-time teachers than new full-time teachers  
(E) Morris High School employs the same number of new part-time as new full-time teachers

Questions 15-16

Salmonella is a food-borne microorganism that can cause intestinal illness. The illness is sometimes fatal, especially if not identified quickly and treated. Conventional Salmonella tests on food samples are slow and can miss unusual strains of the microorganism. A new test identifies the presence or absence of Salmonella by the one piece of genetic material common to all strains. Clearly, public health officials would be well advised to replace the previous Salmonella tests with the new test.

15. Which one of the following, if true, most strengthens the argument?
- (A) The level of skill required for laboratory technicians to perform the new test is higher than that required to perform previous tests for Salmonella.  
(B) The new test returns results very soon after food samples are submitted for testing.  
(C) A proposed new treatment for Salmonella poisoning would take effect faster than the old treatment.  
(D) Salmonella poisoning is becoming less frequent in the general population.  
(E) Some remedies for Salmonella poisoning also cure intestinal disorders caused by other microorganism.
16. Which one of the following, if true, most substantially weakens the argument?

- (A) The new test identifies genetic material from Salmonella organisms only and not from similar bacteria.
- (B) The new test detects the presence of Salmonella at levels that are too low to pose a health to people.
- (C) Salmonella is only one of a variety of food-borne microorganism that can cause intestinal illness.
- (D) The new test has been made possible only recently by dramatic advances in biological science.
- (E) Symptoms of Salmonella poisoning are often mistaken for those of other common intestinal illness.
17. On average, city bus drivers who are using the new computerized fare-collection system have a much better on-time record than do drivers using the old fare-collection system. Millicent Smith has the best on-time record of any bus driver in the city. Therefore, she must be using the computerized fare-collection system. Which one of the following contains flawed reasoning most similar to that contained in the argument above?
- (A) All the city's solid-waste collection vehicles acquired after 1988 have a large capacity than any of those acquired before 1988. This vehicle has the largest capacity of any the city owns, so it must have been acquired after 1988.
- (B) The soccer players on the blue team are generally taller than the players on the gold team. Since Henri is a member of the blue team, he is undoubtedly taller than most of the members of the gold team.
- (C) This tomato is the largest of this year's crop. Since the tomatoes in the experimental plot are on average larger than those grown in the regular plots, this tomato must have been grown in the experiment plot.
- (D) Last week's snowstorm in Toronto was probably an average storm for the area. It was certainly heavier than any snowstorm known to have occurred in Miami, but any average snowstorm in Toronto leaves more snow than ever falls in Miami.
- (E) Lawn mowers powered by electricity generally require less maintenance than do lawn mowers powered by gasoline. This lawn mower is powered by gasoline, so it will probably require a lot of maintenance.
18. Frieda: Lightning causes fires and damages electronic equipment. Since lightning rods can prevent any major damage, every building should have one.
- Erik: Your recommendation is pointless. It is true that lightning occasionally causes fires, but faulty wiring and overloaded circuits cause far more fires and damage to equipment than lightning does.
- Erik's response fails to establish that Frieda's recommendation should not be acted on because his response
- (A) does not show that the benefits that would follow from Frieda's recommendation would be offset by any disadvantage

- (B) does not offer any additional way of lessening the risk associated with lightning
- (C) appeals to Frieda's emotions rather than to her reason
- (D) introduces an irrelevant comparison between overloaded circuits and faulty wiring
- (E) confuses the notion of preventing damage with that of causing inconvenience
19. The use of automobile safety seats by children aged 4 and under has nearly doubled in the past 8 years. It is clear that this increase has prevented child fatalities that otherwise would have occurred, because although the number of children aged 4 and under who were killed while riding in cars involved in accidents rose 10 percent over the past 8 years, the total number of serious automobile accidents rose by 20 percent during that period.
- Which one of the following, if true, most strengthens the argument?
- (A) Some of the automobile safety seats purchased for children under 4 continue to be used after the child reaches the age of 5.
- (B) The proportion of serious automobile accidents involving child passengers has remained constant over the past 8 years.
- (C) Children are taking more trips in cars today than they were 8 years ago, but the average total time they spend in cars has remained constant.
- (D) The sharpest increase in the use of automobile safety seats over the past 8 years has been for children over the age of 2.
- (E) The number of fatalities among adults involved in automobile accidents rose by 10 percent over the past 8 years.

Questions 20-21

The new perfume Aurora smells worse to Joan than any comparably priced perfume, and none of her friend likes the smell of Aurora as much as the smell of other perfumes. However, she and her friends must have a defect in their sense of smell, since Professor Jameson prefers the smell of Aurora to that of any other perfume and she is one of the world's foremost experts on the physiology of smell.

20. The reasoning is flawed because it
- (A) calls into question the truthfulness of the opponent rather than addressing the point issue
- (B) ignore the well-known fact that someone can prefer one thing to another without liking either very much
- (C) fails to establish that there is widespread agreement among the experts in the field
- (D) makes an illegitimate appeal to the authority of an expert
- (E) misrepresents the position against which it is directed
21. From the information presented in the support of the conclusion, it can be

properly inferred that

- (A) none of Joan's friends is an expert on the physiology of smell
- (B) Joan prefers all other perfumes to Aurora
- (C) Professor Jameson is not one of Joan's friends
- (D) none of Joan's friends likes Aurora perfume
- (E) Joan and her friends all like the same kinds of perfumes

22. At the end of the year, Wilson's Department Store awards free merchandise to its top salespeople. When presented with the fact that the number of salespeople receiving these awards has declined markedly over the past fifteen years, the newly appointed president of the company responded, "In that case, since our award criterion at present is membership in the top third of our sales force, we can also say that the number of salespeople passed over for these awards has similarly declined."

Which one of the following is an assumption that would allow the company president's conclusion to be properly drawn?

- (A) Policies at Wilson's with regard to hiring salespeople have not become more lax over the past fifteen years.
- (B) The number of salespeople at Wilson's has increased over the past fifteen years.
- (C) The criterion used by Wilson's for selecting its award recipients has remained the same for the past fifteen years.
- (D) The average total sales figures for Wilson's salespeople have been declining for fifteen years.
- (E) Wilson's calculates its salespeople's sales figures in the same way as it did fifteen years ago.

23. The capture of a wild animal is justified only as a last resort to save that animal's life. But many wild animals are captured not because their lives are in any danger but so that they can be bred in captivity. Hence, many animals that have been captured should not have been captured.

Which one of the following arguments is most similar in its pattern of reasoning to the argument above?

- (A) Punishing a child is justified if it is the only way to reform poor behavior. But punishment is never the only way to reform poor behavior. Hence, punishing a child is never justified.
- (B) Parents who never punish a child are not justified in complaining if the child regularly behaves in ways that disturb them. But many parents who prefer not to punish their children's behavior. Hence, many parents who complain about their children have no right to complain.
- (C) Punishing a young child is justified only if it is done out of concern for the child's future welfare. But many young children are punished not in order to

promote their welfare but to minimize sibling rivalry. Hence, many children who are punished should not have been punished.

- (D) A teacher is entitled to punish a child only if the child's parents have explicitly given the teacher the permission to do so. But many parents never give their child's teacher the right to punish their child. Hence, many teachers should not punish their pupils.
- (E) Society has no right to punish children for deeds that would be crimes if the children were adults. But society does have the right to protect itself from children who are known threats. Hence, confinement of such children does not constitute punishment.

24. Until recently it was thought that ink used before the sixteenth century did not contain titanium. However, a new type of analysis detected titanium in the ink of the famous Bible printed by Johannes Gutenberg and in that of another fifteenth-century Bible known as B-36, though not in the ink of any of numerous other fifteenth-century books analyzed. This finding is of great significance, since it not only strongly supports the hypothesis that B-36 was printed by Gutenberg but also shows that the presence of titanium in the ink of the purportedly fifteenth century Vinland Map can no longer be regarded as a reason for doubting the map's authenticity.

The reasoning in the passage is vulnerable to criticism on the ground that

- (A) the results of the analysis are interpreted as indicating that the use of titanium as an ingredient in fifteenth-century ink both was, and was not, extremely restricted
- (B) if the technology that makes it possible to detect titanium in printing ink has only recently become available, it is unlikely that printers or artists in the fifteenth century would know whether their ink contained titanium or not
- (C) it is unreasonable to suppose that determination of the date and location of a document's printing or drawing can be made solely on the basis of the presence or absence of a single element in the ink used in the document
- (D) both the B-36 Bible and the Vinland Map are objects that can be appreciated on their own merits whether or not the precise date of their creation or the identity of the person who made them is known
- (E) the discovery of titanium in the ink of the Vinland Map must have occurred before titanium was discovered in the ink of the Gutenberg Bible and the B-36 Bible

25. All actors are exuberant people and all exuberant people are extroverts, but nevertheless it is true that some shy people are actors.

If the statements above are true, each of the following must also be true EXCEPT:

- (A) Some shy people are extroverts.
- (B) Some shy extroverts are not actors.



- (C) Some exuberant people who are actors are shy.
- (D) All people who are not extroverts are not actors.
- (E) Some extroverts are shy.

26. Science Academy study: It has been demonstrated that with natural methods, some well-managed farms are able to reduce the amounts of synthetic fertilizer and pesticide and also of antibiotics they use without necessarily decreasing yields; in some cases yields can be increased.

Critics: Not so. The farms the academy selected to study were the ones that seemed most likely to be successful in using natural methods. What about the farmers who have tried such methods and failed?

Which one of the following is the most adequate evaluation of the logical force of the critics' response?

- (A) Success and failure in farming are rarely due only to luck, because farming is the management of chance occurrences.
- (B) The critics show that the result of the study would have been different if twice as many farms had been studied.
- (C) The critics assume without justification that the failures were not due to soil quality.
- (D) The critics demonstrate that natural methods are not suitable for the majority of farmers.
- (E) The issue is only to show that something is possible, so it is not relevant whether the instances studied were representative.

#### SECTION IV

Time 35 minutes 24 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Most regular coffee is made from arabica coffee beans because the great majority of consumers prefer its generally richer flavor to that of coffee made from robusta beans. Coffee drinkers who switch to decaffeinated coffee, however, overwhelmingly prefer coffee made from robusta beans, which are unlike arabica beans in that their flavors is not as greatly affected by decaffeination. Depending on the type of bean involved, decaffeination reduces or removes various substances, most of which are flavor-neutral but one of which contributes to the richness of the coffee's flavor.

The statements above provide the most support for which one of the following conclusion?

- (A) The annual world crop of arabica beans is not large enough to satisfy completely the world demand for regular coffee.
- (B) Arabica beans contain more caffeine per unit of weight than do robusta beans.

- (C) Coffee drinkers who drink decaffeinated coffee almost exclusively are the ones who prefer regular coffee made from robusta beans to regular coffee made from arabica beans.
- (D) Decaffeination of arabica beans extracts more of the substance that enhances a coffee's flavor than does decaffeination of robusta beans.
- (E) There are coffee drinkers who switch from drinking regular coffee made from arabica beans to drinking decaffeinated coffee made from arabica beans because coffee made from arabica beans is less costly.
2. For the past 13 years, high school guidance counselors nationwide have implemented an aggressive program to convince high school students to select careers requiring college degrees. The government reported that the percentage of last year's high school graduates who went on to college was 15 percent greater than the percentage of those who graduated 10 years ago and did so. The counselors concluded from this report that the program had been successful. The guidance counselors' reasoning depends on which one of the following assumptions about high school graduates?
- (A) The number of graduates who went on to college remained constant each year during the 10-year period.
- (B) Any college courses that the graduates take will improve their career prospects.
- (C) Some of the graduates who went on to college never received guidance from a high school counselor.
- (D) There has been a decrease in the number of graduates who go on to college without career plans.
- (E) Many of last year's graduates who went on to college did so in order to prepare for careers requiring college degrees.
3. Insectivorous plants, which unlike other plants have the ability to trap and digest insects, can thrive in soils that are too poor in minerals to support noninsectivorous plants. Yet the mineral requirements of insectivorous plants are not noticeably different from the mineral requirements of noninsectivorous plants. The statements above, if true, most strongly support which one of the following hypotheses?
- (A) The insects that insectivorous plants trap and digest are especially abundant where the soil is poor in minerals.
- (B) Insectivorous plants thrive only in soils that are too poor in minerals to support noninsectivorous plants.
- (C) The types of minerals required by noninsectivorous plants are more likely than are the types of minerals required by insectivorous plants to be found in soils poor in minerals.
- (D) The number of different environments in which insectivorous plants thrive is greater than the number of different environments in which

noninsectivorous plants thrive.

(E) Insectivorous plants can get some of the minerals they require from the insects they trap and digest.

4. The region's water authority is responding to the current drought by restricting residential water use. Yet reservoir levels are now at the same height they were during the drought ten years ago when no restrictions were put into effect and none proved necessary. Therefore, imposing restriction now is clearly premature. Which one of the following, if true, most seriously calls the conclusion above into question?

(A) There are now more water storage reservoirs in the region than there were ten years ago.

(B) The population of the region is approximately three times greater than it was ten years ago.

(C) The region currently has more sources outside the drought-stricken area from which to draw water than it did ten years ago.

(D) The water-consuming home appliances and fixtures sold today are designed to use water more efficiently than those sold ten years ago.

(E) The price of water for residential use is significantly higher in the region than it is in regions that are not drought-stricken.

5. Montgomery, a biologist who is also well read in archaeology, has recently written a book on the origin and purpose of ancient monumental architecture. This book has received much positive attention in the popular press but has been severely criticized by many professional archaeologists for being too extreme. Montgomery's views do not deserve a negative appraisal, however, since those views are no more extreme than the views of some professional archaeologists.

The argument is most vulnerable to which one of following criticisms?

(A) It fails to establish that professional archaeologists' views that are at least as extreme as Montgomery's views do not deserve negative appraisal for that reason.

(B) It assumes without warrant that many professional archaeologists consider biologists unqualified to discuss ancient architecture.

(C) It overlooks the possibility that many professional archaeologists are unfamiliar with Montgomery's views.

(D) It provides no independent evidence to show that the majority of professional archaeologists do not support Montgomery's views.

(E) It attempts to support its position by calling into question the motives of anyone who supports an opposing position.

6. Chronic fatigue syndrome is characterized by prolonged fatigue, muscular pain, and neurological problems. It is not known whether these symptoms are all caused by a single virus or whether each symptom is the result of a separate viral

infection. A newly synthesized drug has been tested on those who suffer from chronic fatigue syndrome. Although the specific antiviral effects of this drug are unknown, it has lessened the severity of all of the symptoms of chronic fatigue syndrome. Thus there is evidence that chronic fatigue syndrome is, in fact, caused by one virus.

The argument assumes which one of following?

- (A) All those who suffer from prolonged fatigue also suffer from neurological problems.
- (B) It is more likely that the new drug counteracts one virus than that it counteracts several viruses.
- (C) The symptoms of chronic fatigue syndrome are dissimilar to those of any other syndrome.
- (D) Most syndromes that are characterized by related symptoms are each caused by a single viral infection.
- (E) An antiviral medication that eliminates the most severe symptoms of chronic fatigue syndrome thereby cures chronic fatigue syndrome.

7. DataCom, a company that filed many patents last year, was financially more successful last year than were its competitors, none of which filed many patents. It is therefore likely that DataCom owed its greater financial success to the fact that it filed many patents last year.

The argument is most vulnerable to criticism on the grounds that it

- (A) presupposes what it sets out to demonstrate about the relationship between the financial success of DataCom's competitors and the number of patents they filed
- (B) confused a company's financial success with its technological innovativeness
- (C) fails to establish whether any one of DataCom's competitors was financially more successful last year than was any other
- (D) gives no reason to exclude the possibility that other differences between DataCom and its competitors accounted for its comparative financial success
- (E) applies a generalization to an exceptional case

8. A history book written hundreds of years ago contains several inconsistencies. Some scholars argue that because the book contains inconsistencies, the author must have been getting information from more than one source.

The conclusion cited does not follow unless

- (A) authors generally try to reconcile discrepancies between sources
- (B) the inconsistencies would be apparent to the average reader of the history book at the present time
- (C) the history book's author used no source that contained inconsistencies repeated in the history book

- (D) the author of the history book was aware of the kinds of inconsistencies that can arise when multiple sources are consulted
- (E) the author of the history book was familiar with all of the available source material that was relevant to the history book
9. Some games, such as chess and soccer, are competitive and played according to rules, but others, such as children's games of make believe, are neither. Therefore, being competitive and involving rules are not essential to being a game.
- Which one of following is most similar in its logical features to the argument above?
- (A) Both the gourmet and the glutton enjoy eating. However, one can be a glutton, but not a gourmet, without having an educated palate. Therefore, having an educated palate is essential to being a gourmet, but enjoying food is not.
- (B) All North American bears eat meat. Some taxonomists, however, have theorized that the giant panda, which eats only bamboo shoots, is a kind of bear. Either these taxonomists are wrong or eating meat is not essential to being a bear.
- (C) It is true that dogs occasionally eat vegetation, but if dogs were not carnivorous they would be shaped quite differently from the way they are. Therefore, being carnivorous is essential to being a dog.
- (D) Most automobiles, and nearly all of those produced today, are gasoline-fueled and four-wheeled, but others, such as some experimental electric cars, are neither. Therefore, being gasoline-fueled and having four wheels are not essential to being an automobile.
- (E) Montreal's most vaunted characteristics, such as its cosmopolitanism and its vitality, are all to be found in many other cities. Therefore, cosmopolitanism and vitality are not essential properties of Montreal.

### Questions 10-11

Household indebtedness, which some theorists regard as causing recession, was high preceding the recent recession, but so was the value of assets owned by households. Admittedly, if most of the assets were owned by quite affluent households, and most of the debt was owed by low-income households, high household debt levels could have been the cause of the recession despite high asset values: low-income households might have decreased spending in order to pay off debts while the quite affluent ones might simply have failed to increase spending. But, in fact, quite affluent people must have owed most of the household debt, since money is not lent to those without assets. Therefore, the real cause must lie elsewhere.

10. The argument is structured to lead to which one of the following conclusions?
- (A) High levels of household debt did not cause the recent recession.
- (B) Low-income households succeeded in paying off their debts despite the recent recession.



- (C) Affluent people probably increased their spending levels during the recent recession.
- (D) High levels of household debt have little impact on the economy.
- (E) When people borrowed money prior to the recent recession, they did not use it to purchase assets.
11. Which one of the following, if true, casts the most doubt on the argument?
- (A) Prior to the recent recession, middle-income households owed enough debt that they had begun to decrease spending.
- (B) The total value of the economy's household debt is exceeded by the total value of assets held by households.
- (C) Low-income households somewhat decreased their spending during the recent recession.
- (D) During a recession the affluent usually borrow money only in order to purchase assets.
- (E) Household debt is the category of debt least likely to affect the economy.
12. Fossil-fuel emissions, considered a key factor in the phenomenon known as global warming, contain two gases, carbon dioxide and sulfur dioxide, that have opposite effects on atmospheric temperatures. Carbon dioxide traps heat, tending to warm the atmosphere, whereas sulfur dioxide turns into sulfate aerosols that reflect sunlight back toward space, thereby tending to cool the atmosphere. Given that the heat-trapping effect is stronger than the cooling effect, cutting fossil-fuel emissions might be expected to slow the rise in global temperatures. Yet, surprisingly, if fossil-fuel emissions were cut today, global warming would actually be enhanced for more than three decades before the temperature rise began to slow.
- Which one of the following, if true, most helps to explain the claim made in the last sentence above?
- (A) Carbon dioxide stays in the atmosphere for many decades, while the sulfate aerosols fall out within days.
- (B) Sulfur pollution is not spread evenly around the globe but is concentrated in the Northern Hemisphere, where there is a relatively high concentration of industry.
- (C) While it has long been understood that sulfur dioxide is a harmful pollutant, it has been understood only recently that carbon dioxide might also be a harmful pollutant.
- (D) Carbon dioxide is produced not only by automobiles but also by power plants that burn fossil fuels.
- (E) Because fossil-fuel emissions contain sulfur dioxide, they contribute not only to global warming but also to acid rain.
13. Police published a "wanted" poster for a criminal fugitive in a medical journal,

because the fugitive was known to have a certain acute noninfectious skin problem that would eventually require a visit to a doctor. The poster asked for information about the whereabouts of the fugitive. A physician's responding to the poster's request for information would not violate medical ethics, since physicians are already subject to requirements to report gunshot wounds to police and certain infectious diseases to health authorities. These exceptions to confidentiality are clearly ethical.

Which one of the following principles, while remaining compatible with the requirements cited above, supports the view that a physician's responding to the request would violate medical ethics?

- (A) Since a physician acts both as a professional person and as a citizen, it is not ethical for a physician to conceal information about patients from duly constituted law enforcement agencies that have proper jurisdiction.
- (B) Since a patient comes to a physician with the expectation that the patient's visit and medical condition will remain confidential, it is not ethical for a physician to share this information with anyone except personnel within the physician's office.
- (C) Since the primary concern of medicine is individual and public health, it is not ethical for a physician, except in the case of gunshot wounds, to reduce patients' willingness to come for treatment by a policy of disclosing their identities to law-enforcement agencies.
- (D) Except as required by the medical treatment of the patient, physicians cannot ethically disclose to others information about a patient's identity or medical condition without the patient's consent.
- (E) Except to other medical personnel working to preserve or restore the health of a patient or of other persons, physicians cannot ethically disclose information about the identity of patients or their medical condition.

14. Ingrid: Rock music has produced no songs as durable as the songs of the 1940s, which continue to be recorded by numerous performers.

Jerome: True, rock songs are usually recorded only once. If the original recording continues to be popular, however, that fact can indicate durability, and the best rock songs will prove to be durable.

Jerome responds to Ingrid's claim by

- (A) intentionally misinterpreting the claim
- (B) showing that the claim necessarily leads to a contradiction
- (C) undermining the truth of the evidence that Ingrid presents
- (D) suggesting an alternative standard for judging the point at issue
- (E) claiming that Ingrid's knowledge of the period under discussion is incomplete

15. Health insurance insulates patients from the expense of medical care, giving doctors almost complete discretion in deciding the course of most medical

treatments. Moreover, with doctors being paid for each procedure performed, they have an incentive to overtreat patients. It is thus clear that medical procedures administered by doctors are frequently prescribed only because these procedures lead to financial rewards.

The argument uses which one of the following questionable techniques?

- (A) assigning responsibility for a certain result to someone whose involvement in the events leading to that result was purely coincidental
  - (B) inferring the performance of certain actions on no basis other than the existence of both incentive and opportunity for performing those actions
  - (C) presenting as capricious and idiosyncratic decisions that are based on the rigorous application of well-defined principles
  - (D) depicting choices as having been made arbitrarily by dismissing without argument reasons that have been given for these choices
  - (E) assuming that the irrelevance of a consideration for one participant in a decision makes that consideration irrelevant for each participant in the decision
16. Chlorofluorocarbons are the best possible solvents to have in car engines for cleaning the electronic sensors in modern automobile ignition systems. These solvents have contributed significantly to automakers' ability to meet legally mandated emission standards. Now automakers will have to phase out the use of chlorofluorocarbons at the same time that emission standards are becoming more stringent.
- If under the circumstances described above cars continue to meet emission standards, which one of the following is the most strongly supported inference?
- (A) As emission standards become more stringent, automakers will increasingly cooperate with each other in the area of emission control.
  - (B) Car engines will be radically redesigned so as to do away with the need for cleaning the electronic ignition sensors.
  - (C) There will be a marked shift toward smaller, lighter cars that will have less powerful engines but will use their fuel more efficiently.
  - (D) The solvents developed to replace chlorofluorocarbons in car engines will be only marginally less effective than the chlorofluorocarbons themselves.
  - (E) Something other than the cleansers for electronic ignition sensors will make a relatively greater contribution to meeting emission standards than at present.

Questions 17-18

Two alternative drugs are available to prevent blood clots from developing after a heart attack. According to two major studies, drug Y does this no more effectively than the more expensive drug Z, but drug Z is either no more or only slightly more effective than drug Y. Drug Z's manufacturer, which has engaged in questionable marketing practices such as offering stock options to doctors who participate in

clinical trials of drug Z, does not contest the results of the studies but claims that they do not reveal drug Z's advantages. However, since drug Z does not clearly treat the problem more effectively than drug Y, there is no established medical reason for doctors to use drug Z rather than drug Y on their heart-attack victims.

17. A major flaw in the argument is that the argument
- (A) does not consider drugs or treatments other than drug Y and Z that may be used to prevent blood clotting in heart-attack patients
  - (B) neglects to compare the marketing practices of drug Y's manufacturer with those of drug Z's manufacturer
  - (C) fails to recognize that there may be medical criteria relevant to the choice between the two drugs other than their effectiveness as a treatment
  - (D) assumes without proof that the two drugs are similar in their effectiveness as treatments because they are similar in their chemical composition
  - (E) confuses economic reasons for selecting a treatment with medical reasons
18. Which one of the following principles, if established, would most help to justify a doctor's decision to use drug Z rather than drug Y when treating a patient?
- (A) Only patients to whom the cost of an expensive treatment will not be a financial hardship should receive that treatment rather than a less expensive alternative one.
  - (B) Doctors who are willing to assist in research on the relative effectiveness of drugs by participating in clinical trials deserve fair remuneration for that participation.
  - (C) The decision to use a particular drug when treating a patient should not be influenced by the marketing practices employed by the company manufacturing that drug.
  - (D) A drug company's criticism of studies of its product that do not report favorably on that product is unavoidably biased and therefore invalid.
  - (E) Where alternative treatments exist and there is a chance that one is more effective than the other, the possibly more effective one should be employed, regardless of cost.
19. Jane: According to an article in this newsmagazine, children's hand-eye coordination suffers when they spend a great amount of time watching television. Therefore, we must restrict the amount of time Jacqueline and Mildred are allowed to watch television.
- Alan: Rubbish! The article says that only children under three are affected in that way. Jacqueline is ten and Mildred is eight. Therefore, we need not restrict their television viewing.
- Alan's argument against Jane's conclusion makes which one of the following errors in reasoning?
- (A) It relies on the same source that Jane cited in support of her conclusion.

- (B) It confuses undermining an argument in support of a given conclusion with showing that the conclusion itself is false.
- (C) It does not address the main point of Jane's argument and focuses instead on a side issue.
- (D) It makes an irrelevant appeal to an authority.
- (E) It fails to distinguish the consequences of a certain practice from the causes of the practice.

20. A new gardening rake with an S-shaped handle reduces compression stress on the spine during the pull stroke to about one-fifth of what it is with a straight-handled rake. During the push stroke, however, compression stress is five times more with the new rake than with a straight-handled rake. Neither the push stroke nor the pull stroke with a straight-handled rake produces enough compression stress to cause injury, but compression stress during the push stroke with the new rake is above the danger level. Therefore, straight-handled rakes are better than the new rakes for minimizing risk of spinal injury.

The conclusion above is properly drawn from the premises given if which one of the following is true?

- (A) Compression stress resulting from pushing is the only cause of injuries to the spine that occurs as a result of raking.
- (B) Raking is a frequent cause of spinal injury among gardeners.
- (C) The redesign of a tool rarely results in a net gain of efficiency, since gains tend to be counterbalanced by losses.
- (D) A garden rake can never be used in such a way that all the strokes with that rake are push strokes.
- (E) It is not possible to design a garden rake with a handle that is other than straight or S-shaped.

21. Some people fear that global warming will cause the large ice formations in the polar seas to melt, thereby warming the water of those seas and threatening the plankton that is crucial to the marine food chain. Some scientists contend that it is unlikely that the melting process has begun, since water temperatures in the polar seas are the same today as they were a century ago.

Which one of the following, if true, most seriously undermines the scientists' contention?

- (A) Much of the marine plant life that flourished in the polar seas will die in the event that the water temperatures rise above their present levels.
- (B) The overall effect of the melting process will be an increase in global sea levels.
- (C) The mean air temperature above both land and water in the polar regions has not varied significantly over the past 100 years.
- (D) The temperature of water that contains melting ice tends to remain constant until all of the ice in the ice-and-water mixture has melted.



(E) The mean temperature of ocean waters near the equator has remained constant over the past 100 years.

22. A long-term health study that followed a group of people who were age 35 in 1950 found that those whose weight increased by approximately half a kilogram or one pound per year after the age of 35 tended, on the whole, to live longer than those who maintained the weight they had at age 35. This finding seems at variance with other studies that have associated weight gain with a host of health problems that tend to lower life expectancy.

Which one of the following, if true, most helps to resolve the apparently conflicting findings?

- (A) As people age, muscle and bone tissue tends to make up a smaller and smaller proportion of total body weight.
- (B) Individuals who reduce their cholesterol levels by losing weight can thereby also reduce their risk of dying from heart attacks or strokes.
- (C) Smokers, who tend to be leaner than nonsmokers, tend to have shorter life spans than nonsmokers.
- (D) The normal deterioration of the human immune system with age can be slowed down by a reduction in the number of calories consumed.
- (E) Diets that tend to lead to weight gain often contain not only excess fat but also unhealthful concentrations of sugar and sodium.

23. Insurance industry statistics demonstrate that cars with alarms or other antitheft devices are more likely to be stolen or broken into than cars without such devices or alarms. Therefore antitheft devices do not protect cars against thieves.

The pattern of flawed reasoning in the argument above is most similar to that in which one of the following?

- (A) Since surveys reveal that communities with flourishing public libraries have, on average, better-educated citizens, it follows that good schools are typically found in communities with public libraries.
- (B) Most public libraries are obviously intended to serve the interests of the casual reader, because most public libraries contain large collections of fiction and relatively small reference collections.
- (C) Studies reveal that people who are regular users of libraries purchase more books per year than do people who do not use libraries regularly. Hence using libraries regularly does not reduce the number of books that library patrons purchase.
- (D) Since youngsters who read voraciously are more likely to have defective vision than youngsters who do not read very much, it follows that children who do not like to read usually have perfect vision.
- (E) Societies that support free public libraries are more likely to support free public universities than are societies without free public libraries. Hence a society that wished to establish a free public university should first establish

a free public library.

24. The problem that environmental economics aims to remedy is the following: people making economic decisions cannot readily compare environmental factors, such as clean air and the survival of endangered species, with other costs and benefits. As environmental economists recognize, solving this problem requires assigning monetary values to environmental factors. But monetary values result from people comparing costs and benefits in order to arrive at economic decisions. Thus, environmental economics is stymied by what motivates it. If the considerations advanced in its support are true, the passage's conclusion is supported
- (A) strongly, on the assumption that monetary values for environment factors cannot be assigned unless people make economic decisions about these factors
  - (B) strongly, unless economic decision-making has not yet had any effect on the things categorized as environmental factors
  - (C) at best weakly, because the passage fails to establish that economic decision-makers do not by and large take adequate account of environmental factors
  - (D) at best weakly, because the argument assumes that pollution and other effects on environmental factors rarely result from economic decision-making
  - (E) not at all, since the argument is circular, taking that conclusion as one of its premises

## TEST 14

### SECTION II

Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Paperback books wear out more quickly than hardcover books do, but paperback books cost much less. Therefore, users of public libraries would be better served if public libraries bought only paperback books, since by so doing these libraries could increase the number of new book titles added to their collections without increasing their budgets.
- Which one of the following, if true, most seriously weakens the argument?
- (A) If a public library's overall budget is cut, the budget for new acquisitions is usually cut back more than is that for day-to-day operations.
  - (B) Paperback books can very inexpensively have their covers reinforced in order to make them last longer.
  - (C) Many paperback books are never published in hardcover.
  - (D) Library users as a group depend on their public library for access to a wide variety of up-to-date reference books that are published in hardcover only.

(E) People are more likely to buy for themselves a copy of a book they had previously borrowed from the public library if that book is available in paperback.

2. Garbage in this neighborhood probably will not be collected until Thursday this week. Garbage is usually collected here on Wednesdays, and the garbage collectors in this city are extremely reliable. However, Monday was a public holiday, and after a public holiday that falls on a Monday, garbage throughout the city is supposed to be collected one day later than usual.

The argument proceeds by

- (A) treating several pieces of irrelevant evidence as though they provide support for the conclusion
  - (B) indirectly establishing that one thing is likely to occur by directly ruling out all of the alternative possibilities
  - (C) providing information that allows application of a general rule to a specific case
  - (D) generalizing about all actions of a certain kind on the basis of a description of one such action
  - (E) treating something that is probable as though it were inevitable
3. When compact discs first entered the market, they were priced significantly higher than vinyl records. Manufacturers attributed the difference in price to the difference in production costs, saying that compact disc production was expensive because the technology was new and unfamiliar. As the technology became more efficient, the price of the discs did indeed come down. But vinyl records, whose production technology has long been established then went up in price to approach that of compact discs.

Which one of the following most helps to explain why the price of vinyl records went up?

- (A) Consumers were so enthusiastic about the improved sound quality offered by compact disc technology that they were willing to pay higher price to obtain it.
- (B) Some consumers who continued to buy vinyl records instead of compact discs did so because they were unwilling to pay a higher price for compact discs.
- (C) As consumers bought compact discs instead of vinyl records, the number of vinyl records produced decreased, making their production less cost-efficient.
- (D) Compact disc player technology continued to change and develop even after compact discs first entered the market.
- (E) When compact discs first entered the market, many consumers continued to buy vinyl records rather than buying the equipment necessary to play compact discs.

4. Conservationists have established land reserves to preserve the last remaining habitat for certain species whose survival depends on the existence of such habitat. A grove of trees in Mexico that provide habitat for North American monarch butterflies in winter is a typical example of such a land reserve. If global warming occurs as predicted, however, the temperature bands within which various types of vegetation can grow will shift into regions that are currently cooler.

If the statements above are true, they provide the most support for which one of the following?

- (A) If global warming occurs as predicted, the conservation land reserves will cease to serve their purpose.
  - (B) Monarch butterflies will succeed in adapting to climatic change by shortening their migration.
  - (C) If global warming occurs, it will melt polar ice and so will cause the sea level to rise so high that many coastal plants and animals will become extinct.
  - (D) The natural world has adapted many times in the past to drastic global warming and cooling.
  - (E) If global warming occurs rapidly, species of plants and animals now protected in conservation land reserves will move to inhabit areas that are currently used for agriculture.
5. Financial success does not guarantee happiness. This claim is not mere proverbial wisdom but a fact verified by statistics. In a recently concluded survey, only one-third of the respondents who claimed to have achieved financial success reported that they were happy.
- Which one of the following, if true, most strongly supports the conclusion drawn from the survey results?
- (A) The respondents who reported financial success were, for the most part, financially successful.
  - (B) Financial success was once thought to be necessary for happiness but is no longer considered a prerequisite for happiness.
  - (C) Many of the respondents who claimed not to have achieved financial success reported that they were happy five years ago.
  - (D) Many of the respondents who failed to report financial success were in fact financially successful.
  - (E) Most of the respondents who reported they were unhappy were in fact happy.
6. The distance that animals travel each day and the size of the groups in which they live are highly correlated with their diets. And diet itself depends in large part on the sizes and shapes of animals' teeth and faces.

The statements above provide the most support for which one of the following?

- (A) Animals that eat meat travel in relatively small groups and across relatively small ranges compared to animals that eat plants.

- (B) Animals that have varied diets can be expected to be larger and more robust than animals that eat only one or two kinds of food.
- (C) When individual herd animals lose their teeth through age or injury, those animals are likely to travel at the rear of their herd.
- (D) Information about the size and shape of an animal's face is all that is needed to identify the species to which that animal belongs.
- (E) Information about the size and shape of an extinct animal's teeth and face can establish whether that animal is likely to have been a herd animal.

7. It is not correct that the people of the United States, relative to comparable countries, are the most lightly taxed. True, the United States has the lowest tax, as percent of gross domestic product, of the Western industrialized countries, but tax rates alone do not tell the whole story. People in the United States pay out of pocket for many goods and services provided from tax revenues elsewhere. Consider universal health care, which is an entitlement supported by tax revenues in every other Western industrialized country, United States government health-care expenditures are equivalent to about 5 percent of the gross domestic product, but private health-care expenditures represent another 7 percent. This 7 percent, then, amounts to a tax.

The argument concerning whether the people of the United States are the most lightly taxed is most vulnerable to which one of the following criticisms?

- (A) It bases a comparison on percentages rather than on absolute numbers.
  - (B) It unreasonably extends the application of a key term.
  - (C) It uses negatively charged language instead of attempting to give a reason.
  - (D) It generalizes from only a few instances.
  - (E) It sets up a dichotomy between alternatives that are not exclusive.
8. Various mid-fourteenth-century European writers show an interest in games, but no writer of this period mentions the playing of cards. Nor do any of the mid-fourteenth-century statutes that proscribe or limit the play of games mention cards, though they do mention dice, chess, and other games. It is therefore likely that, contrary to what is sometimes claimed, at that time playing cards was not yet common in Europe.

The pattern of reasoning in which one of the following is most similar to that in the argument above?

- (A) Neither today's newspapers nor this evening's television news mentioned a huge fire that was rumored to have happened in the port last night. Therefore, there probably was no such fire.
- (B) This evening's television news reported that the cruise ship was only damaged in the fire last night, whereas the newspaper reported that it was destroyed. The television news is based on more recent information, so probably the ship was not destroyed.
- (C) Among the buildings that are near the port is the newspaper's printing plant.



Early editions of this morning's paper were very late. Therefore, the fire at the port probably affected areas beyond the port itself.

- (D) The newspaper does not explicitly say that the port reopened after the fire, but in its listing of newly arrived ships it mentions some arrival times after the fire. Therefore, the port was probably not closed for long.
- (E) The newspaper is generally more reliable than the television news and the newspaper reported that the damage from last night's fire in the port was not severe. Therefore, the damage probably was not severe.

9. In a mature tourist market such as Bellaria there are only two ways hotel owners can increase profits: by building more rooms or by improving what is already there. Rigid land-use laws in Bellaria rule out construction of new hotels or, indeed, any expansion of hotel capacity. It follows that hotel owners cannot increase their profits in Bellaria since Bellarian hotels\_\_\_\_\_

Which one of the following logically completes the argument?

- (A) are already operating at an occupancy rate approaching 100 percent year-round
  - (B) could not have been sited any more attractively than they are even in the absence of land-use laws
  - (C) have to contend with upward pressures on the cost of labor which stem from an incipient shortage of trained personnel
  - (D) already provide a level of luxury that is at the limits of what even wealthy patrons are prepared to pay for
  - (E) have shifted from serving mainly Bellarian tourists to serving foreign tourists traveling in organized tour groups
10. Every political philosopher of the early twentieth century who was either a socialist or a communist was influenced by Rosa Luxemburg. No one who was influenced by Rosa Luxemburg advocated a totalitarian state.
- If the statements above are true, which one of the following must on the basis of them also be true?
- (A) No early-twentieth-century socialist political philosopher advocated a totalitarian state.
  - (B) Every early-twentieth-century political philosopher who did not advocate a totalitarian state was influenced by Rosa Luxemburg.
  - (C) Rosa Luxemburg was the only person to influence every early-twentieth-century political philosopher who was either socialist or communist.
  - (D) Every early-twentieth-century political philosopher who was influenced by Rosa Luxemburg and was not a socialist was a communist.
  - (E) Every early-twentieth-century political philosopher who did not advocate a totalitarian state was either socialist or communist.

Questions 11-12

Harris: Currently, hybrid animals are not protected by international endangered-species regulations. But new techniques in genetic research suggest that the red wolf, long thought to be an independent species, is a hybrid of the coyote and the gray wolf. Hence, since the red wolf clearly deserves protection, these regulations should be changed to admit the protection of hybrids.

Vogel: Yet hybrids do not need protection. Since a breeding population that arises through hybridization descends from independent species, if any such population were to die out, it could easily be revived by interbreeding members of the species from which the hybrid is descended.

11. Which one of the following is a point at issue between Harris and Vogel?
- (A) whether the red wolf descends from the gray wolf and the coyote
  - (B) whether there are some species that are currently considered endangered that are not in fact in any danger
  - (C) whether the packs of red wolves that currently exist are in danger of dying out
  - (D) whether there are some hybrids that ought to be protected by endangered-species regulations
  - (E) whether new techniques in genetic research should be used to determine which groups of animals constitute species and which constitute hybrids
12. Which one of the following is an assumption on which Vogel's argument relies?
- (A) The techniques currently being used to determine whether a population of animals is a hybrid of other species have proven to be reliable.
  - (B) The international regulations that protect endangered species and subspecies are being enforced successfully.
  - (C) The gray wolf has been successfully bred in captivity.
  - (D) All hybrids are the descendants of species that are currently extant.
  - (E) The coyote and the red wolf are not related genetically.
13. From an analysis of broken pottery and statuary, archaeologists have estimated that an ancient settlement in southwestern Arabia was established around 1000 B.C. However, new evidence suggests that the settlement is considerably older: tests show that a piece of building timber recently uncovered at the site is substantially older than the pottery and statuary.
- Which one of the following, if true, most seriously undermines the conclusion drawn from the new evidence?
- (A) The building timber bore marks suggesting that it had been salvaged from an earlier settlement.
  - (B) The pieces of pottery and fragments of statues that were analyzed come from several parts of the site.
  - (C) The tests used to determine the age of the pottery and statuary had been devised more recently than those used to determine the age of the building

timber.

- (D) The site has yielded many more samples of pottery and statuary than of building timber.
- (E) The type of pottery found at the site is similar to a type of pottery associated with civilizations that existed before 1000 B.C.

14. The book *To Save the Earth* is so persuasive that no one who reads it can fail to heed its environmentalist message. Members of the Earth Association have given away 2,000 copies in the last month. Thus the Earth Association can justly claim credit for at least 2,000 people in one month converted to the environmentalist cause.

Which one of the following is an assumption on which the argument depends?

- (A) No other environmental organization gave away copies of *To Save the Earth* during the month in which the Earth Association gave away its 2,000 copies.
  - (B) The people to whom the Earth Association gave copies of *To Save the Earth* would not have been willing to pay to receive it from the Earth Association.
  - (C) The copies of *To Save the Earth* given away by members of the Earth Association were printed on recycled paper.
  - (D) None of those who received *To Save the Earth* from a member of the Earth Association were already committed to the environmentalist cause when they received this book.
  - (E) Every recipient of *To Save the Earth* will embrace the environmental program advocated by the Earth Association.
15. Smokers of pipes or cigars run a distinctly lower risk to their health than do cigarette smokers. However, whereas cigarette smokers who quit smoking altogether sharply reduce their risk of smoking-related health problems, those who give up cigarettes and take up pipes or cigars remain in as much danger as before.
- Which one of the following, if true, offers the best prospects for an explanation of why the two changes in smoking habits do not both result in reduced health risks?
- (A) Smokers of pipes or cigars who quit smoking thereby reduce their risk of smoking-related health problems.
  - (B) Cigarette smokers who quit smoking for a time and who then resume cigarette smoking do not necessarily reduce their risk of smoking-related health problems.
  - (C) The kinds of illnesses that smokers run an increased risk of contracting develop no earlier in cigarette smokers than they do in smokers of pipes or cigar.
  - (D) At any given period in their lives, virtually all smokers smoke either cigarettes exclusively or cigars exclusively or pipes exclusively, rather than

alternating freely among various ways of smoking.

- (E) People who switch from cigarette smoking to smoking pipes or cigars inhale smoke in a way that those who have never smoked cigarettes do not.

Questions 16-17

Production manager: The building materials that we produce meet industry safety codes but pose some safety risk. Since we have recently developed the technology to make a safer version of our product, we should stop producing our current product and sell only the safer version in order to protect public safety.

Sales manager: If we stop selling our current product, we will have no money to develop and promote the safe product. We need to continue to sell the less-safe product in order to be in a position to market the safer product successfully.

16. Which one of the following principles, if established, most helps to justify the production manager's conclusion?
- (A) Companies should be required to develop safer products if such development can be funded from sales of existing products.
  - (B) That a product does not meet industry safety codes should be taken as sufficient indication that the product poses some safety risks.
  - (C) Companies should not sell a product that poses safety risks if they are technologically capable of producing a safer version of that product.
  - (D) Product safety codes should be reviewed whenever an industry replaces one version of a product with a technologically more advanced version of that product.
  - (E) In order to make building materials safer, companies should continually research new technologies whether or not they are required to do so in order to comply with safety codes.
17. The sales manager counters the production manager's argument by
- (A) pointing out that one part of the production manager's proposal would have consequences that would prevent successful execution of another part
  - (B) challenging the production manager's authority to dictate company policy
  - (C) questioning the product manager's assumption that a product is necessarily safe just because it is safer than another product
  - (D) proposing a change in the standards by which product safety is judged
  - (E) presenting evidence to show that the production manager has overestimated the potential impact of the new technology

Questions 18-19

Each year, an official estimate of the stock of cod in the Grand Banks is announced. This estimate is obtained by averaging two separate estimates of how many cod are available, one based on the number of cod caught by research vessels during a once-yearly sampling of the area and the other on the average number of tons of cod caught

by various commercial vessels per unit of fishing effort expended there in the past year—a unit of fishing effort being one kilometer of net set out in the water for one hour. In previous decades, the two estimates usually agreed closely. However, for the last decade the estimate based on commercial tonnage has been increasing markedly, by about the same amount as the sampling-based estimate has been decreasing.

18. If the statements in the passage are true, which one of the following is most strongly supported by them?
- (A) Last year's official estimate was probably not much different from the official estimate ten years ago.
  - (B) The number of commercial vessels fishing for cod in the Grand Banks has increased substantially over the past decade.
  - (C) The sampling-based estimate is more accurate than the estimate based on commercial tonnage in that the data on which it relies is less likely to be inaccurate.
  - (D) The once-yearly sampling by research vessels should be used as the sole basis for arriving at the official estimate of the stock of cod.
  - (E) Twenty years ago, the overall stock of cod in the Grand Banks was officially estimated to be much larger than it is estimated to be today.
19. Which one of the following, if true, most helps to account for the growing discrepancy between the estimate based on commercial tonnage and the research-based estimate?
- (A) Fishing vessels often exceed their fishing quotas for cod and therefore often underreport the number of tons of cod that they catch.
  - (B) More survey vessels are now involved in the yearly sampling effort than were involved 10 years ago.
  - (C) Improvements in technology over the last 10 years have allowed commercial fishing vessels to locate and catch large schools of cod more easily.
  - (D) Survey vessels count only those cod caught during a 30-day survey period, whereas commercial fishing vessels report all cod caught during the course of a year.
  - (E) Because of past overfishing of cod, fewer fishing vessels now catch the maximum tonnage of cod each vessel is allowed by law to catch.
20. Pretzels can cause cavities. Interestingly, the longer that a pretzel remains in contact with the teeth when it is being eaten, the greater the likelihood that a cavity will result. What is true of pretzels in this regard is also true of caramels. Therefore, since caramels dissolve more quickly in the mouth than pretzels do, eating a caramel is less likely to result in a cavity than eating a pretzel is.
- The reasoning in the argument is vulnerable to criticism on the grounds that the argument
- (A) treats a correlation that holds within individual categories as thereby holding



across categories as well

- (B) relies on the ambiguous use of a key term
- (C) makes a general claim based on particular examples that do not adequately represent the respective classes that they are each intended to represent
- (D) mistakes the cause of a particular phenomenon for the effect of that phenomenon
- (E) is based on premises that cannot all be true

Questions 21-22

Mark: Plastic-foam cups, which contain environmentally harmful chlorofluorocarbons, should no longer be used; paper cups are preferable. Styrene, a carcinogenic by-product, is generated in foam production, and foam cups, once used, persist indefinitely in the environment.

Tina: You overlook the environmental effects of paper cups. A study done 5 years ago showed that making paper for their production burned more petroleum than was used for foam cups and used 12 times as much steam, 36 times as much electricity, and twice as much cooling water. Because paper cups weigh more, their transportation takes more energy. Paper mills produce water pollution, and when the cups decay they produce methane, a gas that contributes to harmful global warming. So they are a worse choice.

21. Which one of the following, if true, could Mark cite to counter evidence offered by Tina?
- (A) The use of energy for chain saws that cut down trees and for trucks that haul logs is part of the environmental cost of manufacturing paper.
  - (B) Foam cups are somewhat more acceptable to consumers than paper cups because of their better insulating qualities.
  - (C) The production and transportation of petroleum occasions serious environmental pollution, but the energy that runs paper mills now comes from burning waste wood rather than petroleum.
  - (D) The amount of styrene escaping into the environment or remaining in foam cups after their manufacture is negligible.
  - (E) Acre for acre, tree farms for the production of wood for paper have fewer beneficial effects on the environment than do natural forests that remain uncut.
22. To decide the issue between Mark and Tina, it would first be most important to decide
- (A) how soon each of the kinds of harm cited by Mark and Tina would be likely to be at its maximum level
  - (B) whether members of some societies use, on average, more disposable goods than do members of other societies

- (C) whether it is necessary to seek a third alternative that has none of the negative consequences cited with respect to the two products
- (D) how much of the chains of causation involved in the production, marketing, and disposal of the products should be considered in analyzing their environmental impact
- (E) whether paper and foam cups, in their most popular sizes, hold the same quantities of liquid
23. When people experience throbbing in their teeth or gums, they have serious dental problems, and if a dental problem is serious, it will be a problem either of tooth decay or of gum disease. Therefore, since throbbing in the teeth or gums is a sign of serious dental problems, and neither Sabina's teeth nor her gums are throbbing, Sabina can be suffering from neither tooth decay nor gum disease. Which one of the following contains an error of reasoning most similar to that made in the argument above?
- (A) People who drink a lot of coffee are said to have jittery nerves. Therefore, medical students who drink a lot of coffee should not become neonatologists or surgeons since neither neonatology nor surgery should be practiced by people with jittery nerves.
- (B) A legally practicing psychiatrist must have both a medical degree and psychiatric training. Thus, since Emmett has not undergone psychiatric training, if he is practicing as a psychiatrist, he is not doing so legally.
- (C) Someone with severe nasal congestion has a sinus infection or else is suffering from an allergy. Therefore, if Barton does not have a sinus infection, Barton probably does not have severe nasal congestion.
- (D) If a person is interested in either physics or chemistry, then that person would be wise to consider a career in medicine. Yolanda, however, is interested in neither physics nor chemistry, so it would not be wise for her to consider a career in medicine.
- (E) Someone who is neither an ophthalmologist nor an optometrist lacks specialized training for diagnosing defects of the eye. Therefore, Kim must have been trained in ophthalmology or optometry, given that she accurately diagnosed John's eye defect.
24. A certain airport security scanner designed to detect explosives in luggage will alert the scanner's operator whenever the piece of luggage passing under the scanner contains an explosive. The scanner will erroneously alert the operator for only one percent of the pieces of luggage that contain no explosives. Thus in ninety-nine out of a hundred alerts explosives will actually be present. The reasoning in the argument is flawed because the argument
- (A) ignores the possibility of the scanner's failing to signal an alert when the luggage does contain an explosive
- (B) draws a general conclusion about reliability on the basis of a sample that is

likely to be biased

- (C) ignores the possibility of human error on the part of the scanner's operator once the scanner has alerted him or her
- (D) fails to acknowledge the possibility that the scanner will not be equally sensitive to all kinds of explosives
- (E) substitutes one group for a different group in the statement of a percentage

25. Unless negotiations begin soon, the cease-fire will be violated by one of the two sides to the dispute. Negotiations will be held only if other countries have pressured the two sides to negotiate; an agreement will emerge only if other countries continue such pressure throughout the negotiations. But no negotiations will be held until international troops enforcing the cease-fire have demonstrated their ability to counter any aggression from either side, thus suppressing a major incentive for the two sides to resume fighting.

If the statements above are true, and if negotiations between the two sides do begin soon, at the time those negotiations begin each of the following must also be true EXCEPT:

- (A) The cease-fire has not been violated by either of the two sides.
- (B) International troops enforcing the cease-fire have demonstrated that they can counter aggression from either of the two sides.
- (C) A major incentive for the two sides to resume hostilities has been suppressed.
- (D) Other countries have exerted pressure on the two sides to the dispute.
- (E) The negotiations' reaching an agreement depends in part on the actions of other countries.

26. If Blankenship Enterprises has to switch suppliers in the middle of a large production run, the company will not show a profit for the year. Therefore, if Blankenship Enterprises in fact turns out to show no profit for the year, it will also turn out to be true that the company had to switch suppliers during a large production run.

The reasoning in the argument is most vulnerable to criticism on which one of the following grounds?

- (A) The argument is a circular argument made up of an opening claim followed by a conclusion that merely paraphrases that claim.
- (B) The argument fails to establish that a condition under which a phenomenon is said to occur is the only condition under which that phenomenon occurs.
- (C) The argument involves an equivocation, in that the word "profit" is allowed to shift its meaning during the course of the argument.
- (D) The argument erroneously uses an exceptional, isolated case to support a universal conclusion.
- (E) The argument explains one event as being caused by another event, even though both events must actually have been caused by some third,

unidentified event.

#### SECTION IV

##### **Time 35 minutes 24 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. James: In my own house, I do what I want. In banning smoking on passenger airlines during domestic flights, the government has ignored the airlines' right to set smoking policies on their own property.  
Eileen: Your house is for your own use. Because a passenger airline offers a service to the public, the passengers' health must come first.  
The basic step in Eileen's method of attacking James' argument is to
  - (A) draw a distinction
  - (B) offer a definition
  - (C) establish an analogy
  - (D) derive a contradiction from it
  - (E) question its motivation
2. The company that produces XYZ, a computer spreadsheet program, estimates that millions of illegally reproduced copies of XYZ are being used. If legally purchased, this number of copies would have generated millions of dollars in sales for the company, yet despite a company-wide effort to boost sales, the company has not taken available legal measures to prosecute those who have copied the program illegally.  
Which one of the following, if true, most helps to explain why the company has not taken available legal measures?
  - (A) XYZ is very difficult to copy illegally, because a sophisticated anticopying mechanism in the program must first be disabled.
  - (B) The legal measures that the company that produces XYZ could take against those who have copied its product became available several years before XYZ came on the market.
  - (C) Many people who purchase a software program like XYZ are willing to purchase that program only after they have already used it.
  - (D) The number of illegally reproduced copies of XYZ currently in use exceeds the number of legally reproduced copies currently in use.
  - (E) The company that produces ABC, the spreadsheet program that is XYZ's main rival in the marketplace, is well known for taking legal action against people who have copied ABC illegally.

#### Questions 3-4

Kim: Some people claim that the battery-powered electric car represents a potential solution to the problem of air pollution. But they forget that it takes electricity to

recharge batteries and that most of our electricity is generated by burning polluting fossil fuels. Increasing the number of electric cars on the road would require building more generating facilities since current facilities are operating at maximum capacity. So even if all of the gasoline-powered cars on the roads today were replaced by electric cars, it would at best be an exchange of one source of fossil-fuel pollution for another.

3. The main point made in Kim's argument is that
- (A) replacing gasoline-powered cars with battery-powered electric cars will require building more generating facilities
  - (B) a significant reduction in air pollution cannot be achieved unless people drive less
  - (C) all forms of automobile transportation are equally harmful to the environment in terms of the air pollution they produce
  - (D) battery-powered electric cars are not a viable solution to the air-pollution problem
  - (E) gasoline-powered cars will probably remain a common means of transportation for the foreseeable future
4. Which one of the following is an assumption on which Kim's argument depends?
- (A) Replacing gasoline-powered cars with battery-powered electric cars will lead to a net increase in the total number of cars on the road.
  - (B) Gasoline-powered cars are currently not the most significant source of fossil-fuel pollution.
  - (C) Replacing gasoline-powered cars with battery-powered electric cars is justified only if electric cars produce less air pollution.
  - (D) While it is being operated, a battery-powered electric car does not cause any significant air pollution.
  - (E) At least some of the generating facilities built to meet the demand for electricity for battery-powered electric cars would be of a type that burns fossil fuel.
5. Planetary bodies differ from one another in their composition, but most of those in the Solar System have solid surfaces. Unless the core of such a planetary body generates enough heat to cause volcanic action, the surface of the body will not be renewed for millions of years. Any planetary body with a solid surface whose surface is not renewed for millions of years becomes heavily pockmarked by meteorite craters, just like the Earth's Moon. Some old planetary bodies in the Solar System, such as Europa, a very cold moon belonging to Jupiter, have solid icy surfaces with very few meteorite craters.
- If the claims above are true, which one of the following must, on the basis of them, be true?
- (A) The Earth's Moon does not have an icy surface.



- (B) If a planetary body does not have a heavily pockmarked surface, its core does not generate enough heat to cause volcanic action.
- (C) Some planetary bodies whose cores generate enough heat to cause volcanic action do not have solid icy surfaces.
- (D) Some of Jupiter's moons are heavily pockmarked by meteorite craters.
- (E) Some very cold planetary bodies have cores that generate enough heat to cause volcanic action.
6. Patient: Pharmacists maintain that doctors should not be permitted to sell the medicine that they prescribe because doctors would then be tempted to prescribe unnecessary medicines in order to earn extra income. But pharmacists have a financial interest in having a monopoly on the sale of prescription medicines, so their objection to the sale of medicines by doctors cannot be taken seriously.
- The patient's argument proceeds by
- (A) pointing out an unstated assumption on which the pharmacists' argument relies and then refuting it
- (B) attempting to discredit a position by questioning the motives of the proponents of that position
- (C) undermining the pharmacists' conclusion by demonstrating that one of the statements used to support the conclusion is false
- (D) rejecting a questionable position on the grounds that the general public does not support that position
- (E) asserting that pharmacists lack the appropriate knowledge to have informed opinions on the subject under discussion
7. Murray: You claim Senator Brandon has accepted gifts from lobbyists. You are wrong to make this criticism. That it is motivated by personal dislike is shown by the fact that you deliberately avoid criticizing other politicians who have done what you accuse Senator Brandon of doing.
- Jane: You are right that I dislike Senator Brandon, but just because I have not criticized the same failing in others doesn't mean you can excuse the senator's offense.
- If Murray and Jane are both sincere in what they say, then it can properly be concluded that they agree that
- (A) Senator Brandon has accepted gifts from lobbyists
- (B) it is wrong for politicians to accept gifts from lobbyists
- (C) Jane's criticism of Senator Brandon is motivated only by personal dislike
- (D) Senator Brandon should be criticized for accepting gifts from lobbyists
- (E) one or more politicians have accepted gifts from lobbyists

Questions 8-9

Oscar: Emerging information technologies will soon make speed of information

processing the single most important factor in the creation of individual, corporate, and national wealth. Consequently, the division of the world into northern countries—in general rich—and southern countries—in general poor—will soon be obsolete. Instead, there simply will be fast countries and slow countries, and thus a country's economic well-being will not be a function of its geographical position but just a matter of its relative success in incorporating those new technologies.

Sylvia: But the poor countries of the south lack the economic resources to acquire those technologies and will therefore remain poor. The technologies will thus only widen the existing economic gap between north and south.

8. Sylvia's reasoning depends on the assumption that
- (A) the prosperity of the rich countries of the north depends, at least in part, on the natural resources of the poor countries of the south
  - (B) the emergence of new information technologies will not result in a significant net increase in the total amount of global wealth
  - (C) there are technologies other than information technologies whose development could help narrow the existing economic gap between north and south
  - (D) at least some of the rich countries of the north will be effective in incorporating new information technologies into their economies
  - (E) the speed at which information processing take place will continue to increase indefinitely
9. The reasoning that Oscar uses in supporting his prediction is vulnerable to criticism on the ground that it
- (A) overlooks the possibility that the ability of countries to acquire new technologies at some time in the future will depend on factors other than those countries' present economic status
  - (B) fails to establish that the division of the world into rich countries and poor countries is the single most important problem that will confront the world economy in the future
  - (C) ignores the possibility that, in determining a country's future wealth, the country's incorporation of information-processing technologies might be outweighed by a combination of other factors
  - (D) provides no reason to believe that faster information processing will have only beneficial effects on countries that successfully incorporate new information technologies into their economies
  - (E) makes no distinction between those of the world's rich countries that are the wealthiest and those that are less wealthy
10. At the beginning of each month, companies report to the federal government their net loss or gain in jobs over the past month. These reports are then consolidated by the government and reported as the total gain or loss for the past month.

Despite accurate reporting by companies and correct tallying by the government, the number of jobs lost was significantly underestimated in the recent recession.

Which one of the following, if true, contributes most to a resolution of the apparent discrepancy described?

- (A) More jobs are lost in a recession than in a period of growth.
- (B) The expenses of collecting and reporting employment data have steadily increased.
- (C) Many people who lose their jobs start up their own businesses.
- (D) In the recent recession a large number of failing companies abruptly ceased all operations.
- (E) The recent recession contributed to the growing preponderance of service jobs over manufacturing jobs.

Questions 11-12

Beverage company representative: The plastic rings that hold six-packs of beverage cans together pose a threat to wild animals, which often become entangled in the discarded rings and suffocate as a result. Following our lead, all beverage companies will soon use only those rings consisting of a new plastic that disintegrates after only three days' exposure to sunlight. Once we all complete the switchover from the old to the new plastic rings, therefore, the threat of suffocation that plastic rings pose to wild animals will be eliminated.

11. The argument depends on which one of the following assumptions?
- (A) None of the new plastic rings can disintegrate after only two days' exposure to sunlight.
  - (B) The switchover to the new plastic rings can be completed without causing significant financial hardship to the beverage companies.
  - (C) Wild animals will not become entangled in the new plastic rings before the rings have had sufficient exposure to sunlight to disintegrate.
  - (D) Use of the old plastic rings poses no substantial threat to wild animals other than that of suffocation.
  - (E) Any wild animal that becomes entangled in the old plastic rings will suffocate as a result.
12. Which one of the following, if true, most seriously weakens the representative's argument?
- (A) The switchover to the new plastic rings will take at least two more years to complete.
  - (B) After the beverage companies have switched over to the new plastic rings, a substantial number of the old plastic rings will persist in most aquatic and woodland environments.
  - (C) The new plastic rings are slightly less expensive than the old rings.

- (D) The new plastic rings rarely disintegrate during shipping of beverage six-packs because most trucks that transport canned beverages protect their cargo from sunlight.
- (E) The new plastic rings disintegrate into substances that are harmful to aquatic animals when ingested in substantial quantities by them.

13. Alcohol consumption has been clearly linked to high blood pressure, which increases the likelihood of developing heart disease. Yet in a study of the effects of alcohol consumption, the incidence of heart disease was lower among participants who drank moderate quantities of alcohol every day than it was among participants identified as nondrinkers.

Which one of the following, if true, most helps to resolve the apparent discrepancy in the information above?

- (A) Because many people who do not drink alcohol are conscious of their health habits, they are likely to engage in regular exercise and to eat nutritionally well-balanced meals.
  - (B) Many of the participants identifies as nondrinkers were people who had been heavy drinkers but had stopped drinking alcohol prior to participating in the study.
  - (C) Some of the participants who drank moderate quantities of alcohol every day said that they occasionally drank large quantities of alcohol.
  - (D) Some of the participants who drank moderate quantities of alcohol every day had high blood pressure.
  - (E) The two groups of participants were similar to each other with respect to the participants' age, sex, geographical origin, and economic background.
14. Some of the world's most beautiful cats are Persian cats. However, it must be acknowledged that all Persian cats are pompous, and pompous cats are invariably irritating.

If the statements above are true, each of the following must also be true on the basis of them EXCEPT:

- (A) Some of the world's most beautiful cats are irritating.
  - (B) Some irritating cats are among the world's most beautiful cats.
  - (C) Any cat that is not irritating is not a Persian cat.
  - (D) Some pompous cats are among the world's most beautiful cats.
  - (E) Some irritating and beautiful cats are not Persian cats.
15. At Flordyce University any student who wants to participate in a certain archaeological dig is eligible to do so but only if the student has taken at least one archaeology course and has shown an interest in the field. Many students who have shown an interest in archaeology never take even one archaeology course. Therefore, many students who want to participate in the dig will be ineligible to do so.

The flawed reasoning of which one of the following arguments is most similar to that of the argument above?

- (A) Theoretically, any jar is worth saving regardless of its size, but only if it has a lid. Therefore, since some jars are sure not to have lids, there are certain sizes of jar that are actually not worth saving.
  - (B) For a horse that is well schooled to be ideal for beginning riders that horse must also be surefooted and gentle. Many horses that are surefooted are not gentle. Therefore many well-schooled horses are not ideal for beginning riders.
  - (C) If an author's first novel has a romantic setting and a suspenseful plot, it will become a best-seller. Since many authors' first novels have neither, not many first novels become best-sellers.
  - (D) Any automobile that is more than a few years old is eventually sure to need repairs if it is not regularly maintained. Many automobiles are more than a few years old, but still do not need repairs. Therefore, many automobiles are regularly maintained.
  - (E) An expensive new building will prove to be a good investment only if it is aesthetically pleasing or provides lots of office space. However, since many expensive new buildings are not aesthetically pleasing, few expensive new buildings will prove to be good investments.
16. From the observation that each member of a group could possess a characteristic, it is fallacious to conclude immediately that it is possible for all the group's members to possess the characteristic. An example in which the fallacy is obvious: arguing that because each of the players entering a tennis tournament has a possibility of winning it, there is therefore a possibility that all will win the tournament.

Which one of the following commits the fallacy described above?

- (A) You can fool some of the people all of the time and all of the people some of the time, but you cannot fool all of the people all of the time.
- (B) Each of the candidates for mayor appears at first glance to possess the necessary qualifications. It would therefore be a mistake to rule out any of them without more careful examination.
- (C) Each of the many nominees could be appointed to any one of the three openings on the committee. Therefore it is possible for all of the nominees to be appointed to the openings on the committee.
- (D) If a fair coin is tossed five times, then on each toss the chance of heads being the result is half. Therefore the chance of heads being the result on all five tosses is also half.
- (E) It is estimated that ten million planets capable of supporting life exist in our galaxy. Thus to rule out the possibility of life on worlds other than Earth, ten million planetary explorations would be needed.



17. Recent research shows that hesitation, shifting posture, and failure to maintain eye contact are not reliable indicators in discriminating between those who are lying and those who are telling the truth. The research indicates that behavior that cannot be controlled is a much better clue, at least when the lie is important to the liar. Such behavior includes the dilation of eye pupils, which indicates emotional arousal, and small movements of facial muscles, which indicate distress, fear or anger.

Which one of the following provides the strongest reason for exercising caution when relying on the “better” clues mentioned above in order to discover whether someone is lying?

- (A) A person who is lying might be aware that he or she is being closely observed for indications of lying.
- (B) Someone who is telling the truth might nevertheless have a past history of lying.
- (C) A practiced liar might have achieved great control over body posture and eye contact.
- (D) A person telling the truth might be affected emotionally by being suspected of lying or by some other aspect of the situation.
- (E) Someone who is lying might exhibit hesitation and shifting posture as well as dilated pupils.

Questions 18-19

Orthodox medicine is ineffective at both ends of the spectrum of ailments. At the more trivial end, orthodox medicine is largely ineffective in treating aches, pains and allergies, and, at the other extreme, it has yet to produce a cure for serious, life-threatening diseases such as advanced cancer and lupus. People turn to alternative medicine when orthodox medicine fails to help them and when it produces side effects that are unacceptable to them. One of the reasons alternative medicines is free of such side effects is that it does not have any effects at all.

18. If the statements above are true, which one of the following can be properly inferred from them?
- (A) Practitioners of alternative medicine are acting in bad faith.
  - (B) There are some medical conditions for which no orthodox or alternative treatment is effective.
  - (C) There are some trivial illnesses that can be treated effectively by the methods of alternative medicine.
  - (D) There are no effective medical treatments that are free from unacceptable side effects.
  - (E) Orthodox medicine will eventually produce a solution for the diseases that are currently incurable.
19. The charge made above against alternative medicine is most seriously weakened

if it is true that

- (A) predictions based on orthodox medicine have sometimes failed, as when a patient has recovered despite the judgment of doctors that an illness is fatal
- (B) alternative medicine relies on concepts of the body and of the nature of healing that differ from those on which orthodox medicine is based
- (C) alternative medicine provides hope to those for whom orthodox medicine offers no cure
- (D) a patient's belief in the medical treatment the patient is receiving can release the body's own chemical painkillers, diminish allergic reactions, and promote healing
- (E) many treatments used for a time by orthodox medicine have later been found to be totally ineffective

20. Humans began to spread across North American around 12,000 years ago, as the climate became warmer. During the same period the large mammals that were once abundant in North America, such as the mastodon, the woolly mammoth, and the saber-toothed tiger, became extinct. Thus, contrary to the myth that humans formerly lived in harmony with the rest of nature, it is clear that even 12,000 years ago human activity was causing the extinction of animal species.

The argument is most vulnerable to the criticism that

- (A) it adopts without question a view of the world in which humans are seen as not included in nature
- (B) in calling the idea that humans once lived in harmony with nature a myth the argument presupposes what it attempts to prove
- (C) for early inhabitants of North America the destruction of mastodons, woolly mammoths, and saber-toothed tigers might have had very different significance than the extinction of mammal species does for modern humans
- (D) there might have been many other species of animals, besides mastodon, woolly mammoths, and saber-toothed tigers, that became extinct as the result of the spread of humans across North American
- (E) the evidence it cites is consistent with the alternative hypothesis that the large mammals' extinction was a direct result of the same change in climate that allowed humans to spread across North American

21. The town of Greenfield recently instituted a substantial supplementary tax on all households, whereby each household is taxed in proportion to the volume of the trash that it puts out for trash collectors to pick up, as measured by the number of standard-sized garbage bags put out. In order to reduce the volume of the trash on which their tax bill is based, Greenfield households can deliver their recyclable trash to a conveniently located local commercial recycling center, where such trash is accepted free of charge.

The supplementary tax provides some financial incentive to Greenfield

households to do each of the following EXCEPT

- (A) sort out recyclable trash thoroughly from their other trash
- (B) dump nonrecyclable trash illegally at parks and roadsides
- (C) compress and nest items of nonrecyclable trash before putting them out for pickup
- (D) deliver recyclable materials to the recycling center instead of passing them on to neighbors who want to reuse them
- (E) buy products without packaging or with recyclable rather than nonrecyclable packaging

22. In a survey of consumers in an Eastern European nation, respondents were asked two questions about each of 400 famous Western brands: whether or not they recognized the brand name and whether or not they thought the products bearing that name were of high quality. The results of the survey were a rating and corresponding rank order for each brand based on recognition, and a second rating-plus-ranking based on approval. The brands ranked in the top 27 for recognition were those actually available in that nation. The approval rankings of these 27 brands often differed sharply from their recognition rankings. By contrast, most of the other brands had ratings, and thus rankings, that were essentially the same for recognition as for approval.

Which one of the following, if each is a principle about consumer surveys, is violated by the survey described?

- (A) Never ask all respondents a question if it cannot reasonably be answered by respondents who make a particular response to another question in the same survey.
  - (B) Never ask a question that is likely to generate a large variety of responses that are difficult to group into a manageable number of categories.
  - (C) Never ask all respondents a question that respondents cannot answer without giving up their anonymity.
  - (D) It is better to ask the same question about ten different products than to ask ten different questions about a single product.
  - (E) It is best to ask questions that a respondent can answer without fear of having gotten the answer wrong.
23. A certain species of bird has two basic varieties, crested and noncrested. The bird, which generally live in flocks that contain only crested or only noncrested birds, tend to select mates of the same variety as themselves. However, if a bird that is raised in a flock in which all other members are crested is later moved to a mixed flock, then that bird—whether crested or noncrested—is likely to select a crested mate. This fact indicates that the birds' preference for crested or noncrested mates is learned rather than genetically determined.
- Which one of the following, if true, provides the most support for the argument?
- (A) Birds of other species also tend to show preferences for mates that have one

or another specific physical feature.

- (B) In general there are few behavioral differences between the crested and noncrested birds of the species.
- (C) Both the crested and noncrested birds of the species tend to select mates that are similar to themselves in size and age.
- (D) If a crested bird of the species is raised in captivity apart from other birds and is later moved to a mixed flock, that bird is likely to select a crested mate.
- (E) If a bird of the species is raised in a flock that contains both crested and noncrested birds, that bird shows no preference for one variety or the other in its selection of a mate.

24. Plant species differ in that renewed growth in spring can be triggered by day length or by temperature or else by a combination of both. Day length is the same, year after year, for any given date. Therefore, any plant species that starts to grow again on widely different dates in different years resumes growth at least in part in response to temperature.

Which one of the following arguments is most similar in its pattern of reasoning to the argument above?

- (A) In Xandia, medical assistant trainees must either complete a formal training course or work for one year under the close supervision of a physician. Since few physicians are willing to act as supervisors, it must be true that most medical assistant trainees in Xandia take the training course.
- (B) In the Crawford area, easterly winds mean rain will come and westerly winds mean dry weather will come; winds from other directions do not occur. Therefore, since it is currently raining in Crawford, there must be an easterly wind blowing there now.
- (C) Some landfills charge garbage companies by volume only, some charge by weight only, and all others use a formula sensitive to both volume and weight. So if at a particular landfill the charges for two particular loads of equal volume dumped on the same day are different, weight must determine, or help determine, charges at that landfill.
- (D) Depending on volume of business, either one or two or three store detectives are needed for adequate protection against shoplifting. Therefore, if on any particular day store management has decided that three detectives will be needed, it must be because business that day is expected to be heavy.
- (E) A call is more likely to be heard if it is loud rather than soft, if it is high-pitched rather than low-pitched, and especially if it is both loud and high-pitched. Therefore, anyone whose call goes unheard in spite of being at maximum loudness should try to raise the pitch of the call.

**TEST 15****SECTION II****Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Rainfall in the drought plagued metropolitan area was heavier than usual for the month of June. Nevertheless, by the first of July the city's water shortage was more severe than ever, and officials proposed drastic restrictions on the use of water.  
  
Which one of the following, if true, helps to explain why the city's water shortage was not alleviated by the first of July?
  - (A) Moderate restrictions on the industrial use of water had gone into effect in the metropolitan area several months earlier.
  - (B) Because of the heavier rainfall, people watered their lawns much less in June than they usually do in the metropolitan area during that month.
  - (C) People in the metropolitan area who had voluntarily reduced their use of water in earlier months when officials voice alarm used greater than normal amounts of water when rainfall seemed plentiful in June.
  - (D) During the drought most residents of the metropolitan area had been informed about water conservation methods that would help them to reduce their water consumption significantly with a minimal reduction in their standard of living.
  - (E) The per capita rate of the use of water in the metropolitan area was slightly lower in June than in each of the three previous months and significantly lower than in June of the previous year.
  
2. Manager: I have circulated posting for the position of Social Scientific Researcher. Applicants must have either an earned doctorate and a track record of published research, or else five years' work experience. The relevant fields for these requirements are sociology, psychology, and education.  
  
Which one of the applicants, as described below, does NOT meet the manager's requirements?
  - (A) Joanne Bernstein has worked for the department of education as coordinator of research for the past eleven years. She also served for six years as director of the Save the Children Fund. For which she was awarded an honorary doctorate from the liberal arts college where she earned her bachelor's degree.
  - (B) Alvin Johnson is a doctoral candidate at a local university and is currently working on dissertation. Prior to undertaking doctoral studies, he worked as a psychology research for seven years.
  - (C) Edward St. John has worked as business consultant for the past ten years,



during which time he has published six novels. He holds an earned doctorate from one of the nation's foremost business schools.

- (D) Michael Roberts has published two highly regarded books on the problems of urban public schools and has a master's degree in special education. He taught special education classes for two years and then for four years served as a research associate with the Mayor's Task Force on Education.
- (E) Alicia Arias holds an earned doctorate in sociology from a prestigious university and has published one book and fifteen research articles in sociology.

3. Deer mice normally do not travel far from their nests, and deer mice that are moved more than half a kilometer from their nests generally never find their way back. Yet in one case, when researchers camped near a deer mouse nest and observed a young deer mouse for several weeks before moving it to an area over two kilometers away, the deer mouse found its way back to its nest near their camp in less than two days.

Which one of the followings, if true, most help to explain how the deer mouse might have found its way back to its nest?

- (A) The area to which the deer mouse was moved was dryer and more rocky than the area in which its nest was located.
- (B) The researchers released the deer mouse in a flat area across which their campfire smoke drifted.
- (C) There were very few deer mice in the area to which the deer mouse was moved.
- (D) The researchers had moved the deer mouse in a small dark box, keeping the mouse calm before it was released.
- (E) Animals that prey on deer mice were common in the area to which the deer mouse was moved.

4. The government's proposed 8 percent cut in all subsidies to arts groups will be difficult for those groups to absorb. As can be seen, however, from their response to last year's cut, it will not put them out of existence. Last year there was also an 8 percent cut and though private fund-raising was very difficult for the arts groups in the current recessionary economy, they did survive.

The reasoning in the argument is flawed because the argument

- (A) relies without warrant on the probability that the economy will improve
- (B) does not raise the issue of whether there should be any government subsidies to arts groups at all
- (C) equates the mere survival of the arts groups with their flourishing
- (D) does not take into account that the dollar amount of the proposed cut is lower than the dollar amount of last year's cut
- (E) overlooks the possibility that the cumulative effect of the cuts will be more that the arts groups can withstand

5. The average literate person today spends significantly less time reading than the average literate person did 50 years ago, yet many more books are sold per year now than were sold 50 years ago.

Each of the following, if true, help resolve the apparent discrepancy above EXCEPT:

- (A) The population of the literate people is significantly larger today than it was 50 years ago.
  - (B) People who read books 50 years ago were more likely to read books borrowed from libraries than are people who read books today.
  - (C) The average scholar or other person who uses books professionally today owns and consults many more different books than did the average scholar or similar professional 50 years ago.
  - (D) People of 50 years ago were more likely than people are today to display large collections of books as a sign of education and good taste.
  - (E) Books sold now tend to be shorter and easier to read than were books sold 50 years ago.
6. Some scientists believe that the relationship between mice and humans has, over time, diminished the ability of mice to survive in nature, so that now they must depend upon human civilization for their continued existence. This opinion, however, ignores significant facts. Despite numerous predators and humanity's enmity, mice have distributed themselves more widely across the planet than any other mammal except humans. Mice reproduce rapidly and, more important to their survival, they have the ability to adapt to an extraordinary range of habitats. Should the environment ever become too extreme to support human life, naturalists predict that mice would be able to adapt and survive.
- Which one of the following, if true, would most support the naturalists' prediction?
- (A) The size of the mouse population is limited by the availability of food.
  - (B) Under optimum conditions, mice reproduce every four weeks, with five to seven pups per litter.
  - (C) Fossil remains prove that mice inhabited North America prior to the arrival of humans.
  - (D) Mice have colonized an island near Antarctica which is too bleak and harsh to support human life.
  - (E) A significant percentage of the world's mouse population lives in urban areas.
7. All zebras have stripes, and the most widespread subspecies has the best-defined stripes. The stripes must therefore be of importance to the species. Since among these grassland grazers the stripes can hardly function as camouflage, they must serve as some sort of signal for other zebras.

Which one of the following, if true, most strongly supports the conclusion regarding a signaling function?

- (A) The subspecies of zebras with the best-defined strips is also characterized by exceptional size and vigor.
- (B) In certain tall grasses zebras can be harder to spot than grazing animals with a coat of uniform color.
- (C) A visual signal transmitted among the members of a species can consist of a temporary change of color perceptible to other members of the species.
- (D) Zebras react much faster to moving shapes that have stripes than they do to moving shapes that are otherwise identical but lack stripes.
- (E) Zebras have a richer repertoire of vocal signals than do similar species such as horses.

8. Some years ago, an editorial defended United States government restrictions on academic freedom, arguing that scientists who receive public funding cannot rightly “detach themselves from the government’s policies on national security.” Yet the same editorial criticized the Soviet government for not allowing scientists to “detach themselves from politics.” If there is a significant difference between the principles involved in each case, the editorial should have explained what that difference is.

The author of the passage criticizes the editorial by

- (A) disputing certain factual claims made in the editorial
  - (B) pointing out an apparent inconsistency in the editorial
  - (C) describing an alleged exception to a general claim made in the editorial
  - (D) refuting an assumption on which the argument of the editorial appears to have been based
  - (E) drawing conclusions from the editorial different from the conclusion drawn by the writer of the editorial
9. Ph.D. programs are valuable only if they inculcate good scholarship and expedite the student’s full participation in the field. Hence, doctoral dissertations should not be required in the humanities. Undertaking a quality book-length dissertation demands an accumulation of knowledge virtually impossible for those relatively new to their disciplines. The student consequently either seeks to compensate for poor quality with quantity or ends up spending years producing a work of quality. Either way, the dissertation is counterproductive and frustrates the appropriate goals of the doctoral program.
- The claim that doctoral dissertations should not be required in the humanities play which one of the following roles in the argument?
- (A) It provides essential support for the conclusion.
  - (B) It is an example illustrative of a general principle concerning the goals of Ph.D. programs.
  - (C) It is what the argument is attempting to establish.
  - (D) It provides evidence for the assumption that requirements for degrees in the

humanities differ from requirements for degrees in other disciplines.

(E) It confirms the observation that the requirement for a dissertation can frustrate the goals of a doctoral program.

10. The government of Penglai, an isolated island, proposed eliminating outdoor advertising except for small signs of standard shape that identify places of business. Some island merchants protested that the law would reduce the overall volume of business in Penglai, pointing to a report done by the government indicating that in every industry the Penglai businesses that used outdoor advertising had a larger market share than those that did not.

Which one of the following describes an error of reasoning in the merchants' argument?

- (A) presupposing that there are no good reasons for restricting the use of outdoor advertising in Penglai
- (B) assuming without giving justification that the outdoor advertising increased market share by some means other than by diverting trader from competing businesses
- (C) ignoring the question of whether the government's survey of the island could be objective
- (D) failing to establish whether the market-share advantage enjoyed by businesses employing outdoor advertising was precisely proportionate to the amount of advertising
- (E) disregarding the possibility that the government's proposed restrictions are unconstitutional

11. Unless they are used as strictly temporary measures, rent-control ordinances (municipal regulations placing limits on rent increases) have several negative effects for renters. One of these is that the controls will bring about a shortage of rental units. This disadvantage for renters occurs over the long run, but the advantage—smaller rent increases—occurs immediately. In many municipalities, specifically in all those where tenants of rent-control units have a secure hold on political power and can get rent-control ordinances enacted or repealed, it is invariably the desire for short-term gain that guides those tenants in the exercise of that power.

If the statements above are true, which one of the following can be properly inferred from them?

- (A) It is impossible for landlords to raise rents when rent controls are in effect.
- (B) In many municipalities rent-control ordinances are repealed as soon as shortages of rental units arise.
- (C) The only negative effect of rent control for renters is that it brings about a shortage of rental units.
- (D) In many municipalities there is now, or eventually will be, a shortage of rental units.

(E) In the long term, a shortage of rental units will raise rents substantially.

Questions 12-13

In many languages other than English there is a word for “mother’s brother” which is different from the word for “father’s brother,” whereas English uses the word “uncle” for both. Thus, speakers of these languages evidence a more finely discriminated kinship system than English speakers do. The number of basic words for colors also varies widely from language to language. Therefore, speakers of languages that have fewer basic words for colors than English has must be perceptually unable to distinguish as many colors as speakers of English can distinguish.

12. Which one of the following, if true, undermines the conclusion concerning words for colors?
- (A) Speakers of English are able to distinguish between lighter and darker shades of the color they call “blue” for which Russian has two different basic words.
  - (B) Almost every language distinguishes red from the other colors.
  - (C) Khmer uses a basic word corresponding to English “blue” for most leaves, but uses its basic word corresponding to English “green” for unripe bananas.
  - (D) The word “orange” in English has the same origin as the equivalent word in Spanish.
  - (E) Most languages do not have a basic word that distinguishes gray from other colors, although gray is commonly found in nature.
13. The conclusion concerning words for colors would be properly draw if which one of the following were assumed?
- (A) Most languages have distinct words for “sister” and “brother.”
  - (B) Each language has a different basic word for each sensory quality that its speakers can perceptually distinguish.
  - (C) Every language makes some category distinctions that no other language makes.
  - (D) In any language short, frequently used words express categories that are important for its speakers to distinguish perceptually from each other.
  - (E) Speaker of languages with relatively few basic words for colors live in geographical regions where flora and fauna do not vary greatly in color.

Questions 14-15

Zachary: One would have to be blind to the reality of moral obligation to deny that people who believe a course of action to be morally obligatory for them have both the right and the duty to pursue that action, and that no one else has any right to stop them from doing so.

Cynthia: But imagine an artist who feels morally obliged to do whatever she can to



prevent works of art from being destroyed confronting a morally committed antipornography demonstrator engaged in destroying artworks he deems pornographic. According to your principle that artist has, simultaneously, both the right and the duty to stop the destruction and no right whatsoever to stop it.

14. Cynthia's response to Zachary's claim is structured to demonstrate that
- (A) the concept of moral obligation is incoherent
  - (B) the ideas of right and duty should not be taken seriously since doing so leads to morally undesirable consequences
  - (C) Zachary's principle is untenable on its own terms
  - (D) because the term "moral" obligation is understood differently by different people, it is impossible to find a principle concerning moral rights and duties that applies to everyone
  - (D) Zachary's principle is based on an understanding of moral obligation that is too narrow to encompass the kind of moral obligation artists feel toward works of art
15. Which one of the following, if substituted for the scenario invoked by Cynthia, would preserve the force of her argument?
- (A) a medical researcher who feels a moral obligation not to claim sole credit for work that was performed in part by someone else confronting another researcher who feels no such moral obligation
  - (B) a manufacturer who feels a moral obligation to recall potentially dangerous products confronting a consumer advocate who feels morally obliged to expose product defects
  - (C) an investment banker who believes that governments are morally obliged to regulate major industries confronting an investment banker who holds that governments have a moral obligation not to interfere with market forces
  - (D) an architect who feels amoral obligation to design only energy-efficient buildings confronting, as a potential client, a corporation that believes its primary moral obligation is to maximize shareholder profits
  - (E) a health inspector who feels morally obliged to enforce restrictions on the number of cats a householder may keep confronting a householder who, feeling morally obliged to keep every stray that comes along, has over twice that number of cats
16. A county airport, designed to serve the needs of private aircraft owners, planned to cover its operating expenses in part by charging user fees to private aircraft using the airport. The airport was unable to pay its operating expenses because the revenue from user fees was lower than expected.
- If the statements above are true, which one of the following must also be true?
- (A) Most of the country's citizens live a convenient distance from one or another airport now offering commercial airline services.

- (B) Private aircraft owners were unwilling to pay the user fees charged at the airport.
- (C) The airport's construction was financed exclusively by private funds.
- (D) The airport's operating expenses were greater than the revenues raised from sources other than the airport user fees for private planes.
- (E) The number of owners of private aircraft who use the county's airport facilities will not change appreciably in the future.

Questions 17-18

Consumer activist: By allowing major airlines to abandon, as they promptly did, all but their most profitable routes, the government's decision to cease regulation of the airline industry has worked to the disadvantage of everyone who lacks access to large metropolitan airport.

Industry representative: On the contrary, where major airlines moved out, regional airlines have moved in and, as a consequence, there are more flights into and out of most small airports now than before the change in regulatory policy.

17. The industry representative's argument will not provide an effective answer to the consumer activist's claim unless which one of the following is true?
- (A) No small airport has fewer flights now than it did before the change in policy regarding regulation of the airline industry.
  - (B) When permitted to do so by changes in regulatory policy, each major airline abandoned all but large metropolitan airports.
  - (C) Policies that result in an increase in the number of flights to which consumers have easy access do not generally work to the disadvantage of consumers.
  - (D) Regional airlines charge less to fly a given route now than the major airlines charged when they flew the same route.
  - (E) Any policy that leads to an increase in the number of competitors in a given field works to the long-term advantage of consumers.
18. Which one of the following is assumption on which the consumer activist's argument depends?
- (A) Before the recent change in regulatory policy, there was no advantage in having easy access to large metropolitan airport.
  - (B) When any sizable group of consumers is seriously disadvantaged by a change in government policy, that change should be reversed.
  - (C) Government regulation of industry almost always works to the advantage of consumers.
  - (D) At the time of the regulatory change, the major airlines were maintaining their less profitable routes at least in part because of government requirements.

(E) Regional airlines lack the resources to provide consumers with service of the same quality as that provided by the major airlines.

19. A report on the likely effects of current levels of air pollutions on forest growth in North America concluded that, since nitrogen is necessary nutrient for optimal plant growth, the nitrogen deposited on forest soil as result of air pollution probably benefits eastern forests. However, European soil scientists have found that in forests saturated with sulfate and nitrate, trees begin to die when the nitrogen deposited exceeds the amount of nitrogen absorbed by the forest system. Since this finding is likely to apply to forests everywhere, large areas of eastern forests of North America are, undoubtedly, already being affected adversely.

Which one of the following most accurately expresses the main point of the passage?

- (A) The implication of the report cited is that the amount of nitrogen reaching eastern forests by way of polluted air is approximately what those forests need for optimal growth.
- (B) If large areas of eastern forests were increasingly saturated with sulfate and nitrate, the capacity of those forest systems for absorbing nitrogen would also increase.
- (C) The type of analysis used by European soil scientists does not necessarily apply to eastern forests of North America.
- (D) The eastern forests are the only forests of North America currently affected by polluted air.
- (E) Contrary to the report cited, the nitrogen pollution now in the air is more likely to cause trees to die in eastern forests than to benefit them.

20. Railroad spokesperson: Of course it is a difficult task to maintain quality of service at the same time that the amount of subsidy the taxpayers give the railroad network is reduced. Over recent years, however, the number of passengers has increased in spite of subsidy reductions. This fact leads to the conclusion that our quality of service has been satisfactory.

The spokesperson's argument is based on which one of the following assumptions?

- (A) Taxpayers do not wish to have their taxes raised to subsidize the railroads.
- (B) Some people refuse to travel by train if they are dissatisfied with the quality of service.
- (C) The quality of service on the trains must have improved in spite of subsidy reductions.
- (D) It is impossible to reduce subsidies to the railroad network without some effect on the quality of service.
- (E) The increase in the number of passengers will increase revenue sufficiently to offset the subsidy reductions.

21. In response to high mortality in area hospitals, surgery was restricted to emergency procedures during a five-week period. Mortality in these hospitals was found to have fallen by nearly one-third during the period. The number of deaths rose again when elective surgery (surgery that can be postponed) was resumed. It can be concluded that, before the five-week period, the risks of elective surgery had been incurred unnecessarily often in the area.

Which one of the following, if true, most seriously undermines the conclusion above?

- (A) The conditions for which elective surgery was performed would in the long run have been life-threatening, and surgery for them would have become riskier with time.
  - (B) The physicians planning elective surgery performed before the five-week period had fully informed the patients who would undergo it of the possible risks of the procedures.
  - (C) Before the suspension of elective surgery, surgical operations were performed in area hospitals at a higher rate, per thousand residents of the area, than was usual elsewhere.
  - (D) Elective surgery is, in general, less risky than is emergency surgery because the conditions requiring or indicating surgery are often less severe.
  - (E) Even if a surgical procedure is successful, the patient can die of a hospital-contracted infection with a bacterium that is resistant to antibiotic treatment.
22. Gallery owner: Because this painting appears in no catalog of van Gogh's work, we cannot guarantee that he painted it. But consider the subject is one he painted often, and experts agree that in his later paintings van Gogh invariably used just such broad brushstrokes and distinctive combinations of colors as we find here. Internal evidence, therefore, makes it virtually certain that this is a previously uncataloged, late van Gogh, and as such, a bargain at its price.
- The reasoning used by the gallery owner is flawed because it
- (A) ignores the fact that there can be general agreement that something is the case without its being the case
  - (B) neglects to cite expert authority to substantiate the claim about the subject matter of the painting
  - (C) assumes without sufficient warrant that the only reason anyone would want to acquire a painting is to make a profit
  - (D) provides no evidence that the painting is more likely to be an uncataloged van Gogh than to be a painting by someone else who painted that particular subject in van Gogh's style
  - (E) attempts to establish a particular conclusion because doing so is in the reasoner's self-interest rather than because of any genuine concern for the truth of the matter

23. Government-subsidized insurance available to home owners makes it feasible for

anyone to build a house on a section of coastline regularly struck by hurricanes. Each major storm causes billions of dollars worth of damage in such coastal areas, after which owners who have insurance are able to collect an amount of money sufficient to recoup a high percentage of their losses.

The passage provides the most support for an argument against a government bill proposing

- (A) that power companies be required to bury power lines in areas of the coastline regularly struck by hurricanes
- (B) an increase in funding of weather service programs that provide a hurricane watch and warning system for coastal areas
- (C) renewal of federal funding for emergency life-support programs in hurricane-stricken areas
- (D) establishment of an agency committed to managing coastal lands in ecologically responsible ways
- (E) establishment of a contingency fund protecting owners of uninsured houses in the coastal areas from catastrophic losses due to the hurricane damage

24. Between 1951 and 1963, it was illegal in the country of Geronia to manufacture, sell, or transport any alcoholic beverages. Despite this prohibition, however, the death rate from diseases related to excessive alcohol consumption was higher during the first five years of the period than it was during the five years prior to 1951. Therefore, the attempt to prevent alcohol use merely make people want and use alcohol more than they would have if it had not been forbidden.

Each of the following, if true, weakens the argument EXCEPT:

- (A) Death from an alcohol-related disease generally does not occur until five to ten years after the onset of excessive alcohol consumption.
- (B) The diseases that can be caused by excessive alcohol consumption can also be caused by other kinds of behavior that increased between 1951 and 1963.
- (C) The death rate resulting from alcohol-related diseases increased just as sharply during the ten years before and the ten years after the prohibition of alcohol as it did during the years of prohibition.
- (D) Many who died of alcohol-related diseases between 1951 and 1963 consumed illegally imported alcoholic beverages produced by the same methods as those used within Geronia.
- (E) Between 1951 and 1963, among the people with preexisting alcohol-related diseases, the percentage who obtained lifesaving medical attention declined because of a social stigma attached to excessive alcohol consumption.

25. A letter submitted to the editor of a national newsmagazine was written and signed by a Dr. Shirley Martin who, in the text of the letter, mentions being a professor at a major North American medical school. Knowing that fewer than 5 percent of the professors at such schools are women, the editor reasons that the chances are better than 19 to 1 that the letter was written by a man.



Which one of the following involves flawed reasoning most like that used by the editor?

- (A) Since 19 out of 20 home computers are purchased primarily for use with computer games, and the first computer sold today was purchased solely for word processing, the next 19 computers sold will almost certainly be used primarily for computer games.
- (B) Fewer than 1 in 20 of the manuscripts submitted to Argon Publishing Co. are accepted for publication. Since only 15 manuscripts were submitted last week, there is almost no chance that any of them will be accepted for publication.
- (C) Fewer than 5 percent of last year's graduating class took Latin in secondary school. Howard took Latin in secondary school, so if he had graduated last year, it is likely that one or the other Latin scholars would not have graduated.
- (D) More than 95 percent of the planes built by UBC last year met government standards for large airliners. Since small planes account for just under 5 percent of UBC's output last year, it is almost certain that all their large planes met government standards.
- (E) Since more than 19 out of every 20 animals in the wildlife preserve are mammals and fewer than 1 out of 20 are birds, there is a greater than 95 percent chance that the animal Emily saw flying between two trees in the wildlife refuge yesterday morning was a mammal.

#### SECTION IV

**Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. In a yearlong study, half of the participants were given a simple kit to use at home for measuring the cholesterol level of their blood. They reduced their cholesterol levels on average 15 percent more than did participants without the kit. Participants were selected at random from among people with dangerously high cholesterol levels.

Which one of the following, if true, most helps to explain the study's finding?

- (A) The lower a blood-cholesterol level is, the less accurate are measurements made by the kit.
- (B) Participants with the kit were more likely to avoid foods that lower cholesterol level.
- (C) Participants with the kit used it more frequently during the first two months of the study.
- (D) All the participants in the study showed some lowering of cholesterol levels, the most striking decreases having been achieved in the first three months.
- (E) Participants using the kit reported that each reading reinforced their efforts to

reduce their cholesterol levels.

2. You should not praise an act of apparent generosity unless you believe it is actually performed out of selfless motives, and you should not condemn an act of apparent selfishness unless you believe it is actually performed out of self-centered motives.

Which one of the following judgments conforms to the principle stated above?

- (A) Caroline rightly blamed her coworker Monica for failing to assist her in doing a time-consuming project, even though she knew that Monica had offered to help in the project earlier but that her offer had been vetoed by their supervisor.
  - (B) It was correct for Sarah not to praise Michael for being charitable when he told her that he donates a tenth of his income to charity, since she guessed that he only told that fact in order to impress her.
  - (C) Enrique justifiably excused his friend William for failing to write or phone after William moved out of town because he realized that William never makes an effort to keep in contact with any of his friends.
  - (D) Daniel was right not to praise Margaret for offering to share her house with a visiting French family, since he believed that she made the offer only because she hoped it would be reciprocated by an invitation to use the family's apartment in Paris.
  - (E) Albert correctly criticized Louise for adopting an abandoned dog because he believed that, although she felt sorry for the dog, she did not have sufficient time or space to care for it adequately.
3. The government recently released a study of drinking water, in which it was reported that consumers who bought bottled water were in many cases getting water that was less safe than what they could obtain much more cheaply from the public water supply. In spite of the enormous publicity that the study received, sales of bottled water have continued to rise.

Which one of the following, if true, is most helpful in resolving the apparent paradox?

- (A) Bottled water might contain levels of potentially harmful contaminants that are not allowed in drinking water.
- (B) Most consumers who habitually drink the bottled water discussed in the study cannot differentiate between the taste of their usual brand of bottled water and that of water from public sources.
- (C) Increased consumption of the five best-selling brands of bottled water, which the report said were safer than both public water and most other brands of bottled water, accounted for the increase in sales.
- (D) The rate of increase in the sales of bottled water has slowed since the publication of the government study.
- (E) Government health warnings concerning food have become so frequent that

consumers have begun to doubt the safety of many everyday foods.

4. Many economically useful raw materials are nonrenewable and in limited supply on Earth. Therefore, unless those materials can be obtained somewhere other than Earth, people will eventually be unable to accomplish what they now accomplish using those materials.

Which one of the following, if true, most seriously weakens the argument?

- (A) Some economically useful resources are renewable.
  - (B) It is extremely difficult to get raw materials from outer space.
  - (C) Functionally equivalent renewable substitutes could be found for nonrenewable resources that are in limited supply.
  - (D) What is accomplished now using nonrenewable resources is sometimes not worth accomplishing.
  - (E) It will be a few hundred years before the Earth is depleted of certain nonrenewable resources that are in limited supply.
5. Only some strains of the tobacco plant are naturally resistant to tobacco mosaic virus, never becoming diseased even when infected. When resistant strains were experimentally infected with the virus, levels of naturally occurring salicylic acid in these plants increased fivefold; no such increase occurred in the nonresistant plants. In a second experiment, 50 nonresistant tobacco plants were exposed to tobacco mosaic virus, and 25 of them were injected with salicylic acid. None of these 25 plants showed signs of infection; however, the other 25 plants succumbed to the disease.

Which one of the following conclusions is most strongly supported by the results of the experiments?

- (A) Tobacco plants that have become diseased by infection with tobacco mosaic virus can be cured by injecting them with salicylic acid.
- (B) Producing salicylic acid is at least part of the mechanism by which some tobacco plants naturally resist the disease caused by tobacco mosaic virus.
- (C) Salicylic acid is not produced in strains of tobacco plants that are not resistant to tobacco mosaic virus.
- (D) It is possible to test an uninfected tobacco plant for resistance to tobacco mosaic virus by measuring the level of salicylic acid it contains.
- (E) The production of salicylic acid in certain strains of tobacco plants can be increased and thus the strains made resistant to tobacco mosaic virus.

### Questions 6-7

The number of hospital emergency room visits by heroin users grew more than 25 percent during the 1980s. Clearly, then, the use of heroin rose in that decade.

6. Which one of the following, if true, would account for the statistic above without supporting the author's conclusion?

- (A) Widespread use of automatic weapons in the drug trade during the 1980s raised the incidence of physical injury to heroin users.
  - (B) The introduction of a smokable type of heroin during the 1980s removed the need for heroin to be injected intravenously and thus reduced the user's risk of infection.
  - (C) Many hospital emergency rooms were barely able to accommodate the dramatic increase in the number of medical emergencies related to drug abuse during the 1980s.
  - (D) Heroin use increased much more than is reflected in the rate of heroin-linked hospital emergency room visits.
  - (E) Viral and bacterial infections, malnourishment, and overdose account for most hospital emergency room visits linked to heroin.
7. The author's conclusion is properly drawn if which one of the following is assumed?
- (A) Those who seek medical care because of heroin use usually do so in the later stages of addiction.
  - (B) Many heroin users visit hospital emergency rooms repeatedly.
  - (C) The number of visits to hospital emergency rooms by heroin users is proportional to the incidence of heroin usage.
  - (D) The methods of using heroin have changed since 1980, and the new methods are less hazardous.
  - (E) Users of heroin identify themselves as such when they come to hospital emergency rooms.
8. The year 1917, 1937, 1956, 1968, 1979, and 1990 are all notable for the occurrence of both popular uprisings and near-maximum sunspot activity. During heavy sunspot activity, there is a sharp rise in positively charged ions in the air people breathe, and positively charged ions are known to make people anxious and irritable. Therefore, it is likely that sunspot activity has actually been a factor in triggering popular uprisings.
- Which one of the following exhibits a pattern of reasoning most similar to that in the passage?
- (A) The ancient Greeks sometimes attempted to predict the outcome of future events by watching the flight patterns of birds. Since the events themselves often matched the predictions, the birds were probably responding to some factor that also influenced the events.
  - (B) Martha, Sidney, and Hilary are the city's three most powerful politicians, and all three graduated from Ridgeview high School. Although Ridgeview never had a reputation for excellence, it must have been a good school to have produced three such successful graduates.
  - (C) Unusually cold weather last December coincided with a rise in fuel prices. When it is cold, people use more fuel to keep warm; and when more fuel is

used, prices rise. Therefore if prices are high next winter, it will be the result of cold weather.

(D) The thirty healthiest people in a long-term medical study turned out to be the same thirty whose regular diets included the most vegetables. Since specific substances in vegetables are known to help the body fight disease, vegetables should be part of everyone's diet.

(E) Acme's most productive managers are consistently those who occupy the corner offices, which have more windows than other offices at Acme. Since people are more alert when they are exposed to abundant natural light, the greater productivity of these managers is probably at least in part a result of their working in the corner offices.

9. Since anyone who supports the new tax plan has no chance of being elected, and anyone who truly understands economics would not support the tax plan, only someone who truly understands economics would have any chance of being elected.

The reasoning in the argument is flawed because the argument ignores the possibility that some people who

- (A) truly understand economics do not support the tax plan
- (B) truly understand economics have no chance of being elected
- (C) do not support the tax plan have no chance of being elected
- (D) do not support the tax plan do not truly understand economics
- (E) have no chance of being elected do not truly understand economics

10. Interviewer: You have shown that biofeedback, dietary changes, and adoption of proper sleep habits all succeed in curing insomnia. You go so far as to claim that, with rigorous adherence to the proper treatment, any case of insomnia is curable. Yet in fact some patients suffering from insomnia do not respond to treatment.

Therapist: If patients do not respond to treatment, this just shows that they are not rigorous in adhering to their treatment.

The therapist's reply to the interviewer is most vulnerable to which one of the following criticisms?

- (A) It precludes the possibility of disconfirming evidence.
- (B) It depends on the ambiguous use of the term "treatment."
- (C) It fails to acknowledge that there may be different causes for different cases of insomnia.
- (D) It does not provide statistical evidence to back up its claim.
- (E) It overlooks the possibility that some cases of insomnia might improve without any treatment.

### Questions 11-12

Conservative: Socialists begin their arguments with an analysis of history, from which



they claim to derive certain trends leading inevitably to a socialist future. But in the day-to-day progress of history there are never such discernible trends. Only in retrospect does inevitability appear, for history occurs through accident, contingency, and individual struggle.

Socialist: If we thought the outcome of history were inevitable, we would not work so hard to transform the institutions of capitalist society. But to transform them we must first understand them, and we can only understand them by an analysis of their history. This is why historical analysis is important in socialist argument.

11. In the dispute the issue between the socialist and the conservatives can most accurately be described as whether
- (A) a socialist society is the inevitable consequence of historical trends that can be identified by an analysis of history
  - (B) the institutions of capitalist society stand in need of transformation
  - (C) socialists' arguments for the inevitability of socialism are justified
  - (D) it is possible for people by their own efforts to affect the course of history
  - (E) socialists analyze history in order to support the view that socialism is inevitable
12. The socialist's statements imply a conflict with the conservative's view of history if the conservative also holds that
- (A) it would have been impossible for anyone to predict a significant period beforehand that the institutions of capitalist society would take the form that they actually took
  - (B) the apparent inevitability of historical change is deceptive; all historical events could have occurred otherwise than they actually did
  - (C) in the past, radical changes in social structures have mostly resulted in a deterioration of social conditions
  - (D) since socialism cannot arise by accident or contingency, it can only arise as a result of individual struggle
  - (E) because historical changes are mostly accidental, it is impossible for people to direct their efforts sensibly toward achieving large-scale changes in social conditions
13. "Addiction" has been defined as "dependence on and abuse of a psychoactive substance." Dependence and abuse do not always go hand in hand, however. For example, cancer patients can become dependent on morphine to relieve their pain, but this is not abusing the drug. Correspondingly, a person can abuse a drug without being dependent on it. Therefore, the definition of "addiction" is incorrect.
- The relevance of the example of cancer patients to the argument depends on the assumption that
- (A) cancer patients never abuse morphine

- (B) cancer patients often become dependent on morphine
- (C) cancer patients who are dependent on morphine are addicted to it
- (D) cancer patients who abuse a drug are dependent on it
- (E) cancer patients cannot depend on morphine without abusing it
14. The commissioner has announced that Judge Khalid, who was on the seven-member panel appointed to resolve the Amlec labor dispute, will have sole responsibility for resolving the Simdon labor dispute. Since in its decision the Amlec panel showed itself both reasonable and fair, the two sides in the Simdon dispute are undoubtedly justified in the confidence they have expressed in the reasonableness and fairness of the arbitrator assigned to their case.
- Which one of the following contains flawed reasoning most parallel to that contained in the passage?
- (A) Representing the school board, Marcia Barthes presented to the school's principal a list of recently elected school board members. Since only an elected member of the school board can act as its representative. Ms. Barthes's name undoubtedly appears on that list.
- (B) Alan Caldalf, who likes being around young children, has decided to become a pediatrician. Since the one characteristic common to all good pediatricians is that they like young children, Mr. Caldalf will undoubtedly be a very good pediatrician.
- (C) Jorge Diaz is a teacher at a music school nationally known for the excellence of its conducting faculty. Since Mr. Diaz has recently been commended for the excellence of his teaching, he is undoubtedly a member of the school's conducting faculty.
- (D) Ula Borg, who has sold real estate for Arcande Realty for many years, undoubtedly sold fewer houses last year than she had the year before since the number of houses sold last year by Arcande Realty is far lower than the number sold the previous year.
- (E) The members of the local historical society unanimously support designating the First National Bank building a historical landmark. Since Evelyn George is a member of that society, she undoubtedly favors according landmark status to the city hall as well.
15. Magazine article: The Environmental Commissioner's new proposals are called "Fresh Thinking on the Environment" and a nationwide debate on them has been announced. Well, "fresh thinking" from such an unlikely source as the commissioner does deserve closer inspection. Unfortunately we discovered that these proposals are virtually identical to those issued three months ago by Tsarque Inc, under the heading "new Environmentalism" (Tsarque Inc.'s chief is a close friend of the commissioner). Since Tsarque Inc.'s polluting has marked it as an environmental nightmare, in our opinion the "nationwide debate" can end here.
- A flaw in the magazine article's reasoning is that it

- (A) assumes without any justification that since two texts are similar one of them must be influenced by the other
  - (B) gives a distorted version of the commissioner's proposals and then attacks this distorted version
  - (C) dismisses the proposals because of their source rather than because of their substance
  - (D) uses emotive language in labeling the proposals
  - (E) appeals to the authority of Tsarque Inc.'s chief without giving evidence that this person's opinion should carry special weight
16. It is not reasonable to search out "organic" foods—those grown without the application of synthetic chemicals—as the only natural foods. A plant will take up the molecules it needs from the soil and turn them into the same natural compounds, whether or not those molecules come from chemicals applied to the soil. All compounds made by plants are part of nature, so all are equally natural. The argument proceeds by
- (A) redefining a term in a way that is favorable to the argument
  - (B) giving a reason why a recommended course of action would be beneficial
  - (C) appealing to the authority of scientific methods
  - (D) showing that a necessary condition for correctly applying the term "organic" is not satisfied
  - (E) reinterpreting evidence presented as supporting the position being rejected
17. On completing both the course in experimental design and the developmental psychology course, Angela will have earned a degree in psychology. Since experimental design, which must be completed before taking developmental psychology, will not be offered until next term, it will be at least two terms before Angela gets her psychology degree.
- If the statements above are all true, which one of the following must also be true?
- (A) The developmental psychology course Angela needs to take requires two terms to complete.
  - (B) The course in experimental design is an easier course than the course in developmental psychology.
  - (C) There are no prerequisites for the course in experimental design.
  - (D) Anyone who earns a degree in psychology from the university Angela attends will have completed the course in experimental design.
  - (E) Once Angela completes the developmental psychology course, she will have earned a degree in psychology.
18. According to government official involved in overseeing airplane safety during the last year, over 75 percent of the voice-recorder tapes taken from small airplanes involved in relatively minor accidents record the whistling of the pilot during the fifteen minutes immediately preceding the accident. Even such minor

accidents pose some safety risk. Therefore, if passengers hear the pilot start to whistle they should take safety precautions, whether instructed by the pilot to do so or not.

The argument is most vulnerable to criticism on the grounds that it

- (A) accepts the reliability of the cited statistics on the authority of an unidentified government official
- (B) ignores the fact that in nearly one quarter of these accidents following the recommendation would not have improved passenger' safety
- (C) does not indicate the criteria by which an accident is classified as "relatively minor"
- (D) provides no information about the percentage of all small airplane flights during which the pilot whistles at some time during that flight
- (E) fails to specify the percentage of all small airplane flights that involve relatively minor accidents

19. When permits for the discharge of chemicals into a waterway are issued, they are issued in terms of the number of pounds of each chemical that can be discharged into the waterway per day. These figures, calculated separately for each chemical for which a permit is issued, are based on an estimate of the effect of the dilution of the chemical by the amount of water flowing through the waterway. The waterway is therefore protected against being adversely affected by chemicals discharged under the permits.

The argument depends on the assumption that

- (A) relatively harmless chemicals do not interact with each other in the water to form harmful compounds
- (B) there is a swift flow of water in the waterway that ensures rapid dispersion of chemicals discharged
- (C) there are no chemicals for which discharge into waterways is entirely prohibited
- (D) those who receive the permits do not always discharge the entire quantity of chemicals that the permits allow
- (E) the danger of chemical pollution of waterways is to be evaluated in terms of human health only and not in terms of the health of both human beings and wildlife

### Questions 20-21

Monroe, despite his generally poor appetite, thoroughly enjoyed the three meals he ate at the Tip-Top Restaurant, but, unfortunately, after each meal he became ill. The first time he ate an extra-large sausage pizza with a side order of hot pepper; the second time he took full advantage of the all-you-can-eat fried shrimp and hot peppers special; and the third time he had two of Tip-Top's giant meatball sandwiches with hot peppers. Since the only food all three meals had in common was the hot peppers.

Monroe concludes that it is solely due to Tip-Top's hot peppers that he became ill.

20. Monroe's reasoning is most vulnerable to which one of the following criticisms?
- (A) He draws his conclusion on the basis of too few meals that were consumed at Tip-Top and that included hot peppers.
  - (B) He posits a causal relationship without ascertaining that the presumed cause preceded the presumed effect.
  - (C) He allows his desire to continue dining at Tip-Top to bias his conclusion.
  - (D) He fails to establish that everyone who ate Tip-Top's hot peppers became ill.
  - (E) He overlooks the fact that at all three meals he consumed what was, for him, an unusually large quantity of food.
21. If both Monroe's conclusion and the evidence on which he bases it are correct, they would provide the strongest support for which one of the following?
- (A) Monroe can eat any of Tip-Top's daily all-you-can-eat specials without becoming ill as long as the special does not include the hot peppers.
  - (B) If, at his third meal at Tip-Top, Monroe had chosen to eat the baked chicken with hot peppers, he would have become ill after that meal.
  - (C) If the next time Monroe eats one of Tip-Top's extra-large sausage pizzas he does not have a side order of hot peppers, he will not become ill after his meal.
  - (D) Before eating Tip-Top's fried shrimp with hot peppers special, Monroe had eaten fried shrimp without suffering any ill effects.
  - (E) The only place Monroe has eaten hot peppers has been at Tip-Top.
22. "This company will not be training any more pilots in the foreseeable future, since we have 400 trained pilots on our waiting list who are seeking employment. The other five major companies each have roughly the same number of trained pilots on their waiting lists, and since the projected requirement of each company is for not many more than 100 additional pilots, there will be no shortage of personnel despite the current upswing in the aviation industry."
- Which one of the following, if true, casts the most doubt on the accuracy of the above conclusion?
- (A) Most of the trained pilots who are on awaiting list for a job are on the waiting lists of all the major companies.
  - (B) In the long run, pilot training will become necessary to compensate for ordinary attrition.
  - (C) If no new pilots are trained, there will be an age imbalance in the pilot work force.
  - (D) The quoted personnel projections take account of the current upswing in the aviation industry.
  - (E) Some of the other major companies are still training pilots but with no presumption of subsequent employment.



23. A car's antitheft alarm sounds in the middle of the night in a crowded city neighborhood may stop an attempted car theft. On the other hand, the alarm might signal only a fault in the device, or a response to some harmless contact, such as a tree branch brushing the car. But whatever the cause, the sleep of many people in the neighborhood is disturbed. Out of consideration for others, people who have these antitheft alarms on their cars should deactivate them when they park in crowded city neighborhoods at night.

Which one of the following, if assumed by the author of the passage, would allow her properly to draw her conclusion that the owners of alarm-equipped cars should deactivate the alarms when parking in crowded city neighborhoods at night?

- (A) The inconvenience of false alarms is small price to pay for the security of a neighborhood.
- (B) In most cases when a car alarm sounds at night, it is a false alarm.
- (C) Allowing the residents of a crowded city neighborhood to sleep undisturbed is more important than preventing car theft.
- (D) People who equip their cars with antitheft alarms are generally inconsiderate of others.
- (E) The sounding of car antitheft alarms during the daytime does not disturb the residents of crowded city neighborhoods.

Questions 24-25

In Peru, ancient disturbances in the dark surface material of a desert show up as light-colored lines that are the width of a footpath and stretch for long distances. One group of lines branching out like rays from a single point crosses over curved lines that form a very large bird figure. Interpreting the lines in the desert as landing strips for spaceship-traveling aliens, an investigator argues that they could hardly have been Inca roads, asking, "What use to the Inca would have been closely spaced roads that ran parallel? That intersected in a sunburst pattern? That came abruptly to an end in the middle of an uninhabited plain."

24. The argumentative strategy of the investigator quoted is to
- (A) reject out of hand direct counterevidence to the investigator's own interpretation
  - (B) introduce evidence newly discovered by the investigator which discredits the alternative interpretation
  - (C) support one interpretation by calling into question the plausibility of the alternative interpretation
  - (D) challenge the investigative methods used by those who developed the alternative interpretation
  - (E) show that the two competing interpretations can be reconciled with one another

25. For someone who interprets the lines as referring to astronomical phenomena, which one of the following, if true, most effectively counters an objection that the crossing of the straight-line pattern over the bird figure shows that the two kinds of line pattern served unrelated purposes?
- (A) In areas that were inhabited by ancient native North American peoples, arrangements of stones have been found that make places where sunlight falls precisely on the spring solstice, an astronomically determined date.
  - (B) The straight lines are consistent with sight lines to points on the horizon where particular astronomical events could have been observed at certain plausible dates, and the figure could represent a constellation.
  - (C) The straight-line pattern is part of a large connected complex of patterns of straight-line rays connecting certain points with one another.
  - (D) Native Central American cultures, such as that of the Maya, left behind elaborate astronomical calendars that were engraved on rocks.
  - (E) There is evidence that the bird figure was made well before the straight-line pattern.

## TEST 16

### SECTION II

Time 35 minutes 24 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Walter: Although cigarette smoking is legal, it should be banned on all airline flights. Cigarette smoking in the confines of an aircraft exposes nonsmokers to harmful secondhand smoke that they cannot avoid.
- Which one the following principles, if established, would justify the proposal put forth by Walter?
- (A) People should be prohibited from engaging in an otherwise legal activity in those situations in which that activity would unavoidably expose others to harm.
  - (B) An activity should be banned only if most situations in which a person engaged in that activity would inevitably expose others to harm.
  - (C) A legal activity that has the potential for causing harm to others in certain situations should be modified in those situations to render it harmless.
  - (D) People who regularly engage in an activity that has the potential for harming others when that activity takes place in certain situations should be excluded from those situations.
  - (E) If an activity is legal in some situations in which a person's engaging in that activity could harm others, then that activity should be legal in all situations.
2. Physicist: The claim that low-temperature nuclear fusion can be achieved entirely

by chemical means is based on chemical experiments in which the measurements and calculations are inaccurate.

Chemist: But your challenge is ineffectual, since you are simply jealous at the thought that chemists might have solved a problem that physicists have been unable to solve.

Which one of the following is the strongest criticism of the chemist's response to the physicist's challenge?

- (A) It restates a claim in different words instead of offering evidence for this claim.
- (B) It fails to establish that perfect accuracy of measurements and calculations is possible.
- (C) It confuses two different meanings of the word "solve."
- (D) It is directed against the proponent of a claim rather than against the claim itself.
- (E) It rests on a contradiction.

3. A certain strain of bacteria was found in the stomachs of ulcer patients. A medical researcher with no history of ulcers inadvertently ingested some of the bacteria and within weeks developed an ulcer. Therefore, it is highly likely that the bacteria strain induces ulcers.

Which one of the following, if true, most supports the argument above?

- (A) People who have the bacteria strain in their stomachs have been found to have no greater incidence of kidney disease than do people who lack the bacteria strain.
- (B) The researcher did not develop any other serious health problems within a year after ingesting the bacteria strain.
- (C) There is no evidence that the bacteria strain induces ulcers in laboratory animals.
- (D) The researcher is a recognized expert in the treatment of diseases of the stomach.
- (E) A study of 2,000 people who do not have ulcers found that none of these people had the bacteria strain in their stomachs.

4. A recent study monitored the blood pressure of people petting domestic animals in the laboratory. The blood pressure of some of these people lowered while petting the animals. Therefore, for anyone of the people so affected, owning a pet would result in that person having a lower average blood pressure.

The flawed pattern of reasoning in the argument above is most similar to that in which one of the following?

- (A) Because a single dose of a drug acts as a remedy for a particular ailment, a healthy person can ward off that ailment by taking single doses regularly.
- (B) Because buying an automobile is very expensive, people should hold on to

an automobile, once bought, for as long as it can be maintained in running condition.

- (C) Since pruning houseplants is enjoyable for some people, those people should get rid of houseplants that do not require frequent pruning.
- (D) Since riding in a boat for a few minutes is relaxing for some people, those people would be more relaxed generally if those people owned boats.
- (E) Since giving a fence one coat of white paint makes the fence white, giving it two coats of white paint would make it even whiter.

5. Of the five bill collectors at Apex Collection Agency, Mr. Young has the highest rate of unsuccessful collections. Yet Mr. Young is the best bill collector on the agency's staff.

Which one of the following, if true, most helps to resolve the apparent discrepancy?

- (A) Mr. Young is assigned the majority of the most difficult cases at the agency.
- (B) The other four bill collectors at the agency all consider Mr. Young to be a very capable bill collector.
- (C) Mr. Young's rate of collections per year has remained fairly steady in the last few years.
- (D) Before joining the agency, Mr. Young was affiliated with the credit department of a large department store.
- (E) None of the bill collectors at the agency has been on the agency's staff longer than Mr. Young has.

6. A primate jawbone found in Namibia in southern Africa has been identified by anthropologists as that of an ape that lived between 10 million and 15 million years ago. Researchers generally agree that such ancient primates lived only in dense forests. Consequently, the dry, treeless expanses now dominating the landscape in and around Namibia must have replaced an earlier heavily forested terrain.

The argument assumes which one of the following?

- (A) Modern apes also tend to live only in heavily forested terrain.
- (B) The ape whose jawbone was found lived in or near the area that is now Namibia.
- (C) There were no apes living in the area that is now Namibia prior to 15 million years ago.
- (D) The ape whose jawbone was found was adapted to a diet that was significantly different from that of any modern ape.
- (E) The ancient primates were numerous enough to have caused severe damage to the ecology of the forests in which they lived.

7. Workers may complain about many things at work, but stress is not high on the list. In fact, in a recent survey a majority placed boredom at the top of their list of

complaints. The assumption that job-related stress is the most serious problem for workers in the corporate world is thus simply not warranted.

Which one of the following, if true, most seriously weakens the argument?

- (A) Those workers who are responsible for the planning and supervision of long-term projects are less likely to complain of either boredom or stress.
  - (B) Workers who complain of boredom exhibit more stress-related symptoms than do those who claim their work is interesting.
  - (C) Workers responding to opinion surveys tend to emphasize those experiences that have happened most recently.
  - (D) Workers who feel that their salaries are commensurate with the amount of work they do are less likely to complain of boredom.
  - (E) Workers are less likely to complain about work if they feel that their jobs are secure.
8. Would it be right for the government to abandon efforts to determine at what levels to allow toxic substances in our food supply? Only if it can reasonably be argued that the only acceptable level of toxic substances in food is zero. However, virtually all foods contain perfectly natural substances that are toxic but cause no harm because they do not occur in food in toxic concentrations. Furthermore, we can never be certain of having reduced the concentration of any substance to zero; all we can ever know is that it has been reduced to below the threshold of detection of current analytical methods.

The main conclusion of the argument is that

- (A) the government should continue trying to determine acceptable levels for toxic substances in our food supply
  - (B) the only acceptable level of toxic substances in food is zero
  - (C) naturally occurring toxic substances in food present little danger because they rarely occur in toxic concentrations
  - (D) the government will never be able to determine with certainty that a food contains no toxic substances
  - (E) the government needs to refine its methods of detecting toxic substances in our food supply
9. Over the past twenty-five years the introduction of labor-saving technologies has greatly reduced the average amount of time a worker needs to produce a given output, potentially both reducing the number of hours each worker works each week and increasing workers' leisure time correspondingly. The average amount of leisure time per worker, however, has increased at only half the rate at which the average hourly output per worker has grown.

If the statements above are true, which one of the following is most strongly supported by them?

- (A) Workers on average spend more money on leisure activities today than they did twenty-five years ago.



- (B) Labor-saving technologies have created fewer jobs than they have eliminated.
- (C) The percentage of the population that is in the work force has grown over the past twenty-five years.
- (D) The average hourly output per worker has not risen as much as had been anticipated when modern labor-saving technologies were first introduced.
- (E) Twenty-five years ago the average weekly output per worker was less than it is today.
10. Ten thousand years ago many communities in western Asia stopped procuring food by hunting and gathering and began instead to cultivate food. Archaeological evidence reveals that compared to their hunter-gatherer forebears, the early agricultural peoples ate a poorly balanced diet and had diet-related health problems, yet these peoples never returned to hunting and gathering.
- Which one of the following, if true, most helps to explain why the agricultural peoples of western Asia never returned to hunting and gathering?
- (A) The plants and animals that the agricultural peoples began to cultivate continued to exist in the wild.
- (B) Both hunter-gatherers and agriculturalists sometimes depended on stored and preserved foods instead of fresh foods.
- (C) An increase in population density at the time required a higher food production rate than hunting and gathering could provide.
- (D) Thousands of years ago similar shifts from hunting and gathering to agriculture occurred in many other parts of the world.
- (E) The physical labor involved in agriculture burns more calories than does that needed for hunting and gathering.
11. Should a Journalist's story begin with the set phrase "in a surprise development," as routinely happens? Well, not if the surprise was merely the journalist's, since journalists should not intrude themselves into their stories, and not if the surprise was someone else's, because if some person's surprise was worth mentioning at all, it should have been specifically attributed. The one possibility remaining is that lots of people were surprised: in that case, however, there is no point in belaboring the obvious.
- Which one of the following most accurately states the conclusion of the argument above?
- (A) Journalists should reserve use of the phrase "in a surprise development" for major developments that are truly unexpected.
- (B) The phrase "in a surprise development" is appropriately used only where someone's being surprised is itself interesting.
- (C) The phrase "in a surprise development" is used in three distinct sorts of circumstances.
- (D) Journalists should make the point that a development comes as a surprise

when summing up, not when introducing a story.

(E) Introducing stories with the phrase “in a surprise development” is not good journalistic practice.

12. Individual pyrrole molecules readily join together into larger molecules called polypyrroles. If polypyrroles form from pyrrole in the presence of zeolites, they do so by attaching to the zeolite either in lumps on the outer surface of the zeolite or in delicate chains within the zeolite’s inner channels. When zeolite changes color from yellow to black, it means that on or in that zeolite polypyrroles have formed from pyrrole. Yellow zeolite free of any pyrrole was submerged in dissolved pyrrole. The zeolite turned black even though no polypyrroles formed on its outer surface.

If the statements above are true, which one of the following must on the basis of them be true?

- (A) Polypyrroles had already formed on or in the zeolite before it was submerged.
- (B) Lumps of polypyrrole attached to the zeolite were responsible for its color change.
- (C) At least some of the pyrrole in which the zeolite was submerged formed polypyrrole chains.
- (D) None of the pyrrole in which the zeolite was submerged attached itself to the zeolite.
- (E) Little, if any, of the pyrrole in which the zeolite was submerged reached the zeolite’s inner channels.

### Questions 13-14

Pedigreed dogs, including those officially classified as working dogs, must conform to standards set by organizations that issue pedigrees. Those standards generally specify the physical appearance necessary for a dog to be recognized as belonging to a breed but stipulate nothing about other genetic traits, such as those that enable breeds originally developed as working dogs to perform the work for which they were developed. Since dog breeders try to maintain only those traits specified by pedigree organizations, and traits that breeders do not try to maintain risk being lost, certain traits like herding ability risk being lost among pedigreed dogs. Therefore, pedigree organizations should set standards requiring working ability in pedigreed dogs classified as working dogs.

13. Which one of the following principles, if valid, justifies the argument’s conclusion that pedigree organizations should set standards for working ability in dogs?
- (A) Organizations that set standards for products or activities should not set standards calling for a particular characteristic if such standards increase the risk of some other characteristic being lost.
- (B) Any standard currently in effect for a product or an activity should be

- rigorously enforced regardless of when the standard was first set.
- (C) Organizations that set standards for products or activities should be responsible for seeing to it that those products or activities conform to all the specifications called for by those standards.
- (D) Any standard that is set for a product or an activity should reflect the uses to which that product or activity will eventually be put.
- (E) Organizations that set standards for products or activities should attempt to ensure that those products or activities can serve the purposes for which they were originally developed.
14. The phrase “certain traits like herding ability risk being lost among pedigreed dogs” serves which one of the following functions in the argument?
- (A) It is a claim on which the argument depends but for which no support is given.
- (B) It is a subsidiary conclusion used in support of the main conclusion.
- (C) It acknowledges a possible objection to the proposal put forth in the argument.
- (D) It summarizes the position that the argument as a whole is directed toward discrediting.
- (E) It provides evidence necessary to support a claim stated earlier in the argument.
15. In rheumatoid arthritis, the body’s immune system misfunctions by attacking healthy cells in the joints, causing the release of a hormone that in turn causes pain and swelling. This hormone is normally activated only in reaction to injury or infection. A new arthritis medication will contain a protein that inhibits the functioning of the hormone that causes pain and swelling in the joints.
- The statements above, if true, most strongly support which one of the following conclusions?
- (A) Unlike aspirin and other medications that reduce pain and swelling and that are currently available, the new medication would repair existing cell damage that had been caused by rheumatoid arthritis.
- (B) The benefits to rheumatoid arthritis sufferers of the new medication would outweigh the medications possible harmful side effect.
- (C) A patient treated with the new medication for rheumatoid arthritis could sustain a joint injury without becoming aware of it.
- (D) The new medication could be adapted for use against a variety of immune system disorders, such as diabetes and lupus.
- (E) Joint diseases other than rheumatoid arthritis would not be affected by the new medication.
16. In their native habit, amaryllis plants go dormant when the soil in which they are growing dries out during the dry season. Therefore, if amaryllis plants kept as

houseplants are to thrive, water should be withheld from them during part of the year so that the plants go dormant.

Which one of the following is an assumption on which the argument depends?

- (A) Most kinds of plants go dormant at some time or other during the year.
- (B) Amaryllis are more difficult keep as houseplants than other kinds of plants are.
- (C) Water should be withheld from amaryllis plants kept as houseplants during the exact time of year that corresponds to the dry season in their native habitat.
- (D) Any amaryllis plant that fails to thrive is likely to have been dormant for too short a time.
- (E) Going dormant benefits amaryllis plants in their native habitat in some way other than simply preventing death during overly dry periods.

17. Most people believe that yawning is most powerfully triggered by seeing someone else yawn. This belief about yawning is widespread not only today, but also has been commonplace in many parts of the world in the past, if we are to believe historians of popular culture. Thus, seeing someone else yawn must be the most irresistible cause of yawning.

The argument is most vulnerable to which one of the following criticisms?

- (A) It attempts to support its conclusion solely by restating that conclusion in other words.
- (B) It cites the evidence of historians of popular culture in direct support of a claim that lies outside their area of expertise.
- (C) It makes a sweeping generalization about yawning based on evidence drawn from a limited number of atypical cases.
- (D) It supports its conclusion by appealing solely to opinion in a matter that is largely factual.
- (E) It takes for granted that yawns have no cause other than the one it cites.

18. Everyone who is a gourmet cook enjoys a wide variety foods and spices. Since no one who enjoys a wide variety of foods and spices prefers bland foods to all her foods, it follows that anyone who prefers bland foods to all other foods is not a gourmet cook.

The pattern of reasoning displayed in the argument above is most similar to that displayed in which one of the following?

- (A) All of the paintings in the Huang Collection will be put up for auction next week. Since the paintings to be auctioned next week are by a wide variety of artists, it follows that the paintings in the Huang Collection are by a wide variety of artists.
- (B) All of the paintings in the Huang Collection are abstract. Since no abstract painting will be included in next week's art auction, nothing to be included

in next week's art auction is a painting in the Huang Collection.

- (C) All of the paintings in the Huang Collection are superb works of art. Since none of the paintings in the Huang Collection is by Roué, it stands to reason that no painting by Roué is a superb work of art.
- (D) Every postimpressionist painting from the Huang Collection will be auctioned off next week. No pop art paintings from the Huang Collection will be auctioned off next week. Hence none of the pop art paintings to be auctioned off next week will be from the Huang Collection.
- (E) Every painting from the Huang Collection that is to be auctioned off next week is a major work of art. No price can adequately reflect the true value of a major work of art. Hence the prices that will be paid at next week's auction will not adequately reflect the true value of the paintings sold.

19. Without information that could only have come from someone present at the secret meeting between the finance minister and the leader of the opposition party, the newspaper story that forced the finance minister to resign could not have been written. No one witnessed the meeting, however, except the minister's aide. It is clear, therefore, that the finance minister was ultimately brought down, not by any of his powerful political enemies, but by his own trusted aide.

The argument commits which one of the following errors of reasoning?

- (A) drawing a conclusion on the basis of evidence that provides equally strong support for a competing conclusion
- (B) assuming without warrant that if one thing cannot occur without another thing's already having occurred, then the earlier thing cannot occur without bringing about the later thing
- (C) confusing evidence that a given outcome on one occasion was brought about in a certain way with evidence that the same outcome on a different occasion was brought about in that way
- (D) basing its conclusion on evidence that is almost entirely irrelevant to the point at issue
- (E) treating evidence that a given action contributed to bringing about a certain effect as though that evidence established that the given action by itself was sufficient to bring about that effect

20. S. R. Evans: A few critics have dismissed my poems as not being poems and have dismissed me as not being a poet. But one principle of criticism has it that only true poets can recognize poetic creativity or function as critics of poetry—and that the only true poets are those whose work conveys genuine poetic creativity. But I have read the work of these critics; none of it demonstrated poetic creativity. These critics' judgments should be rejected, since these critics are not true poets.

The argument above is vulnerable to criticism on the grounds that it

- (A) presupposes what it sets out to conclude, since the principle requires that



only true poets can determine whether the critics' work demonstrates poetic creativity

- (B) uses the distinction between poets and critics as though everyone fell into one category or the other
- (C) gives no justification for the implicit claim that the standing of a poet can be judged independently of his or her poetry
- (D) makes an unjustifiable distinction, since it is possible that some critics are also poets
- (E) inevitably leads to the conclusion that poets can never learn to improve their poetry, since no poet is in a position to criticize his or her own work

21. Claim: Country X's government lowered tariff barriers because doing so served the interests of powerful foreign companies.

Principle: In order for a change to be explained by the advantage some person or group gained from it, it must be shown how the interests of the person or group played a role in bringing about the change.

Which one of the following, if true, can most logically serve as a premise for an argument that uses the principle to counter the claim?

- (A) Foreign companies did benefit when Country X lowered tariff barriers, but consumers in Country X benefited just as much.
- (B) In the period since tariff barriers were lowered, price competition among importers has severely limited importers' profits from selling foreign companies' products in Country X.
- (C) It was impossible to predict how Country X's economic reforms, which included lowering tariff barriers, would affect the economy in the short term.
- (D) Many of the foreign companies that benefited from Country X's lowering tariff barriers compete fiercely among themselves both in Country X and in other markets.
- (E) Although foreign companies benefited when Country X lowered tariff barriers, there is no other evidence that these foreign companies induced the change.

22. A scientist made three observations: (1) in the world's temperate zones, food is more plentiful in the ocean than it is in fresh water; (2) migratory fish in temperate zones generally mature in the ocean and spawn in fresh water; and (3) migratory fish need much nourishment as they mature but little or none during the part of their lives when they spawn. On the basis of those observations, the scientist formulated the hypothesis that food availability is a determining factor in the migration of migratory fish. Subsequently the scientist learned that in the tropics migratory fish generally mature in fresh water and spawn in the ocean.

Which one of the following would it be most helpful to know in order to judge whether what the scientist subsequently learned calls into question the

hypothesis?

- (A) whether in the world's temperate zones, the temperatures of bodies of fresh water tend to be lower than those of the regions of the oceans into which they flow
- (B) whether the types of foods that migratory fish eat while they inhabit the ocean are similar to those that they eat while they inhabit bodies of fresh water
- (C) whether any species of fish with populations in temperate zones also have populations that live in the tropics
- (D) whether there are more species of migratory fish in the tropics than there are in temperate zones
- (E) whether in the tropics food is less plentiful in the ocean than in fresh water

23. No computer will ever be able to do everything that some human minds can do, for there are some problems that cannot be solved by following any set of mechanically applicable rules. Yet computers can only solve problems by following some set of mechanically applicable rules.

Which one of the following is an assumption on which the argument depends?

- (A) At least one problem solvable by following some set of mechanically applicable rules is not solvable by any human mind.
- (B) At least one problem not solvable by following any set of mechanically applicable rules is solvable by at least one human mind.
- (C) At least one problem solvable by following some set of mechanically applicable rules is solvable by every human mind.
- (D) Every problem that is solvable by following more than one set of mechanically applicable rules is solvable by almost every human mind.
- (E) Every problem that is solvable by following at least one set of mechanically applicable rules is solvable by at least one human mind.

24. People were asked in a survey how old they felt. They replied, almost unanimously despite a great diversity of ages, with a number that was 75 percent of their real age. There is, however, a problem in understanding this sort of response. For example, suppose it meant that a 48-year-old man was claiming to feel as he felt at 36. But at age 36 he would have said he felt like a man of 27, and at 27 he would have said he felt just over 20, and so on into childhood. And surely, that 48-year-old man did not mean to suggest that he felt like a child!

Which one of the following techniques of reasoning is employed in the argument?

- (A) projecting from responses collected at one time from many individuals of widely different ages to hypothetical earlier responses of a single individual at some of those ages
- (B) reinterpreting what certain people actually said in the light of what would, in the circumstances, have been the most reasonable thing for them to say

- (C) qualifying an overly sweeping generalization in light of a single well chosen counterexample
- (D) deriving a contradiction from a pair of statements in order to prove that at least one of those statements is false
- (E) analyzing an unexpected unanimity among respondents as evidence, not of a great uniformity of opinion among those respondents, but of their successful manipulation by their questioners

### SECTION III

**Time 35 minutes 26 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

#### Questions 1-2

Those who support the continued reading and performance of Shakespeare's plays maintain that in England appreciation for his work has always extended beyond educated elites and that ever since Shakespeare's own time his plays have always been known and loved by comparatively uneducated people. Skepticism about this claim is borne out by examining early eighteen-century editions of the plays. These books, with their fine paper and good bindings, must have been far beyond the reach of people of ordinary means.

1. The main point of the argument is to
  - (A) suggest that knowledge of Shakespeare's play is a suitable criterion for distinguishing the educated elite from other members of English society
  - (B) provide evidence that at some time in the past appreciation for Shakespeare's play was confined to educated elites
  - (C) prove that early eighteenth-century appreciation for Shakespeare's works rested on aspects of the works that are less appreciated today
  - (D) demonstrate that since Shakespeare's time the people who have known and loved his work have all been members of educated elites
  - (E) confirm the skepticism of the educated elite concerning the worth of Shakespeare's plays
2. Which one of the following describes a reasoning error in the argument?
  - (A) The argument uses the popularity of Shakespeare's plays as a measure of their literary quality.
  - (B) The argument bases an aesthetic conclusion about Shakespeare's plays on purely economic evidence.
  - (C) The argument anachronistically uses the standards of the twentieth century to judge events that occurred in the early eighteenth century.
  - (D) The argument judges the literary quality of a book's text on the basis of the quality of the volume in which the text is printed.

(E) The argument does not allow for the possibility that people might know Shakespeare's plays without having read them.

3. Organization president: The stationery and envelopes used in all of the mailings from our national headquarters are made from recycled paper, and we never put anything but letters in the envelopes. When the envelopes have windows, these windows are also made from recycled material. Therefore the envelopes, and thus these mailings, are completely recyclable.

Which one of the following is an assumption on which the organization president's argument depends?

- (A) All the paper used by the organization for purposes other than mailings is recycled.
- (B) The mailings from the organization's national headquarters always use envelopes that have windows.
- (C) The envelope windows made from recycled material are recyclable.
- (D) The envelopes and stationery used in the organization's mailings are always recycled.
- (E) The organization sends mailings only from its national headquarters.

#### Questions 4-5

The frequently expressed view that written constitutions are inherently more liberal than unwritten ones is false. No written constitution is more than a paper with words on it until those words are both interpreted and applied. Properly understood, then, a constitution is the sum of those procedures through which the power of the state is legitimately exercised and limited. Therefore, even a written constitution becomes a liberal constitution only when it is interpreted and applied in a liberal way.

4. The main point of the argument above is that
- (A) written constitutions are no more inherently liberal than are unwritten constitutions
- (B) the idea of a written constitution, properly understood, is inherently self-contradictory
- (C) unwritten constitutions are less subject to misinterpretation than are constitutions that have been written down
- (D) liberal constitutions are extremely difficult to preserve
- (E) there are criteria for evaluating the interpretation and application of a constitution
5. If the statements in the argument are all true, which one of the following must also be true on the basis of them?
- (A) A careful analysis of the written text of a constitution can show that the constitution is not a liberal one.
- (B) It is impossible to determine that a written constitution is liberal merely

through careful analysis of the written text.

- (C) There are no advantages to having a written rather than an unwritten constitution.
- (D) Constitutions that are not written are more likely to be liberal than are constitutions that are written.
- (E) A constitution is a liberal constitution if it is possible to interpret it in a liberal way.

6. As far as we know, Earth is the only planet on which life has evolved, and all known life forms are carbon-based. Therefore, although there might exist noncarbon-based life on planets very unlike Earth, our scientific estimates of the probability of extraterrestrial life should be generated from estimates of the number of planets like Earth and the likelihood of carbon-based life on those planets.

Which one of the following general principles most strongly supports the recommendation?

- (A) There is no good reason to think that unobserved phenomena closely resemble those that have been observed.
- (B) A scientific theory that explains a broad range of phenomena is preferable to a competing theory that explains only some of those phenomena.
- (C) It is preferable for scientists to restrict their studies to phenomena that are observable and forego making estimates about unobservable things.
- (D) A scientific theory that explains observed phenomena on the basis of a few principles that are independent of each other is preferable to a theory that explains those same phenomena on the basis of many independent principles.
- (E) Estimations of probability that are more closely tied to what is known are preferable to those that are less closely tied to what is known.

7. Politician: Unless our nation redistributes wealth, we will be unable to alleviate economic injustice and our current system will lead inevitably to intolerable economic inequities. If the inequities become intolerable, those who suffer from the injustice will resort to violence to coerce social reform. It is our nation's responsibility to do whatever is necessary to alleviate conditions that would otherwise give rise to violent attempts at social reform.

The statements above logically commit the politician to which one of the following conclusions?

- (A) The need for political reform never justifies a resort to violent remedies.
- (B) It is our nation's responsibility to redistribute wealth.
- (C) Politicians must base decisions on political expediency rather than on abstract moral principles.
- (D) Economic injustice need not be remedied unless it leads to intolerable social conditions.



(E) All that is required to create conditions of economic justice is the redistribution of wealth.

8. Delta green ground beetles sometimes remain motionless for hours at a stretch, although they are more active in wet years than in dry years. In 1989 an observer spotted ten delta green ground beetles in nine hours; in 1985 the same observer at the same location had counted 38 in about two hours. This difference probably does not reflect a drop in the population of these rare beetles over this period, however, because 1985 was a wet year and 1989 was relatively dry.

Which one of the following, if true, most strongly supports the conclusion drawn above?

- (A) Because of their excellent camouflage, delta green ground beetles are almost impossible to see if they are not moving.
- (B) The only habitat of delta green ground beetles is around pools formed by the collection of winter rains in low-lying areas.
- (C) Delta green ground beetles move about very little to get food; most of their moving from one place to another is related to their reproductive behavior.
- (D) Delta green ground beetles are so rare that, although the first specimen was found in 1878, a second was not found until 1974.
- (E) No predator relies on the delta green ground beetle for a major portion of its food supply.

9. Chronic fatigue syndrome, a condition that afflicts thousands of people, is invariably associated with lower-than-normal concentrations of magnesium in the blood. Further, malabsorption of magnesium from the digestive tract to the blood is also often associated with some types of fatigue. These facts in themselves demonstrate that treatments that raise the concentration of magnesium in the blood would provide an effective cure for the fatigue involved in the syndrome.

The argument is most vulnerable to which one of the following criticisms?

- (A) It fails to establish that lower-than-normal concentrations of magnesium in the blood are invariably due to malabsorption of magnesium.
- (B) It offers no evidence that fatigue itself does not induce lowered concentrations of magnesium in the blood.
- (C) It ignores the possibility that even in people who are not afflicted with chronic fatigue syndrome, concentration of magnesium in the blood fluctuates.
- (D) It neglects to state the exact concentration of magnesium in the blood which is considered the normal concentration.
- (E) It does not specify what methods would be most effective in raising the concentration of magnesium in the blood.

Questions 10-11

Consumer advocate: The toy-labeling law should require manufacturers to provide

explicit safety labels on toys to indicate what hazards the toys pose. The only labels currently required by law are labels indicating the age range for which a toy is intended. For instance, a “three and up” label is required on toys that pose a choking hazard for children under three years of age. Although the current toy-labeling law has indeed reduced the incidence of injuries to children from toys, parents could prevent such injuries almost entirely if toy labels provided explicit safety information.

10. Which one of the following, if true, most strengthens the consumer advocate’s argument?
- (A) Certain types of toys have never been associated with injury to children.
  - (B) Most parents believe that the current labels are recommendations regarding level of cognitive skill.
  - (C) The majority of children injured by toys are under three years of age.
  - (D) Many parents do not pay attention to manufacturers’ labels when they select toys for their children.
  - (E) Choking is the most serious hazard presented to children by toys.
11. The statement that the law should require explicit safety labels on toys serves which one of the following functions in the consumer advocate’s argument?
- (A) It is a general principle supporting the conclusion of the argument.
  - (B) It is a proposed compromise between two conflicting goals.
  - (C) It is the conclusion of the argument.
  - (D) It is evidence that must be refuted in order to establish the conclusion of the argument.
  - (E) It is a particular instance of the general position under discussion.
12. Proponents of organic farming claim that using chemical fertilizers and pesticide in farming is harmful to local wildlife. To produce the same amount of food, however, more land must be under cultivation when organic farming techniques are used than when chemicals are used. Therefore, organic farming leaves less land available as habitat for local wildlife.
- Which one of the following is an assumption on which the author’s argument depends?
- (A) Chemical fertilizers and pesticides pose no health threat to wildlife.
  - (B) Wildlife living near farms where chemicals are used will not ingest any food or water containing those chemicals.
  - (C) The only disadvantage to using chemicals in farming is their potential effect on wildlife.
  - (D) The same crops are grown on organic farms as on farms where chemicals are used.
  - (E) Land cultivated by organic farming methods no longer constitutes a habitat for wildlife.

13. Reptiles are air-breathing vertebrates with completely ossified skeletons; so alligators must be air-breathing vertebrates with completely ossified skeletons. In terms of its logical features, the argument above most resembles which one of the following?
- (A) Green plants take in carbon dioxide and release oxygen back into the air; so it follows that grass takes in carbon dioxide and releases oxygen into the air.
  - (B) Some red butterflies are poisonous to birds that prey on them; so this particular red butterfly is poisonous to birds that prey on it.
  - (C) Knowledge about the empirical world can be gained from books; so Virginia Woolf's book *A Room of One's Own* must provide knowledge about the empirical world.
  - (D) Dierdre has seen every film directed by Rainer Werner Fassbinder; so Dierdre must have seen *Ali: Fear Eats the Soul*, a film directed by Fassbinder.
  - (E) Skiers run a high risk of bone fracture; so it is likely that Lindsey, who has been an avid skier for many years, has suffered a broken bone at some point.
14. Although inflated government spending for weapons research encourages waste at weapons research laboratories, weapons production plants must be viewed as equally wasteful of taxpayer dollars. After all, by the government's own admission, the weapons plant it plans to reopen will violate at least 69 environmental, health, and safety laws. The government has decided to reopen the plant and exempt it from compliance, even though the weapons to be produced there could be produced at the same cost at a safer facility. The reasoning in the argument is most vulnerable to criticism on which one of the following grounds?
- (A) It offers no evidence that the "safer" alternative production site actually complies with any of the laws mentioned.
  - (B) It concedes a point regarding weapons research laboratories that undermines its conclusion about weapons production plants.
  - (C) It relies on evidence that does not directly address the issue of wasteful spending.
  - (D) It confuses necessary expenditures for research with wasteful spending on weapons.
  - (E) It fails to establish that research laboratories and weapons production plants are similar enough to be meaningfully compared.

Questions 15-16

Dr. Godfrey: Now that high school students are allowed to work more than 15 hours per week at part-time jobs, those who actually do so show less interest in school and get lower grades than those who do not work as many hours at part-time jobs.

Obviously, working long hours at part-time jobs during the school year contributes to the academic problems that many of our high school students experience.

Dr. Nash: That's not so. Many of our high school students set out to earn as much money as they can simply to compensate for their lack of academic success.

15. Dr. Nash responds to Dr. Godfrey's argument by doing which one of the following?
- (A) attempting to downplay the seriousness of the problems facing academically troubled high school students
  - (B) offering an alternative interpretation of the evidence cited by Dr. Godfrey
  - (C) questioning the accuracy of the evidence on which Dr. Godfrey bases his conclusion
  - (D) proposing that the schools are not at fault for the academic problems facing many high school students
  - (E) raising the possibility that there is no relationship between academic problems among high school students and part-time employment
16. The answer to which one of the following would be the most helpful in determining whether the conclusion that Dr. Godfrey draws could be logically defended against Dr. Nash's counterargument?
- (A) whether people who have had academic problems in high school are ultimately less successful in their careers than people who have not had such problems
  - (B) whether students are allowed to spend more than 15 hours per week at school-sponsored nonacademic extracurricular activities such as team sports or clubs
  - (C) whether the students who work more than 15 hours per week and have academic problems had such problems before they began to work that many hours
  - (D) whether employers and high school students typically obey all the laws that regulate the conditions under which young people may legally be employed
  - (E) whether high school students who have after-school jobs continue to work at those jobs after graduating from high school
17. X: Medical research on animals should not be reduced in response to a concern for animals, because results of such research serve to avert human suffering. In such research a trade-off between human and animal welfare is always inevitable, but we should give greater weight to human welfare.
- Y: With technology that is currently available, much of the research presently performed on animals could instead be done with computer modeling or human subjects without causing any suffering.
- The relationship of Y's response to X's argument is that Y's response
- (A) contradicts a premise on which X's argument relies

- (B) disagrees with X about the weight to be given to animal suffering as opposed to human suffering
- (C) presents a logical consequence of the premises of X's argument
- (D) strengthens X's argument by presenting evidence not mentioned by X's argument
- (E) supplies a premise to X's argument that was not explicitly stated
18. In experiments in which certain kinds of bacteria were placed in a generous supply of nutrients, the populations of bacteria grew rapidly, and genetic mutations occurred at random in the populations. These experiments show that all genetic mutation is random.
- Which one of the following, if true, enables the conclusion to be properly drawn?
- (A) Either all genetic mutations are random or none are random.
- (B) The bacteria tested in the experiments were of extremely common forms.
- (C) If all genetic mutations in bacteria are random, then all genetic mutations in every other life form are random also.
- (D) The kind of environment in which genetic mutation takes place has no effect on the way genetic mutation occurs.
- (E) The nutrients used were the same as those that nourish the bacteria in nature.
19. Thomas: The club president had no right to disallow Jeffrey's vote. Club rules say that only members in good standing may vote. You've admitted that club rules also say that all members whose dues are fully paid are members in good standing. And since, as the records indicate, Jeffrey has always paid his dues on time, clearly the president acted in violation of club rules.
- Althea: By that reasoning my two-year-old niece can legally vote in next month's national election since she is a citizen of this country, and only citizens can legally vote in national elections.
- The reasoning in Thomas' argument is flawed because his argument
- (A) fails to take into account the distinction between something not being prohibited and its being authorized
- (B) offers evidence that casts doubt on the character of the club president and thereby ignores the question of voting eligibility
- (C) wrongly assumes that if a statement is not actually denied by someone, that statement must be regarded as true
- (D) does not specify the issue with respect to which the disputed vote was cast
- (E) overlooks the possibility that Althea is not an authority on the club's rules
20. Calories consumed in excess of those with which the body needs to be provided to maintain its weight are normally stored as fat and the body gains weight. Alcoholic beverages are laden with calories. However, those people who regularly drink two or three alcoholic beverages a day and thereby exceed the caloric intake necessary to maintain their weight do not in general gain weight.



Which one of the following, if true, most helps to resolve the apparent discrepancy?

- (A) Some people who regularly drink two or three alcoholic beverages a day avoid exceeding the caloric intake necessary to maintain their weight by decreasing caloric intake from other sources.
- (B) Excess calories consumed by people who regularly drink two or three alcoholic beverages a day tend to be dissipated as heat.
- (C) Some people who do not drink alcoholic beverages but who eat high-calorie foods do not gain weight.
- (D) Many people who regularly drink more than three alcoholic beverages a day do not gain weight.
- (E) Some people who take in fewer calories than are normally necessary to maintain their weight do not lose weight.

21. When a person with temporal lobe epilepsy is having an epileptic seizure, part of the brain's temporal lobe produces abnormal electrical impulses, which can often, but not always, be detected through a test called an electroencephalogram (EEG). Therefore, although a positive EEG reading—that is, evidence of abnormal electrical impulses—during an apparent seizure is a reasonably reliable indicator of temporal lobe epilepsy, \_\_\_\_\_

Of the following, which one logically completes the conclusion above?

- (A) a positive reading is just as reliable an indicator of the absence of temporal lobe epilepsy
- (B) a positive reading can also indicate the presence of other forms of epilepsy
- (C) a positive reading is more frequently an erroneous reading than is a negative one
- (D) a negative reading does not mean that temporal lobe epilepsy can be ruled out
- (E) a negative reading is just as reliable an indicator of the presence of temporal lobe epilepsy

22. In Sheldon most bicyclists aged 18 and over have lights on their bicycles, whereas most bicyclists under the age of 18 do not. It follows that in Sheldon most bicyclists who have lights on their bicycles are at least 18 years old.

Which one of the following exhibits a pattern of flawed reasoning most similar to that in the argument above?

- (A) Most of the people in Sheldon buy gasoline on Mondays only. But almost everyone in Sheldon buys groceries on Tuesdays only. It follows that fewer than half of the people in Sheldon buy gasoline on the same day on which they buy groceries.
- (B) The Sheldon Library lent more books during the week after it began lending videos than it had in the entire preceding month. It follows that the availability of videos was responsible for the increase in the number of

books lent.

- (C) Most of the residents of Sheldon who voted in the last election are on the Conservative party's mailing list, whereas most of Sheldon's residents who did not vote are not on the list. It follows that most of the residents of Sheldon on the Conservative party's mailing list voted in the last election.
- (D) In the country where Sheldon is located, every town that has two or more fire trucks has a town pool, whereas most towns that have fewer than two fire trucks do not have a town pool. It follows that Sheldon, which has a town pool, must have at least two fire trucks.
- (E) In Sheldon everyone over the age of 60 who knits also sews, but not everyone over the age of 60 who sews also knits. It follows that among people over the age of 60 in Sheldon there are more who sew than there are who knit.

23. Asbestos, an almost indestructible mineral once installed as building insulation, poses no health risk unless the asbestos is disturbed and asbestos fibers are released into the environment. Since removing asbestos from buildings disturbs it, thereby releasing asbestos fibers, the government should not require removal of all asbestos insulation.

Which one of the following, if true, most strengthens the argument?

- (A) Asbestos poses far less risk to health than does smoking, drug and alcohol abuse, improper diet or lack of exercise.
- (B) Asbestos can pose a health threat to workers who remove it without wearing required protective gear.
- (C) Some kinds of asbestos, when disturbed, pose greater health risks than do other kinds.
- (D) Asbestos is inevitably disturbed by building renovations or building demolition.
- (E) Much of the time, removed asbestos is buried in landfills and forgotten with no guarantee that it will not be disturbed again.

Question 24-25

When volcanic lava solidifies, it becomes uniformly magnetized in the direction in which the Earth's magnetic field points. There are significant differences in the direction of magnetization among solidified lava flows from different volcanoes that erupted at different times over the past several million years. Therefore, it must be that the direction of the Earth's magnetic field has changed over time. Since lava flows differing by thousands of years in age often have very similar directions of magnetization, the change in the direction of the Earth's magnetic field must take place very gradually over hundreds of thousands of years.

24. The argument that the direction of the Earth's magnetic field has changed over time requires the assumption that

- (A) only lava can be used to measure the direction of the Earth's magnetic field as it existed in the distant past
- (B) a single volcano can produce lava of differing consistencies during different eruptions
- (C) not all solidified lava has changed the direction of its magnetization unpredictably
- (D) there are fewer volcanic eruptions now than there were millions of years ago
- (E) as lava flows down the side of a volcano, it picks up magnetized rocks
25. Which one of the following, if true, most seriously undermines the conclusion that the change in the direction of the Earth's magnetic field happened very slowly?
- (A) The changes in the direction of the Earth's magnetic field are determined by the chaotic movement of iron-containing liquids in the Earth's outer core.
- (B) There has not been a change in the direction of the Earth's magnetic field since scientists have begun measuring the direction of magnetization of lava flows.
- (C) The direction of the Earth's magnetic field has undergone a complete reversal several times over the past few million years.
- (D) A lava flow has been found in which the direction of magnetization in the center of the flow differs significantly from that on the surface, even though the flow took only two weeks to solidify completely.
- (E) Since the rate at which molten lava solidifies depends on the temperature and altitude of the environment, some lava flows from volcanoes in certain areas will take years to solidify completely.
26. When the manufacturers in a given country are slower to adopt new technologies than their foreign competitors are, their production costs will fall more slowly than their foreign competitors' costs will. But if manufacturers' production costs fall less rapidly than their foreign competitors' costs do, those manufacturers will be unable to lower their prices as rapidly as their foreign competitors can; and when a country's manufacturers cannot lower their prices as rapidly as their foreign competitors can, that country gets squeezed out of the global market.
- If the statements above are true, which one of the following must also be true on the basis of them?
- (A) If the manufacturers in one country raise their prices, it is because they have squeezed their foreign competitors out of the global market.
- (B) If manufacturers in one country have been squeezed out of the global market, this shows that their foreign competitors have adopted new technologies more rapidly than they have.
- (C) If a country's foreign competitors can lower their production costs more rapidly than the country's own manufacturers can, then their foreign competitors must have adopted new manufacturing techniques.

- (D) If a country's manufacturers adopt new technologies at the same rate as their foreign competitors, neither group will be able to squeeze the other out of the global market.
- (E) If a country's manufacturers can lower their prices as rapidly as their foreign competitors can, this shows that they adopt new technology at least as fast as their foreign competitors do.

## TEST 17

### SECTION III

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. It is difficult to keep deep wounds free of bacteria. Even strong antibiotics fail to kill the bacteria that live in such wounds. However, many physicians have succeeded in eliminating bacteria from deep wounds by packing the wound with a sweet substance like sugar.

Which one of the following, if true, most helps to explain why treating deep wounds with sugar as described above is successful?

- (A) Bacteria that live in deep wounds thrive in a moist environment, and sugar has a dehydrating effect.
- (B) Sugar that is nearly pure is readily available for use in medical treatments.
- (C) Many kinds of bacteria can use sugar as a nutrient and will reproduce rapidly when sugar is available to them.
- (D) Some foods that contain sugar can weaken the effects of certain antibiotics.
- (E) Strong antibiotics were developed only recently, but the use of sugar as a treatment for wounds dates back to ancient times.

2. People who are red/green color-blind cannot distinguish between green and brown, Gerald cannot distinguish between green and brown. Therefore Gerald is red/green color-blind.

Which one of the following most closely parallels the reasoning in the argument presented in the passage?

- (A) People who are fair-skinned suffer from sunburn. William is fair-skinned. Therefore William suffers from sunburn.
- (B) People who are suffering from sinusitis lose their sense of smell. Mary has lost her sense of smell. Therefore Mary is suffering from sinusitis.
- (C) People who have suffered from jaundice cannot become blood donors, Jean is a blood donor. Therefore Jean has not suffered from jaundice.
- (D) People who are color-blind cannot become airline pilots. Arthur is color-blind. Therefore Arthur cannot become an airline pilot.

(E) People who are diabetic cannot eat large amounts of sugar. Freda is diabetic. Therefore Freda is on a special diet.

3. Early in this century, Alfred Wegener developed the concept of continental drift. His ideas were rejected vehemently because he postulated no identifiable force strong enough to make the continents move. We have come to accept Wegener's theory, not because we have pinpointed such a force, but because new instruments have finally allowed continental movement to be confirmed by observation.

The passage best illustrates which one of the following statements about science?

- (A) The aim of science is to define the manifold of nature within the terms of a single harmonious theory.
- (B) In accepting a mathematical description of nature, science has become far more accurate at identifying underlying forces.
- (C) The paradox of science is that every improvement in its measuring instruments seems to make adequate theories harder to work out.
- (D) Science, employing statistics and the laws of probability, is concerned not with the single event but with mass behavior.
- (E) When the events a theory postulates are detected, the theory is accepted even without an explanation of how those events are brought about.

4. The theory of military deterrence was based on a simple psychological truth, that fear of retaliation makes a would-be aggressor nation hesitate before attacking and is often sufficient to deter it altogether from attacking. Clearly, then to maintain military deterrence, a nation would have to be believed to have retaliatory power so great that a potential aggressor nation would have reason to think that it could not defend itself against such retaliation.

If the statements above are true, which one of the following can be properly inferred?

- (A) A would-be aggressor nation can be deterred from attacking only if it has certain knowledge that it would be destroyed in retaliation by the country it attacks.
- (B) A nation will not attack another nation if it believes that its own retaliatory power surpasses that of the other nation.
- (C) One nation's failing to attack another establishes that the nation that fails to attack believes that it could not withstand a retaliatory attack from the other nation.
- (D) It is in the interests of a nation that seeks deterrence and has unsurpassed military power to let potential aggressors against it become aware of its power of retaliatory attack.
- (E) Maintaining maximum deterrence from aggression by other nations requires that a nation maintain a retaliatory force greater than that of any other nation.



## 5. To the editor:

In 1960, an astronomer proposed a mathematical model for determining whether extraterrestrial life exists. It was based on the assumptions that life as we know it could exist only on a planet and that many stars are, like our Sun, orbited by planets. On the basis that there are nine planets in our solar system and one of them has life as we know it, the astronomer predicted that there are as many as one million extraterrestrial civilizations across all solar systems. Yet astronomers to date have not detected even one planet outside our solar system. This indicates that the astronomer's model is wrong, and life as we know it exists only on the planet Earth.

Clay Moltz

Which one of the following, if accepted by Clay Moltz, would require him to reconsider his conclusion?

- (A) Forms of life other than life as we know it exist on other planets.
  - (B) There are many stars that are not orbited by planets.
  - (C) Detecting planets outside our solar system requires more sophisticated instruments than are currently available.
  - (D) The soundness of the conclusion reached by applying a mathematical model depends on the soundness of the assumptions on which the model is based.
  - (E) Due to sheer distances and expanses of space involved, any extraterrestrial civilization would have great difficulty communicating with ours.
6. If Max were guilty, he would not ask the police to investigate. Therefore, his asking the police to investigate shows that he is not guilty.
- The logical structure of the argument above is most similar to which one of the following?
- (A) If Lucille were in the next room, I would not be able to see her. Therefore, the fact that I can see her shows that she is not in the next room.
  - (B) If Sam were rich, he would not spend his vacation in Alaska. Therefore, his spending his vacation in the Bahamas shows that he is rich.
  - (C) If Joe were over 40 he would not want to learn to ski. Therefore, the fact that he does not want to learn to ski shows that he is over 40.
  - (D) If Mark were a good cook, he would not put cinnamon in the chili. Therefore, the fact that he is not a good cook shows that he put cinnamon in the chili.
  - (E) If Sally were sociable, she would not avoid her friends. Therefore, the fact that she is sociable shows that she does not avoid her friends.
7. A population of game ducks at a western lake contains 55 males to every 45 females, while a population of game ducks at an eastern lake contains 65 males for every 35 females. Among those ducks that have not yet bred there are only slightly more males than females, but among older ducks the number of males greatly exceeds the number of females. Because there are appreciably more males

among adult ducks than among young ducks, we can infer that the greater the disparity in overall sex ratios, the greater the percentage of older male ducks in the population.

Which one of the following can be inferred from the passage?

- (A) The population of game duck at the western lake contains a lower percentage of adult males than the population at the eastern lake contains.
- (B) The population of game duck at the eastern lake contains a higher percentage of nonadult game ducks than the population at the western lake contains.
- (C) The total number of male game ducks is higher in the eastern lake's population than in the western lake population.
- (D) The number of nonadult ducks hatched in a breeding season is higher in the eastern lake's population than in the western lake's population.
- (E) Adult female game ducks outnumber nonadult female game ducks in the eastern lake's population.

8. The common procedure for determining whether a food additive should be banned from use is to compare its health-related benefits with its potential risks. Yellow Dye No. 5, an additive used to color lemon soda, might cause allergic reactions in a few consumers. For most consumers of lemon soda, however, the coloring enhances their enjoyment of the beverage. This particular additive should not be banned, therefore, because its benefits greatly outweigh its risks.

A flaw in the argument is that the author

- (A) implies that the dye entail no health-related risks
- (B) treats enjoyment of a beverage as a health-related benefit
- (C) ignores the possibility that some food additives are harmful to most people
- (D) bases the argument on an unproven claim regarding a danger in using Yellow Dye No. 5
- (E) presumes that most consumers heed the warning labels on beverage containers

9. Fines levied against those responsible for certain environmentally damaging accidents are now so high that it costs a company responsible for such an accident more to pay the fine than it would have cost to adopt measures that would have prevented the accident. Therefore, since businesses value their profits, those that might have such accidents will now install adequate environmental safeguards.

Which one of the following, if true, most seriously weakens the argument?

- (A) Businesses generally greatly underestimate the risk of future accidents.
- (B) Businesses are as concerned with long-term as they are with short-term strategies for maximizing profits.
- (C) Businesses generally do the environmentally "right" thing only if doing so makes good business sense.
- (D) Businesses treat fines that are levied against them as an ordinary business

expense.

(E) Businesses are learning to exploit the public's environmental awareness in promoting themselves.

10. Even in a democracy, it is necessary to restrict the dissemination of advanced technological knowledge that is of commercial or national-security value. Dissemination to certain countries, those that are or will be competitors or enemies, should be selectively prohibited. There must, however, be free exchange of scientific information.

In order to act in accordance with the position above, it would be necessary to be able to rely on each of the following EXCEPT:

- (A) It is possible to distinguish with confidence, despite any changes in the international environment, friendly or noncompetitive from hostile or competitive nations.
- (B) In a democracy, it is not necessary that the public have detailed knowledge of the country's advanced technology in order, for example, to make informed decisions about the direction public policy should take.
- (C) In most fields of science, basic scientific research is further advanced in countries that are democracies than in countries that are not democracies.
- (D) In each field of science, it is possible to distinguish scientific information from advanced technological knowledge that is of commercial or national-security value.
- (E) In cases where a company that use advanced technology is a multinational organization, it is possible to keep information about the technology from being passed across designated national boundaries.
11. Water vapor evaporated from the ocean contains a greater proportion of oxygen-16 and a smaller proportion of the heavier oxygen-18 than does seawater. Normally, this phenomenon has no effect on the overall composition of the ocean, because evaporated seawater returns to the ocean through precipitation. During an ice age, however, a large amount of precipitation falls on ice caps, where it is trapped as ice.
- Which one of the following conclusions about a typical ice age is most strongly supported by the statements above?
- (A) The proportions of oxygen-16 and oxygen-18 are the same in vapor from seawater as in the seawater itself.
- (B) The concentration of oxygen-18 in seawater is increased.
- (C) Rain and snow contain relatively more oxygen-16 than they do in interglacial periods.
- (D) During the ice age, more of the Earth's precipitation falls over land than falls over the ocean.
- (E) The composition of seawater changes more slowly than it does in interglacial periods.

12. Some of the most prosperous nations in the world have experienced a pronounced drop in national savings rates—the percentage of after-tax income an average household saves. This trend will undoubtedly continue if the average age of these nations' populations continues to rise, since older people have fewer reasons to save than do younger people.

Which one of the following indicates an error in the reasoning leading to the prediction above?

- (A) It fails to specify the many reasons younger people have for saving money, and it fails to identify which of those reasons is the strongest.
  - (B) It assumes that a negative savings rate—the result of the average household's spending all of its after-tax income as well as some of its existing savings—cannot ever come about in any nation.
  - (C) It fails to cite statistics showing that the average age of the population of certain nations is rising.
  - (D) It only takes into account the comparative number of reasons older and younger people, respectively, have for saving, and not the comparative strength of those reasons.
  - (E) It uses after-tax income as the base for computing the national savings rate without establishing by argument that after-tax income is a more appropriate base than before-tax income.
13. The term “pit bull” does not designate a breed of dog, as do the terms “German shepherd” and “poodle.” It is like the terms “Seeing-Eye dog” and “police dog,” which designate dogs according to what they do. If you take two German shepherds and place them side by side, you cannot tell by appearance alone which is the police dog and which is the Seeing-Eye dog.

Which one of the following is the main point of the passage?

- (A) German shepherds can be pit bulls.
  - (B) Pit bulls can be distinguished from other kinds of dogs by appearance alone.
  - (C) A dog is a pit bull because of what it does, not because of its breed.
  - (D) German shepherds can function both as police dogs and as Seeing-Eye dogs.
  - (E) Some breeds of dogs cannot be distinguished from other breeds of dogs by appearance alone.
14. Historically, monetary systems have developed only in population centers with marketplaces. Through the fourth century B.C. Mesopotamian cities engaged in trade, but had never had marketplaces. By that period, however, Greek cities all had marketplaces, or agorae. The Greek cities' agorae were centrally located and goods were traded there either for money or for commodities.

If all of the statements in the passage are true, then which one of the following must also be true?

- (A) In the fourth century B.C. Greek cities were the only population centers with monetary systems.

- (B) The development of monetary systems has historically led to the development of marketplaces.
- (C) In the fourth century B.C. the Greeks and the Mesopotamians traded with each other.
- (D) After the fourth century B.C. Mesopotamian cities had marketplaces and monetary systems.
- (E) The Mesopotamian cities of the fourth century B.C. did not have monetary systems.

Questions 15-16

Computer operating system software has become increasingly standardized. But when a large business with multiple, linked computer systems uses identical operating system software on all of its computers, a computer vandal who gains access to one computer automatically has access to the data on all the computers. Using a program known as a “virus,” the vandal can then destroy much of the data on all the computers. If such a business introduced minor variations into its operating system software, unauthorized access to all the computers at the same time could be virtually eliminated. Furthermore variations in operating system software can be created without any loss of computer compatibility to the business. Therefore, it is advisable for businesses to implement such variations.

15. Which one of the following, if true, supports the conclusion in the passage?
- (A) Standardization of computer operating system software has increased computer compatibility among different businesses.
  - (B) Correcting any damage resulting from an invasion by a computer virus program is more expensive than preventing the damage.
  - (C) It is not costly for a business to maintain incompatible computer operating systems.
  - (D) There are other kinds of destructive computer programs that do not depend on intercomputer links.
  - (E) Not all businesses need to share data among their internal computer systems.
16. Which one of the following can be inferred from the passage?
- (A) If a business does not introduce variety into its computer operating systems, it will lose data on its computers because of damage from virus programs.
  - (B) If a computer virus program is introduced into a business computer, all of the data on that computer will be destroyed.
  - (C) If a business introduces variety into its linked computer operating systems, it will have increased overall protection for its systems, but will not have protected every computer from viral invasion.
  - (D) If a business does not have multiple, linked computer systems, its computers cannot be protected from computer viruses.
  - (E) If minor variations are created in computer operating system software, it will



be easier to access the data on the computers that use that software.

17. It is the mark of a superior conductor that he or she has the authority to insist, even with a top orchestra, that rehearsal work must be intensified. This authority cannot simply be claimed, the conductor must earn it by winning the orchestra's respect for the artistic interpretations he or she is currently pursuing.
- In taking the position outlined, the author presupposes which one of the following?
- (A) Superior conductors devise different interpretations of composition for each orchestra with which they perform it.
  - (B) Superior conductors are perfectionists who are never satisfied with any performance even by a top orchestra.
  - (C) Top orchestras are always ready to put in additional work on rehearsals if the conductor considers additional rehearsing necessary.
  - (D) Top orchestras can appreciate the merits of an interpretation even before they have brought it to full realization.
  - (E) Even top orchestras are not always led by superior conductors.
18. In the United States proven oil reserves—the amount of oil considered extractable from known fields—are at the same level as they were ten years ago. Yet over this same period no new oil fields of any consequence have been discovered, and the annual consumption of domestically produced oil has increased.
- Which one of the following, if true, best reconciles the discrepancy described above?
- (A) Over the past decade the annual consumption of imported oil has increased more rapidly than that of domestic oil in the United States.
  - (B) Conservation measures have lowered the rate of growth of domestic oil consumption from what it was a decade ago.
  - (C) Oil exploration in the United States has slowed due to increased concern over the environmental impact of such exploration.
  - (D) The price of domestically produced oil has fallen substantially over the past decade.
  - (E) Due to technological advances over the last decade, much oil previously considered unextractable is now considered extractable.
19. Train service suffers when a railroad combines commuter and freight service. By dividing its attention between its freight and commuter customers, a railroad serves neither particularly well. Therefore, if a railroad is going to be a successful business, then it must concentrate exclusively on one of these two markets.
- For the argument to be logically correct, it must make which one of the following assumptions?
- (A) Commuter and freight service have little in common with each other.
  - (B) The first priority of a railroad is to be a successful business.

- (C) Unless a railroad serves its customers well, it will not be a successful business.
- (D) If a railroad concentrates on commuter service, it will be a successful business.
- (E) Railroad commuters rarely want freight service as well.

20. Most people in the United States view neither big nor small business as particularly efficient or dynamic and regard both as providing consumers with fairly priced goods and services. However, most people consistently perceive small business as a force for good in society, whereas big business is perceived as socially responsible only in times of prosperity.

The statements above, if true, would provide the strongest support for which one of the following hypotheses?

- (A) Most people in the United States give little thought to the value of business to society.
  - (B) If big business were more efficient, it would be perceived more favorably by the public generally.
  - (C) If small business were regarded as being more dynamic, it, too, would receive strongly favorable ratings only in times of general prosperity.
  - (D) Even if people did not regard big business as providing consumers with value for their money, they would still regard it as socially responsible in times of general prosperity.
  - (E) Many people in the United States regard the social responsibility of big business as extending beyond providing consumers with fairly priced goods and services.
21. The energy an animal must expend to move uphill is proportional to its body weight, whereas the animal's energy output available to perform this task is proportional to its surface area. This is the reason that small animals, like squirrel, can run up a tree trunk almost as fast as they can move on level ground, whereas large animals tend to slow down when they are moving uphill.
- Which one of the following is an assumption on which the explanation above depends?
- (A) The amount of energy needed to move uphill is no greater for large animals than it is for small animals.
  - (B) Small animals can move more rapidly than large animals can.
  - (C) The ratio of surface area to body weight is smaller in large animals than it is in small animals.
  - (D) There is little variation in the ratio of energy output to body weight among animals.
  - (E) The amount of energy needed to run at a given speed is proportional to the surface area of the running animal.

22. The 1980's have been characterized as a period of selfish individualism that threatens the cohesion of society. But this characterization is true of any time. Throughout history all human actions have been motivated by selfishness. When the deeper implications are considered, even the simplest "unselfish" acts prove to be instances of selfish concern for the human species.
- Which one of the following is a flaw in the argument?
- (A) The claim that selfishness has been present throughout history is not actually relevant to the argument.
  - (B) No statistical evidence is provided to show that humans act selfishly more often than act unselfishly.
  - (C) The argument assumes that selfishness is unique to the present age.
  - (D) The argument mentions only humans and does not consider the behavior of other species.
  - (E) The argument relies on two different uses of the term selfish.
23. A medical journal used a questionnaire survey to determine whether a particular change in its format would increase its readership. Sixty-two percent of those who returned the questionnaire supported that change. On the basis of this outcome, the decision was made to introduce the new format.
- Which one of the following, if it were determined to be true, would provide the best evidence that the journal's decision will have the desired effect?
- (A) Of the readers who received questionnaires, 90 percent returned them.
  - (B) Other journals have based format changes on survey results.
  - (C) The percentage of surveyed readers who like the format change was almost the same as the percentage of the entire potential readership who would like format change.
  - (D) It was determined that the new format would be less costly than the old format.
  - (E) Ninety percent of the readers who were dissatisfied with the old format and only 50 percent of the readers who like the old format returned their questionnaires.

Questions 24-25

Shanna: Owners of any work of art, simply by virtue of ownership, ethically have the right to destroy that artwork if they find morally or aesthetically distasteful, or if caring for it becomes inconvenient.

Jorge: Ownership of unique artworks, unlike ownership of other kinds of objects, carries the moral right to possess but not to destroy. A unique work of art with aesthetic or historical value belongs to posterity and so must be preserved, whatever the personal wishes of its legal owner.

24. Which one of the following principles, if accepted, would contribute most to

Shanna's defense of her position against that of Jorge?

- (A) Truly great works of art are never morally or aesthetically distasteful to any serious student of the history of art.
  - (B) The right of future generations to have their artistic heritage preserved is of greater importance than the rights of any presently living individual.
  - (C) It would be imprudent to allow the present stock of artworks to be destroyed without some guarantee that the artists of the future will produce works as great as those produced in the past.
  - (D) There are certain entities over which no one would be ethically justified in claiming absolute rights to ownership.
  - (E) The autonomy of individuals to do what they wish with what is theirs must not be compromised, in the absence of a threat to anyone's health or safety.
25. On the basis of their statements, Shanna and Jorge are committed to disagreeing about the truth of which one of the following statements?
- (A) Anyone who owns a portrait presenting his or her father in an unflattering light would for that reason alone be ethically justified in destroying it.
  - (B) People who own aesthetically valuable works of art have no moral obligation to make them available for public viewing.
  - (C) Valuable paintings by well-known artists are seldom intentionally damaged or destroyed by their owners.
  - (D) If a piece of sculpture is not unique, its owner has no ethical obligation to preserve it if doing so proves burdensome.
  - (E) It is legally permissible for a unique and historically valuable mural to be destroyed by its owner if he or she tires of it.

#### SECTION IV

#### **Time 35 minutes 24 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Radioactive waste from nuclear power plants has been temporarily stored on-site, but this is not a satisfactory kind of place for long-range storage. Since no suitable plan of safe permanent storage of such waste from the nation's existing and planned nuclear plants has been devised, some people propose that we should stop trying to develop such a plan and instead should shut down all present nuclear plants and build no new nuclear plants.

The proposal mentioned above falls short of offering a complete solution to the problem it addresses because

- (A) it would prevent the development of safe technologies for the producing electric power
- (B) it does not distinguish between nuclear plants that have, and plants that do not have, a reputation for operating safely

- (C) it does not provide for the permanent storage of already existing waste
- (D) the generation of electric power from fossil fuels is relatively safe
- (E) the risks of unsafe disposal of waste from nuclear power plants lie in the future, but the benefits from such plants are in the present

2. Only 1,000 to 2,000 species of fruit flies exist worldwide. Nowhere in the world are fruit flies more taxonomically diverse than in the Hawaiian islands, which host some 500 species. A subset of fruit flies called the picture-winged drosophilids is represented in Hawaii by 106 species. All of the fruit fly species now present in the Hawaiian archipelago are thought to be the descendants of the same one or two ancestral females.

Which one of the following can be inferred from the passage?

- (A) All of the picture-winged drosophilids in Hawaii are believed to be the descendants of the same one or two ancestral female fruit flies.
  - (B) Picture-winged drosophilids are found only in the Hawaiian Islands.
  - (C) All of the 1,000 to 2,000 species of fruit flies worldwide are believed to be the descendants of one or two females.
  - (D) If 500 new species of fruit flies were discovered, then Hawaiian fruit flies would no longer be the most taxonomically diverse population.
  - (E) Some fruit flies originated in Hawaii and spread from there to other parts of the world.
3. In 1860 Bavarian quarry workers discovered the impression of a feather in a limestone slab dating to the Mesozoic era. It had previously been assumed that birds developed only after the close of the Mesozoic era and after the disappearance of pterosaurs, a species characteristic of that era. But there in limestone lay the imprint of a fully aerodynamic, three-inch-long feather. This, therefore, must have been the earliest bird—certainly the earliest found to the date.

The argument assumes which one of the following?

- (A) The creature to which the feather belonged was a descendant of the pterosaurs.
  - (B) Birds with such feathers were preceded by species of birds with less-developed feathers.
  - (C) In the Mesozoic era, no creatures other than birds had such feathers.
  - (D) The feather belonged to a Mesozoic creature that was neither a pterosaur nor a bird, but intermediate between them.
  - (E) The earliest bird flew in an awkward manner.
4. State researchers have found that since the oil price increases of the 1970s, there has been a decline in home energy consumption. They concluded that almost all of the decline has been achieved through reduced standards of living and changes in the way people spend their time.



Each of the following, if true, would support the conclusion above EXCEPT:

- (A) Sales of portable heaters rose as families concentrated their winter activities in a limited number of rooms.
- (B) During the winter months, more people frequented public places such as libraries and community centers and, on the average, spent considerably longer periods in them than they had previously.
- (C) More than 39 percent of households were able to decrease energy costs substantially by having relatively inexpensive work done to improve the efficiency of their existing heating systems.
- (D) At least 59 percent of households maintained a lower indoor temperature than they had been accustomed to maintain on very cold days.
- (E) Members of at least 60 percent of households showered for shorter periods of time than they had previously.

5. Senator Strongwood reported that, contrary to a study cited by the administration, a thorough study by his own party concluded that a reduction in the capital gains tax would lead to an increase in the federal deficit. "Hooray for common sense," he said. "Everyone knows that when you cut taxes you lose revenue." He concluded that the administration's plan for reducing the capital gains tax was now dead, because he could not imagine any senator voting to increase the deficit.

Which one of the following accurately describes something Senator Strongwood does in advancing his argument?

- (A) He implies that increasing the capital gains tax would decrease the federal deficit.
- (B) He assumes senators will believe his party's report instead of the administration's.
- (C) He resorts to name-calling by expressly stating that his opponents lack common sense.
- (D) He assumes that senators will rarely vote for unpopular legislation.
- (E) He assumes that a study commissioned by his party must be more objective than one commissioned by the administration.

6. The most successful economies have been, and will continue to be, those that train as many people as possible in the human skills required to research, to develop, and to apply new technology. Japan is a model for this sort of training effort. Europe as a whole is in a weaker position: there is a shortage of skilled labor trained to use the new technologies and there are not enough scientists able to develop and apply the technology. However, even in Japan there is a shortage of technically qualified people, and, like most European countries, Japan has far too many workers qualified to perform only menial tasks.

Which one of the following can be properly inferred from the passage?

- (A) There is a greater worldwide shortage of research scientists than there is of

engineers.

- (B) Japan is not the best country against which to measure a country's economic success.
- (C) Japan's successful economy depends upon an uncommonly narrow base of highly skilled labor.
- (D) To be economically more successful, Europe needs to train more people in the new technologies.
- (E) European countries have economies that are more successful than those of most other countries.

7. When Cortez arrived in Mexico in A.D. 1519, he observed the inhabitants playing a ceremonial game with a rubber ball. The pre-Columbian inhabitants of Mexico began to use rubber around A.D. 1000. Thus we can be sure that the game must have originated sometime between approximately A.D. 1000 and Cortez arrival.

The conclusion reached above depends on which one of the following assumptions?

- (A) The pre-Columbian inhabitants of Mexico played games on all ceremonial occasions.
- (B) The making of rubber balls was one of the earliest uses of rubber by the inhabitants of Mexico.
- (C) The ceremonial game referred to was popular throughout Mexico.
- (D) The game had been played since its inception with a rubber ball.
- (E) The dating of the first use of rubber in Mexico was due to Cortez.

8. The Baysville Chamber of Commerce recently met to discuss a proposal to beautify the Baysville area's freeways by relocating power lines, adding landscaping and removing billboards. At the meeting Mary Simms, who was representing an outdoor advertising company, declared, "Billboards are the basis of our business. If they are torn down, our ability to earn a living will be severely damaged." "I don't agree," said Jack Jordan, a local merchant, "The basis of our business is an attractive community. People who might shop in Baysville don't want to see ugly billboards on their way into town. Billboards are hurting our ability to earn a living."

Jack Jordan's remarks suggest that he is misinterpreting which one of the following words used by Mary Simms?

- (A) billboards
- (B) basis
- (C) our
- (D) ability
- (E) damaged

9. Some people are Montagues and some people are Capulets.

No Montague can be crossed in love.

All Capulets can be crossed in love.

Therefore, Capulets are not Montagues.

Anyone who is not a Montague is intemperate.

Assume that all of the statements in the passage are true. If it is also true that no Montague is intemperate, then which one of the following must be true?

(A) The only people who can be crossed in live are intemperate Capulets.

(B) Anyone who is not a Capulet is a Montagues.

(C) All intemperate people can be crossed in love.

(D) All intemperate people are Capulets.

(E) All Capulets are intemperate.

10. The formation of hurricanes that threaten the United States mainland is triggered by high atmospheric winds off the western coast Africa. When abundant rain falls in sub-Saharan Africa, hurricanes afterward hit the United States mainland with particular frequency. Therefore, the abundant rains must somehow promote the ability of the winds to form hurricanes.

Which one of the following arguments contains a flaw that is most similar to one in the argument above?

(A) People who exercise vigorously tend to sleep well. Therefore, people who exercise vigorously tend to be healthy.

(B) Cars drive faster on long city blocks than on short city blocks. Long blocks are thus more dangerous for pedestrians than short blocks.

(C) Many people who later become successful entrepreneurs played competitive sports in college. Therefore, playing competitive sports must enhance a person's entrepreneur ability.

(D) The blossoms of the chicory plant close up in full sun. Therefore the chicory plant's blossoms must open up in the dark.

(E) Events in Eastern Europe can affect the political mood in Central America. Therefore liberalization in Eastern Europe will lead to liberalization in Central America.

11. It is even more important that we criticize democracies that have committed human rights violations than that we criticize dictatorships that have committed more violent human rights offenses. Human rights violations are always inexcusable, but those committed by governments that represent the will of the people are even more reprehensible than those committed by dictators. Further, our criticism is more likely to have an effect on the former than on the later.

Which one of the following is a proper inference from the passage?

(A) All governments commit same inexcusable and reprehensible acts.

(B) Some human rights violations are more reprehensible than other, more violent human rights violations.

- (C) Criticism of human rights violations is certain to have no effect on a dictatorship.
- (D) Human rights violations are more likely to occur in democracies than in dictatorship.
- (E) Those who do represent the will of the people are less likely to be moved by criticism than are those who merely claim to represent the will of the people.
12. A recent study found that snoring, though not common in either group, is more common among smokers than among nonsmokers. On the basis of this evidence, the author hypothesized that smoking by itself can induce snoring.
- Which one of the following, if true, casts the most doubt on the author's hypothesis?
- (A) Stress induces both snoring and smoking in certain individuals.
- (B) Obesity induces many individuals to smoke.
- (C) Most snorers do not smoke.
- (D) Most smokers do not snore.
- (E) Both smoking and snoring cause throat problems.

Questions 13-14

The press reports on political campaigns these days as if they were chess games. One candidate's campaign advisor makes a move; the other candidate's advisor makes a countermove. The press then reports on the campaign advisors and not on the candidates. The losers in the chess game are the voters. They are deprived of the information they need to make informed decisions because the press is ignoring substantive policy issues and reporting only on the process of the campaign. It is clear that the campaign advisors should stay out of the limelight and let the press report on the most revealing positions on substantive issues the candidates have taken.

13. Which one of the following is an assumption upon which the argument in the passage depends?
- (A) Chess is the most appropriate analogy to reporting on political campaign.
- (B) The candidates in the election are taking positions on substantive policy issues.
- (C) How the press reports politics determines the substantive issues in the campaign.
- (D) The voters are not paying enough attention to the election to be able to make informed decisions.
- (E) There is no difference between reporting on the political process and reporting on substantive issues.
14. Which one of the following can be inferred from the passage?
- (A) The candidates prefer that the press report on substantive policy issues.

- (B) The press enjoys being in the limelight during political campaigns.
- (C) The candidates believe political campaigning is analogous to a chess game.
- (D) The reporters find it easier to report on the processes and personalities of a campaign than on substantive policy issues.
- (E) Reporting on the campaign advisors is not providing all of the information the voters need in order to make informed decisions.
15. Studies of brain lateralization in animals have purported to show that, whereas most human beings are right-handed, about half of any given group of animals will be “left-handed” (i.e. showing a preference for their left limbs) and half will be “right-handed.” This finding is suspect, however; it has long been noted that dogs will almost always “shake hands” with the right paw.
- Which one of the following, if true, is the strongest defense against the counterexample of dogs that “shake hands”?
- (A) Dogs are observed to scratch themselves with the left leg as well as with the right leg.
- (B) People who observe dog “shaking hands” are observing a behavior that dogs perform only with a front paw.
- (C) Left-handed people sometimes feel inconvenienced or even stigmatized in a “right-handed world,” but dogs face no analogous difficulties.
- (D) Dogs that have lost a limb are able to compensate for the loss, regardless of whether the limb was lost from the right or left side.
- (E) In learning to perform tricks, dogs are influenced by the behavior of their trainers.
16. Professor: If both parents have type O blood then their children can only have type O blood. This is a genetic law.
- Student: But that’s not true; my father has type B blood and I have type O blood. The student has most likely misinterpreted the professor’s remark to imply that
- (A) only people with type O blood can have children with type O blood
- (B) people with type O blood cannot have children with type B blood
- (C) people with type B blood invariably have children with type O blood
- (D) what is true of one child in the family must also be true of all children that family
- (E) if both parents have type B blood, then their child will have type B blood
17. A recent survey of brand preferences showed that R-Bar Beans are considered the best of all brands among all age groups, leading both Texas T Beans and Aunt Sally’s Beans by a wide margin. However, the national sales figures show that Texas T and Aunt Sally’s each sold many more cans of beans last year than did R-Bar.
- Each of the following would, by itself, help to resolve the apparent paradox



described in the passage EXCEPT:

- (A) Texas T Beans and Aunt Sally's Beans are each much less expensive than R-Bar Beans.
- (B) Some of the surveyed age groups showed more of a preference for R-Bar Beans than did others.
- (C) The survey was carried out only in the small geographic area where R-Bar distributes its beans, not nationwide.
- (D) Most food stores refuse to carry R-Bar Beans because the manufacturer demands that R-Bar Beans be carried exclusively.
- (E) R-Bar Beans were only introduced to the market three months prior to the calculation of sales figures, while Texas T Beans and Aunt Sally's Beans had been available for years.

18. Several cosmetics firms are committed to the active development, validation, and adoption of new product-safety tests that use cultures of human cells. They argue that the new tests serve to reduce the need for tests on live animals.

The statements above most strongly support which one of the following conclusions?

- (A) The pressure on cosmetics firms to cease conducting experiments that use live animals was initiated by groups of social activists.
- (B) Consumers are no more likely to buy products whose safety was tested on cultures of human cells than they to buy products whose safety was tested on animals.
- (C) Financial consultants for the cosmetics firms believe that using human cell cultures rather than live animals to test product safety will cost the firm less in actual product-development costs.
- (D) Researchers in the cosmetics firms believe that fewer tests of products will be needed if cell cultures rather than live animals are used.
- (E) Managers of the cosmetics firms believe that it is better for their firms not to perform tests on live animals if there is an acceptable alternative way of determining product safety.

Questions 19-20

Can any research be found to validate the contention that those who spend time plucking out their gray hairs have more negative attitudes toward the elderly than those who shrug their shoulders about their gray hairs? Unless a person's psychopathology leads him or her to overgeneralize, there is no necessary connection. Certainly it is reasonable to like the elderly yet dislike the idea of impaired eyesight and hearing. Furthermore, holding negative attitudes toward older people merely because they are old is immoral, according to nearly universally accepted ethical standards. But there is nothing immoral about disliking some concomitants of the aging process.

19. Which one of the following best expresses the main point of the passage?
- (A) It cannot be assumed that people who dislike some of the physical concomitants of growing old necessarily have negative feelings toward the elderly.
  - (B) To dislike some of the physical concomitants of growing old is reasonable, while to dislike the elderly is immoral.
  - (C) Since no one likes the physical concomitants of growing old, it is wrong to dislike the elderly merely because of their physical characteristics.
  - (D) Being elderly is fine, but the process of becoming elderly is not, and people need to understand this distinction between the two.
  - (E) To dislike the elderly is immoral, and to do so just because one dislikes some of the physical concomitants of growing old is unreasonable.
20. In order to advance her point of view, the author does all of the following EXCEPT:
- (A) dismiss an assertion as unfounded
  - (B) appeal to reason
  - (C) appeal to a general principle
  - (D) discredit a common stereotype about the elderly
  - (E) make a distinction about attitudes
21. A society in which there are many crimes, such as thefts and murders, should not be called “lawless.” That is an abuse of the meaning of words. As a suffix, “-less” means “without,” so “lawless” means “without laws.” However, a society that has no laws has no crimes, because no laws can be broken. A lawless society would, therefore, be a crimeless society. So what some have termed a lawless society should actually be called “crimeful.”
- If the statements in the passage are true, which one of the following must also be true?
- (A) A society that has laws has crimes.
  - (B) A society that has no crimes has no laws.
  - (C) A society that has many laws has many crimes.
  - (D) A society that has some crimes has some laws.
  - (E) A society that has many crimes has many laws.
22. A fourteen-year study of finches on the Galapagos islands concluded that there is a definite relationship between climate and the population size of finch species that thrive at various times. During droughts, more members of large finch species survive because their bills are large enough to crack large, hard seeds, giving them a food supply unavailable to smaller birds. In rainy years, fewer members of the large finch species survive because the additional moisture fosters the growth of plants that produce small seeds. The larger finch varieties have to consume enormous numbers of small seeds to meet their energy demands,

and some just cannot eat them fast enough.

Which one of the following must be assumed in order to justify the conclusion that climatic variations cause a major difference in survival rates of small and large finches?

- (A) During drought conditions, the weather promotes the growth of plants that produce small, hard seeds.
- (B) A lengthy period of rainy weather results in fewer large, hard seeds being produced.
- (C) In rainy periods, the small finches gather enough food to grow much larger and heavier, but their ultimate size is limited by their inability to eat small seeds fast.
- (D) The Galapagos climate during this fourteen year period had about as much dry weather as it had wet weather.
- (E) Small seeds do not have to be cracked open in order to be digested by any of the finch varieties.

23. Mr. Blatt: Expert consultants are sought after by management because they help executives make better decisions. That is why they are worth the substantial fees they charge.

Ms. Fring: Nonsense. Expert consultants are hired in order to enable executives to avoid responsibility. The more the experts cost, the more they can be blamed when things go wrong.

Which one of the following, if it occurred, would be the strongest evidence favoring Ms. Fring's position over Mr. Blatt's position?

- (A) A company that is trying to decide whether to move its manufacturing plant hires an expensive expert to conduct a cost/benefit analysis.
- (B) Two competing companies faced with very similar problems adopt different solutions.
- (C) A successful firm of expert consultants seeks to increase its volume of business by reducing its fees, but its volume of business drops.
- (D) An expert consultant builds up a successful business by charging clients a substantial percentage of the amount an independent assessor judges that the consultant saved the company.
- (E) A company follows a consultant's advice to open two new stores, but both stores are only marginally profitable at first.

24. Although all contemporary advertising tries to persuade, only a small portion of contemporary advertising can be considered morally reprehensible. It nevertheless follows that some attempts at persuasion can be regarded as morally reprehensible.

Which one of the following, in its logical features, most closely parallels the reasoning used in passage?

- (A) None of the chemicals used for cleaning the Sistine Chapel will affect the original dyes. Hence, the colors used by Michelangelo will be fully restored.
- (B) Not all operational tracking studies are conducted to illustrate exact corporate returns on investment. Hence, some of these studies are not reliable.
- (C) A good manager always makes important decisions on the basis of adequate data, although of course some managers fail to do this. It follows that some managers are not good managers.
- (D) There is a direct correlation between the number of times you repeat something and the degree to which you retain it. Therefore, repetition is always a critical factor in remembering.
- (E) Some short poems are thematically pluralistic, since some sonnets are characterized by such pluralism, and all sonnets are short poems.

## TEST 18

### SECTION II

Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. An office building at State University contains a concrete stairway, the carpet on which has become worn and frayed. Despite numerous warnings by the Occupational Safety and Health Administration, the university has not replaced a burned-out light in the stairway. Fred, a student, recently caught his heel in the torn carpet, tripped, and fell down the stairway. He was hospitalized for a severe concussion and other injuries. After his release from the hospital, he required much more medical attention and medication and had to withdraw from the university for a semester. He brings suit against the university.  
Which one of the following is the best line of causal analysis for Fred's attorney to pursue in the personal injury case?
  - (A) The concrete steps, because they were hard, worsened Fred's injuries.
  - (B) The university is responsible for the condition of the carpet.
  - (C) The burned-out light constitutes negligence.
  - (D) The distance Fred fell worsened his injuries.
  - (E) The Occupational Safety and Health Administration has no jurisdiction over the university.
2. Research shows that exercise has a beneficial effect on health. After much testing with many different types of persons, it has been shown that, in most cases, exercise definitely helps to prevent illnesses caused by viruses. The common cold is caused by a virus. Therefore \_\_\_\_\_  
Which one of the following is the best completion of the argument above?
  - (A) exercise alone will not prevent the common cold

- (B) exercise is no more effective than antibiotics in preventing the common cold  
(C) exercise is probably not effective in preventing colds caused by bacteria  
(D) exercise helps the body to destroy invading viruses  
(E) exercise may help to prevent the common cold
3. Just a few years ago salmon could not survive in the oxygen-starved and polluted Thames. Nor could many other species. But now, after years of determined effort, the salmon have returned, and that is a sure sign that the river is pollution-free. Each of the following indicates a possible flaw in the reasoning in the passage above EXCEPT:
- (A) The salmon that have returned may be of a strain that is unaffected by the pollutants.  
(B) The pollution may have been reduced to a level at which the salmon can survive.  
(C) Oxygen starvation is often a consequence of pollution, and this may have killed the salmon.  
(D) The salmon may have been killed by one particular pollutant, which has now been removed while others remain.  
(E) There may still be pollution, but its nature may have changed to a form that salmon can tolerate.
4. The state's licensing procedures for day-care providers are inadequate. I used to leave my son with a wonderful woman who kept a group of neighborhood children, but she quit rather than put up with the licensing paperwork. And a friend of mine tells me that he cannot recommend the day-care center that he uses, even though it is licensed, because the care providers are not interested in doing anything beyond meeting the minimum requirements of health and safety. The author of the passage argues by
- (A) providing examples to support two opposing positions  
(B) basing a conclusion on specific cases  
(C) disputing evidence cited by those with an opposing point of view  
(D) predicting personal experience from a general principle  
(E) using a generalization based on observation to undermine a theoretical principle
5. All 250 of the city's Democratic ward leaders were polled about the number of registered Republicans who became registered Democrats during the year. From the reports of the 20 leaders who replied to the questionnaire, we know that altogether they received a total of 500 former Republicans into the Democratic party within the year. Projecting from this sample, we conclude that at least 6,000 Republicans became Democrats during the year. Which one of the following statements, if true, most clearly undermines the conclusion?



- (A) Several years ago, 5,000 members of the Republican party registered as Democrats.
- (B) The more than 90 percent of ward leaders not replying had no former Republicans registering as Democrats.
- (C) Because they were too busy, more than 90 percent of the ward leaders did not reply.
- (D) A number of the newly registered Democrats returned to the Republican party at a later date.
- (E) Similar figures can be produced from past years for registration changes from the Democratic party to the Republican party.
6. A linguist recently argued that all human languages must have a common origin because some concepts are universal; that is, they appear in all languages. For example, all languages are capable of describing lightness and darkness. Which one of the following, if true, would most seriously weaken the argument?
- (A) The Burmese language does not contain basic nouns like *automobile* and *airplane*.
- (B) No one linguist could possibly speak all known languages.
- (C) All speakers, regardless of their languages, are confronted with similar stimuli like lightness and darkness.
- (D) The similarity between human language and dolphin language has not been attributed to a common origin.
- (E) Some languages include concepts of which speakers of other languages are not even aware.
7. All psychiatrists are doctors. Only psychiatrists were invited to the conference. All who were invited to the conference stayed at the Hefford Hotel. Therefore, only psychiatrists stayed at the Hefford Hotel. Which one of the following statements, if added as a premise to the argument, would make the conclusion valid?
- (A) Only those who were invited to the conference stayed at the Hefford Hotel.
- (B) All who were invited to the conference were psychiatrists.
- (C) All psychiatrists were invited to the conference.
- (D) No one who was invited to the conference failed to stay at the Hefford Hotel.
- (E) Only doctors stayed at the Hefford Hotel.

### Questions 8-9

A thing is “nauseous” if it makes one sick to the stomach; the unfortunate victim of this malaise is “nauseated.” The common misuse of “nauseous” can be illustrated with the following sentence: “When he sits too long, turns his head too abruptly, or walks any distance, he gets dizzy, loses balance, and becomes nauseous.” He doesn’t become nauseous unless he turns other people’s stomachs; he becomes nauseated. A

person who is nauseated is no more nauseous than a person who has been poisoned is poisonous.

8. Based on the passage above, which phrase does NOT provide a logical completion to the following sentence?  
A person who is nauseated is no more nauseous than a person who has been \_\_\_\_\_  
(A) murdered is murderous  
(B) corrupted is corruptible  
(C) awed is awesome  
(D) irritated is irritating  
(E) scared is scary
9. The author's approach in the passage includes all of the following EXCEPT:  
(A) explaining how a word is misused  
(B) drawing an analogy  
(C) providing an example  
(D) relying on a word's ambiguous meaning  
(E) defining key terms
10. Therapy, whether physical or social, is a counterirritant that aids in that equilibrium of the physical organs that protects the central nervous system. Whereas pleasure is a counterirritant (for example, sports, entertainment, and alcohol), comfort is the removal of irritants. Both pleasure and comfort are strategies of equilibrium for the central nervous system.  
It can be concluded from the statements above that the exile of a deviant member of a group can be  
(A) therapeutic for the rest of the group  
(B) irritating for the rest of the group  
(C) pleasurable for the rest of the group  
(D) comforting for the rest of the group  
(E) counter irritating for the rest of the group
11. The situation has gotten worse. Unless Elizabeth goes I must go. But she will not go if I stay. So we will both have to go.  
What is the flaw in the reasoning above?  
(A) The first claim, that the situation has gotten worse, is irrelevant.  
(B) A possible course of action is overlooked.  
(C) It is assumed that staying is the same as not going.  
(D) The conclusion refers to a possibility that is not explicitly referred to in any of the premises.  
(E) Insufficient information is given about the circumstances.

12. Student X: I'm worried about failing the course.

Student Y: Don't worry. As the professor said, any student who fails to submit a term paper will fail the course. So just make sure that you submit a term paper, and you will not fail the course.

Which one of the following exhibits the same logical flaw as that exhibited in student Y's remark?

- (A) Any restaurant that serves paella without saffron is not authentic. So if the restaurant serves paella with turmeric instead of saffron, it is authentic.
  - (B) Any native fishers who earn their livings by fishing the local rivers and lakes are worth hiring as guides. So a person who is a native fisher is worth hiring as a guide.
  - (C) Anyone who can consistently bowl over 200 points per game should become a professional bowler. If you can consistently bowl over 200 points per game, you should become a professional bowler.
  - (D) Any engineer who cannot solve the equation in a reasonable amount of time will not get a license. So if you are an engineer who can solve the equation in a reasonable amount of time, you will get a license.
  - (E) Any cook who is in a hot kitchen will leave the kitchen. If you are a cook in a kitchen that is hot, you will be forced to leave the kitchen.
13. Trade protection is bad policy. Take the case of the microcomputer industry. The United States government attempted to restore the computer chip market to United States manufacturers, who had ceased production in the face of an abundant supply of cheap chips from foreign manufacturers. Under trade protection, it was expected that, as government-imposed quotas and excise taxes forced the price of foreign chips to rise, United States manufactures would reenter the market. They did, but at only slightly lower prices than the now-high prices of foreign firms. The lesson has been simple: trade protection means that United States manufactures gain while United States consumers lose.
- Which one of the following is an assumption on which the author's argument relies?
- (A) It is unreasonable to expect that government-imposed quotas and excise taxes will reduce prices for United States consumers.
  - (B) United States manufacturers of computer chips are more concerned with high profits than are foreign manufacturers.
  - (C) The United States government's primary purpose in trade protection is to restore markets and profits to United States manufacturers.
  - (D) With respect to trade protection, the microcomputer industry is representative of United States industry in general.
  - (E) The quality of the chips produced by United States manufacturers is better than the quality of the chips produced by foreign manufacturers.

Questions 14-15

Until now, this painting was believed to be a self portrait of the artist, but it probably is not. True, the heavy gold chain worn by the gentleman in the picture is similar to one presented to the artist by the Queen of England after he had painted her portrait. But the sword hanging at the gentleman's hip suggests that he was a knight, a rank higher than any the artist ever attained.

14. The argument above depends on assuming that the self-portrait would
- (A) include objects that are important to the artist
  - (B) not exaggerate the rank achieved by the artist
  - (C) be similar to portraits of others whom the artist had painted
  - (D) be verifiable only through the examination of objects in the painting
  - (E) not portray the artist engaged in the activity of painting
15. Which one of the following, if true, would most strengthen the author's argument?
- (A) Historians cannot determine whether the artist was ever knighted.
  - (B) The artist painted only one self-portrait in his entire life.
  - (C) Several gentlemen of the artist's day wore heavy gold chains like the one in the painting.
  - (D) The gentleman in the painting resembles portraits of the artist painted by other artists.
  - (E) The artist was the only gentleman of his day who received a heavy gold chain from the Queen of England.
16. Colleges boast about the great sizes of their libraries. They quote figures in the hundreds of thousands of volumes, but how many books can a student read in four years—a thousand? What good, then, are all the rest?
- Which one of the following statements most accurately expresses the author's main point?
- (A) College librarians do not have anything about which they can boast.
  - (B) No student can read more than a thousand books in four years.
  - (C) It is silly to boast about a library's size, regardless of whether the library is large or small.
  - (D) Unused books are a waste of taxpayers' money.
  - (E) College libraries are unnecessarily large.
17. Eli: According to many scientists the widespread production and use of chlorofluorocarbons (CFCs)—e.g., to provide coolant for air conditioners—inevitably leads to their escape into the atmosphere where they destroy the vital ozone layer. In my opinion, the continued use of CFCs by humans is like a harmful habit, which, if unchecked, could have disastrous effects on the user, namely self-destruction. The obvious and necessary cure, therefore, is a complete ban on CFC production and use.

Mark: The cure you propose would kill, not save, the user. A ban on CFC production and use would cause the destruction of the air conditioning industry. The source of Mark, and Eli's dispute is their lack of agreement on which one of the following terms?

- (A) cure
- (B) user
- (C) ban
- (D) production
- (E) destruction

18. If there is a decrease in the number of homeless families, then either the number of available jobs has increased or else the cost of renting or purchasing housing has decreased. If the cost of renting or purchasing housing has decreased, then the supply of housing must be greater than the demand.

Assume that there is a decrease in the number of homeless families. According to the passage, which one of the following statements CANNOT be true?

- (A) The number of jobs has been decreasing.
- (B) The cost of renting or purchasing housing has been decreasing, and housing supply exceeds demand.
- (C) The number of jobs has been increasing, and the cost of renting or purchasing housing has been stable.
- (D) The number of jobs has been decreasing, the cost of renting or purchasing housing has been decreasing, and housing demand exceeds supply.
- (E) The number of jobs has been increasing, the cost of renting or purchasing housing has been increasing, and housing supply exceeds demand.

19. Everyone knew that if the team's star player were too badly injured to play in Saturday's game, the team would lose. Since the team won, the star player must have played.

Which one of the following is most similar in logic to the argument above?

- (A) Red spots on the feet are a symptom of a disease called borosis. This patient has green spots on his feet; therefore, he does not have borosis.
- (B) If the frost comes late, the farmer has a good crop. Because the frost was late, the farmer must have a good crop.
- (C) The instructor in a course ruled that if a student received an A on either the term paper or the final exam, then the student would receive an A for the course. Anne received an A on the term paper and a C on the final exam. Therefore, Anne received an A for the course.
- (D) People in driving school realized that if Pete had another auto accident, he would be expelled from the driving school. Pete was not expelled from the driving school. Therefore, he must not have had another auto accident.
- (E) If Swenson pays a \$100 fine, he will not be expelled from the country club.



Because Swenson has not been expelled, he must have paid the fine.

20. An examination of corruption provides the basis for rejecting the view that an exact science of society can ever be constructed. As with all other social phenomena that involve deliberate secrecy, it is intrinsically impossible to measure corruption, and this is not merely due to the fact that social science has not yet reached its goal, achievable to be sure, of developing adequate quantifying techniques. If people were ready to answer question about their embezzlements and bribes, it would mean that these practices had acquired the character of legitimate, taxable activities and had ceased to be corrupt. In other words, corruption must disappear if it is to be measurable.

Which one of the following most accurately states a hidden assumption that the author must make in order to advance the argument above?

- (A) Some people believe that an exact science of society can be constructed.
- (B) The primary purpose of an exact science to quantify and measure phenomena.
- (C) An intrinsic characteristic of social phenomena that involve deliberate secrecy is that they cannot be measured.
- (D) An exact science of social phenomena that involve deliberate secrecy cannot be constructed.
- (E) An exact science can be constructed only when the phenomena it studies can be measured.

Questions 21-22

This country does not need any more restrictions on pollution. In fact, we should abolish those that are currently on the books. In spite of various restrictions, pollution levels have actually increased over the past 40 years. Most importantly, dramatic statistics show that, as pollution levels have increased over this period, the general health of the population has improved rather than deteriorated.

21. Which one of the following assertions, if true, provides the most effective challenge to the author's conclusion?
- (A) The general health of this country's population has improved over the past 40 years primarily because of new advances in medicine and nutrition, not because of pollution.
  - (B) There are several countries in the world in which there have been no restrictions on pollution over the past 40 years, and pollution levels have actually increased.
  - (C) Similar statistics show that, in several countries, the general health of the population has improved over the past 40 years, while pollution levels have actually decreased.
  - (D) Pollution levels would have increased even more than they have and the general health of the population would not have improved as much as it has

without the restrictions that have been on the books.

- (E) In the period prior to the past 40 years, pollution restrictions were nonexistent in this country and the general health of the population improved at a far slower rate than it did during the past 40 years.

22. The author concludes that there should be no restrictions on pollution partly because
- (A) they are no longer needed to improve the general health of the population
  - (B) they reduce the positive effect that pollution has on the general health of the population
  - (C) statistics show that as pollution restrictions have increased so have pollution levels
  - (D) pollution has not yet reached levels that are detrimental to the health of the general population
  - (E) they are ineffective in lowering pollution levels
23. In metropolitan areas, almost 60 percent of all fires are set by children, while in rural areas about 40 percent are. A psychological survey discovered that all children who play with fire believe that there will be no consequences if their parents catch them doing it.

Which one of the following inferences can be most reliably drawn from the passage above?

- (A) Most children who believe there will be no consequences if they are discovered playing with fire do play with fire.
  - (B) Parents who discover their children playing with fire will prevent those children from playing with fire in the future.
  - (C) If parents have successfully instilled in their children the belief that there will be consequences if they are caught playing with fire, these children have not been among those playing with fire.
  - (D) Children who play with fire attach no sense of right or wrong to this action.
  - (E) Most children who do not play with fire believe there will be consequences if their parents discover them playing with fire.
24. Somewhere, somehow, what was once a perfectly good rule by which to live was twisted into the false and sinister idea that "Money is the root of all evil." To the contrary, the proper use of money provides us with the food, clothes, health care, and shelter that we all need to sustain our lives.
- The author's argument is logically flawed in that it
- (A) uses examples that do not refute the generalization that all evil is rooted in money
  - (B) uses inappropriate examples to demonstrate the proper use of money
  - (C) ignores some of the evil things that money can buy

- (D) fails to acknowledge that food, clothes, health care, and shelter can sometimes lead to evil
- (E) fails to recognize that money can be used for a lot of other good things besides sustenance

25. In a recent experiment, a high school English teacher interspersed real, commonly used proverbs with several nonsensical proverbial-sounding statements that he had made up. He then asked his students to evaluate all of the statements on the list. In general, the students found the bogus proverbs and the real proverbs to be equally full of wisdom and meaning. The teacher concluded that proverbs attain their status as proverbs more through frequent usage than through their inherent wisdom.

Which one of the following, if true, would most effectively challenge the teacher's conclusion?

- (A) Some proverbs are used more frequently than others.
- (B) There were more real proverbs than bogus proverbs in the list of statements.
- (C) There are stylistic differences between proverbial and proverbial-sounding statements.
- (D) Some students view a statement in one way and other students view the same statement in a very different way.
- (E) The students selected as evaluators were too inexperienced to judge the wisdom of the statements.

26. It is commonly accepted that we should be concerned about our own physical health. The desire to take responsibility for all aspects of our physical condition, however, produces a number of negative consequences. By focusing exclusively on our physical health, we tend to ignore out mental health. Therefore, although we can derive physical benefits from our preoccupation with physical health, we often do so at the expense of our mental health.

The author establishes her position in the passage by doing which one of the following?

- (A) She defends her position and then extends it into a second area.
- (B) She reveals a contradiction in a position commonly held to be correct.
- (C) She supports a commonly held point of view by providing additional evidence.
- (D) She first states her position and then qualifies it with a number of concessions.
- (E) She argues that a popular position can lead to problems if taken to an extreme.

#### SECTION IV

Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief*

*statements or passages...*

1. The recent increases in health insurance premiums are unnecessary and excessive. While the inflation rate is and has been stable at 5 percent for the past five years, during the same period the average cost of health insurance has increased annually by 10 to 20 percent. Recent studies show that the population is healthier now than ever before, and thus indicate that the insurance companies' claims of higher health-care costs are unfounded and merely reflect the quest for higher profits.

Which one of the following statements, if true, undermines the conclusion in the passage?

- (A) The incidence of lung cancer among men who smoke has decreased in recent years.
  - (B) Improvements in health have occurred because of a dramatic increase in the use of expensive medical equipment, tests, and drugs.
  - (C) Increased health insurance premiums will force some people to drop their medical coverage, thus adversely affecting their future health.
  - (D) Health insurance currently covers fewer health problems than it did in the past.
  - (E) Though there are fewer health insurance companies today, their earnings are higher than they have ever been.
2. In the open ocean, a shark will catch almost any small fish it decides to attack. The best chance a small fish has, once it is spotted by a hungry shark, is that the shark will promptly find something else to attack. Therefore, one of the benefits gained by small fish that swim in large groups known as schools is a reduced chance of being attacked by a shark.
- Which one of the following statements is an assumption on which the author's argument depends?
- (A) Sharks live primarily on a diet of small fish.
  - (B) Sharks do not eat an entire school of fish at one time.
  - (C) The sheer number of fish in a school prevents sharks from attacking.
  - (D) Sharks are the main danger to small fish in the open ocean.
  - (E) Small fish are able to sense when they are being spotted by sharks.

Questions 3-4

Publicly owned resources will always be abused. Take the example of cattle grazing. Where the individual has free access to publicly owned rangeland, he or she always has an incentive to graze more and more cattle regardless of the consequences, because the benefits are captured by the individual grazer while the costs of reduced range quality are borne by all taxpayers. Private landowners are less likely to abuse their own land, however, because they must pay the entire cost.

3. Which one of the following, if true, would most tend to weaken the author's argument for the conclusion that publicly owned resources will always be abused?
- (A) Many people who privately own resources abuse them in spite of the personal consequences.
  - (B) Some publicly owned resources are so extensive that it would take widespread abuse before their quality is affected.
  - (C) Some individuals have no choice but to rely on public resources in the pursuit of their livelihood.
  - (D) People do not want to lose access to public resources, yet they realize that they will if those resources are ruined through abuse.
  - (E) Resources are always devalued when everyone has access to them because they are no longer a rare commodity in high demand.
4. Which one of the following could be best supported by the same type of reasoning as that exhibited in the passage?
- (A) The supply of beverages at the annual office picnic will last longer if people pay for them on a per-beverage basis rather than everyone in the office being charged a flat fee.
  - (B) A math teacher provides his students with after-school tutoring on several days because no single day is good for everyone.
  - (C) A tennis club starts charging flat annual membership fees instead of pay-as-you-play court fees in order to ensure a regular club income.
  - (D) A social service agency varies its charges for services because some people are able to pay more than others.
  - (E) A tobacco tax is instituted in order to fund improvements in public education.
5. The city is vigorously enforcing the ordinance against allowing individuals to sleep in the bus depot. The mayor argues that such vigorous enforcement is fair, evenhanded, and administered in the best traditions of equal treatment for all. "No one can sleep in the bus depot," the mayor has said, "whether you're homeless or the chief executive of a major corporation." This brings to mind a remark once made by a political commentator. "The law, in its majestic equality, forbids the rich as well as the poor to sleep under bridges, to beg in the streets, and to steal bread." It's time for the mayor to come to his senses.
- The passage as a whole is structured to lead which one of the following conclusions?
- (A) People should not be treated equally with respect to enforcing the ordinance vigorously.
  - (B) Everyone should be treated equally with respect to enforcing the ordinance vigorously.
  - (C) The vigorous enforcement of the ordinance does not qualify as equal treatment for all.



- (D) The law holds poor people to stricter standards than it does rich people.
- (E) In a truly equal legal system, no one would sleep in bus depots.
6. Although physicians are alleged to hide their colleagues' medical incompetence, today that practice could be professional suicide. Because so many medical advances are well-known by all doctors, obscuring someone's incompetent procedure is almost impossible when a claimant choose to pursue a case. Thus, in malpractice suits, physicians risk their own reputations if they testify falsely to protect their friends.
- Which one of the following is an assumption supporting the conclusion in the passage?
- (A) Physicians' professional success depends upon their good reputations.
- (B) Incompetent physicians should be exposed before they commit malpractice.
- (C) False testimony is morally wrong regardless of one's profession.
- (D) Physicians should do everything possible to protect themselves from malpractice claims.
- (E) Times have changed and physicians today must keep up on all medical advances.

Questions 7-8

The economy is in a dismal state, universities are suffering from cutbacks, and many students must turn to any source of funds available if they are to make ends meet. Faced with this situation, the university has terminated the employment of some of its more productive departmental workers. Why? University regulations prohibit a student's receiving financial aid and then working for an auxiliary income that exceeds a specified limit. Employees whose incomes had reached that limit were terminated. Now, the university must find other employees. Unfortunately, though, the university's choice of students to fill the positions will not be based upon their abilities to perform, or even upon their financial need, but upon how much money they have made.

7. It may be concluded from information in the passage that the university
- (A) has fired some student-employees and is looking for other student-employees to replace them
- (B) has lost some full-time employees and will replace them with part-time student-employees
- (C) is looking for new employees to replace some who have quit
- (D) anticipates losing some employees and has already begun to seek replacements
- (E) anticipates paying new employees lower wages than the former employees received
8. Which one of the following is the best statement or the primary point of the

passage?

- (A) Good student-employees should be able to obtain financial aid and, at the same time, earn auxiliary incomes without limits.
- (B) In the face of a declining economy, universities need to be more lenient in their financial aid policies.
- (C) University departments must adhere to the university's regulations.
- (D) Decisions about student employment should be based entirely upon each student's financial need.
- (E) Due to the problems created by a dismal economy, some student-workers have lost their jobs.

Questions 9-10

Any person who drops out of high school will be unemployed unless he or she finds a low-paying job or has relative with good business connections.

9. Which one of the following conclusions CANNOT be validly drawn from the statement above?
- (A) Any person who drops out of high school will be unemployed, have a low-paying job, or have relatives with good business connections.
  - (B) Any high school dropout who has neither a low-paying job nor relatives with good business connections will be unemployed.
  - (C) Any employed person who has neither a low-paying job nor relatives with good business connections is not a high school dropout.
  - (D) Any high school dropout who has a job that is not low-paying must have relatives with good business connections.
  - (E) Any person who has relatives with good business connections and who is not a high school dropout must be employed at a job that is not low-paying.
10. Assume that Tom is employed and does not have a low-paying job. Which one of the following statements, when added to this assumption, contradicts the original statement made in the statement above?
- (A) Tom is a high school dropout.
  - (B) Tom does not have relatives with good business connections.
  - (C) Tom is a high school dropout and does not have any relatives.
  - (D) Tom is completed high school and has relatives with good business connections.
  - (E) Tom has relatives with good business connections.
11. A man who survived a recent train wreck in which several lives were lost was asked whether he was now afraid of taking the train. He reasoned, "I've read that the likelihood of a train wreck is about one in every 100,000 times a train leaves a station. So I'll start fearing for my safety after the trains have logged another 95,000 or so trips."

- The source of the man's erroneous reasoning is his
- (A) misunderstanding of "likelihood" in relation to train wrecks
  - (B) assumption that all train wrecks are alike
  - (C) belief that his behavior can prevent train wrecks
  - (D) failure to recognize that there may be fewer future train trips as a result of the recent wreck
  - (E) assumption that personal fear and the occurrence of train wrecks are unrelated

Questions 12-13

Chris: Murderers should be sentenced to life in prison, not subjected to the death penalty. A life sentence is enough to deter any convicted murderer from killing again. Moreover, even the worst offenders may subsequently undergo a miraculous rehabilitation—a possibility that is eliminated by the death penalty. The Bird Man of Alcatraz, a notorious convicted murderer, is a case in point. He raised canaries while in prison and ultimately became an acknowledged authority on the subject.

Dana: But the Bird Man of Alcatraz killed another inmate while in prison. What would you do to deter him from committing yet another murder—take away his birds?

12. Each of the following can be inferred from Chris's argument EXCEPT:
- (A) All convicted murderers will be deterred from killing again if given life sentences.
  - (B) Any convicted murderer could undergo a miraculous rehabilitation.
  - (C) The Bird Man of Alcatraz is an example of miraculous rehabilitation.
  - (D) The threat of life imprisonment is adequate to deter potential murderers.
  - (E) Becoming an acknowledged authority on canaries is evidence of one person's rehabilitation.
13. Dana most seriously weakens Chris's argument by doing which one of the following?
- (A) making a personal attack on the Bird Man of Alcatraz
  - (B) giving a counterexample to the principle offered by Chris that life imprisonment is from killing again
  - (C) showing that it is unlikely that any convicted murderer could undergo a significant rehabilitation
  - (D) suggesting that Chris's argument is based on an atypical case
  - (E) demonstrating that it is impossible to prevent a convicted murderer from committing another murder while in prison
14. Common patterns of fallacious reasoning are endemic to everyday life and once adopted cannot be corrected. Poor reasoning skills waste public and private money, make people less efficient and productive, and diminish our national

capacity to compete abroad. But within the past few years, a “thinking skills” movement has arisen. The teaching of reasoning skills is part of this larger movement to make students think more critically. Increasingly, as part of the teaching of decision-making, college students are successfully learning to avoid common patterns of fallacious reasoning that they habitually commit, and, in the process, to acquire sound reasoning skills.

Which one of the following identifies the most serious logical flaw that this passage contains?

- (A) The passage fails to establish a connection between the teaching of decision-making and the teaching of reasoning skills.
- (B) The passage contradicts itself by both affirming and denying that patterns of fallacious reasoning can be corrected.
- (C) The passage uses circular reasoning by first stating that patterns of fallacious reasoning diminish our capacity for competition and then asserting that lack of competition leads to a lessening of skills.
- (D) The passage makes an unwarranted inference from improving thinking skills to teaching reasoning skills.
- (E) The passage fails to link the teaching of decision-making to the larger movement to make students think more critically.

Questions 15-16

Our society overestimates the contributions of science to the quest for knowledge. Independent of whether great strides have been made in the ability to predict natural events, knowledge at any deeper level, knowledge of things we cannot experience directly, is as illusory as ever. Such knowledge is illusory because incompatible theories may always be postulated to explain observations. How can we “know” which one is correct? Further observations may narrow the possibilities, but there are always alternatives, at least in principle. Who is to say that today’s theories will fare any better than those which, though once accepted, were replaced by wholly different conceptions of nature? It is the height of gullibility or presumption to invest special credence in the current scientific fashion.

15. Which one of the following best expresses the author’s conclusion in the passage?
- (A) Science is considerably less valuable than other approaches to producing knowledge.
  - (B) Changes in and differences among scientific theories do not result in genuine progress.
  - (C) Scientists should develop more accurate approaches to recording and explaining observations about nature.
  - (D) The ability of science to produce knowledge is overrated.
  - (E) Currently accepted scientific theories, however well accepted, are probably self-contradictory.

16. Which one of the following claims is central to the author's argument?
- (A) Alternative explanations are possible for any set of observations about nature.
  - (B) Science has made substantial progress in the ability to predict natural events.
  - (C) Science has developed so many theories that it is impossible to know which ones to believe.
  - (D) It is important that scientists distinguish between prediction and explanation.
  - (E) The judgment of scientists as to which theories to accept is suspect, as they tend to follow the latest scientific fashion.
17. The recent dramatic increase in commuter airline crashes is caused in large part by pilot inexperience. As a major growth industry, the commuter airlines have recently had a great increase in the demand for experienced pilots. It is impossible to define and assess pilot experience, however. For example, someone with 1000 hours of flight experience as an instructor in Arizona, where the weather is good, cannot be compared to someone with 1000 hours' experience as a night cargo pilot in the stormy northeastern United States.
- The author's conclusion that the dramatic increase in commuter airline crashes is caused by pilot inexperience is most weakened by the fact that the author has
- (A) argued that it is impossible to measure "pilot experience"
  - (B) used an example that does not relate logically to the point being illustrated
  - (C) provided only a partial explanation for the increase in commuter airline crashes
  - (D) made an unfair comparison between experience as a flight instructor and experience as a night cargo pilot
  - (E) not specified how much of the recent increase in commuter airline crashes is due to pilot inexperience
18. Brand X laundry detergent sells for \$2.00 a box. Brand Y sells for \$4.00 a box. Therefore, you will save money if you use Brand X laundry detergent instead of Brand Y.
- Which one of the following, if true, would make the conclusion in the passage a logical conclusion?
- (A) It takes only one cup of Brand X to do the work of one and one-half cups of Brand Y.
  - (B) A box of Brand X contains the same amount of laundry detergent as a box of Brand Y.
  - (C) A box of Brand X will clean just as many loads of laundry as a box of Brand Y.
  - (D) More than twice as many people use Brand X as use Brand Y.
  - (E) Brand X and Brand Y normally sell for \$3.00 a box, but Brand X is on sale and Brand Y has been marked up.



19. In a recent advertisement, a major cereal company contended that the better educated people are, the more likely it is that as children they regularly ate oatmeal. As evidence, the company cited a national random survey of college graduates in which four-fifths of all those surveyed reported having eaten oatmeal at least once a week when they were young.

Which one of the following is an additional piece of information that would support the cereal company's conclusion?

- (A) Four-fifths of all current college graduates eat oatmeal regularly.
- (B) Fewer than four-fifths of those without a college degree ate oatmeal regularly when they were children.
- (C) Among people who have additional education beyond college, four-fifths ate oatmeal regularly when they were children.
- (D) More than four-fifths of the population at large—college graduates and nongraduates combined—ate oatmeal regularly when they were children.
- (E) Those college graduates who did not eat oatmeal regularly when they were children did eat oatmeal on an occasional basis.

20. Of the ten professional tennis players who are generally considered the greatest of all time, six had no brothers or sisters. However, only a small portion of the general population is made up of such "only children." Clearly, if you are a professional tennis player, you have a better chance of being considered among the greatest if you are an only child.

Which one of the following, if true, would undermine the argument in the passage?

- (A) Some great tennis players never play professionally.
- (B) Ascribing "greatness" to tennis players is necessarily subjective.
- (C) Among all professional tennis players, seven out of ten have no brothers or sisters.
- (D) An only child tends to be better at individual sports than at team sports.
- (E) Parents who have only one child have more time to invest in the child's tennis career than do other parents.

21. The West does not escape the effects of its relationship with the non-Western world. Even as an individual fails to develop fully without constant interaction with an equal, a tradition of thought loses vitality and lacks the capacity for rigorous self-criticism without the probing presence of an authentic "other." In the absence of constant and critical dialogue with other traditions, Western thought remains parochial, commonplace, and narrow.

Which one of the following techniques of argument does the author use in the passage?

- (A) identifying a point of similarity between two different states of affairs
- (B) reconciling two opposed sets of circumstances with each other

- (C) identifying a conclusion that has no supporting argument
- (D) deriving a conclusion from a set of conflicting assumptions
- (E) taking advantage of inconsistencies in the definition of a critical term

22. George: The economics taught in college is very confusing—and that’s because it’s all wrong.

Harold: If it’s all wrong, why is college economics still force-fed to students?

George: It’s very difficult to learn something that’s all wrong, and if, by chance, someone does waste all that time and learn it, he or she will be inclined to defend it ferociously and pass it on to others.

Which one of the following, if true, would most directly challenge George’s reasoning?

- (A) Many college graduates who have taken economics go on to successful careers in a variety of other fields.
- (B) College students who major in economics tend to earn higher grades in economics than in their other subjects.
- (C) “Right” and “wrong” are relative terms in the field of economics.
- (D) Many economics professors agree with journal articles that strongly criticize college economics.
- (E) Interviews five years after graduation show that economics majors are just as likely to say that their college experience was enjoyable as are those who did not major in economics.

23. The existentialists are right about one thing: we are alone, radically alone. The proof is obvious. Suppose you were born with a physiology that permitted you to perceive only negative images, that is, you saw black where everyone else saw white and white where everyone else saw black. Nevertheless, you would learn to call what you saw as black by the name “white” because this is what you would be taught, and there would be no way that you could discover your error.

Which one of the following can be validly inferred from the statements in the argument above?

- (A) Some people are born with reversed perceptions of black and white, and they cannot discover this.
- (B) People with reversed perceptions of black and white would not choose their words any differently from anyone else.
- (C) Existentialism is a sound philosophy, as is amply demonstrated by the physiology of color perception.
- (D) The existentialists claim that some people are born with reversed perceptions of black and white.
- (E) The existentialists claim that people mean different things when they use the words “black” and “white.”

24. Odysseus answered well when the priests showed him a picture of those who had

honored the gods and then escaped shipwreck, and asked him whether he did not now acknowledge the power of the gods—"Yes," he asked, "but where are those pictured who were drowned after their prayers?" And such is the way of all superstitions; wherein humans, having a delight in such vanities, mark the events where they are fulfilled, but where they fail, though this happens much oftener, neglect and pass them by.

Which one of the following contains the error of reasoning described by the author in the passage?

- (A) I have discovered that Friday the 13th really is a day of misfortune. Just this past Friday, the 13th, I locked myself out of the house.
  - (B) Although Napoleon and Alexander the Great were short, Abraham Lincoln and Charles de Gaulle were tall. So short people seek leadership in order to overcome feelings of inferiority.
  - (C) Every semester for the past 15 years, an average of 10 percent of Ms. Elliot's history students have dropped her course before the exam. So, it seems likely that we can expect 10 percent to drop out this year.
  - (D) No reliable observer has ever actually seen a yeti. The strongest evidence seems to be some suspicious tracks. So I think this search for a yeti is probably a wild-goose chase.
  - (E) I cannot trust my lucky shirt any longer. I wore it to the game today and our team lost.
25. A well-known former quarterback is probably very adept at analyzing the relative strengths of football teams. However, efforts by television advertisers to suggest that the quarterback is an expert on pantyhose or popcorn poppers should arouse skepticism among viewers. The same response should result when a popular television actor, who is frequently cast in the role of a doctor, appears in a commercial to endorse a brand of decaffeinated coffee. His views on television acting would deserve attention since he has had considerable experience in that field, but viewers have every right to doubt his authority in coffee advertisements. Which one of the following is a presupposition essential to the reasoning in the passage above?
- (A) The strength of authoritative evidence as legitimate proof is closely related to the authority's degree of expertness in the area in question.
  - (B) Practical experience counts for more than academic training in assessing the competence of authorities.
  - (C) The only kind of evidence being used in many television commercials is appeal to authority.
  - (D) The viewing audience is not sufficiently capable of evaluating authoritative appeals in advertisements.
  - (E) Television viewers will somehow mentally transfer the credibility of celebrities in one area of expertise to another represented by the product

being advertised.

26. Judging by the box office receipts, film audiences have had a surfeit of spectacular special effects and are more interested in good drama comedy, or engaging action than in seeing yet another spaceship explode. Film producers are getting the message, so in the coming year expect\_\_\_\_\_

Which one of the following best concludes the author's statement?

- (A) more science fiction in an effort to increase box office receipts
- (B) fewer spaceships exploding, but no change in the amount of the other spectacular special effects used in science fiction
- (C) the pendulum to swing away from science fiction, providing science fiction films continue to use spectacular special effects
- (D) more spectacular effects along with increasing levels of difficult stunt work
- (E) more films combining good drama with spectacular special effects

## TEST 19

### SECTION II

Time 35 minutes 24 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. The city's center for disease control reports that the rabies epidemic is more serious now than it was two years ago: two years ago less than 25 percent of the local raccoon population was infected, whereas today the infection has spread to more than 50 percent of the raccoon population. However, the newspaper reports that whereas two years ago 32 cases of rabid raccoons were confirmed during a 12-month period, in the past 12 months only 18 cases of rabid raccoons were confirmed.
- Which one of the following, if true, most helps to resolve the apparent discrepancy between the two reports?
- (A) The number of cases of rabies in wild animals other than raccoons has increased in the past 12 months.
  - (B) A significant proportion of the raccoon population succumbed to rabies in the year before last.
  - (C) The symptoms of distemper, another disease to which raccoons are susceptible, are virtually identical to those of rabies.
  - (D) Since the outbreak of the epidemic, raccoons, which are normally nocturnal, have increasingly been seen during daylight hours.
  - (E) The number of confirmed cases of rabid raccoons in neighboring cities has also decreased over the past year.
2. Recently, reviewers of patent applications decided against granting a patent to a

university for a genetically engineered mouse developed for laboratory use in studying cancer. The reviewers argued that the mouse was a new variety of animal and that rules governing the granting of patents specifically disallow patents for new animal varieties.

Which one of the following, if true, most weakens the patent reviewers' argument?

- (A) The restrictions the patent reviewers cited pertain only to domesticated farm animals.
- (B) The university's application for a patent for the genetically engineered mouse was the first such patent application made by the university.
- (C) The patent reviewers had reached the same decision on all previous patent requests for new animal varieties.
- (D) The patent reviewers had in the past approved patents for genetically engineered plant varieties.
- (E) The patent reviewers had previously decided against granting patents for new animal varieties that were developed through conventional breeding programs rather than through genetic engineering.

Questions 3-4

Although water in deep aquifers does not contain disease-causing bacteria, when public water supplies are drawn from deep aquifers, chlorine is often added to the water as a disinfectant because contamination can occur as a result of flaws in pipes or storage tanks. Of 50 municipalities that all pumped water from the same deep aquifer 30 chlorinated their water and 20 did not. The water in all of the municipalities met the regional government's standards for cleanliness, yet the water supplied by the 20 municipalities that did not chlorinate had less bacterial contamination than the water supplied by the municipalities that added chlorine.

3. Which one of the following can properly be concluded from the information given above?
  - (A) A municipality's initial decision whether or not to use chlorine is based on the amount of bacterial contamination in the water source.
  - (B) Water in deep aquifers does not contain any bacteria of any kind.
  - (C) Where accessible, deep aquifers are the best choice as a source for a municipal water supply.
  - (D) The regional government's standards allow some bacteria in municipal water supplies.
  - (E) Chlorine is the least effective disinfecting agent.
4. Which one of the following, if true, most helps explain the difference in bacterial contamination in the two groups of municipalities?
  - (A) Chlorine is considered by some experts to be dangerous to human health, even in the small concentrations used in municipal water supplies.



- (B) When municipalities decide not to chlorinate their water supplies, it is usually because their citizens have voiced objections to the taste and smell of chlorine.
- (C) The municipalities that did not add chlorine to their water supplies also did not add any of the other available water disinfectants which are more expensive than chlorine.
- (D) Other agents commonly added to public water supplies such as fluoride and sodium hydroxide were not used by any of the 50 municipalities.
- (E) Municipalities that do not chlorinate their water supplies are subject to stricter regulation by the regional government in regard to pipes and water tanks than are municipalities that use chlorine.
5. The population of songbirds throughout England has decreased in recent years. Many people explain this decrease as the result of an increase during the same period in the population of magpies, which eat the eggs and chicks of songbirds. Which one of the following, if true, argues most strongly against the explanation reported in the passage?
- (A) Official records of the population of birds in England have been kept for only the past 30 years.
- (B) The number of eggs laid yearly by a female songbird varies widely according to the songbird's species.
- (C) Although the overall population of magpies has increased, in most areas of England in which the songbird population has decreased the number of magpies has remained stable.
- (D) The population of magpies has increased because farmers no longer shoot or trap magpies to any great extent, though farmers still consider magpies to be pests.
- (E) Although magpies eat the eggs and chicks of songbirds, magpies' diets consist of a wide variety of other foods as well.
6. The introduction of symbols for numbers is an event lost in prehistory, but the earliest known number symbols, in the form of simple grooves and scratches on bones and stones date back 20,000 years or more. Nevertheless, since it was not until 5,500 years ago that systematic methods for writing numerals were invented, it was only then that any sort of computation became possible.
- Which one of the following is an assumption on which the argument relies?
- (A) Grooves and scratches found on bones and stones were all made by people, and none resulted from natural processes.
- (B) Some kinds of surfaces upon which numeric symbols could have been made in the period before 5,500 years ago were not used for that purpose.
- (C) Grooves and scratches inscribed on bones and stones do not date back to the time of the earliest people.
- (D) Computation of any sort required a systematic method for writing numerals.

(E) Systematic methods for writing numerals were invented only because the need for computation arose.

7. Politician: Now that we are finally cleaning up the industrial pollution in the bay, we must start making the bay more accessible to the public for recreational purposes.

Reporter: But if we increase public access to the bay, it will soon become polluted again.

Politician: Not true. The public did not have access to the bay, and it got polluted. Therefore, if and when the public is given access to the bay, it will not get polluted.

Which one of the following most closely parallels the flawed pattern of reasoning in the politician's reply to the reporter?

- (A) If there had been a full moon last night, the tide would be higher than usual today. Since the tide is no higher than usual, there must not have been a full moon last night.
- (B) The detective said that whoever stole the money would be spending it conspicuously by now. Jones is spending money conspicuously, so he must be the thief.
- (C) When prisoners convicted of especially violent crimes were kept in solitary confinement, violence in the prisons increased. Therefore, violence in the prisons will not increase if such prisoners are allowed to mix with fellow prisoners.
- (D) To get a driver's license, one must pass a written test. Smith passed the written test, so she must have gotten a driver's license.
- (E) In order to like abstract art, you have to understand it. Therefore, in order to understand abstract art, you have to like it.
8. Because learned patterns of behavior, such as the association of a green light with "go" or the expectation that switches will flip up for "on," become deeply ingrained, designers should make allowances for that fact, in order not to produce machines that are inefficient or dangerous.

In which one of the following situations is the principle expressed most clearly violated?

- (A) Manufacturers have refused to change the standard order of letters on the typewriter keyboard even though some people who have never learned to type find this arrangement of letters bewildering.
- (B) Government regulations require that crucial instruments in airplane cockpits be placed in exactly the same array in all commercial aircraft.
- (C) Automobile manufacturers generally design for all of their automobiles a square or oblong ignition key and a round or oval luggage compartment key.
- (D) The only traffic signs that are triangular in shape are "yield" signs.
- (E) On some tape recorders the "start" button is red and the "stop" button is

yellow.

9. From 1973 to 1989 total energy use in this country increased less than 10 percent. However, the use of electrical energy in this country during this same period grew by more than 50 percent as did the gross national product—the total value of all goods and services produced in the nation.

If the statements above are true, then which one of the following must also be true?

- (A) Most of the energy used in this country in 1989 was electrical energy.
  - (B) From 1973 to 1989 there was a decline in the use of energy other than electrical energy in this country.
  - (C) From 1973 to 1989 there was an increase in the proportion of energy use in this country that consisted of electrical energy use.
  - (D) In 1989 electrical energy constituted a larger proportion of the energy used to produce the gross national product than did any other form of energy.
  - (E) In 1973 the electrical energy that was produced constituted a smaller proportion of the gross national product than did all other forms of energy combined.
10. A fundamental illusion in robotics is the belief that improvements in robots will liberate humanity from “hazardous and demeaning work.” Engineers are designing only those types of robots that can be properly maintained with the least expensive, least skilled human labor possible. Therefore, robots will not eliminate demeaning work—only substitute one type of demeaning work for another.
- The reasoning in the argument is most vulnerable to the criticism that it
- (A) ignores the consideration that in a competitive business environment some jobs might be eliminated if robots are not used in the manufacturing process
  - (B) assumes what it sets out to prove, that robots create demeaning work
  - (C) does not specify whether or not the engineers who design robots consider their work demeaning
  - (D) attempts to support its conclusion by an appeal to the emotion of fear, which is often experienced by people faced with the prospect of losing their jobs to robots
  - (E) fails to address the possibility that the amount of demeaning work eliminated by robots might be significantly greater than the amount they create
11. If the needle on an industrial sewing machine becomes badly worn, the article being sewn can be ruined. In traditional apparel factories, the people who operate the sewing machines monitor the needles and replace those that begin to wear out. Industrial sewing operations are becoming increasingly automated, however, and it would be inefficient for a factory to hire people for the sole purpose of monitoring needles. Therefore a sophisticated new acoustic device that detects

wear in sewing machine needles is expected to become standard equipment in the automated apparel factories of the future.

Which one of the following is most strongly supported by the information above?

- (A) In automated apparel factories, items will be ruined by faulty needles less frequently than happens in traditional apparel factories.
- (B) In the automated apparel factories of the future, each employee will perform only one type of task.
- (C) Traditional apparel factories do not use any automated equipment.
- (D) The needles of industrial sewing machines wear out at unpredictable rates.
- (E) As sewing machine needles become worn, the noise they make becomes increasingly loud.

Questions 12-13

Alexander: The chemical waste dump outside our town should be cleaned up immediately. Admittedly, it will be very costly to convert that site into woodland, but we have a pressing obligation to redress the harm we have done to local forests and wildlife.

Teresa: But our town's first priority is the health of its people. So even if putting the dump there was environmentally disastrous, we should not spend our resources on correcting it unless it presents a significant health to people. If it does, then we only need to remove that hazard.

12. Teresa's statement most closely conforms to which one of the following principles?
- (A) Environmental destruction should be redressed only if it is in the economic interest of the community to do so.
  - (B) Resources should be allocated only to satisfy goals that have the highest priority.
  - (C) No expense should be spared in protecting the community's health.
  - (D) Environmental hazards that pose slight health risks to people should be rectified if the technology is available to do so.
  - (E) It is the community as a whole that should evaluate the importance of eliminating various perceived threats to public health.
13. Which one of the following is the point at issue between Alexander and Teresa?
- (A) whether the maintenance of a chemical waste dump inflicts significant damage on forests and wildlife
  - (B) whether it is extremely costly to clean up a chemical waste dump in order to replace it by a woodland
  - (C) whether the public should be consulted in determining the public health risk posed by a chemical waste dump

- (D) whether the town has an obligation to redress damage to local forests and wildlife if that damage poses no significant health hazard to people
- (E) whether destroying forests and wildlife in order to establish a chemical waste dump amounts to an environmental disaster
14. In 1980, Country A had a per capita gross domestic product (GDP) that was \$5,000 higher than that of the European Economic Community. By 1990, the difference, when adjusted for inflation, had increased to \$6,000. Since a rising per capita GDP indicates a rising average standard of living, the average standard of living in Country A must have risen between 1980 and 1990.
- Which one of the following is an assumption on which the argument depends?
- (A) Between 1980 and 1990, Country A and the European Economic Community experienced the same percentage increase in population.
- (B) Between 1980 and 1990 the average standard of living in the European Economic Community fell.
- (C) Some member countries of the European Economic Community had, during the 1980s, a higher average standard of living than Country A.
- (D) The per capita GDP of the European Economic Community was not lower by more than \$1,000 in 1990 than it had been in 1980.
- (E) In 1990, no member country of the European Economic Community had a per capita GDP higher than that of Country A.
15. Municipal officials originally estimated that it would be six months before municipal road crews could complete repaving a stretch of road. The officials presumed that private contractors could not finish any sooner. However, when the job was assigned to a private contractor, it was completed in just 28 days.
- Which one of the following, if true, does most to resolve the discrepancy between the time estimated for completion of the repaving job and the actual time taken by the private contractor?
- (A) Road repaving work can only be done in the summer months of June, July and August.
- (B) The labor union contract for road crews employed by both municipal agencies and private contractors stipulates that employees can work only eight hours a day, five days a week, before being paid overtime.
- (C) Many road-crew workers for private contractors have previously worked for municipal road crews and vice versa.
- (D) Private contractors typically assign 25 workers to each road-repaving job site whereas the number assigned to municipal road crews is usually 30.
- (E) Municipal agencies must conduct a lengthy bidding process to procure supplies after repaving work is ordered and before they can actually start work, whereas private contractors can obtain supplies readily as needed.
16. Researchers in South Australia estimate changes in shark populations inhabiting



local waters by monitoring what is termed the “catch per unit effort” (CPUE). The CPUE for any species of shark is the number of those sharks that commercial shark-fishing boats catch per hour for each kilometer of gill net set out in the water. Since 1973 the CPUE for a particular species of shark has remained fairly constant. Therefore, the population of that species in the waters around South Australia must be at approximately its 1973 level.

Which one of the following, if true, most seriously weakens the argument?

- (A) The waters around South Australia are the only area in the world where that particular species of shark is found.
- (B) The sharks that are the most profitable to catch are those that tend to remain in the same area of ocean year after year and not migrate far from where they were born.
- (C) A significant threat to shark populations, in addition to commercial shark fishing, is “incidental mortality” that results from catching sharks in nets intended for other fish.
- (D) Most of the quotas designed to protect shark populations limit the tonnage of sharks that can be taken and not the number of individual sharks.
- (E) Since 1980 commercial shark-fishing boats have used sophisticated electronic equipment that enables them to locate sharks with greater accuracy.

Questions 17-18

Winston: The Public Transportation Authority (PTA) cannot fulfill its mandate to operate without a budget deficit unless it eliminates service during late-night periods of low ridership. Since the fares collected during these periods are less than the cost of providing the service, these cuts would reduce the deficit and should be made. Transit law prohibits unauthorized fare increases, and fare-increase authorization would take two years.

Ping: Such service cuts might cost the PTA more in lost fares than they would save in costs, for the PTA would lose those riders who leave home during the day but must return late at night. Thus the PTA would lose two fares while realizing cost savings for only one leg of such trips.

17. The relationship of Ping’s response to Winston’s argument is that Ping’s response
- (A) carefully redefines a term used in Winston’s argument
  - (B) questions Winston’s proposal by raising considerations not addressed by Winston
  - (C) supplies a premise that could have been used as part of the support for Winston’s argument
  - (D) introduces detailed statistical evidence that is more persuasive than that offered by Winston
  - (E) proposes a solution to the PTA’s dilemma by contradicting Winston’s

conclusion

18. Which one of the following, if true, most strongly supports Ping's conclusion?
- (A) Over 23 percent of the round trips made by PTA riders are either initiated or else completed during late-night periods.
  - (B) Reliable survey results show that over 43 percent of the PTA's riders oppose any cut in PTA services.
  - (C) The last time the PTA petitioned for a 15 percent fare increase, the petition was denied.
  - (D) The PTA's budget deficit is 40 percent larger this year than it was last year.
  - (E) The PTA's bus drivers recently won a new contract that guarantees them a significant cash bonus each time they work the late-night shifts.
19. The Volunteer for Literacy Program would benefit if Dolores takes Victor's place as director, since Dolores is far more skillful than Victor is at securing the kind of financial support the program needs and Dolores does not have Victor's propensity for alienating program's most dedicated volunteers.
- The pattern of reasoning in the argument above is most closely paralleled in which one of the following?
- (A) It would be more convenient for Dominique to take a bus to school than to take the subway, since the bus stops closer to her house than does the subway and, unlike the subway, the bus goes directly to the school.
  - (B) Joshua's interest would be better served by taking the bus to get to his parent's house rather than by taking an airplane, since his primary concern is to travel as cheaply as possible and taking the bus is less expensive than going by airplane.
  - (C) Belinda will get to the concert more quickly by subway than by taxi since the concert takes place on a Friday evening and on Friday evenings traffic near the concert hall is exceptionally heavy.
  - (D) Anita would benefit financially by taking the train to work rather than driving her car, since when she drives she has to pay parking fees and the daily fee for parking a car is higher than a round-trip train ticket.
  - (E) It would be to Fred's advantage to exchange his bus tickets for train tickets since he needs to arrive at his meeting before any of the other participants and if he goes by bus at least one of the other participants will arrive first.
20. Students from outside the province of Markland, who in any given academic year pay twice as much tuition each as do students from Markland, had traditionally accounted for at least two-thirds of the enrollment at Central Markland College. Over the past 10 years academic standards at the college have risen and the proportion of students who are not Marklanders has dropped to around 40 percent.

Which one of the following can be properly inferred from the statements above?

- (A) If it had not been for the high tuition paid by students from outside Markland, the college could not have improved its academic standards over the past 10 years.
- (B) If academic standards had not risen over the past 10 years, students who are not Marklanders would still account for at least two-thirds of the college's enrollment.
- (C) Over the past 10 year the number of students from Markland increased and the number of students from outside Markland decreased.
- (D) Over the past 10 years academic standards at Central Markland College have risen by more than academic standards at any other college in Markland.
- (E) If the college's per capita revenue from tuition has remained the same, tuition fees have increased over the past 10 years.
21. Several years ago, as a measure to reduce the population of gypsy moths, which depend on oak leaves for food, entomologists introduced into many oak forests a species of fungus that is poisonous to gypsy moth caterpillars. Since then the population of both caterpillars and adult moths has significantly declined in those areas. Entomologists have concluded that the decline is attributable to the presence of the poisonous fungus.
- Which one of the following, if true, most strongly supports the conclusion drawn by the entomologists?
- (A) A strain of gypsy moth whose caterpillars are unaffected by the fungus has increased its share of the total gypsy moth population.
- (B) The fungus that was introduced to control the gypsy moth population is poisonous to few insect species other than the gypsy moth.
- (C) An increase in number of both gypsy moth caterpillars and gypsy moth adults followed a drop in the number of some of the species that prey on the moths.
- (D) In the past several years, air pollution and acid rain have been responsible for a substantial decline in oak tree populations.
- (E) The current decline in the gypsy moth population in forests where the fungus was introduced is no greater than a decline that occurred concurrently in other forests.
22. Director of personnel: Ms. Tours has formally requested a salary adjustment on the grounds that she was denied merit raises to which she was entitled. Since such grounds provide a possible basis for adjustments, an official response is required. Ms. Tours presents compelling evidence that her job performance has been both excellent in itself and markedly superior to that of others in her department who were awarded merit raises. Her complaint that she was treated unfairly thus appears justified. Nevertheless, her request should be denied. To raise Ms. Tours's salary because of her complaint would jeopardize the integrity of the firm's merit-based reward system by sending the message that employees can get their salaries

raised if they just complain enough.

The personnel director's reasoning is most vulnerable to criticism on the grounds that it

- (A) fails to consider the possibility that Ms. Taurus's complaint could be handled on an unofficial basis
- (B) attempts to undermine the persuasiveness of Ms. Taurus's evidence by characterizing it as "mere complaining"
- (C) sidesteps the issue of whether superior job performance is a suitable basis for awarding salary increases
- (D) ignores the possibility that some of the people who did receive merit increases were not entitled to them
- (E) overlooks the implications for the integrity of the firm's merit-based reward system of denying Ms. Tours's request

23. S: People who are old enough to fight for their country are old enough to vote for the people who make decisions about war and peace. This government clearly regards 17 year olds as old enough to fight, so it should acknowledge their right to vote.

T: Your argument is a good one only to the extent that fighting and voting are the same kind of activity. Fighting well requires strength, muscular coordination, and in a modern army, instant and automatic response to orders. Performed responsibly, voting, unlike fighting, is essentially a deliberative activity requiring reasoning power and knowledge of both history and human nature.

T responds to S's argument by

- (A) citing evidence overlooked by S that would have supported S's conclusion
- (B) calling into question S's understanding of the concept of rights
- (C) showing that S has ignored the distinction between having a right to do something and having an obligation to do that thing
- (D) challenging the truth of a claim on which S's conclusion is based
- (E) arguing for a conclusion opposite to the one drawn by S

24. The role of the Uplandian supreme court is to protect all human rights against abuses of government power. Since the constitution of Uplandia is not explicit about all human rights, the supreme court must sometimes resort to principles outside the explicit provisions of the constitution in justifying its decisions. However, human rights will be subject to the whim of whoever holds judicial power unless the supreme court is bound to adhere to a single objective standard, namely, the constitution. Therefore, nothing but the explicit provisions of the constitution can be used to justify the court's decisions. Since these conclusions are inconsistent with each other, it cannot be true that the role of the Uplandian supreme court is to protect all human rights against abuses of government power.
- The reasoning that leads to the conclusion that the first sentence in the passage is false is flawed because the argument

- (A) ignores data that offer reasonable support for a general claim and focuses on a single example that argues against that claim
- (B) seeks to defend a view on the grounds that the view is widely held and the decisions based on that view are often accepted as correct
- (C) rejects a claim as false on the grounds that those who make that claim could profit if that claim is accepted by others
- (D) makes an unwarranted assumption that what is true of each member of a group taken separately is also true of the group as a whole
- (E) concludes that a particular premise is false when it is equally possible for that premise to be true and some other premise false

### SECTION III

Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. The painted spider spins webs that are much stickier than the webs spun by the other species of spiders that share the same habitat. Stickier webs are more efficient at trapping insects that fly into them. Spiders prey on insects by trapping them in their webs therefore. It can be concluded that the painted spider is a more successful predator than its competitors.  
Which one of the following, if true, most seriously weakens the argument?
  - (A) Not all of the species of insects living in the painted spider's habitat are flying insects.
  - (B) Butterflies and moths which can shed scales are especially unlikely to be trapped by spider webs that are not very sticky.
  - (C) Although the painted spider's venom does not kill insects quickly, it paralyzes them almost instantaneously.
  - (D) Stickier webs reflect more light and so are more visible to insects than are less-sticky webs.
  - (E) The webs spun by the painted spider are no larger than the webs spun by the other species of spiders in the same habitat.
2. Despite the best efforts of astronomers, no one has yet succeeded in exchanging messages with intelligent life on other planets or in other solar systems. In fact, no one has even managed to prove that any kind of extraterrestrial life exists. Thus, there is clearly no intelligent life anywhere but on Earth.  
The argument's reasoning is flawed because the argument
  - (A) fails to consider that there might be extraterrestrial forms of intelligence that are not living beings
  - (B) confuses an absence of evidence for a hypothesis with the existence of evidence against the hypothesis
  - (C) interprets a disagreement over a scientific theory as a disproof of that theory



- (D) makes an inference that relies on the vagueness of the term “life”
- (E) relies on a weak analogy rather than on evidence to draw a conclusion

Questions 3-4

Bart: A mathematical problem that defied solution for hundreds of years has finally yielded to a supercomputer. The process by which the supercomputer derived the result is so complex, however, that no one can fully comprehend it. Consequently, the result is unacceptable.

Anne: In scientific research if the results of a test can be replicated in other tests, the results are acceptable even though the way they were derived might not be fully understood. Therefore, if a mathematical result derived by a supercomputer can be reproduced by other supercomputers following the same procedure, it is acceptable.

3. Bart’s argument requires which one of the following assumptions?
  - (A) The mathematical result in question is unacceptable because it was derived with the use of a supercomputer.
  - (B) For the mathematical result in question to be acceptable, there must be someone who can fully comprehend the process by which it was derived.
  - (C) To be acceptable, the mathematical result in question must be reproduced on another supercomputer.
  - (D) Making the mathematical result in question less complex would guarantee its acceptability.
  - (E) The supercomputer cannot derive an acceptable solution to the mathematical problem in question.
4. The exchange between Bart and Anne most strongly supports the view that they disagree as to
  - (A) whether a scientific result that has not been replicated can properly be accepted
  - (B) whether the result that a supercomputer derives for a mathematical problem must be replicated on another supercomputer before it can be accepted
  - (C) the criterion to be used for accepting a mathematical result derived by a supercomputer
  - (D) the level of complexity of the process to which Bart refers in his statements
  - (E) the relative complexity of mathematical problems as compared to scientific problems
5. It is commonly held among marketing experts that in a nonexpanding market a company’s best strategy is to go after a bigger share of the market and that the best way to do this is to run comparative advertisements that emphasize weaknesses in the products of rivals. In the stagnant market for food oil, soybean-oil and palm-oil producers did wage a two-year battle with comparative advertisements about the deleterious effect on health of each other’s products.

These campaigns, however, had little effect on respective market shares; rather, they stopped many people from buying any edible oils at all.

The statements above most strongly support the conclusion that comparative advertisements

- (A) increase a company's market share in all cases in which that company's products are clearly superior to the products of rivals
- (B) should not be used in a market that is expanding or likely to expand
- (C) should under no circumstances be used as a retaliatory measure
- (D) carry the risk of causing a contraction of the market at which they are aimed
- (E) yield no long-term gains unless consumers can easily verify the claims made

6. Recent unexpectedly heavy rainfalls in the metropolitan area have filled the reservoirs and streams; water rationing, therefore, will not be necessary this summer.

Which one of the following, if true, most undermines the author's prediction?

- (A) Water rationing was imposed in the city in three of the last five years.
- (B) A small part of the city's water supply is obtained from deep underground water systems that are not reached by rainwater.
- (C) The water company's capacity to pump water to customers has not kept up with the increased demand created by population growth in the metropolitan area.
- (D) The long-range weather forecast predicts lower-than-average temperatures for this summer.
- (E) In most years the city receives less total precipitation in the summer than it receives in any other season.

7. John: In 80 percent of car accidents the driver at fault was within five miles of home, so people evidently drive less safely near home than they do on long trips.

Judy: But people do 80 percent of their driving within five miles of home.

How is Judy's response related to John's argument?

- (A) It shows that the evidence that John presents by itself is not enough to prove his claim.
- (B) It restates the evidence that John presents in different terms.
- (C) It gives additional evidence that is needed by John to support his conclusion.
- (D) It calls into question John's assumption that whenever people drive more than five miles from home they are going on a long trip.
- (E) It suggests that John's conclusion is merely a restatement of his argument's premise.

8. Reasonable people adapt themselves to the world: unreasonable people persist in trying to adapt the world to themselves. Therefore, all progress depends on unreasonable people.

If all of the statements in the passage above are true, which one of the following statements must also be true?

- (A) Reasonable people and unreasonable people are incompatible.
- (B) If there are only reasonable people there cannot be progress.
- (C) If there are unreasonable people there will be progress.
- (D) Some unreasonable people are unable to bring about progress.
- (E) Unreasonable people are more persistent than reasonable people.

9. Theater critic: The theater is in a dismal state. Audiences are sparse and revenue is down. Without the audience and the revenue, the talented and creative people who are the lifeblood of the theater are abandoning it. No wonder standards are deteriorating.

Producer: It's not true that the theater is in decline. Don't you realize that your comments constitute a self-fulfilling prophecy? By publishing these opinions, you yourself are discouraging new audiences from emerging and new talent from joining the theater.

Which one of the following is a questionable technique employed by the producer in responding to the critic?

- (A) focusing on the effects of the critic's evaluation rather than on its content
- (B) accusing the critic of relying solely on opinion unsupported by factual evidence
- (C) challenging the motives behind the critic's remarks rather than the remarks themselves
- (D) relying on emphasis rather than on argument
- (E) invoking authority in order to intimidate the critic

10. Michelangelo's sixteenth-century Sistine Chapel paintings are currently being restored. A goal of the restorers is to uncover Michelangelo's original work, and so additions made to Michelangelo's paintings by later artists are being removed. However, the restorers have decided to make one exception: to leave intact additions that were painted by da Volterra.

Which one of the following, if true, most helps to reconcile the restorers' decision with the goal stated in the passage?

- (A) The restorers believe that da Volterra stripped away all previous layers of paint before he painted his own additions to the Sistine Chapel.
- (B) Because da Volterra used a type of pigment that is especially sensitive to light, the additions to the Sistine Chapel that da Volterra painted have relatively muted colors.
- (C) Da Volterra's additions were painted in a style that was similar to the style used by Michelangelo.
- (D) Michelangelo is famous primarily for his sculptures and only secondarily for his paintings, whereas da Volterra is known exclusively for his paintings.

(E) Da Volterra's work is considered by certain art historians to be just as valuable as the work of additions to Michelangelo's work.

11. A controversial program rewards prison inmates who behave particularly well in prison by giving them the chance to receive free cosmetic plastic surgery performed by medical students. The program is obviously morally questionable, both in its assumptions about what inmates might want and in its use of the prison population to train future surgeons. Putting these moral issues aside, however, the surgery clearly has a powerful rehabilitative effect as is shown by the fact that, among recipients of the surgery, the proportion who are convicted of new crimes committed after release is only half that for the prison population as a whole.

A flaw in the reasoning of the passage is that it

- (A) allows moral issues to be a consideration in presenting evidence about matters of fact
  - (B) dismisses moral considerations on the grounds that only matters of fact are relevant
  - (C) labels the program as "controversial" instead of discussing the issues that give rise to controversy
  - (D) asserts that the rehabilitation of criminals is not a moral issue
  - (E) relies on evidence drawn from a sample that there is reason to believe is unrepresentative
12. The retina scanner, a machine that scans the web of tiny blood vessels in the retina, stores information about the pattern formed by the blood vessels. This information allows it to recognize any pattern it has previously scanned. No two eyes have identical patterns of blood vessels in the retina. A retina scanner can therefore be used successfully to determine for any person whether it has ever scanned a retina of that person before.
- The reasoning in the argument depends upon assuming that
- (A) diseases of the human eye do not alter the pattern of blood vessels in the retina in ways that would make the pattern unrecognizable to the retina scanner
  - (B) no person has a different pattern of blood vessels in the retina of the left eye than in the retina of the right eye
  - (C) there are enough retina scanners to store information about every person's retinas
  - (D) the number of blood vessels in the human retina is invariant although the patterns they form differ from person to person
  - (E) there is no person whose retinas have been scanned by two or more different retina scanners
13. There are just two ways a moon could have been formed from the planet around which it travels: either part of the planet's outer shell spun off into orbit around

the planet or else a large object, such as a comet or meteoroid struck the planet so violently that it dislodged a mass of material from inside the planet. Earth's moon consists primarily of materials different from those of the Earth's outer shell.

If the statements above are true, which one of the following, if also true, would most help to justify drawing the conclusion that Earth's moon was not formed from a piece of the Earth?

- (A) The moons of some planets in Earth's solar system were not formed primarily from the planets' outer shells.
- (B) Earth's moon consists primarily of elements that differ from those inside the Earth.
- (C) Earth's gravity cannot have trapped a meteoroid and pulled it into orbit as the Moon.
- (D) The craters on the surface of Earth's moon show that it has been struck by many thousands of large meteoroids.
- (E) Comets and large meteoroids normally move at very high speeds.

14. Caffeine can kill or inhibit the growth of the larvae of several species of insects. One recent experiment showed that tobacco hornworm larvae die when they ingest a preparation that consists in part of finely powdered tea leaves which contain caffeine. This result is evidence for the hypothesis that the presence of non-negligible quantities of caffeine in various parts of many diverse species of plants is not accidental but evolved as a defense for those plants.

The argument assumes that

- (A) caffeine-producing plants are an important raw material in the manufacture of commercial insecticides
- (B) caffeine is stored in leaves and other parts of caffeine-producing plants in concentrations roughly equal to the caffeine concentration of the preparation fed to the tobacco hornworm larvae
- (C) caffeine-producing plants grow wherever insect larvae pose a major threat to indigenous plants or once posed a major threat to the ancestors of those plants
- (D) the tobacco plant is among the plant species that produce caffeine for their own defense
- (E) caffeine-producing plants or their ancestors have at some time been subject to being fed upon by creatures sensitive to caffeine

15. The only plants in the garden were tulips, but they were tall tulips. So the only plants in the garden were tall plants.

Which one of the following exhibits faulty reasoning most similar to the faulty reasoning in the argument above?

- (A) The only dogs in the show were poodles and they were all black poodles. So all the dogs in the show were black.



- (B) All the buildings on the block were tall. The only buildings on the block were office buildings and residential towers. So all the office buildings on the block were tall buildings.
- (C) All the primates in the zoo were gorillas. The only gorillas in the zoo were small gorillas. Thus the only primates in the zoo were small primates.
- (D) The only fruit in the kitchen was pears but the pears were not ripe. Thus none of the fruit in the kitchen was ripe.
- (E) All the grand pianos here are large. All the grand pianos here are heavy. Thus everything large is heavy.

16. Scientific research will be properly channeled whenever those who decide which research to fund give due weight to the scientific merits of all proposed research. But when government agencies control these funding decisions, political considerations play a major role in determining which research will be funded, and whenever political considerations play such a role, the inevitable result is that scientific research is not properly channeled.

Which one of the following can be properly inferred from the statements above?

- (A) There is no proper role for political considerations to play in determining who will decide which scientific research to fund.
  - (B) It is inevitable that considerations of scientific merit will be neglected in decisions regarding the funding of scientific research.
  - (C) Giving political considerations a major role in determining which scientific research to fund is incompatible with giving proper weight to the scientific merits of proposed research.
  - (D) When scientific research is not properly channeled, governments tend to step in and take control of the process of choosing which research to fund.
  - (E) If a government does not control investment in basic scientific research, political consideration will inevitably be neglected in deciding which research to fund.
17. A new silencing device for domestic appliances operates by producing sound waves that cancel out the sound waves produced by the appliance. The device, unlike conventional silencers, actively eliminates the noise the appliance makes, and for that reason vacuum cleaners designed to incorporate the new device will operate with much lower electricity consumption than conventional vacuum cleaners.
- Which one of the following, if true, most helps to explain why the new silencing device will make lower electricity consumption possible?
- (A) Designers of vacuum cleaner motors typically have to compromise the motors' efficiency in order to reduce noise production.
  - (B) The device runs on electricity drawn from the appliance's main power supply.
  - (C) Conventional vacuum cleaners often use spinning brushes to loosen dirt in

addition to using suction to remove dirt.

- (D) Governmental standards for such domestic appliances as vacuum cleaners allow higher electricity consumption when vacuum cleaners are quieter.
- (E) The need to incorporate silencers in conventional vacuum cleaners makes them heavier and less mobile than they might otherwise be.

18. Because dinosaurs were reptiles, scientists once assumed that, like all reptiles alive today, dinosaurs were cold-blooded. The recent discovery of dinosaur fossils in the northern arctic, however, has led a number of researchers to conclude that at least some dinosaurs might have been warm-blooded. These researchers point out that only warm-blooded animals could have withstood the frigid temperatures that are characteristic of arctic winters, whereas cold-blooded animals would have frozen to death in the extreme cold.

Which one of the following, if true, weakens the researchers' argument?

- (A) Today's reptiles are generally confined to regions of temperate or even tropical climates.
- (B) The fossils show the arctic dinosaurs to have been substantially smaller than other known species of dinosaurs.
- (C) The arctic dinosaur fossils were found alongside fossils of plants known for their ability to withstand extremely cold temperatures.
- (D) The number of fossils found together indicates herds of dinosaurs so large that they would need to migrate to find a continual food supply.
- (E) Experts on prehistoric climatic conditions believe that winter temperatures in the prehistoric northern arctic were not significantly different from what they are today.

Questions 19-20

Maria: Calling any state totalitarian is misleading: it implies total state control of all aspects of life. The real world contains no political entity exercising literally total control over even one such aspect. This is because any system of control is inefficient, and, therefore, its degree of control is partial.

James: A one-party state that has tried to exercise control over most aspects of a society and that has, broadly speaking, managed to do so is totalitarian. Such a system's practical inefficiencies do not limit the aptness of the term, which does not describe a state's actual degree of control as much as it describes the nature of a state's ambitions.

19. Which one of the following most accurately expresses Maria's main conclusion?
- (A) No state can be called totalitarian without inviting a mistaken belief.
  - (B) To be totalitarian a state must totally control society.
  - (C) The degree of control exercised by a state is necessarily partial.
  - (D) No existing state currently has even one aspect of society under total control.

(E) Systems of control are inevitably inefficient.

20. James responds to Maria's argument by

- (A) pointing out a logical inconsistency between two statements she makes in support of her argument
- (B) offering an alternative explanation for political conditions she mentions
- (C) rejecting some of the evidence she presents without challenging what she infers from it
- (D) disputing the conditions under which a key term of her argument can be appropriately applied
- (E) demonstrating that her own premises lead to a conclusion different from hers

21. The similarity between ichthyosaurs and fish is an example of convergence, a process by which different classes of organisms adapt to the same environment by independently developing one or more similar external body features.

Ichthyosaurs were marine reptiles and thus do not belong to the same class of organisms as fish. However, ichthyosaurs adapted to their marine environment by converging on external body features similar to those of fish. Most strikingly, ichthyosaurs, like fish, had fins.

If the statements above are true, which one of the following is an inference that can be properly drawn on the basis of them?

- (A) The members of a single class of organisms that inhabit the same environment must be identical in all their external body features.
- (B) The members of a single class of organisms must exhibit one or more similar external body features that differentiate that class from all other classes of organisms.
- (C) It is only as a result of adaptation to similar environments that one class of organisms develops external body features similar to those of another class of organisms.
- (D) An organism does not necessarily belong to a class simply because the organism has one or more external body features similar to those of members of that class.
- (E) Whenever two classes of organisms share the same environment, members of one class will differ from members of the other class in several external body features.

22. Further evidence bearing on Jamison's activities must have come to light. On the basis of previously available evidence alone, it would have been impossible to prove that Jamison was a party to the fraud, and Jamison's active involvement in the fraud has now been definitively established.

The pattern of reasoning exhibited in the argument above most closely parallels that exhibited in which one of the following?

- (A) Smith must not have purchased his house within the last year. He is listed as

- the owner of that house on the old list of property owners and anyone on the old list could not have purchased his or her property within the last year.
- (B) Turner must not have taken her usual train to Nantes today. Had she done so, she could not have been in Nantes until this afternoon, but she was seen having coffee in Nantes at 11 o'clock this morning.
- (C) Nofris must have lied when she said that she had not authorized the investigation. There is no doubt that she did authorize it, and authorizing and investigation is not something anyone is likely to have forgotten.
- (D) Waugh must have known that last night's class was canceled. Waugh was in the library yesterday and it would have been impossible for anyone in the library not to have seen the cancellation notices.
- (E) LaForte must have deeply resented being passed over for promotion. He maintains otherwise, but only someone who felt badly treated would have made the kind of remark LaForte made at yesterday's meeting.
23. Reporting on a civil war, a journalist encountered evidence that refugees were starving because the government would not permit food shipments to a rebel-held area. Government censors deleted all mention of the government's role in the starvation from the journalist's report which had not implicated either nature or the rebels in the starvation. The journalist concluded that it was ethically permissible to file the censored report because the journalist's news agency would precede it with the notice "Cleared by government censors."
- Which one of the following ethical criteria, if valid, would serve to support the journalist's conclusion while placing the least constraint on the flow of reported information?
- (A) It is ethical in general to report known facts but unethical to do so while omitting other known facts if the omitted facts would substantially alter an impression of a person or institution that would be congruent with the reported facts.
- (B) In a situation of conflict, it is ethical to report known facts and unethical to fail to report known facts that would tend to exonerate one party to the conflict.
- (C) In a situation of censorship, it is unethical make any report if the government represented by the censor deletes from the report material unfavorable to that government.
- (D) It is ethical in general to report known facts but unethical to make a report in a situation of censorship if relevant facts have been deleted by the censor unless the recipient of the report is warned that censorship existed.
- (E) Although it is ethical in general to report known facts, it is unethical to make a report from which a censor has deleted relevant facts, unless the recipient of the report is warned that there was censorship and the reported facts do not by themselves give a misleading impression.

24. A birth is more like to be difficult when the mother is over the age of 40 than when she is younger. Regardless of the mother's age, a person whose birth was difficult is more likely to be ambidextrous than is a person whose birth was not difficult. Since other causes of ambidexterity are not related to the mother's age, there must be more ambidextrous people who were born to women over 40 than there are ambidextrous people who were born to younger women.

The argument is most vulnerable to which one of the following criticisms?

- (A) It assumes what it sets out to establish.
- (B) It overlooks the possibility that fewer children are born to women over 40 than to women under 40.
- (C) It fails to specify what percentage of people in the population as a whole are ambidextrous.
- (D) It does not state how old a child must be before its handedness can be determined.
- (E) It neglects to explain how difficulties during birth can result in a child's ambidexterity.

Questions 25-26

The government has no right to tax earnings from labor. Taxation of this kind requires the laborer to devote a certain percentage of hours worked to earning money for the government. Thus, such taxation forces the laborer to work, in part, for another's purpose. Since involuntary servitude can be defined as forced work for another's purpose, just as involuntary servitude is pernicious, so is taxing earnings from labor.

25. The argument uses which one of the following argumentative techniques?
- (A) deriving a general principle about the rights of individuals from a judgment concerning the obligations of governments
  - (B) inferring what will be time case merely from a description of what once was the case
  - (C) inferring that since two institutions are similar in one respect they are similar in another respect
  - (D) citing the authority of an economic theory in order to justify a moral principle
  - (E) presupposing the inevitability of a hierarchical class system in order to oppose a given economic practice
26. Which one of the following is an error of reasoning committed by the argument?
- (A) It ignores a difference in how the idea of forced work for another's purpose applies to the two cases.
  - (B) It does not take into account the fact that labor is taxed at different rates depending on income.
  - (C) It mistakenly assumes that all work is taxed.



- (D) It ignores the fact that the government also taxes income from investment.
- (E) It treats definitions as if they were matters of subjective opinion rather than objective facts about language.

## TEST 20

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. When politicians resort to personal attacks, many editorialists criticize these attacks but most voters pay them scant attention. Everyone knows such attacks will end after election day, and politicians can be excused for mudslinging. Political commentators, however, cannot be. Political commentators should be engaged in sustained and serious debate about ideas and policies. In such a context personal attacks on opponents serve not to beat those opponents but to cut off the debate.

Which of the following most accurately states the main point of the argument?

- (A) Personal attacks on opponents serve a useful purpose for politicians.
  - (B) Political commentators should not resort to personal attacks on their opponents.
  - (C) Editorialists are right to criticize politicians who resort to personal attacks on their opponents.
  - (D) The purpose of serious debate about ideas and policies is to counteract the effect of personal attacks by politicians.
  - (E) Voters should be concerned about the personal attacks politicians make on each other.
2. Throughout the Popoya Islands community pressure is exerted on people who win the national lottery to share their good fortune with their neighbors. When people living in rural areas win the lottery they invariably throw elaborate neighborhood feasts, often wiping out all of their lottery winnings. However, in the cities, lottery winners frequently use their winnings for their own personal investment rather than sharing their good fortune with their neighbors.

Which one of the following, if true, contributes most to an explanation of the difference between the behavior of lottery winners in rural areas and those in cities?

- (A) Twice as many Popoyans live in rural areas as live in the city.
- (B) Popoyan city dwellers tend to buy several lottery tickets at a time, but they buy tickets less frequently than do rural dwellers.
- (C) Lottery winners in rural areas are notified of winning by public posting of lists of winners, but notification in the city is by private mail.

- (D) Families in rural areas in the Popoyas may contain twelve or fourteen people, but city families average six or seven.
- (E) Twice as many lottery tickets are sold in rural areas as are sold in the city.
3. A new medication for migraine seems effective, but there is concern that the medication might exacerbate heart disease. If patients with heart disease take the medication under careful medical supervision, however, harmful side effects can definitely be averted. The concern about those side effects is thus unfounded. The argument depends on which one of the following assumptions?
- (A) The new medication actually is effective when taken by patients with heart disease.
- (B) No migraine sufferers with heart disease will take the new medication except under careful medical supervision.
- (C) Most migraine sufferers who have taken the new medication in trials also had heart disease.
- (D) The new medication has various other side effects, but none as serious as that of exacerbating heart disease.
- (E) The new medication will displace all migraine medications currently being used.
4. The highest-ranking detectives in the city's police department are also the most adept at solving crimes. Yet in each of the past ten years, the average success rate for the city's highest-ranking detectives in solving criminal cases has been no higher than the average success rate for its lowest-ranking detectives. Which one of the following, if true, most helps to resolve the apparent paradox?
- (A) The detectives who have the highest success rate in solving criminal cases are those who have worked as detectives the longest.
- (B) It generally takes at least ten years for a detective to rise from the lowest to the highest ranks of the city's detective force.
- (C) Those detectives in the police department who are the most adept at solving criminal cases are also those most likely to remain in the police department.
- (D) The police department generally gives the criminal cases that it expects to be the easiest to solve to its lowest-ranking detectives.
- (E) None of the lowest-ranking detectives in the police department had experience in solving criminal cases prior to joining the police department.
5. Irrigation runoff from neighboring farms may well have increased the concentration of phosphorus in the local swamp above previous levels, but the claim that the increase in phosphorus is harming the swamp's native aquatic wildlife is false: the phosphorus concentration in the swamp is actually less than that found in certain kinds of bottled water that some people drink every day. The argument is vulnerable to criticism on the ground that it
- (A) makes exaggerations in formulating the claim against which it argues

- (B) bases its conclusion on two contradictory claims
- (C) relies on evidence the relevance of which has not been established
- (D) concedes the very point that it argues against
- (E) makes a generalization that is unwarranted because the sources of the data on which it is based have not been specified

6. Copyright laws protect the rights of writers to profits earned from their writings, whereas patent laws protect inventors' rights to profits earned from their inventions. In Jawade, when computer-software writers demanded that their rights to profit be protected, the courts determined that information written for a machine does not fit into either the copyright or the patent category. Clearly, therefore, the profit rights of computer-software writers remain unprotected in Jawade.

Which one of the following is an assumption on which the argument depends?

- (A) Computer-software writers are not an influential enough group in Jawade for the government to consider modifying existing copyright laws in order to protect this group's profit rights.
  - (B) No laws exist, other than copyright laws and patent laws, that would protect the profit rights of computer-software writers in Jawade.
  - (C) Most of the computer software used in Jawade is imported from other countries.
  - (D) Computer software is more similar to writings covered by copyright laws than it is to inventions covered by patent laws.
  - (E) Copyright laws and patent laws in Jawade have not been modified since their original adoption.
7. Brownlea's post office must be replaced with a larger one. The present one cannot be expanded. Land near the present location in the center of town is more expensive than land on the outskirts of town. Since the cost of acquiring a site is a significant part of the total construction cost, the post office clearly could be built more cheaply on the outskirts of town.

Which one of the following, if true, most seriously undermines the argument's stated conclusion?

- (A) The new post office will have to be built in accordance with a demanding new citywide building code.
- (B) If the new post office is built on the outskirts of town, it will require a parking lot, but if sited near the present post office it will not.
- (C) If the new post office is built on the outskirts of town, current city bus routes will have to be expanded to provide access.
- (D) If the new post office is built on the outskirts of town, residents will make decreased use of post office boxes, with the result that mail carriers will have to deliver more mail to homes.

(E) If the new post office is built near the center of town, disruptions to city traffic would have to be minimized by taking such steps as doing some construction work in stages at night and on weekends.

8. In the past, the railroads in Ostronia were run as regional monopolies and operated with little regard for what customers wanted. In recent years, with improvements to the Ostronian national highway network, the railroad companies have faced heavy competition from long-distance trucking companies. But because of government subsidies that have permitted Ostronian railroad companies to operate even while incurring substantial losses, the companies continue to disregard customers' needs and desires.

If the statements above are true, which one of the following must also be true on the basis of them?

- (A) If the government of Ostronia ceases to subsidize railroad companies, few of those companies will continue to operate.
- (B) Few companies in Ostronia that have received subsidies from the government have taken the needs and desires of their customers into account.
- (C) Without government subsidies, railroad companies in Ostronia would have to increase the prices they charge their customers.
- (D) The transportation system in Ostronia is no more efficient today than it was in the past.
- (E) In recent years, some companies in Ostronia that have had little regard for the desires of their customers have nonetheless survived.
9. Although Damon had ample time earlier in the month to complete the paper he is scheduled to present at a professional conference tomorrow morning, he repeatedly put off doing it. Damon could still get the paper ready in time, but only if he works on it all evening without interruption. However, his seven-year-old daughter's tap-dance recital takes place this evening and Damon had promised both to attend and to take his daughter and her friends out for ice cream afterward. Thus, because of his procrastination, Damon will be forced to choose between his professional and his family responsibilities.

The argument proceeds by

- (A) providing evidence that one event will occur in order to establish that an alternative event cannot occur
- (B) showing that two situations are similar in order to justify the claim that someone with certain responsibilities in the first situation has similar responsibilities in the second situation
- (C) invoking sympathy for someone who finds himself in a dilemma in order to excuse that person's failure to meet all of his responsibilities
- (D) making clear the extent to which someone's actions resulted in harm to others in order to support the claim that those actions were irresponsible

- (E) demonstrating that two situations cannot both occur by showing that something necessary for one of those situations is incompatible with something necessary for the other situation
10. The increase in the price of jet fuel is due to a sharp decrease over the past year in the supply of jet fuel available relative to demand. Nonetheless, the amount of jet fuel available for sale is larger today than it was last year.
- If the statements above are true, which one of the following conclusions can be properly drawn on the basis of them?
- (A) The demand for jet fuel has increased over the past year.
- (B) The fuel efficiency of jet engines has increased over the past year.
- (C) The number of jet airline flights has decreased over the past year.
- (D) The cost of refining petroleum for jet fuel has increased over the past year.
- (E) The supply of petroleum available for jet fuel has decreased over the past year.

Questions 11-12

Nan: Government subsidies have been proposed in Cariana to encourage farmers in Rochelle, the country's principal agricultural region, to implement certain new farming techniques. Unless these techniques are implemented, erosion of productive topsoil cannot be controlled. Unfortunately farmers cannot afford to shoulder the entire cost of the new techniques, which are more expensive than those currently used. Therefore, without subsidies, agricultural output in Rochelle will inevitably decline.

Betty: But erosion in Rochelle is caused by recurring floods, which will end next year once Cariana completes the hydroelectric dam it is building across the region's major river. Therefore, Rochelle's total agricultural output will stabilize at its present level even without subsidies.

11. Which one of the following is an assumption on which Betty's argument depends?
- (A) Building a dam across Rochelle's major river will not reduce any recurrent flooding that occurs in regions of Cariana other than Rochelle.
- (B) The new farming techniques that must be implemented to control soil erosion in Rochelle are not well suited to other regions of Cariana.
- (C) The current yearly output, if any, from Rochelle's land that will be permanently under water once the dam is completed will at least be matched by additional yearly output from Rochelle's remaining land.
- (D) The cost to the government of Cariana to operate the hydroelectric dam will not be greater than the projected cost of subsidizing the farmers of Rochelle in the implementation of the new farming techniques.
- (E) The government of Cariana has sufficient financial resources both to subsidize its farmers' implementation of new farming techniques and to operate a hydroelectric dam.



12. Betty uses which one of the following argumentative techniques in countering Alan's argument?
- (A) showing that one premise in Alan's argument is inconsistent with another premise in his argument
  - (B) making additional claims that, if correct, undermine a premise in Alan's argument
  - (C) demonstrating that Alan's conclusion is true but not for the reasons Alan gives to support it
  - (D) presenting evidence indicating that the policy Alan argues in favor of would have damaging consequences that outweigh its positive consequences
  - (E) pointing out that Alan's argument mistakenly identifies something as the cause of a trend when it is really an effect of that trend
13. Astronomers have long thought that the irregularity in the orbit of the planet Neptune was adequately explained by the gravitational pull exerted on Neptune by the planet Pluto. The most recent observations of Pluto, however indicate that this planet is much too small to exert the amount of gravitational pull on Neptune that astronomers once thought it did.
- If the statements above are true, they provide the most support for which one of the following?
- (A) Neptune is somewhat larger than scientists once believed it to be.
  - (B) The orbit of Neptune is considerably more irregular than scientists once thought it was.
  - (C) There exists another, as yet undiscovered, planet with an orbit beyond that of Pluto.
  - (D) The gravitational pull of Pluto is not the sole cause of Neptune's irregular orbit.
  - (E) Further observations of Pluto will eventually show it to be even smaller than it is now thought to be.

Questions 14-15

In most corporations the salaries of executives are set by a group from the corporation's board of directors. Since the board's primary mission is to safeguard the economic health of the corporation rather than to make its executives rich, this way of setting executives salaries is expected to prevent excessively large salaries. But, clearly, this expectation is based on poor reasoning. After all, most members of a corporation's board are themselves executives of some corporation and can expect to benefit from setting generous benchmarks for executives salaries.

14. The point made by the author is that the most common way of setting executives salaries might not keep those salaries in bounds because
- (A) most corporals executives, thanks to their generous salaries, are not financially dependent on money earned as board members

- (B) most corporals executives might be less generous in setting their own salaries than the board members actually setting them are
- (C) many board members might let their self-interest as executives interfere with properly discharging their role as board members in setting executives salaries
- (D) many board members who set executives salaries unreasonably high do so because they happen to be on the board of a corporation of which they expect later to become executives
- (E) many board members are remunerated generously and wish to protect this source of income by pleasing the executives to whom they owe their appointments on the board
15. Which one of the following practices is vulnerable to a line of criticism most parallel to that used in the argument in the passage?
- (A) in medical malpractice suits, giving physicians not directly involved in a suit a major role in determining the damages due to successful plaintiffs
- (B) in a legislature, allowing the legislators to increase their own salaries only if at least two-thirds of them vote in favor of an increase
- (C) to work both fast and accurately by paying them by the piece but counting only pieces of acceptable quality
- (D) in a sports competition decided by judges' scores, selecting the judges from among people retired from that sport after successful careers
- (E) in a business organization, distributing a group bonus among the members of a task force on the basis of a confidential evaluation by each member of the contribution made by each of the others
16. Consumer advocate: One advertisement that is deceptive, and thus morally wrong, states that "gram for gram, the refined sugar used in our chocolate pies is no more fattening than the sugars found in fruits and vegetables." This is like trying to persuade someone that chocolate pies are not fattening by saying that, calorie for calorie, they are no more fattening than celery. True, but it would take a whole shopping cart full of celery to equal a chocolate pie's worth of calories. Advertiser: This advertisement cannot be called deceptive. It is, after all, true. Which one of the following principles, if established would do most to support the consumer advocate's position against the advertiser's response?
- (A) It is morally wrong to seek to persuade by use of deceptive statements.
- (B) A true statement should be regarded as deceptive only if the person making the statement believes it to be false, and thus intends the people reading or hearing it to acquire a false belief.
- (C) To make statements that impart only a small proportion of the information in one's possession should not necessarily be regarded as deceptive.
- (D) It is morally wrong to make a true statement in a manner that will deceive hearers or readers of the statement into believing that it is false.

(E) A true statement should be regarded as deceptive if it is made with the expectation that people hearing or reading the statement will draw a false conclusion from it.

17. Members of the Amazonian Akabe people commonly take an early-morning drink of a tea made from the leaves of a forest plant. Although they greatly enjoy this drink, at dawn they drink it only in small amounts. Anthropologists hypothesize that since this tea is extraordinarily high in caffeine, the explanation for the Akabe's not drinking more of it at dawn is that high caffeine intake would destroy the surefootedness that their daily tasks require.

Which one of the following, if true, most seriously calls the anthropologists' explanation into question?

- (A) The drink is full of nutrients otherwise absent from the Akabe diet.
- (B) The Akabe also drink the tea in the evening, after their day's work is done.
- (C) The leaves used for the tea contain a soluble narcotic.
- (D) Akabe children are introduced to the tea in only a very weak form.
- (E) When celebrating, the Akabe drink the tea in large quantities.

18. All of the cargo ships of the Blue Star Liner are over 100 meters long, and all of its passenger ships are under 100 meters long. Most of the ships of the Blue Star Line were built before 1980. All of the passenger and cargo ships of the Gold Star Line were built after 1980, and all are under 100 meters long. The dockside facilities of Port Tropica, which is open only to ships of these two lines, can accommodate only those ships that are less than 100 meters long. The S.S. Coral is a cargo ship that is currently docked at Port Tropica.

If the statements above are true, which one of the following must be true on the basis of them?

- (A) The S.S. Coral was built after 1980.
- (B) The S.S. Coral belongs to the Blue Star Line.
- (C) Port Tropica is served only by cargo ships.
- (D) Port Tropica is not served by ships of the Blue Star Line.
- (E) All of the ships of the Blue Star Line are older than any of the ships of the Gold Star Line.

19. Spectroscopic analysis has revealed the existence of frozen nitrogen, methane, and carbon monoxide on the surface of Pluto. Such ices have a tendency to vaporize, producing an atmosphere. Since the proportion of any gas in such an atmosphere depends directly on how readily the corresponding ice vaporizes, astronomers have concluded that the components of Pluto's atmosphere are nitrogen, carbon monoxide, and methane, in order of decreasing abundance.

The astronomers' argument relies on which one of the following assumptions?

- (A) There is no more frozen nitrogen on the surface of Pluto than there is either frozen carbon monoxide or methane.

- (B) Until space probes reach Pluto, direct analysis of the atmosphere is impossible.
- (C) There is no frozen substance on the surface of Pluto that vaporizes more readily than methane but less readily than carbon monoxide.
- (D) Nitrogen is found in the atmosphere of a planet only if nitrogen ice is found on the surface of that planet.
- (E) A mixture of nitrogen, carbon monoxide, and methane is characteristic of the substances from which the Solar System formed.
20. Ann will either take a leave of absence from Technocomp and return in a year or else she will quit her job there; but she would not do either one unless she were offered a one-year teaching fellowship at a prestigious university. Technocomp will allow her to take a leave of absence if it does not find out that she has been offered the fellowship, but not otherwise. Therefore, Ann will quit her job at Technocomp only if Technocomp finds out she has been offered the fellowship. Which one of the following, if assumed, allows the conclusion above to be properly drawn?
- (A) Technocomp will find out about Ann being offered the fellowship only if someone informs on her.
- (B) The reason Ann wants the fellowship is so she can quit her job at Technocomp.
- (C) Technocomp does not allow any of its employees to take a leave of absence in order to work for one of its competitors.
- (D) Ann will take a leave of absence if Technocomp allows her to take a leave of absence.
- (E) Ann would be offered the fellowship only if she quit her job at Technocomp.
21. If a mechanical aerator is installed in a fish pool, the water in the pool can be properly aerated. So, since John's fish pool does not have a mechanical aerator, it must be that his pool is not properly aerated. Without properly aerated water, fish cannot thrive. Therefore, any fish in John's fish pool will not thrive. Which one of the following arguments contains an error of reasoning that is also contained in the argument above?
- (A) If alum is added to pickle brine, brine can replace the water in the pickles. Therefore, since Paula does not add alum to her pickle brine, the water in the pickles cannot be replaced by brine. Unless their water is replaced with brine, pickles will not stay crisp. Thus, Paula's pickles will not stay crisp.
- (B) If pectin is added to jam, the jam will gel. Without a setting agent such as pectin, jam will not gel. So in order to make his jam gel, Harry should add a setting agent such as pectin to the jam.
- (C) If stored potatoes are not exposed to ethylene, the potatoes will not sprout. Beets do not release ethylene. Therefore, if Sara stores her potatoes together with beets, the potatoes will not sprout.

- (D) If a carrot patch is covered with mulch in the fall, the carrots can be left in the ground until spring. Without a mulch cover, carrots stored in the ground can suffer frost damage. Thus, since Kevin covers his carrot patch with mulch in the fall, the carrots can safely be left in the ground.
- (E) If tomatoes are not stored in a dark place, their seeds sometimes sprout. Sprouted seeds can make tomatoes inedible. Therefore, since Maria does not store her tomatoes in a dark place, some of Maria's tomatoes could be inedible.

Questions 22-23

Antinuclear activist: The closing of the nuclear power plant is a victory for the antinuclear cause. It also represents a belated acknowledgment by the power industry that they cannot operate such plants safely.

Nuclear power plant manager: It represents no such thing. The availability of cheap power from nonnuclear sources, together with the cost of mandated safety inspections and safety repairs, made continued operation uneconomic. Thus it was not safety considerations but economic considerations that dictated the plant's closing.

22. The reasoning in the manager's argument is flawed because the argument
- (A) fails to acknowledge that the power industry might now believe nuclear power plants to be unsafe even though this plant was not closed for safety reasons
  - (B) overlooks the possibility that the sources from which cheap power is available might themselves be subject to safety concerns
  - (C) mistakes the issue of what the closure of the plant represents to the public for the issue of what the managers' reason for the closure were
  - (D) takes as one of its premises a view about the power industry's attitude toward nuclear safety that contradicts the activist's view
  - (E) counts as purely economic considerations some expenses that arise as a result of the need to take safety precautions
23. Which one of the following, if true, most strongly supports the activist's claim of victory?
- (A) The plant had reached the age at which its operating license expired.
  - (B) The mandate for inspections and repairs mentioned by the manager was recently enacted as a result of pressure from antinuclear groups.
  - (C) The plant would not have closed if cheap power from nonnuclear sources had not been available.
  - (D) Per unit of electricity produced, the plant had the highest operating costs of any nuclear power plant.
  - (E) The plant that closed had been able to provide backup power to an electrical network when parts of the network became overloaded.



Questions 24-25

Statistician: Changes in the Sun's luminosity correlate exceedingly well with average land temperatures on Earth. Clearly—and contrary to accepted opinion among meteorologists—the Sun's luminosity essentially controls land temperatures on Earth.

Meteorologist: I disagree. Any professional meteorologist will tell you that in a system as complicated as that giving rise to the climate, no significant aspect can be controlled by a single variable.

24. The rejection by the meteorologist of the statistician's conclusion employs which one of the following techniques of argumentation?
- (A) supporting a conclusion about a specific case by invoking a relevant generalization
  - (B) producing a single counterexample that establishes that a generalization is false as state
  - (C) reanalyzing a correlation as reflecting the multiple effects of a single cause
  - (D) rejecting a conclusion because it is a proposition that cannot be experimentally tested
  - (E) pointing out that potentially unfavorable evidence has been systematically neglected
25. The reasoning in the meteorologist's counterargument questionable because that argument
- (A) rejects a partial explanation, not because it is incorrect, but only because it is not complete
  - (B) fails to distinguish phenomena that exist independently of a particular system from phenomena that exist only as part of the system
  - (C) calls into question the existence of a correlation when the only real issue is that of how to interpret the correlation
  - (D) dismisses a hypothesis on the grounds that it fails to deal with any matters of scientific significance
  - (E) appeals to the authoritativeness of an opinion without evaluating the merit of a putative counterexample

**SECTION III****Time 35 minutes 25 Questions**

**Directions:** *The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Everyone sitting in the waiting room of the school's athletic office this morning at nine o'clock had just registered for a beginners tennis clinic. John, Mary, and Teresa were all sitting in the waiting room this morning at nine o'clock. No accomplished tennis player would register for a beginners tennis clinic.
- If the statements above are true, which one of the following must also be true on

the basis of them?

- (A) None of the people sitting in the school's athletic office this morning at nine o'clock had ever played tennis.
- (B) Everyone sitting in the school's athletic office this morning at nine o'clock registered only for a beginners tennis clinic.
- (C) John, Mary, and Teresa were the only people who registered for a beginners tennis clinic this morning.
- (D) John, Mary, and Teresa were the only people sitting in the waiting room of the school's athletic office this morning at nine o'clock.
- (E) Neither John nor Teresa is an accomplished tennis player.

2. Most people who ride bicycles for pleasure do not ride until the warm weather of spring and summer arrives. Yet it is probably more effective to advertise bicycles earlier in the year. Most bicycles are purchased in the spring, but once shoppers are ready to shop for a bicycle, they usually have already decided which brand and model of bicycle they will purchase. By then it is generally too late to induce them to change their minds.

The main point of the argument is that

- (A) bicycle advertisements are probably more effective if they appear before the arrival of warm spring weather
- (B) most bicycle purchasers decide on the brand and model of bicycle that they will buy before beginning to shop for a bicycle
- (C) more bicycles are purchased in the spring than at any other time of year
- (D) in general, once a bicycle purchaser has decided which bicycle he or she intends to purchase, it is difficult to bring about a change in that decision
- (E) spring and summer are the time of year in which bicycle riding as a leisure activity is most popular

3. During 1991 the number of people in the town of Bayburg who received municipal food assistance doubled, even though the number of people in Bayburg whose incomes were low enough to qualify for such assistance remained unchanged.

Which one of the following, if true, most helps to resolve the apparent discrepancy in the information above?

- (A) In 1990 the Bayburg Town Council debated whether or not to alter the eligibility requirements for the food assistance program but ultimately decided not to change them.
- (B) In 1990 the Bayburg social service department estimated the number of people in Bayburg who might be eligible for the food assistance program and then informed the Bayburg Town Council of the total amount of assistance likely to be needed.
- (C) During 1991 many residents of a nearby city lost their jobs and moved to

Bayburg in search of work.

- (D) During 1991 the number of applicants for food assistance in Bayburg who were rejected on the basis that their incomes were above the maximum allowable limit was approximately the same as it had been in 1990.
- (E) During 1991 Bayburg's program of rent assistance for low-income tenants advertised widely and then informed all applicants about other assistance programs for which they would be qualified.

4. Campaigning for election to provincial or state office frequently requires that a candidate spend much time and energy catering to the interests of national party officials who can help the candidate to win office. The elected officials who campaign for reelection while they are in office thus often fail to serve the interests of their local constituencies.

Which one of the following is an assumption made by the argument?

- (A) Catering to the interests of national party officials sometimes conflicts with serving the interests of a provincial or state official's local constituencies.
  - (B) Only by catering to the interests of national party officials can those who hold provincial or state office win reelection.
  - (C) The interests of local constituencies are well served only by elected officials who do not cater to the interests of national party officials.
  - (D) Officials elected to provincial or state office are obligated to serve only the interests of constituents who belong to the same party as do the officials.
  - (E) All elected officials are likely to seek reelection to those offices that are not limited to one term.
5. Since Professor Smythe has been head of the department, the most distinguished member of the faculty has resigned, fewer new courses have been developed, student has dropped, and the reputation of the department has gone down. These facts provide conclusive evidence that Professor Smythe was appointed to undermine the department.

The reasoning in the argument is flawed because the argument

- (A) overlooks the fact that something can have the reputation for being of poor quality without being of poor quality
  - (B) bases a general claim on a few exceptional instances
  - (C) assumes that because an action was followed by a change, the action was undertaken to bring about that change
  - (D) fails to distinguish between a decline in quantity and a decline in quality
  - (E) presupposes what it purports to establish
6. Books about architectural works, unless they are not intended for a general audience, ought to include discussions of both the utility and the aesthetic appeal of each of the buildings they consider. If they do not, they are flawed. Morton's book on Italian Baroque palaces describes these palaces' functional aspects, but

fails to mention that the main hall of a palace he discusses at length has a ceiling that is one of the truly breathtaking masterpieces of Western art.

If the statements above are true, it would be necessary to establish which one of the following in order to conclude that Morton's book is flawed?

- (A) Morton's description of the palaces' utility is inaccurate.
- (B) Morton's book does not discuss aspects of the palaces other than utility and aesthetic appeal.
- (C) Morton's book is intended for a general audience.
- (D) The passage discussing the palace plays a very important role in helping to establish the overall argument of Morton's book.
- (E) The palace discussed at length is one of the most aesthetically important of those treated in Morton's book.

7. Of all the photographs taken of him at his wedding there was one that John and his friends sharply disagreed about. His friends all said that this particular picture did not much resemble him, but John said that on the contrary it was the only photograph that did.

Which one of the following, if true, about the photograph most helps to explain John's disagreement with his friends?

- (A) It, unlike the other photographs of John, showed him in the style of dress he and his friends usually wear rather than the formal clothes he wore at the ceremony.
- (B) It was the only photograph taken of John at his wedding for which the photographer had used a flash.
- (C) It was a black-and-white photograph, whereas the other photographs that showed John were mostly color photographs.
- (D) It was unique in showing John's face reflected in a mirror, the photographer having taken the photograph over John's shoulder.
- (E) It was one of only a few taken at the wedding that showed no one but John.

### Questions 8-9

Eva: A "smart highway" system should be installed, one that would monitor areawide traffic patterns and communicate with computers in vehicles or with programmable highway signs to give drivers information about traffic congestion and alternate routes. Such a system, we can infer, would result in improved traffic flow in and around cities that would do more than improve drivers' tempers; it would decrease the considerable loss of money and productivity that now results from traffic congestion.

Luis: There are already traffic reports on the radio. Why would a "smart highway" system be any better?

8. Eva's argument depends on the assumption that
- (A) on "smart highways" there would not be the breakdowns of vehicles that

- currently cause traffic congestion
- (B) traffic lights, if coordinated by the system, would assure a free flow of traffic
- (C) traffic flow in and around cities is not now so congested that significant improvement is impossible
- (D) the type of equipment used in “smart highway” systems would vary from one city to another
- (E) older vehicles could not be fitted with equipment to receive signals sent by a “smart highway” system
9. If Eva responded to Luis by saying that the current one-minute radio reports are too short to give a sufficient description of overall patterns of traffic congestion, which one of the following, if true, would most strengthen Luis’s challenge?
- (A) Bad weather, which radio stations report, would cause traffic to slow down whether or not a “smart highway” system was in operation.
- (B) It would be less costly to have radio stations that give continual, lengthier traffic reports than to install a “smart highway” system.
- (C) Radio reports can take note of congestion once it occurs, but a “smart highway” system could anticipate and forestall it in many instances.
- (D) The proposed traffic monitoring would not reduce the privacy of drivers.
- (E) Toll collection booths, which constitute traffic bottlenecks, would largely be replaced in the “smart highway” system by electronic debiting of commuters’ accounts while traffic proceeded at full speed.
10. The terms “sex” and “gender” are often used interchangeably. But “sex” more properly refers to biological differences of male and female, while “gender” refers to society’s construction of a system that identifies what is masculine and feminine. Unlike the set of characteristics defining biological sex, the set of traits that are associated with gender does not sort people into two nonoverlapping groups. The traits characterize people in a complex way, so that a person may have both “masculine” and “feminine” traits.
- Which one of the following statements best expresses a main point of the argument?
- (A) Distinctions based on gender are frequently arbitrary.
- (B) Gender traits are not determined at birth.
- (C) Masculine gender traits are highly correlated with maleness.
- (D) The terms “sex” and “gender” are not properly interchangeable.
- (E) Society rather than the individual decides what is considered proper behavior.
11. Raising the tax rate on essential goods—a traditional means of increasing government revenues—invariably turns low- and middle-income taxpayers against the government. Hence government officials have proposed adding a new tax on purchases of luxury items such as yachts, private planes, jewels, and furs. The officials claim that this tax will result in a substantial increase in government



revenues while affecting only the wealthy individuals and corporations who can afford to purchase such items.

The answer to which one of the following questions would be most relevant in evaluating the accuracy of the government officials' prediction?

- (A) Will luxury goods be taxed at a higher rate than that at which essential goods are currently taxed?
- (B) Will the revenues generated by the proposed tax be comparable to those that are currently being generated by taxes on essential goods?
- (C) Will sales of the luxury items subject to the proposed tax occur at current rates once the proposed tax on luxury items has been passed?
- (D) Will the proposed tax on luxury items win support for the government in the eyes of low- and middle-income taxpayers?
- (E) Will purchases of luxury items by corporations account for more of the revenue generated by the proposed tax than will purchases of luxury items by wealthy individuals?

12. In a study of the relationship between aggression and television viewing in nursery school children, many interesting interactions among family styles, aggression, and television viewing were found. High aggression occurred in both high-viewing and low-viewing children and this seemed to be related to parental lifestyle. High-achieving, competitive, middle-class parents, whose children did not watch much television, had more aggressive children than parents who planned their lives in an organized, child-centered way, which included larger amounts of television viewing.

Which one of the following conclusions is best supported by the passage?

- (A) Low levels of television viewing often lead to high levels of aggression among children.
- (B) The level of aggression of a child cannot be predicted from levels of television viewing alone.
- (C) If high-achieving, competitive parents were more child-centered, their children would be less aggressive.
- (D) High levels of television viewing can explain high levels of aggression among children only when the parents are not child-centered.
- (E) Parental lifestyle is less important than the amount of television viewing in determining the aggressiveness of children.

13. One of the effects of lead poisoning is an inflammation of the optic nerve, which causes those who have it to see bright haloes around light sources. In order to produce the striking yellow effects in his "Sunflowers" paintings, Van Gogh used Naples yellow, a pigment containing lead. Since in his later paintings, Van Gogh painted bright haloes around the stars and sun, it is likely that he was suffering from lead poisoning caused by ingesting the pigments he used.

Which one of the following is an assumption on which the argument relies?

- (A) In Van Gogh's later paintings he painted some things as he saw them.
- (B) Van Gogh continued to use paints containing lead after having painted the "Sunflowers" paintings.
- (C) Van Gogh did not have symptoms of lead poisoning aside from seeing bright haloes around light sources.
- (D) The paints Van Gogh used in the "Sunflowers" paintings had no toxic ingredients other than lead.
- (E) The effects of Naples yellow could not have been achieved using other pigments.

Questions 14-15

Politician: The mandatory jail sentences that became law two years ago for certain crimes have enhanced the integrity of our system of justice, for no longer are there two kinds of justice, the kind dispensed by lenient judges and the kind dispensed by severe ones.

Public advocate: But with judges stripped of discretionary powers, there can be no leniency even where it would be appropriate. So juries now sometimes acquit a given defendant solely because the jurors feel that the mandatory sentence would be too harsh. Those juries, then, do not return an accurate verdict on the defendant's guilt. This is why it is imperative that the legislation instituting mandatory jail sentences be repealed.

14. The public advocate responds to the politician's argument by doing which one of the following?
- (A) trying to show that the politician's conclusion merely paraphrases the politician's evidence
  - (B) claiming that the politician's evidence, properly analyzed, has no bearing on the conclusion the politician derives from it
  - (C) arguing that leniency is not a trait of individuals but that, rather, it is a property of certain kinds of decisions
  - (D) arguing that an analysis of the consequences of certain legislation undermines the politician's conclusion
  - (E) charging that the politician exaggerated the severity of a problem in order to justify a sweeping solution
15. Which one of the following principles, if valid, provides the politician with the strongest basis for countering the public advocate's argument?
- (A) Juries should always consider whether the sum of the evidence leaves any reasonable doubt concerning the defendant's guilt, and in all cases in which it does, they should acquit the defendant.
  - (B) A system of justice should clearly define what the specific actions are that judges are to perform within the system.

- (C) A system of justice should not require any legal expertise on the part of the people selected to serve on juries.
- (D) Changes in a system of justice in response to some undesirable feature of the system should be made as soon as possible once that feature has been recognized as undesirable.
- (E) Changes in a system of justice that produce undesirable consequences should be reversed only if it is not feasible to ameliorate those undesirable consequences through further modification.
16. Researchers studying artificial sweeteners have long claimed that the perception of sweetness is determined by the activation of a single type of receptor on the tongue, called a sweetness receptor. They have also claimed that any given individual molecule of substance can activate at most one sweetness receptor and that the fewer molecules that are required to activate a receptor, the sweeter that substance will be perceived to be. Now the researchers claim to have discovered a substance of which only one molecule is needed to activate any sweetness receptor.
- Which one of the following conclusions is most strongly supported by the researchers' claims, if all of those claims are true?
- (A) The more sweetness receptors a person has on his or her tongue, the more likely it is that that person will find sweet sensations pleasurable.
- (B) In sufficient quantity, the molecules of any substance can activate a sweetness receptor.
- (C) No substance will be found that is perceived to be sweeter than the substance the researchers have discovered.
- (D) A substance that does not activate a sweetness receptor will activate a taste receptor of another type.
- (E) The more molecules of a substance that are required to activate a single sweetness receptor, the more bitter that substance will be perceived to be.
17. An editorial in the *Grandburg Daily Herald* claims that Grandburg's voters would generally welcome the defeat of the political party now in control of the Grandburg City Council. The editorial bases its claim on a recent survey that found that 59 percent of Grandburg's registered voters think that the party will definitely be out of power after next year's city council elections.
- Which one of the following is a principle that, if established, would provide the strongest justification for the editorial's conclusion?
- (A) The way voters feel about a political party at a given time can reasonably be considered a reliable indicator of the way they will continue to feel about that party, barring unforeseeable political developments.
- (B) The results of surveys that gauge current voter sentiment toward a given political party can legitimately be used as the basis for making claims about the likely future prospects of that political party.

- (C) An increase in ill-feeling toward a political party that is in power can reasonably be expected to result in a corresponding increase in support for rival political parties.
- (D) The proportion of voters who expect a given political possibility to be realized can legitimately be assumed to approximate the proportion of voters who are in favor of that possibility being realized.
- (E) It can reasonably be assumed that registered voters who respond to a survey regarding the outcome of a future election will exercise their right to vote in that election.
18. Prolonged exposure to nonionizing radiation—electromagnetic radiation at or below the frequency of visible light—increases a person’s chances of developing soft-tissue cancer. Electric power lines as well as such electrical appliances as electric blankets and video-display terminals are sources of nonionizing radiation. Which one of the following conclusions is best supported by the statements above?
- (A) People with short-term exposure to nonionizing radiation are not at risk of developing soft-tissue cancers.
- (B) Soft-tissue cancers are more common than other cancers.
- (C) Soft-tissue cancers are frequently cured spontaneously when sources of nonionizing radiation are removed from the patient’s home.
- (D) Certain electrical devices can pose health risks for their users.
- (E) Devices producing electromagnetic radiation at frequencies higher than that of visible light do not increase a person’s risk of developing soft-tissue cancers.
19. In the first decade following the founding of the British Labour party, the number of people regularly voting for Labour increased fivefold. The number of committed Labour voters increased a further fivefold during the party’s second decade. Since the increase was thus the same in the first as in the second decade, the often-made claim that the Labour party gained more voters in the party’s second decade than in its first is clearly false.
- The reasoning in the argument is flawed because the argument
- (A) fails to specify dates necessary to evaluate the truth of the conclusion, even though the argument depends on distinguishing between two time periods
- (B) draws a conclusion that cannot be true if all the data advanced in its support are true
- (C) relies on statistical evidence that, strictly speaking, is irrelevant to establishing the conclusion drawn
- (D) fails to allow for the possibility that the policy positions advocated by the Labour party changed during the period in question
- (E) overlooks the possibility that more elections were held in one of the two decades than were held in the other

Questions 20-21

A number of seriously interested amateur astronomers have tested the new Exodus refractor telescope. With it, they were able to observe in crisp detail planetary features that were seen only as fuzzy images in their 8-inch (approximately 20-centimeter) Newtonian telescopes, even though the 8-inch telescopes, with their wider apertures, gather more light than the 4-inch (approximately 10-centimeter) Exodus. Given these amateur astronomers' observational findings, any serious amateur astronomers ought to choose the Exodus if she or he is buying a telescope for planetary observation.

20. The argument proceeds by
- (A) evaluating the credibility of claims made by a particular group
  - (B) detailing the ways in which a testing situation approximates the conditions of ordinary use
  - (C) placing a phenomenon in a wider context in order to explain it
  - (D) supporting a recommendation to a group on the basis of the experience of a subset of that group
  - (E) distinguishing between the actual reasons why a certain group did a particular thing and the best reasons for doing that thing
21. Which one of the following most seriously weakens the argument?
- (A) Telescopes of certain types will not perform well unless they have been precisely collimated, a delicate adjustment requiring deftness.
  - (B) Image quality is only one of several different factors that, taken together, should determine the choice of a telescope for planetary observation.
  - (C) Many serious amateur astronomers have no intention of buying a telescope for planetary observation.
  - (D) The comparisons made by the amateur astronomers were based on observations made during several different observation sessions.
  - (E) The substance used to make the lenses of Exodus telescopes differs from that used in the lenses of other telescopes.
22. Anatomical bilateral symmetry is a common trait. It follows, therefore, that it confers survival advantages on organisms. After all, if bilateral symmetry did not confer such advantages, it would not be common.
- The pattern of reasoning in which one of the following arguments is most similar to that in the argument above?
- (A) Since it is Sawyer who is negotiating for the city government, it must be true that the city takes the matter seriously. After all, if Sawyer had not been available, the city would have insisted that the negotiations be deferred.
  - (B) Clearly, no candidate is better qualified for the job than Trumbull. In fact, even to suggest that there might be a more highly qualified candidate seems absurd to those who have seen Trumbull at work.
  - (C) If Powell lacked superior negotiating skills, she would not have been



appointed arbitrator in this case. As everyone knows, she is the appointed arbitrator, so her negotiating skills are, detractors notwithstanding, bound to be superior.

- (D) Since Varga was away on vacation at the time, it must have been Rivers who conducted the secret negotiations. Any other scenario makes little sense, for Rivers never does the negotiating unless Varga is unavailable.
- (E) If Wong is appointed arbitrator, a decision will be reached promptly. Since it would be absurd to appoint anyone other than Wong as arbitrator, a prompt decision can reasonably be expected.

23. Electrical engineers have repeatedly demonstrated that the best solid-state amplifiers are indistinguishable from the best vacuum-tube amplifiers with respect to the characteristics commonly measured in evaluating the quality of an amplifier's musical reproduction. Therefore, those music lovers who insist that recorded music sounds better when played with the best vacuum tube amplifier must be imagining the difference in quality that they claim to hear.

Which one of the following, if true, most seriously weakens the argument?

- (A) Many people cannot tell from listening to it whether a recording is being played with a very good solid-state amplifier or a very good vacuum-tube amplifier.
  - (B) The range of variation with respect to the quality of musical reproduction is greater for vacuum tube amplifiers than for solid-state amplifiers.
  - (C) Some of the characteristics that are important in determining how music sounds to a listener cannot be measured.
  - (D) Solid-state amplifiers are more compact, use less power, and generate less heat than vacuum-tube amplifiers that produce a comparable volume of sound.
  - (E) Some vacuum-tube amplifiers are clearly superior to some solid-state amplifiers with respect to characteristics commonly measured in the laboratory to evaluate the quality of an amplifier's musical reproduction.
24. Explanation must be distinguished from justification. Every human action potentially has an explanation, that is, with sufficient knowledge it would be possible to give an accurate description of the causes of that action. An action is justified only when the person performing the action has sufficient reasons for the action. According to many psychologists, even when there is a justification for an action, that justification often forms no part of the explanation. The general principle, however, is that only an action whose justification, that is, the reasons for the action, forms an essential part of its explanation is rational.

If the statements in the passage are correct, which one of the following can be properly concluded from them?

- (A) When a human action is justified, that action has no explanation.
- (B) If there are any reasons among the causes of an action, then that action

rational.

- (C) Some psychologists believe that the justification for an action never forms an essential part of its explanation.
- (D) There are actions whose causes cannot be discovered.
- (E) If any human actions are rational, then reasons must sometimes be causes of actions.

25. At the company picnic, all of the employees who participated in more than four of the scheduled events, and only those employees were eligible for the raffle held at the end of the day. Since only a small proportion of the employees were eligible for the raffle, most of the employees must have participated in fewer than four of the scheduled events.

Which one of the following arguments exhibits a flawed pattern of reasoning most like that exhibited by the argument above?

- (A) Only third- and fourth-year students are allowed to keep cars on campus. Since one quarter of the third-year students keep cars on campus and one half of the fourth-year students keep cars on campus, it must be that fewer third-year students than fourth-year students keep cars on campus.
- (B) Only those violin students who attended extra rehearsal sessions were eligible for selection as soloists. Since two of the violin students were selected as soloists, those two must have been the only violin students who attended the extra sessions.
- (C) The only students honored at a special banquet were the band members who made the dean's list last semester. Since most of the band members were honored, most of the band members must have made the dean's list.
- (D) All of the members of the service club who volunteered at the hospital last summer were biology majors. Since ten of the club members are biology majors, those ten members must have volunteered at the hospital last summer.
- (E) All of the swim team members who had decreased their racing times during the season were given awards that no other members were given. Since fewer than half the team members were given such awards, the racing times of more than half the team members must have increased during the season.

## TEST 21

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Press release: A comprehensive review evaluating the medical studies done up to the present time has found no reason to think that drinking coffee in normal

amounts harms the coffee-drinker's heart. So coffee drinkers can relax and enjoy their beverage—it is safe to drink coffee.

Which one of the following points to a weakness in the reasoning in the press release's argument?

- (A) The review was only an evaluation of studies and did not itself undertake to study patients.
  - (B) The health of the heart is not identical with the general health of the body.
  - (C) Coffee drinkers might choose to eat along with their coffee foods containing substances that harm the heart.
  - (D) Other beverages besides coffee might contain stimulants that have some effect on the heart.
  - (E) Drinking unusually large amounts of coffee could be caused by stress that itself directly harms the heart.
2. All people prefer colors that they can distinguish easily to colors that they have difficulty distinguishing. Infants can easily distinguish bright colors but, unlike adults, have difficulty distinguishing subtle shades. A brightly colored toy for infants sells better than the same toy in subtle shades at the same price.

Which one of the following conclusions is most strongly supported by the information in the passage?

- (A) Infants prefer bright primary colors to bright secondary colors.
  - (B) Color is the most important factor in determining which toys an infant will prefer to play with.
  - (C) Individual infants do not have strong preferences for one particular bright color over other bright colors.
  - (D) The sales of toys of infants reflect the preferences of infants in at least one respect.
  - (E) Toy makers study infants to determine what colors the infants can distinguish easily.
3. A group of unusual meteorites was found in Shergotty, India. Their structure indicates that they originated on one of the geologically active planets: Mercury, Venus, or Mars. Because of Mercury's proximity to the Sun, any material dislodged from that planet's surface would have been captured by the Sun, rather than falling to Earth as meteorites. Nor could Venus be the source of the meteorites, because its gravity would have prevented dislodged material from escaping into space. The meteorites, therefore, probably fell to Earth after being dislodged from Mars, perhaps as the result of a collision with a large object.

The argument derives its conclusion by

- (A) offering a counterexample to a theory
- (B) eliminating competing alternative explanations
- (C) contrasting present circumstances with past circumstances

- (D) questioning an assumption
- (E) abstracting a general principle from specific data

4. Because quitting smoking is very stressful and leads to weight gain, it is difficult to do. The key to quitting, however, may be as simple as replacing an unhealthy activity with a healthy one. In one study half of those attempting to quit were assigned to a smoking-cessation program alone, and the other half were assigned to the same program plus fifteen weeks of aerobic exercise. At the one-month mark none in the first group had quit, but 40 percent of those in the second group had not smoked.

Each of the following, if true, provides some support for the argument EXCEPT:

- (A) Regular exercise prevents weight gain.
  - (B) Each group in the study included four hundred randomly selected participants.
  - (C) Nonsmokers accustomed to regular exercise do not gain weight when they stop exercising.
  - (D) Aerobic exercise can stimulate the brain's production of endorphins, which reduce tension.
  - (E) Of those in the second group in the study, 38 percent had not smoked at the one-year mark.
5. Altogether, the students in Ms. Tarnowski's Milton Elementary School class collected more aluminum cans than did the students in any of the school's other classes. Therefore, the Milton student who collected the most aluminum cans was in Ms. Tarnowski's class.

Which one of the following arguments contains flawed reasoning that is most parallel to that in the argument above?

- (A) Altogether, more trees were planted by the students in Mr. Kelly's class than were planted by those in Mr. Liang's class and Mr. Jackson's class combined. Therefore, Mr. Kelly's students planted more trees than Mr. Jackson's students planted.
- (B) More than half of Milton Elementary School's students play in the band and more than half of the school's students sing in the choir. Therefore, every student at Milton Elementary School either plays in the band or sings in the choir.
- (C) Mr. Rowe's Milton Elementary School class raised more money by selling candy bars than Ms. Hunt's class raised by holding a raffle. Therefore, the number of candy bars sold by Mr. Rowe's class was greater than the number of raffle tickets sold by Ms. Hunt's class.
- (D) The total number of tickets to the school fair sold by the students in Ms. Ramirez's Milton Elementary School class was greater than the number sold by Milton students from any other class. Therefore, the Milton student who sold the most tickets to the school fair was a student in Ms. Ramirez's class.

(E) Ms. Ventura's Milton Elementary School class assembled more birdhouses than did any of the school's other classes. Since Ms Ventura's class had fewer students than any other Milton class, her students assembled more birdhouse on average than did the students in any other Milton class.

6. Several excellent candidates have been proposed for the presidency of United Wire and each candidate would bring to the job different ( ) and experience. If the others are compared with Jones, however, it will be apparent that none of them has her unique set of qualifications. Jones, therefore, is best qualified to be the new president of United Wire.

The argument is vulnerable to criticism on the ground that it

- (A) uses flattery to win over those who hold an opposing position
- (B) refutes a distorted version of an opposing position
- (C) seeks to distinguish one member of a group on the basis of something that applies to all
- (D) supports universal claim on the basis of a single example
- (E) describes an individual in terms that appropriately refer only to the group as a whole

7. A neighborhood group plans to protest the closing of the neighborhood's only recreation center on the grounds that to do so would leave the neighborhood without local access to a recreation center. "Our neighborhood already has the most residents per center of any neighborhood in the city," complained one resident, "and closing this center would make the situation unacceptable since access to recreational facilities is a necessity for this neighborhood."

Each of the following, if true, weakens the resident's argument EXCEPT:

- (A) A large number of the neighborhood's residents are unable to travel outside their locality to gain access to recreational facilities.
- (B) Children, the main users of recreational facilities, make up a disproportionately small segment of the neighborhood's population.
- (C) Often the recreation center in the neighborhood is open but not being used.
- (D) Programs that are routinely filled at other recreation centers must be canceled at the neighborhood's recreation center due to lack of interest.
- (E) As people become more involved in computers and computer games, recreation centers are becoming increasingly less important.

8. Sociologist: The claim that there is a large number of violent crimes in our society is false, for this claim is based upon the large number of stories in newspapers about violent crimes. But since violent crimes are very rare occurrences, newspapers are likely to print stories about them.

The sociologist's argument is flawed because it

- (A) presupposes that most newspaper stories are about violent crime
- (B) presupposes the truth of the conclusion it is attempting to establish



- (C) assumes without warrant that the newspaper stories in question are not biased
- (D) mistakes property of each member of a group taken as an individual for a property of the group taken as a whole
- (E) uncritically draws an inference from what has been true in the past to what will be true in the future

9. Historian: Anyone who thinks that the terrors of the ancient regime of Q were exclusively the work of fanatics is overlooking a basic truth: the regime was made up primarily of ordinary people enthusiastically seeking paradise. The regime executed many people in pursuit of its goal, but it later became clear that paradise as they defined it, is unrealizable. So at least some of the ordinary people of Q were in fact murderers.

Which one of the following principles, if valid, provides the most support for the historian's argumentation?

- (A) The pursuit of paradise does not justify murder.
  - (B) The pursuit of paradise justifies fanaticism.
  - (C) Execution in pursuit of what is later found to be unattainable constitutes murder.
  - (D) Fanaticism in pursuit of paradise constitutes inhumanity.
  - (E) Enthusiasm in pursuit of what is eventually found to be unattainable constitutes fanaticism.
10. Economist: The economy seems to be heading out of recession. Recent figures show that consumers are buying more durable goods than before, indicating that they expect economic growth in the near future.
- That consumers are buying more durable goods than before figures in the economist's argument in which one of the following ways?
- (A) It is the phenomenon that the argument seeks to explain.
  - (B) Its truth is required in order for the argument's conclusion to be true.
  - (C) It is an inference drawn from the premise that the recession seems to be ending.
  - (D) It is an inference drawn from the premise that consumers expect economic growth in the near future.
  - (E) It is the primary evidence from which the argument's conclusion is drawn.
11. Not surprisingly, there are no professors under the age of eighteen. And as is well known, no one under eighteen can vote legally. Finally some brilliant people are professors, some are legal voters, and some are under eighteen.
- If the statements above are true, then on the basis of them which one of the following must also be true?
- (A) No professors are eighteen-year-olds.
  - (B) All brilliant people are either professors, legal voters, or under eighteen.

- (C) Some legal voters are not professors.
- (D) Some professors are neither legal voters nor brilliant people.
- (E) Some brilliant people are neither professors nor legal voters.
12. For years scientists have been scanning the skies in the hope of finding life on other planets. But in spite of the ever-increasing sophistication of the equipment they employ, some of it costing hundreds of millions of dollars, not the first shred of evidence of such life has been forthcoming. And there is no reason to think that these scientists will be any more successful in the future, no matter how much money is invested in the search. The dream of finding extraterrestrial life is destined to remain a dream as science's experience up to this point should indicate.
- Which one of the following most accurately states the main point of the argument?
- (A) There is no reason to believe that life exists on other planets.
- (B) The equipment that scientists employ is not as sophisticated as it should be.
- (C) Scientists searching for extraterrestrial life will not find it.
- (D) Only if scientists had already found evidence of life on other planets would continued search be justified.
- (E) We should not spend money on sophisticated equipment to aid in the search for extraterrestrial life.
13. Carl's Coffee Emporium stocks only two decaffeinated coffees: French Roast and Mocha Java. Yusef only serves decaffeinated coffee and the coffee he served after dinner last night was (?) smooth and mellow have been French Roast. So, if Yusef still gets all his coffee from Carl's, what he served last night was Mocha Java.
- The argument above is most similar in its logical structure to which one of the following?
- (A) Samuel wants to take three friends to the beach. His mother owns both a sedan and a convertible. The convertible holds four people so, although the sedan has a more powerful engine, if Samuel borrows a vehicle from his mother, he will borrow the convertible.
- (B) If Anna wants to walk from her house to the office where she works, she must either go through the park or take the overpass across the railroad tracks. The park paths are muddy and Anna does not like using the overpass so she never walks to work.
- (C) Rose can either take a two-week vacation in July or wait until October and take a three-week vacation. The trail she had planned to hike requires three weeks to complete but is closed by October, so if Rose takes a vacation it will not be the one she had planned.
- (D) Werdix, Inc. has offered Arno a choice between a job in sales and a job in research. Arno would like to work at Werdix but he would never take a job in sales when another job is available, so if he accepts one of these jobs it

will be the one in research.

- (E) If Teresa does not fire her assistant, her staff will rebel and her department's efficiency will decline. Losing her assistant would also reduce its efficiency, so, if no alternative solution can be found, Theresa's department will become less efficient.

14. Steven: The allowable blood alcohol level for drivers should be cut in half. With this reduced limit, social drinkers will be deterred from drinking and driving, resulting in significantly increased highway safety.

Miguel: No lowering the current allowable blood alcohol level would have little effect on highway safety because it would not address the most important aspect of the drunken driving problem, which is the danger to the public posed by heavy drinkers, who often drive with a blood alcohol level of twice the current legal limit.

Steven and Miguel's statements provide the most support for (?) that they would disagree about the truth of which one of the following statements?

- (A) Social drinkers who drink and drive pose a substantial threat to the public.  
(B) There is a direct correlation between a driver's blood alcohol level and the driver's ability to drive safely.  
(C) A driver with a blood alcohol level above the current legal limit poses a substantial danger to the public.  
(D) Some drivers whose blood alcohol level is lower than the current legal limit pose a danger to the public.  
(E) A driver with a blood alcohol level slightly greater than half the current legal limit poses no danger to the public.

Questions 15-16

The authors of a recent article examined warnings of an impending wave of extinctions of animal species within the next 100 years. These authors say that no evidence exists to support the idea that the rate of extinction of animal species is now accelerating. They are wrong, however. Consider only the data on fishes: 40 species and subspecies of North American fishes have vanished in the twentieth century, 13 between 1900 and 1950, and 27 since 1950.

15. Which one of the following is the main point of the argument?
- (A) There is evidence that the rate of extinction of animal species is accelerating.  
(B) The future rate of extinction of animal species cannot be determined from available evidence.  
(C) The rate of extinction of North American fishes is parallel to the rate of extinction of all animal species taken together.  
(D) Forty species and subspecies of North American fishes have vanished in the twentieth century.  
(E) A substantial number of fish species are in danger of imminent extinction.

16. The answer to which one of the following questions would contribute most to an evaluation of the argument?
- (A) Were the fish species and subspecies that became extinct unrepresentative of animal species in general with regard to their pattern of extinction?
  - (B) How numerous were the populations in 1950 of the species and subspecies of North American fishes that have become extinct since 1950?
  - (C) Did any of the species or subspecies of North American fishes that became extinct in the twentieth century originate in regions outside of North America?
  - (D) What proportion of North American fish species and subspecies whose populations were endangered in 1950 are now thriving?
  - (E) Were any of the species or subspecies of North American fishes that became extinct in the twentieth century commercially important?
17. After the Second World War, the charter of the newly formed United Nations established an eleven-member Security Council and charged it with taking collective action in response to threats to world peace. The charter further provided that the five nations that were then the major powers would permanently have sole authority to cast vetoes. The reason given for this arrangement was that the burden of maintaining world peace would rest on the world's major powers and (?) should be required to assume the burden of enforcing a decision it found repugnant.
- The reasoning given for the structure of the Security Council assumes that
- (A) it does not make sense to provide for democracy among nations when nations themselves are not all democracies
  - (B) no nation that was not among the major powers at the end of the Second World War would become a major power
  - (C) nations would not eventually gravitate into large geographical blocs, each containing minor powers as well as at least one major power
  - (D) minor powers would not ally themselves with major powers to gain the protection of the veto exercised by major powers
  - (E) decisions reached by a majority of nations in response to threats to world peace would be biased in favor of one or more major powers
18. Environmental scientist: It is true that over the past ten years, there has been a sixfold increase in government funding for the preservation of wetlands while the total area of wetlands needing such preservation has increased only twofold (although this area was already large ten years ago). Even when inflation is taken into account, the amount of funding now is at least three times what it was ten years ago. Nevertheless, the current amount of government funding for the preservation of wetlands is inadequate and should be augmented.
- Which one of the following, if true, most helps to reconcile the environmental scientist's conclusion with the evidence cited above?

- (A) The governmental agency responsible for administering wetland-preservation funds has been consistently mismanaged and run inefficiently over the past ten years.
- (B) Over the past ten years, the salaries of scientists employed by the government to work on the preservation of wetlands have increased at a rate higher than the inflation rate.
- (C) Research over the past ten years has enabled scientists today to identify wetlands in need of preservation well before the areas are at serious risk of destruction.
- (D) More people today scientists and nonscientists alike, are working to preserve all natural resources including wetlands.
- (E) Unlike today, funding for the preservation of wetlands was almost nonexistent ten years ago.
19. In Australia the population that is of driving age has grown large over the last five years, but the annual number of traffic fatalities has declined. This leads to the conclusion that, overall, the driving-age population of Australia consists of more skillful drivers now than five years ago.
- Each of the statements below, if true, weakens the argument EXCEPT:
- (A) Three years ago, a mandatory seat-belt law went into effect throughout Australia.
- (B) Five years ago, Australia began a major road repair project.
- (C) Because of increases in the price of fuel, Australians on average drive less each year than in the preceding year.
- (D) The number of hospital emergency facilities in Australia has doubled in the last five years.
- (E) In response to an increase in traffic fatalities, Australia instituted a program of mandatory driver education five years ago.
20. Anthropological studies indicate that distinct culture differs in their moral codes. Thus, as long as there are distinct cultures there are no values shared across cultures.
- Each of the following, if true, would weaken the argument EXCEPT:
- (A) Anthropologists rely on inadequate translation techniques to investigate the values of cultures that use languages different from the anthropologists' languages.
- (B) As a result of advancing technology and global communication we will someday all share the same culture and the same values.
- (C) Although specific moral values differ across cultures, more general moral principles, such as "Friendship is good," are common to all cultures.
- (D) The anthropologists who have studied various cultures have been biased in favor of finding differences rather than similarities between distinct



cultures.

- (E) What appear to be differences in values between distinct cultures are nothing more than differences in beliefs about how to live in accordance with shared values.

21. Newspaper editor: Law enforcement experts, as well as most citizens, have finally come to recognize that legal prohibitions against gambling all share a common flaw: no matter how diligent the effort, the laws are impossible to enforce. Ethical qualms notwithstanding, when a law fails to be effective, it should not be a law. That is why there should be no legal prohibition against gambling.

Which one of the following, if assumed, allows the argument's conclusion to be properly drawn?

- (A) No effective law is unenforceable.  
(B) All enforceable laws are effective.  
(C) No legal prohibitions against gambling are enforceable.  
(D) Most citizens must agree with a law for the law to be effective.  
(E) Most citizens must agree with a law for the law to be enforceable.

22. Copernicus's astronomical system is superior to Ptolemy's and was so at the time it was proposed, even though at that time all observational evidence was equally consistent with both theories. Ptolemy believed that the stars revolved around the earth at great speeds. This struck Copernicus as unlikely; he correctly thought that a simpler theory is that the earth rotates on its axis.

The argument most closely conforms to which one of the following principles?

- (A) Simplicity should be the sole deciding factor in choosing among competing scientific theories.  
(B) If one theory is likely to be true, and another competing theory is likely to be false, then the one likely to be true is the superior of the two.  
(C) If all observational evidence is consistent with two competing theories, the one that is more intuitively true is the more practical theory to adopt.  
(D) Other things being equal, the more complex of two competing theories is the inferior theory.  
(E) Other things being equal, the simpler of two competing theories is the more scientifically important theory.

23. Essayist: The existence of a moral order in the universe—i.e., an order in which bad is always eventually punished and good rewarded—depends upon human souls being immortal. In some cultures this moral order is regarded as the result of a karma that controls how one is reincarnated, in others it results from the actions of a supreme being who metes out justice to people after their death. But however a moral order is represented, if human souls are immortal, then it follows that the bad will be punished.

Which one of the following most accurately describes a flaw in the essayist's reasoning?

- (A) From the assertion that something is necessary to a moral order, the argument concludes that that thing is sufficient for an element of the moral order to be realized.
- (B) The argument takes mere beliefs to be established facts.
- (C) From the claim that the immortality of human souls implies that there is a moral order in the universe, the argument concludes that there being a moral order in the universe implies that human souls are immortal.
- (D) The argument treats two fundamentally different conceptions of a moral order as essentially the same.
- (E) The argument's conclusion is presupposed in the definition it gives of a moral order.

24. No mathematical proposition can be proven true by observation. It follows that it is impossible to know any mathematical proposition to be true.

The conclusion follows logically if which one of the following is assumed?

- (A) Only propositions that can be proven true can be known to be true.
- (B) Observation alone cannot be used to prove the truth of any proposition.
- (C) If a proposition can be proven true by observation then it can be known to be true.
- (D) Knowing a proposition to be true is impossible only if it cannot be prove true by observation.
- (E) Knowing a proposition to be true requires proving it true by observation.

25. The publisher of a best-selling self-help book had, in some promotional material, claimed that it showed readers how to become exceptionally successful. Of course, everyone knows that no book can deliver to the many what, by definition, must remain limited to the few exceptional successes. Thus, although it is clear that the publisher knowingly made a false claim, doing so should not be considered unethical in this case.

Which one of the following principles, if valid, most strongly supports the reasoning above?

- (A) Knowingly making a false claim is unethical only if it is reasonable for people to accept the claim as true.
- (B) Knowingly making a false claim is unethical if those making it derive a gain at the expense of those acting as if the claim were true.
- (C) Knowingly making a false claim is unethical in only those cases in which those who accept the claim as true suffer a hardship greater than the gain they were anticipating.
- (D) Knowingly making a false claim is unethical only if there is a possibility that someone will act as if the claim might be true.

- (E) Knowingly making a false claim is unethical in at least those cases in which for someone else to discover that the claim is false, that person must have acted as if the claim were true.

### SECTION III

Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Francis: Failure to become properly registered to vote prevents one-third of the voting-age citizens of Lagonia from voting. If local election boards made the excessively cumbersome registration process easier, more people would register and vote.

Sharon: The high number of citizens not registered to vote has persisted despite many attempts to make registering easier. Surveys show that most of these citizens believe that their votes would not make a difference. Until that belief is changed, simplifying the registration process will not increase the percentage of citizens registering to vote.

The main issue in dispute between Francis and Sharon is

- (A) whether changing the voter registration process would be cumbersome
  - (B) why so many citizens do not register to vote
  - (C) what percentage of those registered to vote actually vote
  - (D) whether local election boards have simplified the registration process
  - (E) why the public lacks confidence in the effects of voting
2. Advertisement: Anyone who thinks moisturizers are not important for beautiful skin should consider what happens to the earth, the skin of the world, in times of drought. Without regular infusions of moisture the ground becomes lined and cracked and its lush loveliness fades away. Thus your skin, too, should be protected from the protection provided by regular infusions of Dewyfresh the drought-defying moisturizer.
- The Dewyfresh advertisement exhibits which one of the following errors of reasoning?
- (A) It treats something that is necessary for bringing about a state of affairs as something that is sufficient to bring about that state of affairs.
  - (B) It treats the fact that two things regularly occur together as proof that there is a single thing that is the cause of them both.
  - (C) It overlooks the fact that changing what people think is the case does not necessarily change what is the case.
  - (D) It relies on the ambiguity of the term "infusion," which can designate either a process or the product of that process.
  - (E) It relies on an analogy between two things that are insufficiently alike in the respects in which they would have to be alike for the conclusion to be

supported.

Questions 3-4

M: The Greek alphabet must have been invented by some individual who knew the Phoenician writing system and who wanted to have some way of recording Homeric epics and thereby preserving expressions of a highly developed tradition of oral poetry.

P: Your hypothesis is laughable! What would have been the point of such a person's writing Homeric epics down? Surely a person who knew them well enough to write them down would not need to read them, and no one else could read them, according to your hypothesis.

3. Which one of the following is an argumentative strategy that P uses in responding to M?
- (A) attacking M's understanding of the literary value of oral poetry
  - (B) disagreeing with M's thesis without attempting to refute it
  - (C) challenging M's knowledge of the Phoenician writing system
  - (D) attempting to undermine M's hypothesis by making it appear absurd
  - (E) providing an alternative interpretation of evidence put forward by M
4. P's argument is vulnerable to which one of the following criticisms?
- (A) It fails to demonstrate that the Phoenician alphabet alone could have provided the basis for the Greek alphabet.
  - (B) It incorrectly assumes that the first text ever written in Greek was a Homeric poem.
  - (C) It confuses the requirements for a complex oral tradition with the requirements of a written language.
  - (D) It attempts to demonstrate the truth of a hypothesis merely by showing that it is possible.
  - (E) It overlooks the possibility that person who invented the Greek alphabet did so with the intention of teaching it to others.
5. Bacteria from food can survive for several days on the surface of plastic cutting boards, but bacteria can penetrate wooden cutting boards almost immediately, leaving the surface free of contamination. Therefore, wooden cutting boards, unlike plastic cutting boards, need not be washed in order to prevent their contaminating food that is cut on them; wiping them off to remove food debris is sufficient.

Which one of the following is an assumption on which the argument depends?

- (A) Washing plastic cutting boards does not remove all bacteria from the surface.
- (B) Prevention of bacterial contamination is the only respect in which wooden cutting boards are superior to plastic cutting boards.
- (C) Food that is not already contaminated with bacteria can be contaminated only

by being cut on contaminated cutting boards.

- (D) Bacteria that penetrate into wooden cutting boards do not reemerge on the surface after the cutting boards have been used.
- (E) Washing wooden cutting boards kills bacteria below the surface of the cutting boards.

6. Asthmagon was long considered the most effective of the drugs known as beta-2 agonists, designed to alleviate asthma attacks. However, studies conducted in Rhiago between 1981 and 1987 revealed that nearly one out of every five of the asthma patients under observation who took asthmagon suffered serious side effects after taking the drug. Citing this statistic, some doctors argue that asthmagon should be banned as an anti-asthma drug.

Which one of the following, if true, most weakens the case for the proposed ban of asthmagon?

- (A) In Rhiago, where asthmagon had been the most widely prescribed of the beta-2 agonists, the number of asthma deaths increased between 1981 and 1987.
  - (B) Many of the patients under observation to whom asthmagon was administered had not previously taken a beta-2 agonist.
  - (C) Despite the growing concern about the drug many physicians in Rhiago still prescribe asthmagon to asthma sufferers.
  - (D) Among the patients observed, only those who had very high cholesterol counts suffered side effects after taking asthmagon.
  - (E) Asthmagon increases the severity of asthma attacks in some people because the drug can cause damage to heart tissues.
7. In response to requests made by the dairy industry the government is considering whether to approve the synthetic hormone BST for use in dairy cows. BST increases milk production but also leads to recurring udder inflammation, decreased fertility, and symptoms of stress in cows who receive the hormone. All of these problems can be kept under control with constant veterinary care but such levels of veterinary help would cost big farms far less per cow than they would small farms.

If the statements above are true which one of the following claims is most strongly supported by them?

- (A) The government is unlikely to approve the synthetic hormone BST for use in cows.
- (B) The proportion of cows that suffer from udder inflammation, decreased fertility, and symptoms of stress is currently greater on big dairy farms than on small ones.
- (C) At the present time milk from cows raised on small farms is safer to drink than milk from cows raised on big farms.
- (D) The milk from cows who receive BST will not be safe for people to drink.



(E) Owners of big farms stand to gain more from government approval of BST than do owners of small farms.

8. Jones is selling a house to Smith. The contract between the two specifies that for up to a year after ownership is transferred, Jones will be responsible for repairing any “major structural defects,” defined as defects in the roof or roof-supporting components of the house that might be found. Jones is not responsible for any other repairs. The house has a truss roof which means that the only walls that support the roof are the exterior walls.

It can be properly concluded from the information above that

- (A) Jones did not know of any defects in the roof or roof-supporting components of the house at the time the contract was written
- (B) although other components of the house may contain defects the roof and roof-supporting components of the house are currently free from such defects
- (C) the contract does not oblige Jones to repair any defects in the house’s nonexterior walls after ownership of the house has been transferred
- (D) Smith will be obliged to repair all structural defects in the house within a year after ownership is transferred except those for which Jones is responsible
- (E) in the past Jones has had to make repairs to some of the house’s exterior walls

9. The play *Mankind* must have been written between 1431 and 1471. It cannot have been written before 1431 for in that year the rose noble, a coin mentioned in the play, was first circulated. The play cannot have been written after 1471 since in that year King Henry VI died, and he is mentioned as a living monarch in the play’s dedication.

The argument would be most seriously weakened if which one of the following were discovered?

- (A) The Royal Theatre Company includes the play on a list of those performed in 1480.
- (B) Another coin mentioned in the play was first minted in 1422.
- (C) The rose noble was neither minted nor circulated after 1486.
- (D) Although Henry VI was deposed in 1461, he was briefly restored to the throne in 1470.
- (E) In a letter written in early 1428 a merchant told of having seen the design for a much-discussed new coin called the “rose noble.”

10. All material bodies are divisible into parts and everything divisible is imperfect. It follows that all material bodies are imperfect. It likewise follows that the spirit is not a material body.

The final conclusion above follows logically if which one of the following is

assumed?

- (A) Everything divisible is a material body.
- (B) Nothing imperfect is indivisible.
- (C) The spirit is divisible.
- (D) The spirit is perfect.
- (E) The spirit is either indivisible or imperfect.

11. Special kinds of cotton that grow fibers of green or brown have been around since the 1930s but only recently became commercially feasible when a long-fibered variety that can be spun by machine was finally bred. Since the cotton need not be dyed, processing plants avoid the expense of dyeing and the ecological hazards of getting rid of leftover dye and by-products.

Which one of the following can be properly inferred from the passage?

- (A) It is ecologically safer to process long-fibered cotton than short-fibered cotton.
- (B) Green and brown cottons that can be spun only by hand are not commercially viable.
- (C) Hand-spun cotton is more ecologically safe than machine-spun cotton.
- (D) Short-fibered regular cottons are economically competitive with synthetic fabrics.
- (E) Garments made of green and brown cottons are less expensive than garments made of regular cotton.

12. People in the tourist industry know that excessive development of seaside areas by the industry damages the environment. Such development also hurts the tourist industry by making these areas unattractive to tourists, a fact of which people in the tourist industry are well aware. People in the tourist industry would never knowingly do anything to damage the industry. Therefore, they would never knowingly damage the seaside environment, and people who are concerned about damage to the seaside, people who are concerned about damage to the seaside environment, thus have nothing to fear from the tourist industry.

The reasoning in the arguments is most vulnerable to

- (A) No support is provided for the claim that excessive development hurts the tourist industry.
- (B) That something is not the cause of a problem is used as evidence that it never coexists with that problem.
- (C) The argument shifts from applying a characteristic to a few members of a group to applying the characteristic to all members of that group.
- (D) The possibility that the tourist industry would unintentionally harm the environment is ignored.
- (E) The argument establishes that a certain state of affairs is likely and then treats that as evidence that the state of affairs is inevitable.

13. Health officials claim that because the foods and beverages mentioned or consumed on many television programs are extremely low in nutritional value watching television has a bad influence on the dietary habits of television viewers.

The claim by health officials depends on the presupposition that

- (A) the eating and drinking habits of people on television programs are designed to mirror the eating and drinking habits of television viewers
  - (B) seeing some foods and beverages being consumed on or hearing them mentioned on television programs increases the likelihood that viewers will consume similar kinds of foods and beverages
  - (C) the food and beverage industry finances television programs so that the foods and beverages that have recently appeared on the market can be advertised on those programs
  - (D) television viewers are only interested in the people on television programs who have the same eating and drinking habits as they do
  - (E) the eating and drinking habits of people on television programs provide health officials with accurate predictions about the foods and beverages that will become popular among television viewers
14. In an effort to boost sales during the summer months, which are typically the best for soft-drink sales Foamy Soda lowered its prices. In spite of this, however, the sales of Foamy Soda dropped during the summer months.
- Each of the following, if true, contributes to reconciling the apparent discrepancy indicated above EXCEPT:
- (A) The soft-drink industry as a whole experienced depressed sales during the summer months.
  - (B) Foamy Soda's competitors lowered their prices even more drastically during the summer months.
  - (C) Because of an increase in the price of sweeteners the production costs of Foamy Soda rose during the summer months.
  - (D) A strike at Foamy Soda's main plant forced production cutbacks that resulted in many stores not receiving their normal shipments during the summer months.
  - (E) The weather during the summer months was unseasonably cool, decreasing the demand for soft drinks.
15. Dr. Z: Many of the characterizations of my work offered by Dr. Q are imprecise and such characterizations do not provide an adequate basis for sound criticism of my work.
- Which one of the following can be properly inferred from Dr. Z's statement?
- (A) Some of Dr. Q's characterizations of Dr. Z's work provide an adequate basis for sound criticism of Dr. Z's work.

- (B) All of Dr Q's characterizations of Dr. Z's work that are not imprecise provide an adequate basis for sound criticism of Dr. Z's work.
- (C) All of the characterizations of Dr. Z's work by Dr. Q that do not provide an adequate basis for sound criticism of Dr Z's work are imprecise.
- (D) If the characterization of someone's work is precise, then it provides a sound basis for criticizing that work.
- (E) At least one of Dr Q's characterizations of Dr. Z's work fails to provide an adequate basis for sound criticism of that work.
16. K, a research scientist, was accused of having falsified laboratory data. Although the original data in question have disappeared, data from K's more recent experiments have been examined and clearly none of them were falsified. Therefore, the accusation should be dismissed.
- Which one of the following contains questionable reasoning that is most similar to that in the argument above?
- (A) L, an accountant, was charged with having embezzled funds from a client. The charge should be ignored, however, because although the records that might reveal this embezzlement have been destroyed, records of L's current clients show clearly that there has never been any embezzlement from them.
- (B) M, a factory supervisor, was accused of failing to enforce safety standards. This accusation should be discussed because although the identity of the accuser was not revealed, a survey of factory personnel revealed that some violations of the standards have occurred.
- (C) N, a social scientist, was charged with plagiarism. The charge is without foundation because although strong similarities between N's book and the work of another scholar have been discovered, the other scholar's work was written after N's work was published.
- (D) O, an auto mechanic has been accused of selling stolen auto parts. The accusation seems to be justified since although no evidence links O directly to these sales, the pattern of distribution of the auto parts points to O as the source.
- (E) P, a politician, has been accused of failing to protect the public interest. From at least some points of view, however, the accusation will undoubtedly be considered false, because there is clearly disagreement about where the public interest lies.

Questions 17-18

The widespread staff reductions in a certain region's economy are said to be causing people who still have their jobs to cut back on new purchases as though they, too, had become economically distressed. Clearly, however, actual spending by such people is undiminished, because there has been no unusual increase in the amount of money held by those people in savings accounts.

17. The argument in the passage proceeds by doing which one of the following?

- (A) concluding that since an expected consequence of a supposed development did not take place
  - (B) concluding that since only one of the two predictable consequences of a certain kind of behavior is observed to occur this observed occurrence cannot, in the current situation, be a consequence of such behavior
  - (C) arguing that since people's economic behavior is guided by economic self-interest only misinformation or error will cause people to engage in economic behavior that harms them economically
  - (D) arguing that since two alternative developments exhaust all the plausible possibilities one of those developments occurred and the other did not
  - (E) concluding that since the evidence concerning a supposed change is ambiguous, it is most likely that no change is actually taking place
18. Which one of the following is an assumption on which the argument relies?
- (A) If people in the region who continue to be employed have debts, they are not now paying them off at an accelerated rate.
  - (B) People in the region who continue to be employed and who have relatives who have lost their jobs commonly assist those relatives financially.
  - (C) If people in the region who have lost jobs get new jobs, the new jobs generally pay less well than the ones they lost.
  - (D) People in the region who continue to be employed are pessimistic about their prospects for increasing their incomes.
  - (E) There exist no statistics about sales of goods in the region as a whole.
19. Every student who walks to school goes home for lunch. It follows that some students who have part-time jobs do not walk to school.
- The conclusion of the argument follows logically if which one of the following is assumed?
- (A) Some students who do not have part-time jobs go home for lunch.
  - (B) Every student who goes home for lunch has a part-time job.
  - (C) Some students who do not have part-time jobs do not go home for lunch.
  - (D) Some students who do not go home for lunch have part-time jobs.
  - (E) Every student who goes home for lunch walks to school.
20. When the Pinecrest Animal Shelter, a charitable organization, was in danger of closing because it could not pay for important repairs, its directors appealed to the townspeople to donate money that would be earmarked to pay for those repairs. Since more funds were ultimately donated than were used for the repairs the directors plan to donate the surplus funds to other animal shelters. But before doing so, the directors should obtain permission from those who made the donations.
- Which one of the following principles, if valid, most helps to justify the position advocated above and yet places the least restriction on the allocation of funds by



directors of charitable organizations?

- (A) The directors of charitable organizations cannot allocate publicly solicited funds to any purposes for which the directors had not specifically earmarked the funds in advance.
- (B) People who solicit charitable donations from the public for a specific cause should spend the funds only on that cause or, if that becomes impossible, should dispose of the funds according to the express wishes of the donors.
- (C) Directors of charitable organizations who solicit money from the public must return all the money it received from an appeal if more money is received than can practicably be used for the purposes specified in the appeal.
- (D) Donors of money to charitable organizations cannot delegate to the directors of those organizations the responsibility of allocating the funds received to various purposes consonant with the purposes of the organization as the directors of the organization see fit.
- (E) People who contribute money to charitable organizations should be considered to be placing their trust in the directors of those organizations to use the money wisely according to whatever circumstance might arise.

21. The amount of electricity consumed in Millville on any day in August is directly proportional to peak humidity on that day. Since the average peak humidity this August was three points higher than the average peak humidity last August, it follows that more energy was consumed in Millville this August than last August. Which one of the following arguments has a pattern of reasoning most similar to the one in the argument above?

- (A) The amount of art supplies used in any of the Aesthetic Institute's 25 classes is directly proportional to the number of students in that class. Since in these classes the institute enrolled 20 percent more students overall last year than in the previous year, more art supplies were used in the institute's classes last year than in the previous year.
- (B) The number of courses in painting offered by the Aesthetic Institute in any term is directly proportional to the number of students enrolled in the institute in that term. But the institute offers the same number of courses in sculpture each term. Hence, the institute usually offers more courses in painting than in sculpture each term.
- (C) The number of new students enrolled at the Aesthetic Institute in any given year is directly proportional to the amount of advertising the institute has done in the previous year. Hence, if the institute seeks to increase its student body it must increase the amount it spends on advertising.
- (D) The fees paid by a student at the Aesthetic Institute are directly proportional to the number of classes in which that student enrolls. Since the number of students at the Aesthetic Institute is increasing, it follows that the institute is collecting a greater amount in fees paid by students than it used to.
- (E) The number of instructors employed by the Aesthetic Institute in any term is

directly proportional to the number of classes offered in that term and also directly proportional to the number of students enrolled at the institute.

Thus, the number of classes offered by the institute in any term is directly proportional to the number of students enrolled in that term.

22. Letter to the editor: After Baerton's factory closed, there was a sharp increase in the number of claims filed for job-related injury compensation by the factory's former employees. Hence there is reason to believe that most of those who filed for compensation after the factory closed were just out to gain benefits they did not deserve, and filed only to help them weather their job loss.

Each of the following, if true, weakens the argument above EXCEPT:

- (A) Workers cannot file for compensation for many job-related injuries, such as hearings loss from factory noise, until they have left the job.
  - (B) In the years before the factory closed, the factory's managers dismissed several employees who had filed injury claims.
  - (C) Most workers who receive an injury on the job file for compensation on the day they suffer the injury.
  - (D) Workers who incur partial disabilities due to injuries on the job often do not file for compensation because they would have to stop working to receive compensation but cannot afford to live on that compensation alone.
  - (E) Workers who are aware that they will soon be laid off from a job often become depressed, making them more prone to job-related injuries.
23. Historians of North American architecture who have studied early nineteenth-century houses with wooden floors have observed that the boards used on the floors of bigger houses were generally much narrower than those used on the floors of smaller houses. These historians have argued that, since the people for whom the bigger houses were built were generally richer than the people for whom the smaller houses were built, floors made out of narrow floorboards were probably once a status symbol, designed to proclaim the owner's wealth.
- Which one of the following, if true, most helps to strengthen the historians' argument?
- (A) More original floorboards have survived from big early nineteenth-century houses than from small early nineteenth-century houses.
  - (B) In the early nineteenth century, a piece of narrow floorboard was not significantly less expensive than a piece of wide floorboard of the same length.
  - (C) In the early nineteenth century, smaller houses generally had fewer rooms than did bigger houses.
  - (D) Some early nineteenth-century houses had wide floorboards near the walls of each room and narrower floorboards in the center, where the floors were usually carpeted.
  - (E) Many of the biggest early nineteenth-century houses but very few small

houses from that period had some floors that were made of materials that were considerably more expensive than wood, such as marble.

24. Ethicist: A society is just when, and only when, first, each person has an equal right to basic liberties, and second, inequalities in the distribution of income and wealth are not tolerated unless these inequalities are to everyone's advantage and are attached to jobs open to everyone.

Which one of the following judgments most closely conforms to the principle described above?

- (A) Society S guarantees everyone equal right to basic liberties, while allowing inequalities in the distribution of income and wealth that are to the advantage of everyone. Further, the jobs to which these inequalities are attached are open to most people. Thus, society S is just.
  - (B) Society S gives everyone an equal right to basic liberties, but at the expense of creating inequalities in the distribution of income and wealth. Thus, society S is not just.
  - (C) Society S allows inequalities in the distribution of income and wealth, although everyone benefits, and these inequalities are attached to jobs that are open to everyone. Thus, society S is just.
  - (D) Society S distributes income and wealth to everyone equally, but at the expense of creating inequalities in the right to basic liberties. Thus, society S is not just.
  - (E) Society S gives everyone an equal right to basic liberties, and although there is an inequality in the distribution of income and wealth, the jobs, to which these inequalities are attached, are open to all. Thus, society S is just.
25. Economist: In order to decide what to do about protecting the ozone layer, we must determine the monetary amount of the economic resources that we would willingly expend to protect it. Such a determination amounts to a calculation of the monetary value of the ozone layer. Environmentalists argue that the ozone layer does not have a calculable monetary value. However, we would not willingly expend an amount equal to all of the world's economic resources to protect the ozone layer so the ozone layer is demonstrably worth less than that amount. Thus, the ozone layer has a calculable monetary value.

The reasoning in the economist's argument is flawed in that the argument

- (A) uses evidence that the monetary value of a particular natural resource is less than a certain amount in order to establish that the monetary value of any natural resource is less than that amount
- (B) presupposes that the ozone layer should not be protected and then argues to that claim as a conclusion
- (C) takes advantage of an ambiguity in the term "value" to deflect the environmentalists charge
- (D) gives no reason for thinking that merely establishing an upper limit on a

certain monetary value would allow the calculation of that monetary value  
(E) does not directly address the argument of the environmentalists

26. Columnist on the arts: My elected government representatives were within their rights to vote to support the arts with tax dollars. While funded by the government, however, some artists have produced works of art that are morally or aesthetically offensive to many taxpayers. Nonetheless, my conclusion is that no taxpayers have been treated unjustly whose tax dollars are used to fund some particular work of art that they may find abominable.

Which one of the following principles, if valid, most supports the columnist's argument?

- (A) Taxpayers should be allowed to decide whether a portion of their tax dollars is to be used to fund the arts.
- (B) The funding of a particular activity is warranted if it is funded by elected representatives who legitimately fund that activity in general.
- (C) Elected representatives are within their rights to fund any activity that is supported by a majority of their constituents.
- (D) Those who resent taxation to subsidize offensive art should vote against their incumbent government representatives.
- (E) Since taxpayers are free to leave their country if they disapprove of their representatives decisions, they have no right to complain about arts funding.

## TEST 22

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. The basic ingredients from which cement is made are both cheap and plentiful. Materials as common as limestone and clay will do. Nevertheless, the price of cement is influenced by the price of oil, because turning the basic ingredients into cement in high-temperature kilns uses large amounts of energy.  
Which one of the following can be logically inferred from the passage?
- (A) Oil is one of the basic ingredients that make up cement.
  - (B) Oil is a source of energy for some of the kilns used in the making of cement.
  - (C) The higher the price of cement rises, the higher the price of clay rises.
  - (D) Whenever oil prices rise, cement prices drop.
  - (E) A given amount of cement costs no more than the total cost of its basic ingredients.
2. Many people do not understand themselves, nor do they try to gain self-understanding. These people might try to understand others, but these attempts

are sure to fail, because without self-understanding it is impossible to understand others. It is clear from this that anyone who lacks self-understanding will be incapable of understanding others.

The reasoning in the argument is flawed because the argument

- (A) mistakes something that is necessary to bring about a situation for something that in itself is enough to bring about that situation
- (B) fails to take into account the possibility that not everyone wants to gain a thorough understanding of himself or herself
- (C) blames people for something for which they cannot legitimately be held responsible
- (D) makes use of the inherently vague term “self-understanding” without defining that term
- (E) draws a conclusion that simply restates a claim given in support of that conclusion

Questions 3-4

Wife: The work of the artist who painted the portrait of my grandparents 50 years ago has become quite popular lately, so the portrait has recently become valuable. But since these sorts of artistic fads fade rapidly, the practical thing to do would be to sell the portrait while it is still worth something, and thereby enable our daughter to attend the college she has chosen.

Husband: How could you make such a suggestion? That painting is the only thing you own that belonged to your grandparents. I don't think it's a very good painting, but it has great sentimental value. Besides, you owe it to our daughter to keep it in the family as a link to her family's past.

3. Which one of the following principles, if established, does most to justify the husband's reply?
  - (A) Gifts offered as sentimental tokens of affection should not be accepted if the recipient intends to sell them later for profit.
  - (B) A beautiful work of art is more valuable than the money it could be sold for, whatever the amount.
  - (C) It is more important for parents to provide their children with tangible links to the family's past than it is to enable them to attend the college of their choice.
  - (D) Children and grandchildren have a duty to preserve family heirlooms only if they have promised their parents or grandparents that they would do so.
  - (E) Providing one's children with an education is more important than providing them with material goods, even if the goods have sentimental value.
4. The husband uses which one of the following argumentative techniques in replying to the wife's suggestion?



- (A) taking issue with the practicality of her suggestion
- (B) questioning her aesthetic judgment
- (C) claiming that the reasons she gives are based on emotions rather than on rational considerations
- (D) asserting that the evidence she cites in support of her suggestion is false
- (E) invoking a competing obligation that he judges to override her practical considerations

5. Questions have arisen regarding the accuracy of the reports the university's archaeological museum issues on its sales and acquisitions for the year. To forestall controversy, this year's report is being reviewed by three archaeologists from other universities. Since these archaeologists will be given full access to all documents on which the report is based, they will be able to determine whether it is indeed accurate.

The reasoning in the argument is flawed because the argument

- (A) does not specify whether the reviewers will have access to data about objects that have been in the museum's collection for many years
- (B) provides no information regarding the size or quality of the archaeological museum's collection
- (C) omits any mention of whether the museum's collection is on display or is available only to researchers
- (D) ignores the possibility that there might have been some sales or acquisitions during the past year that were not mentioned in the documents on which the report was based
- (E) does not describe what will occur if the reviewers discover discrepancies between the report and the documents on which it was based

6. Engineer: Some people argue that the world's energy problems could be solved by mining the Moon for helium-3, which could be used for fuel in fusion reactors. But this is nonsense. Even if it were possible to mine the Moon for helium-3, the technology needed to build viable fusion reactors that could use such fuel is at least 50 years away. If the world's energy problems are not solved before then, it will be too late to solve those problems.

The main point of the argument is that

- (A) mining the Moon for helium-3 is currently not feasible
- (B) fusion reactors that are now being planned are not designed to use helium-3 as fuel
- (C) people who advocate mining the Moon for helium-3 do not realize that fusion reactors could be designed to use fuels other than helium-3
- (D) mining the Moon for helium-3 is not a possible solution to the world's energy problems
- (E) if the world's energy problems are not solved within the next 50 years, it will

be too late to solve those problems

Questions 7-8

The fishing industry cannot currently be relied upon to help the government count the seabirds killed by net fishing, since an accurate count might result in restriction of net fishing. The government should therefore institute a program under which tissue samples from the dead birds are examined to determine the amount of toxins in the fish eaten by the birds. The industry would then have a reason to turn in the bird carcasses, since the industry needs to know whether the fish it catches are contaminated with toxins.

7. Which one of the following, if true, most strengthens the argument?
- (A) The seabirds that are killed by net fishing do not eat all of the species of fish caught by the fishing industry.
  - (B) The government has not in the past sought to determine whether fish were contaminated with toxins by examining tissue samples of seabirds.
  - (C) The government cannot gain an accurate count of the number of seabirds killed by net fishing unless the fishing industry cooperates.
  - (D) If the government knew that fish caught by the fishing industry were contaminated by toxins, the government would restrict net fishing.
  - (E) If net fishing were restricted by the government, then the fishing industry would become more inclined to reveal the number of seabirds killed by net fishing.
8. Which one of the following, if true, most strongly indicates that the government program would not by itself provide an accurate count of the seabirds killed by net fishing?
- (A) The seabirds killed by net fishing might be contaminated with several different toxins even if the birds eat only one kind of fish.
  - (B) The fishing industry could learn whether the fish it catches are contaminated with toxins if only a few of the seabirds killed by the nets were examined.
  - (C) The government could gain valuable information about the source of toxins by examining tissue samples of the seabirds caught in the nets.
  - (D) The fish caught in a particular net might be contaminated with the same toxins as those in the seabirds caught in that net.
  - (E) The government would be willing to certify that the fish caught by the industry are not contaminated with toxins if tests done on the seabirds showed no contamination.
9. Some people claim that elected officials must avoid even the appearance of impropriety in office. Yet since actions that give the appearance of impropriety are not necessarily improper, the only reason for an elected official to avoid the appearance of impropriety is to maintain public approval and popularity. No one however, not even a public official, has an obligation to be popular or to maintain

public approval.

The argument is structured so as to lead to which one of the following conclusions?

- (A) No elected official has an obligation to avoid the appearance of impropriety.
- (B) All elected officials have a vested interest in maintaining a high public approval rating.
- (C) Elected official who have been scrupulous in satisfying the obligations of their office should ensure that the public is aware of this fact.
- (D) The public never approves of an elected official who appears to have behaved improperly in office.
- (E) Elected officials who abuse the power of their office have an obligation at least to appear to be fulfilling the obligations of their office.

10. Cafeteria patron: The apples sold in this cafeteria are greasy. The cashier told me that the apples are in that condition when they are delivered to the cafeteria and that the cafeteria does not wash the apples it sells. Most fruit is sprayed with dangerous pesticides before it is harvested, and is dangerous until it is washed. Clearly, the cafeteria is selling pesticide-covered fruit, thereby endangering its patrons.

Which one of the following is an assumption on which the argument depends?

- (A) The apples that the cafeteria sells are not thoroughly washed after harvest but before reaching the cafeteria.
- (B) Most pesticides that are sprayed on fruit before harvest leave a greasy residue on the fruit.
- (C) Many of the cafeteria's patrons are unaware that the cafeteria does not wash the apples it sells.
- (D) Only pesticides that leave a greasy residue on fruit can be washed off.
- (E) Fruits other than apples also arrive at the cafeteria in a greasy condition.

11. P: Because an elected official needs the support of a political party to be effective, the independent candidate for the legislature cannot possibly be an effective legislator if she wins.

Q: I disagree. By your reasoning, our current legislator, who has the support of a political party, ought to have been effective, but he has not been.

Which one of the following is the best criticism of Q's statement?

- (A) It simply contradicts P's claim without offering evidence against it.
- (B) It does not consider the possibility that a political party might decide to support an elected legislator even though he or she ran as an independent.
- (C) It fails to provide a precise definition for a key term—the word "effective."
- (D) It presupposes what is to be proved—that a legislator must have the support of a political party in order to be "effective."
- (E) It mistakenly interprets P to be claiming that a factor assures rather than is

necessary for a legislator's effectiveness.

Questions 12-13

Public health will improve more quickly in the wake of new medical discoveries if medical researchers abandon their practice of waiting until their findings are published in peer-reviewed journals before informing the press of important research results. That is because the public release of new medical information allows people to use that information in order to improve their health, but the peer-review process is unavoidably very slow.

12. Which one of the following is an assumption on which the argument depends?
- (A) Many medical researchers do not agree to serve as reviewers when their own research is in a critical phase.
  - (B) Reviewers for many medical journals are not themselves medical researchers.
  - (C) People would use new medical information even if it were not first published in peer-reviewed journals.
  - (D) The peer-review process could be speeded up enough to produce a significant improvement in public health.
  - (E) New medical information that is first published in peer-reviewed journals does not usually receive public attention.
13. Which one of the following, if true, most seriously weakens the argument?
- (A) Peer review often prevents the publication of false conclusions drawn on the basis of poorly conducted medical research.
  - (B) People often alter their life-styles on the basis of new medical information made available through the press.
  - (C) Some improvements in public health are due to factors other than the discovery of new medical information.
  - (D) Some newspapers would be willing to publish the results of medical research before those results have appeared in peer-reviewed journals.
  - (E) Most peer-reviewed scientific journals would refuse to give up the practice of peer review.
14. Between 1977 and 1987, the country of Ravonia lost about 12,000 jobs in logging and wood processing representing a 15 percent decrease in employment in the country's timber industry. Paradoxically, this loss of jobs occurred even as the amount of wood taken from the forests of Ravonia increased by 10 percent.
- Which one of the following, if true, most helps to resolve the apparent paradox?
- (A) Not since the 1950s has the timber industry been Ravonia's most important industry economically.
  - (B) Between 1977 and 1987, the total number of acres of timberland in Ravonia fell, while the demand for wood products increased.

- (C) Since 1977, a growing proportion of the timber that has been cut in Ravonia has been exported as raw, unprocessed wood.
- (D) Since 1977, domestic sales of wood and wood products have increased by more than export sales have increased.
- (E) In 1977, overall unemployment in Ravonia was approximately 10 percent; in 1987, Ravonia's unemployment rate was 15 percent.
15. To perform an act that is morally wrong is to offend against humanity, and all offenses against humanity are equally bad. Because murder is morally wrong, it is just as bad to have murdered one person by setting off a bomb as it would have been to have murdered a hundred people by setting off that bomb.
- Which one of the following judgments conforms to the principles invoked above?
- (A) If lying is morally wrong, telling a lie is as bad as murdering someone.
- (B) Risking one's life to save the lives of a hundred people is morally no better than risking one's life to save one person.
- (C) If stealing is morally wrong, it is equally important to society to prevent people from stealing as it is to prevent them from committing murder.
- (D) Accidentally causing the death of a person is just as bad as murdering that person.
- (E) In a situation in which the life of one person can be saved only by killing another person, killing and not killing are equally bad.
16. In yesterday's council election a majority of voters supported conservative candidates, and a majority of voters supported candidates who voted in favor of the antipollution act. Therefore, it must be that a majority of voters in yesterday's council election supported conservative candidates who voted in favor of the antipollution act.
- Which one of the following is an argument that contains flawed reasoning most similar to the flawed reasoning in the argument above?
- (A) Bill claims that soil can be damaged if it tilled when it is too wet, and Sue claims that seeds planted in wet soil can rot. Therefore, if both claims are true, gardeners who till and plant their gardens when the soil is wet damage both their soil and their seeds.
- (B) According to Sara, most children like pies. According to Robert, most children like blueberries. So if Sara and Robert are both right, it must be that most children like pies that contain blueberries.
- (C) Mark will go on a picnic today only if it does not rain. Susan will go on a picnic today only if Mark goes too. Since it is not going to rain today, both Mark and Susan will go on a picnic.
- (D) The majority of customers who regularly eat at this restaurant always order both fish and stuffed mushrooms. Thus, fish and stuffed mushrooms must be the restaurant's most frequently ordered dishes.



(E) Most people living at Gina's house cook well. Since most people at Gina's house enjoy eating well-cooked meals, most meals served at Gina's house are cooked well.

17. Politician: Critics of wetlands-protection bill are delaying passage of this important legislation merely on the grounds that they disagree with its new more restrictive definition of the term "wetlands." But this bill will place stricter limits on the development of wetlands than the existing regulations do. Therefore, in quibbling over semantics, critics of this bill show that they care little about what really happens to our wetlands.

The politician's reply to the opponents of the wetlands-protection bill is most vulnerable to which one of the following criticisms?

- (A) It falsely identifies the motives of those who have criticized the wetlands-protection bill with the motives of all those who are opposed to conservation.
- (B) It does not adequately recognize the possibility that the definition of the word "wetlands" determines the impact of the legislation.
- (C) It assumes without justification that those who criticized the wetlands-protection bill stand to profit if the bill is defeated.
- (D) It fails to provide a defense for a less restrictive definition of "wetlands."
- (E) It attempts to defend the credibility of the author of the bill rather than defending the bill itself.

### Questions 18-19

Dillworth: More and more people are deciding not to have children because of the personal and economic sacrifices children require and because so often children are ungrateful for the considerable sacrifices their parents do make for them. However, such considerations have no bearing on the fact that their children provide the best chance most people have of ensuring that their values live on after them. Therefore, for anyone with deeply held values, foregoing parenthood out of reluctance to make sacrifices for which little gratitude can be expected would probably be a mistake.

Travers: Your reasoning ignores another fact that deserves consideration: children's ingratitude for parental sacrifices usually stems from a wholesale rejection of parental values.

18. Dillworth employs which one of the following argumentative strategies?
- (A) showing that considerations cited as drawbacks to given course of action are not really drawbacks at all
  - (B) exposing as morally suspect the motives of people who would make the choice that Dillworth rejects
  - (C) indirectly establishing that a given course of action is obligatory by arguing that the alternative course of action is prohibited
  - (D) distinguishing a category of person for whom the reason presented in favor

of a given course of action is more telling than the reasons cited against that course of action

- (E) using evidence that a certain course of action would be appropriate under one set of conditions to arrive at a general conclusion about what would be appropriate in all cases

19. The point of Travers' rejoinder to Dillworth's argument is that

- (A) Dillworth's assumption that children acquire values only from their parents is mistaken
- (B) it is a mistake to dismiss as irrelevant the personal and economic sacrifices people are called on to make for the sake of their children
- (C) Dillworth has overlooked the well-known fact that people with deeply held values not infrequently reject opposing values that are deeply held by others
- (D) the desire to perpetuate their values should not be a factor in people's decision to have children
- (E) the fact that children are often ungrateful for parental sacrifices is not irrelevant to deciding whether to have children in order to perpetuate one's values

20. Until about 400 million years ago, fishes—the first true swimmers—were jawless. Their feeding methods were limited to either sucking in surface plankton or sucking in food particles from bottom mud. With the development of biting jaws, however, the life of fishes changed dramatically, since jaws allowed them actively to pursue prey, to seize it in their jaws, and to manipulate it between their teeth. The jawed fishes then developed along two main lines: one retained cartilage for its skeletons, for example, sharks and rays; the other adopted bone as its principal skeletal material. From the latter group evolved the most abundant and diverse of all of today's vertebrate groups, the "teleosts," some 21,000 species, which vary from barracudas to sea horses.

If all of the statements in the passage are true, which one of the following must also be true?

- (A) Fish are the primary prey of all jawed fishes.
- (B) The jawless fishes did not prey upon other fish.
- (C) Teleosts do not feed upon particles found in bottom mud.
- (D) Jawless fishes did not have cartilage as their skeletal material.
- (E) Jawless fishes became extinct approximately 400 million years ago.

21. Nuclear reactors are sometimes built in "geologically quiet" regions, so called by geologists because such regions are distant from plate boundaries and contain only minor faults. Since no minor fault in a geologically quiet region produces an earthquake more often than once in any given 100,000-year period, it follows that of all potential nuclear reactor sites in such a region, those that are least likely to be struck by an earthquake are ones located near a fault that has produced an

earthquake within living memory.

Which one of the following is an assumption on which the argument depends?

- (A) Geologically quiet regions are the least dangerous regions in which to build nuclear reactors.
- (B) For any potential nuclear reactor site the likelihood of being struck by an earthquake is the primary determinant of site safety.
- (C) In a geologically quiet region every potential nuclear reactor site is near at least one minor fault.
- (D) Nuclear reactors that are located in geologically quiet regions are built to withstand at least one but not necessarily more than one earthquake of minor to moderate force.
- (E) Earthquake faults in geologically quiet regions produce earthquakes at least once in 100,000 years.

Questions 22-23

Magazine editor: I know that some of our regular advertisers have been pressuring us to give favorable mention to their products in our articles, but they should realize that for us to yield to their wishes would actually be against their interests. To remain an effective advertising vehicle, we must have loyal readership, and we would soon lost that readership if our readers suspect that our editorial integrity has been compromised by pandering to advertisers.

Advertising-sales director: You underestimate the sophistication of our readers. They recognize that the advertisements we carry are not articles, so their response to the advertisements has never depended on their opinion of the editorial integrity of the magazine as a whole.

22. Which one of the following is the most accurate assessment of the advertising-sales director's argument as a response to the magazine editor's argument?
- (A) It succeeds because it shows that the editor's argument depends on an unwarranted assumption about factors affecting an advertisement's effectiveness.
  - (B) It success because it exposes as mistaken the editor's estimation of the sophistication of the magazine's readers.
  - (C) It succeeds because it undermines the editor's claim about how the magazine's editorial integrity would be affected by allowing advertisers to influence articles.
  - (D) It fails because the editor's argument does not depend on any assumption about readers' response to the advertisements they see in the magazine.
  - (E) It fails because it is based on a misunderstanding of the editor's view about how readers respond to advertisements they see in the magazine.
23. The magazine editor's argument assumes which one of the following?

- (A) A magazine editor should never be influenced in the performance of his or her professional duties by the wishes of the companies that regularly advertise in the magazine.
  - (B) The magazine cannot give any favorable mention in its articles to its regular advertisers without compromising its reputation for editorial integrity.
  - (C) Favorable mention of their products in the magazine's articles is of less value to the advertisers than is the continued effectiveness of the magazine as an advertising vehicle.
  - (D) Giving favorable mention to a product in a magazine article is a more effective form of advertising than is an explicit advertisement for the product in the same magazine.
  - (E) Carrying paid advertisements can never pose any threat to the magazine's reputation for editorial integrity nor to the loyalty of its readership.
24. Public policy dictates the health risks the public routinely takes. Statistical arguments about health risks are used primarily to deflect public fears, while contributing little to policy debate. For example, statistics are cited to imply that wearing a seat belt reduces one's risk of death in an automobile accident, deflecting attention from the fact that a transportation policy that promotes increasing use of automobiles inherently increases any individual's risk of death in an automobile accident.
- The way the example functions above is most closely paralleled in which one of the following?
- (A) Statistics indicate that an individual's risk of contracting cancer from radiation emitted by a nuclear power plant is less than that of contracting cancer from sunshine. These statistics draw attention away from the fact that a policy of energy conservation is safer for human health than a policy based on nuclear energy.
  - (B) Statistics indicate that an urban resident's risk of accidental death from any cause is no greater than that of an individual who lives in a suburban or rural area. These statistics counter the widely held public belief that urban areas are more dangerous than suburban or rural areas.
  - (C) Statistics indicate that the average life expectancy of males is shorter than that of females. This alone should not influence policies regarding eligibility for life insurance because it is also true that any individual's expectancy can be calculated on the basis of personal characteristics and health practices.
  - (D) Statistics indicate that the average life expectancy of males is shorter than that of females. When one accounts for the fact that females smoke less and are less likely to work in jobs in the chemical and manufacturing industries, the difference in life expectancy is narrowed.
  - (E) Statistics indicate that the number of people dependent on alcohol far exceeds the number dependent on illegal addictive drugs; thus, any policy for the control and treatment of substance abuse should provide for

treatment of alcoholism.

25. S: It would be premature to act to halt the threatened “global warming trend,” since that alleged trend might not be real. After all, scientists disagree about it, some predicting over twice as much warming as others, so clearly their predictions cannot be based on firm evidence.

W: Most scientists consider discussions of accepted ideas boring, and prefer to argue about what is not known. According to the International Science Council there is a consensus among reputable investigators that average global warming in the next century will be from 1.5°C to 4.5°C.

W’s rejoinder proceeds by

- (A) denying the existence of the disagreements cited by S
- (B) accepting S’s conclusion while disputing the reasons offered for it
- (C) relying on authorities whose views conflict with the views of the authorities cited by S
- (D) putting disagreements cited by S in perspective by emphasizing similarities
- (E) reasoning in a circle by accepting evidence only if it agrees with a desired conclusion

### SECTION III

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. If a country’s manufacturing capacity is fully utilized, there can be no industrial growth without new capital investment. Any reduction in interest rates produces new capital investment.
- Which one of the following can be properly concluded from the statements above?
- (A) Interest rates might in exceptional cases be reduced without there being any subsequent investment of new capital.
  - (B) A reduction in interest rates might cause a precondition for industrial growth to be met.
  - (C) If a country’s manufacturing capacity is underutilized, interest rates should be held constant.
  - (D) New capital investment that takes place while interest rates are rising cannot lead to industrial growth.
  - (E) Manufacturing capacity newly created by capital investment needs to be fully utilized if it is to lead to industrial growth.
2. A certain type of insect trap uses a scented lure to attract rose beetles into a plastic bag from which it is difficult for them to escape. If several of these traps are installed in a backyard garden, the number of rose beetles in the garden will be greatly reduced. If only one trap is installed, however, the number of rose beetles



in the garden will actually increase.

Which one of the following, if true, most helps to resolve the apparent discrepancy?

- (A) The scent of a single trap's lure usually cannot be detected throughout a backyard garden by rose beetles.
  - (B) Several traps are better able to catch a large number of rose beetles than is one trap alone, since any rose beetles that evade one trap are likely to encounter another trap if there are several traps in the garden.
  - (C) When there are several traps in a garden, they each capture fewer rose beetles than any single trap would if it were the only trap in the garden.
  - (D) The presence of any traps in a backyard garden will attract more rose beetles than one trap can catch, but several traps will not attract significantly more rose beetles to a garden than one trap will.
  - (E) When there is only one trap in the garden, the plastic bag quickly becomes filled to capacity, allowing some rose beetles to escape.
3. The current move to patent computer programs is a move in the wrong direction and should be stopped. The patent system was originally designed solely to protect small-time inventors from exploitation, not to give large corporations control over a methodology. Any computer program is merely the implementation of a methodology.

Which one of the following is an assumption on which the argument depends?

- (A) Computer programs should be developed not only by large corporations but by small-time inventors as well.
- (B) Implementing a methodology always requires less creative effort than does true invention.
- (C) The issue of whether or not to patent computer programs presents the patent system with problems that have never before arisen.
- (D) Large corporations should not hold patents for implementations of methodologies.
- (E) Small-time inventors who support the move to patent computer programs act contrary to their own best interests.

#### Questions 4-5

Walter: For the economically privileged in a society to tolerate an injustice perpetrated against one of society's disadvantaged is not only just morally wrong but also shortsighted: a system that inflicts an injustice on a disadvantaged person today can equally well inflict that same injustice on a well-to-do person tomorrow.

Larissa: In our society, the wealthy as well as the well-educated can protect themselves against all sorts of injustices suffered by the less well-off. Allowing such injustices to persist is bad policy not because it places everyone at equal risk of injustice but because it is a potent source of social unrest.

4. Larissa responds to Walter by doing which one of the following?
- (A) giving reason to doubt the truth of Walter's conclusion
  - (B) drawing implausible consequences from Walter's assumptions
  - (C) questioning Walter's authority to address matters of social policy
  - (D) providing an alternative reason for accepting the truth of Walter's conclusion
  - (E) charging Walter with stopping short of recognizing the full implications of his position
5. Walter and Larissa are logically committed by what they say to disagree about which one of the following?
- (A) whether the poor and the rich are part of the same social fabric
  - (B) whether the most successful members of a society are that society's least tolerant people
  - (C) whether the disadvantaged members of society suffer from injustice
  - (D) whether those who have the most advantages in a society are morally obligated to correct that society's injustices
  - (E) whether the economically privileged members of a society are less exposed to certain sorts of injustices than are the economically disadvantaged
6. Three major laundry detergent manufacturers have concentrated their powdered detergents by reducing the proportion of inactive ingredients in the detergent formulas. The concentrated detergents will be sold in smaller packages. In explaining the change, the manufacturers cited the desire to reduce cardboard packaging and other production costs. Market analysts predict that the decision of these three manufacturers, who control 80 percent of the laundry detergent market, will eventually bring about the virtual disappearance of old-style bulky detergents.
- Which one of the following, if true, most strongly supports the prediction made by the market analysts?
- (A) Most smaller manufacturers of laundry detergents will consider it too expensive to retool factories for the production of the smaller detergent packages.
  - (B) Many consumers will be skeptical initially that the recommended small amount of concentrated detergent will clean laundry as effectively as the larger amount of the old-style detergent did.
  - (C) Some analysts believe that consumers will have to pay a greater cost per load of laundry to use the new concentrated detergent than they did to use the old-style detergent.
  - (D) Major supermarkets have announced that they will not charge the detergent manufacturers less to display their detergents even though the detergents will take up less shelf space.
  - (E) Consumers are increasingly being persuaded by environmental concerns to

buy concentrated detergents when available in order to reduce cardboard waste.

Questions 7-8

Political advocate: Campaigns for elective office should be subsidized with public funds. One reason is that this would allow politicians to devote less time to fund-raising, thus giving campaigning incumbents more time to serve the public. A second reason is that such subsidies would make it possible to set caps on individual campaign contributions, thereby reducing the likelihood that elected officials will be working for the benefit not of the public but of individual large contributors.

Critic: This argument is problematic: the more the caps constrain contributions, the more time candidates have to spend finding more small contributors.

7. The critic objects that the advocate's argument is flawed because
- (A) any resourceful large contributor can circumvent caps on individual contributions by sending in smaller amounts under various names
  - (B) one of the projected results cited in support of the proposal made is entailed by the other and therefore does not constitute independent support of the proposal
  - (C) of the two projected results cited in support of the proposal made, one works against the other
  - (D) it overlooks the possibility that large contributors will stop contributing if they cannot contribute at will
  - (E) it overlooks the possibility that incumbents with a few extremely generous contributors will be hit harder by caps than incumbents with many moderately generous contributors
8. Which one of the following principle, if established, provides a basis for the advocate's argument?
- (A) If complete reliance on private funding of some activity keeps the public from enjoying a benefit that could be provided if public funds were used, such public funds should be provided.
  - (B) If election campaigns are to be funded from public funds, terms of office for elected officials should be lengthened.
  - (C) If in an election campaign large contributions flow primarily to one candidate, public funds should be used to support the campaigns of that candidate's rivals.
  - (D) If public funding of some activity produces a benefit to the public but also inevitably a special benefit for specific individuals, the activity should not be fully funded publicly but in part by the individuals deriving the special benefit.
  - (E) If a person would not have run for office in the absence of public campaign subsidies, this person should not be eligible for any such subsidies.

9. Novice bird-watcher: I don't know much about animal track's, but I do know that birds typically have four toes, and most birds have three toes pointing forward and one toe pointing backward. Since this track was made by an animal with four toes of which three point forward and one points backward, we can conclude it was made by some kind of bird.

The argument is flawed because it

- (A) relies on the vagueness of the term "track"
- (B) does not define birds as animals with four toes
- (C) fails to identify what kind of bird might have made the track
- (D) does not establish that only a bird could have made the track
- (E) depends on evidence about an individual bird rather than about birds in general

10. Psychologists have claimed that many people are more susceptible to psychological problems in the winter than in the summer; the psychologists call this condition seasonal affective disorder. Their claim is based on the results of surveys in which people were asked to recall how they felt at various times in the past. However, it is not clear that people are able to report accurately on their past psychological states. Therefore, these survey results do not justify the psychologists' claim that there is any such condition as seasonal affective disorder.

The author criticizes the psychologists claim by

- (A) offering an alternative explanation of the variation in the occurrence of psychological problems across seasons
- (B) questioning whether any seasonal variation in the occurrence of psychological problems could properly be labeled a disorder
- (C) questioning the representativeness of the population sample surveyed by the psychologists
- (D) questioning an assumption that the author attributes to the psychologists
- (E) demonstrating that fewer people actually suffer from seasonal affective disorder than psychologists had previously thought

11. Unless the residents of Glen Hills band together, the proposal to rezone that city will be approved. If it is, the city will be able to build the water and sewer systems that developers need in order to construct apartment houses there. These buildings would attract new residents, and the increased population would probably result in overcrowded schools and would certainly result in roads so congested that new roads would be built. Neither new roads nor additional schools could be built without substantial tax increases for the residents of Glen Hills. Ultimately this growth might even destroy the rural atmosphere that makes Glen Hills so attractive.

Which one of the following can be properly concluded from the passage?

- (A) If the citizens of Glen Hills band together, developers will not build

apartment houses.

- (B) If developers build apartment houses in Glen Hills, there will be substantial tax increases for the residents of Glen Hills.
  - (C) If the rezoning proposal does not pass, the rural atmosphere in Glen Hills will not be lost.
  - (D) If developers do not build apartment houses in Glen Hills, the taxes of the residents of Glen Hills will not increase substantially.
  - (E) If developers do not build apartment houses in Glen Hills, the schools of Glen Hills will not be overcrowded and roads will not be congested.
12. One year ago a local government initiated an antismoking advertising campaign in local newspapers which it financed by imposing a tax on cigarettes of 20 cents per pack. One year later the number of people in the locality who smoke cigarettes had declined by 3 percent. Clearly, what was said in the advertisements had an effect, although a small one, on the number of people in the locality who smoke cigarettes.
- Which one of the following, if true, most helps to strengthen argument?
- (A) Residents of the locality have not increased their use of other tobacco products such as snuff and chewing tobacco since the campaign went into effect.
  - (B) A substantial number of cigarette smokers in the locality who did not quit smoking during the campaign now smoke less than they did before it began.
  - (C) Admissions to the local hospital for chronic respiratory ailments were down by 15 percent one year after the campaign began.
  - (D) Merchants in the locality responded to the local tax by reducing the price at which they sold cigarettes by 20 cents per pack.
  - (E) Smokers in the locality had incomes that on average were 25 percent lower than those of nonsmokers.
13. No projects that involve historical restorations were granted building permits this month. Since some of the current projects of the firm of Stein and Sapin are historical restorations, at least some of Stein and Sapin's projects were not granted building permits this month.

The pattern of reasoning in the argument above is most similar to that in which one of the following?

- (A) None of the doctors working at City Hospital were trained abroad. So, although some hospitals require doctors trained abroad to pass an extra qualifying exam, until now, at least, this has not been an issue for City Hospital.
- (B) None of the news reports from the economic summit meeting have been encouraging. Since some other recent economic reports have showed positive trends, however, at least some of the economic news is encouraging at this time.



- (C) None of the new members of the orchestra have completed their paperwork. Since only those people who have completed their paperwork can be paid this week, at least some of the new members of the orchestra are likely to be paid late.
- (D) Several films directed by Hannah Barker were released this season, but none of the films released this season were enthusiastically reviewed. Therefore, at least some of Hannah Barker's films have not received enthusiastic reviews.
- (E) Some of the city's most beautiful parks are not larger than few acres, and some of the parks only a few acres in size are among the city's oldest. Therefore, some of city's most beautiful parks are also its oldest parks.
14. Many artists claim that art critics find it is easier to write about art that they dislike than to write about art that they like. Whether or not this hypothesis is correct, most art criticism is devoted to art works that fail to satisfy the critic. Hence it follows that most art criticism is devoted to works other than the greatest works of art.
- The conclusion above is properly drawn if which one of the following is assumed?
- (A) No art critic enjoys writing about art works that he or she dislikes intensely.
- (B) All art critics find it difficult to discover art works that truly satisfy them.
- (C) A work of art that receives extensive critical attention can thereby become more widely known than it otherwise would have been.
- (D) The greatest works of art are never recognized as such until long after the time of their creation.
- (E) The greatest works of art are works that inevitably satisfy all critics.
15. Babies who can hear and have hearing parents who expose them to speech begin to babble at a certain age as a precursor to speaking. In the same way, deaf babies with deaf parents who communicate with them and with each other by signing begin to babble in signs at the same age. That is, they make repetitive hand gestures that constitute, within the language system of signs, the analogue of repeated syllables in speech.
- The information above, if accurate, can best be used as evidence against which one of the following hypotheses?
- (A) Names of persons or things are the simplest words in a language, since babies use them before using the names of actions or processes.
- (B) The development of language competency in babies depends primarily on the physical maturation of the vocal tract, a process that requires speech-oriented vocal activity.
- (C) In the absence of adults who communicate with each other in their presence, babies develop idiosyncratic languages.
- (D) In babbling, babies are unaware that the sound or gesture combinations they

use can be employed in a purposive way.

- (E) The making of hand gestures by hearing babies who have hearing parents should be interpreted as a part of their developing language.

16. Each of the elements of Girelli's recently completed design for a university library is copied from a different one of several historic libraries. The design includes various features from Classical Greek, Islamic, Mogul, and Romanesque structures. Since no one element in the design is original, it follows that the design of the library cannot be considered original.

Which one of the following is a reasoning error made in the argument?

- (A) assuming that because something is true of each of the parts of a whole it is true of the whole itself
- (B) generalizing illegitimately from a few instances of a certain kind to all instances of that kind
- (C) concluding that an unknown instance of a phenomenon must have all the properties of the known instance
- (D) presupposing that alternatives that can be true separately cannot be true together
- (E) deriving a factual conclusion from evidence derived from reports of aesthetic preferences

Questions 17-18

Although tales of wonder and the fantastic are integral to all world literatures, only recently has the fantasy genre had a commercial resurgence in North America. During the last 20 years, sales of fantasy-fiction books written for adults have gone from 1 to 10 percent of total adult-fiction sales. At the same time, the number of favorable reviews of fantasy books has increased markedly. Some booksellers say that the increased sales of fantasy books written for adults can be traced to the increased favorable attention given to the genre by book reviewers.

17. Which one of the following, if true, undermines the booksellers' explanation of the growth in sales of fantasy-fiction books for adults?
- (A) Publishers often select a manuscript on the basis of whether they think that the published book will receive favorable reviews by book reviewers.
- (B) Few readers of fantasy fiction read book reviews and even fewer select books to purchase on the basis of those reviews.
- (C) Most booksellers are aware of what major book reviewers have written about recently published books.
- (D) Although the increase in the percentage of fantasy books sold has been substantial, publishers estimate that sales could increase even further.
- (E) Many of the book reviews of new fantasy-fiction novels also mention great fantasy novels of the past.

18. Which one of the following, if true, most strongly supports the booksellers' explanation of the growth in sales of fantasy-fiction books for adults?
- (A) Many experts report that on average the reading level of book buyers has declined over the past 20 years.
  - (B) Because life during the past 20 years has become complex and difficult, many readers have come to prefer the happy endings that fantasy fiction often provides.
  - (C) Some fantasy publishers take advantage of the popularity of certain books by commissioning similar books.
  - (D) Because few readers of mystery novels were buying fantasy fiction, 10 years ago the major publishers of fantasy fiction created an advertising campaign directed specifically at those readers.
  - (E) After fantasy fiction began to be favorably reviewed by respected critics 20 years ago, book buyers began to regard fantasy books as suitable reading for adults.
19. Of all the houses in the city's historic district, the house that once belonged to the Tyler family is the most famous by far. Since the historic district is the most famous district in the city, the Tyler house must be the city's most famous house. The flawed reasoning in the argument above most closely parallels the flawed reasoning in which one of the following?
- (A) Of all the peaks in the coastal mountain range, Mount Williams is the tallest. Since the tallest peaks in the entire region are in the coastal mountain range, Mount Williams must be the region's tallest peak.
  - (B) Tobacco smoking is the behavior most likely to cause lung cancer in people. Since more tobacco is smoked in Greene County than anywhere else in the world, there must be more lung cancer in Greene County than anywhere else in the world.
  - (C) Susan Coleman is the oldest of the three children in her family. Since the three Coleman children are each older than any of the other children who live in their building, Susan Coleman must be the oldest child now living in the building.
  - (D) Of all the fish stores in the harbors area, Miller's Fish Market has the most exotic selection of fish. Since there are many more fish stores in the harbor area than anywhere else in the city, Miller's Fish Market must have the most exotic selection of fish in the city.
  - (E) Of all the flowers grown in the university's botanical garden, the Oakland roses are the most beautiful. Since the university's botanical garden is the most beautiful garden in the region, the Oakland roses grown in the garden must be the most beautiful flowers grown in the entire region.
20. Morton: In order to succeed in today's society one must have a college degree. Skeptics have objected that there are many people who never completed any

education beyond high school but who are nevertheless quite successful. This success is only apparent, however, because without a college degree a person does not have enough education to be truly successful.

Morton's argument is flawed because it

- (A) assumes what it sets out to conclude
- (B) mistakes a correlation for a cause
- (C) draws a highly general conclusion from evidence about individual cases
- (D) fails to consider the status of alleged counterexamples
- (E) bases its conclusion on the supposition that most people believe in that conclusion

21. Even the earliest known species of land animals, known from fossils dating from the late Silurian period, 400 million years ago, show highly evolved adaptations to life on land. Since neither aquatic nor amphibious animals exhibit these adaptations, early species of land animals must have evolved very rapidly after leaving an aquatic environment.

Which one of the following is an assumption on which the argument depends?

- (A) Known fossils of early land animals include fossils of animals that lived relatively soon after the first emergence of land animals.
- (B) Fossils from the late Silurian period represent only a small number of the animal species that were alive at that time.
- (C) No plants were established on land before the late Silurian period.
- (D) No present-day species of aquatic animal is descended from a species of animal that once lived on land.
- (E) All animals alive in the late Silurian period lived either exclusively on land or exclusively in the water.

22. On Saturday Melvin suggested that Jerome take the following week off from work and accompany him on a trip to the mountains. Jerome refused, claiming that he could not afford the cost of the trip added to the wages he would forfeit by taking off without notice. It is clear, however, that cost cannot be the real reason for Jerome's unwillingness to go with Melvin to the Mountains since he makes the same excuse every time Melvin asks him to take an unscheduled vacation regardless of where Melvin proposes to go.

The reasoning is most vulnerable to which one of the following criticisms?

- (A) It attempts to forestall an attack on Melvin's behavior by focusing attention on the behavior of Jerome.
- (B) It fails to establish that Melvin could no more afford to take an unscheduled vacation trip to the mountains than could Jerome.
- (C) It overlooks the possibility that Jerome, unlike Melvin, prefers vacations that have been planned far in advance.
- (D) It assumes that if Jerome's professed reason is not his only reason, then it

cannot be a real reason for Jerome at all.

- (E) It does not examine the possibility that Jerome's behavior is adequately explained by the reason the gives for it.

23. Arnold: I was recently denied a seat on an airline flight for which I had a confirmed reservation, because the airline had overbooked the flight. Since I was forced to fly on the next available flight, which did not depart until two hours later, I missed an important business meeting. Even though the flight on which I had a reservation was canceled at the last minute due to bad weather, the airline should still pay me compensation for denying me a seat on the flight.

Jamie: The airline is not morally obligated to pay you any compensation. Even if you had not been denied a seat on the earlier flight, you would have missed your business meeting anyway.

A principle that, if established, justifies Jamie's response to Arnold is that an airline is morally obligated to compensate a passenger who has been denied a seat on a flight for which the passenger has confirmed reservations

- (A) if the only reason the passenger is forced to take a later flight is that the airline overbooked the original flight
- (B) only if there is a reason the passenger is forced to take a later flight other than the original flight's being canceled due to bad weather
- (C) only if the passenger would not have been forced to take a later flight had the airline not overbooked the original flight
- (D) even if the only reason the passenger is forced to take a later flight were that the original flight is canceled due to bad weather
- (E) even if the passenger would still have been forced to take a later flight had the airline not overbooked the original flight
24. Ditrana is a federation made up of three autonomous regions: Korva, Mitro, and Guadar. Under the federal revenue-sharing plan, each region receives a share of federal revenues equal to the share of the total population of Ditrana residing in that region as shown by a yearly population survey. Last year the percentage of federal revenues Korva received for its share decreased somewhat even though the population survey on which the revenue-sharing was based showed that Korva's population had increased.
- If the statements above are true, which one of the following must also have been shown by the population survey on which last year's revenue-sharing in Ditrana was based?
- (A) Of the three regions, Korva had the smallest number of residents.
- (B) The population of Korva grew by a smaller percentage than it did in previous years.
- (C) The populations of Mitro and Guadar each increased by a percentage that exceeded the percentage by which the population of Korva increased.
- (D) Of the three regions, Korva's numerical increase in population was the



smallest.

- (E) Korva's population grew by a smaller percentage than did the population of at least one of the other two autonomous regions.

25. By examining fossilized beetles a research team has produced the most detailed description of temperatures in Britain over the past 22,000 years. Fossils of species that still exist were selected and dated. When individuals of several species found in the same place were found to date to the same period, the known temperature tolerances of the existing beetle species were used to determine the maximum summer temperature that could have existed at that place and period. The procedure of the researchers assumes which one of the following?
- (A) Beetles can tolerate warm weather better than cold weather.
- (B) Fossils of different species found in the same place belonged to different periods.
- (C) The process of dating is more accurate for beetles than for other organisms.
- (D) The highest actual summer temperature at a place and period equaled the average of the highest temperatures that could have been tolerated by each of the beetle species found there and dated to that period.
- (E) The temperature tolerances of the beetle species did not change significantly during the 22,000-year period.

## TEST 23

### SECTION II

Time 35 minutes 24 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Director of Ace Manufacturing Company: Our manufacturing consultant proposes that we reassign staff so that all employees are doing both what they like to do and what they do well. This, she says, will "increase productivity by fully exploiting our available resources." But Ace Manufacturing has a long-standing commitment not to exploit its workers. Therefore, implementing her recommendations would cause us to violate our own policy.
- The director's argument for rejecting the management consultant's proposal is most vulnerable to criticism on which one of the following grounds?
- (A) failing to distinguish two distinct senses of a key term
- (B) attempting to defend an action on the ground that it is frequently carried out
- (C) defining a term by pointing to an atypical example of something to which the term applies
- (D) drawing a conclusion that simply restates one of the premises of the argument

(E) calling something by a less offensive term than the term that is usually used to name that thing

2. A large number of drivers routinely violate highway speed limits. Since driving at speeds that exceed posted limits is a significant factor in most accidents, installing devices in all cars that prevent those cars from traveling faster than the speed limit would prevent most accidents.

Which one of the following is an assumption on which the argument depends?

- (A) A person need not be a trained mechanic to install the device properly.  
(B) Most accidents are caused by inexperienced drivers.  
(C) A driver seldom needs to exceed the speed limit to avoid an accident when none of the other drivers involved are violating the speed limit.  
(D) Most drivers who exceed the speed limit do so unintentionally.  
(E) Even if the fines for speed-limit violations were increased, the number of such violations would still not be reduced.

3. In a recession, a decrease in consumer spending causes many businesses to lay off workers or even to close. Workers who lose their jobs in a recession usually cannot find new jobs. The result is an increase in the number of people who are jobless. Recovery from a recession is defined by an increase in consumer spending and an expansion of business activity that creates a need for additional workers, but businesspeople generally have little confidence in the economy after a recession and therefore delay hiring additional workers as long as possible.

The statements above, if true, provide most support for which one of the following conclusions?

- (A) Recessions are usually caused by a decrease in business people's confidence in the economy.  
(B) Governmental intervention is required in order for an economy to recover from a recession.  
(C) Employees of businesses that close during a recession make up the majority of the workers who lose their jobs during that recession.  
(D) Sometimes recovery from a recession does not promptly result in a decrease in the number of people who are jobless.  
(E) Workers who lose their jobs during a recession are likely to get equally good jobs when the economy recovers.

4. Scientists analyzing air bubbles that had been trapped in Antarctic ice during the Earth's last ice age found that the ice-age atmosphere had contained unusually large amounts of ferrous material and surprisingly small amounts of carbon dioxide. One scientist noted that algae absorb carbon dioxide from the atmosphere. The scientist hypothesized that the ferrous material, which was contained in atmospheric dust, had promoted a great increase in the population of Antarctica algae such as diatoms.

Which one of the following, if true, would most seriously undermine the scientist's hypothesis?

- (A) Diatoms are a microscopic form of algae that has remained largely unchanged since the last ice age.
- (B) Computer models suggest that a large increase in ferrous material today could greatly promote the growth of oceanic algae.
- (C) The dust found in the air bubbles trapped in Antarctica ice contained other minerals in addition to the ferrous material.
- (D) Sediment from the ocean floor near Antarctica reflects no increase, during the last ice age, in the rate at which the shells that diatoms leave when they die accumulated.
- (E) Algae that currently grow in the oceans near Antarctica do not appear to be harmed by even a large increase in exposure to ferrous material.

5. Adults who work outside the home spend, on average, 100 minutes less time each week in preparing dinner than adults who do not work outside the home. But, contrary to expectation, comparison show that the dinners eaten at home by the two groups of adults do not differ significantly with respect to nutritional value, variety of menus, or number of courses.

Which one of the following, if true, most helps to resolve the apparent discrepancy in the information above?

- (A) The fat content of the dinners eaten at home by adults who do not work outside the home is 25 percent higher than national guidelines recommend.
- (B) Adults who do not work the home tend to prepare breakfast more often than adults who work outside the home.
- (C) Adults who work outside the home spend 2 hours less time per day on all household responsibilities, including dinner preparation, than do adults who do not work outside the home.
- (D) Adults who work outside the home eat dinner at home 20 percent less often than do adults who do not work outside the home.
- (E) Adults who work outside the home are less likely to plan dinner menus well in advance than are adults who do not work outside the home.

6. Legislator: Your agency is responsible for regulating an industry shaken by severe scandals. You were given funds to hire 500 investigators to examine the scandals, but you hired no more than 400. I am forced to conclude that you purposely limited hiring in an attempt to prevent the full extent of the scandals from being revealed.

Regulator: We tried to hire the 500 investigators but the starting salaries for these positions had been frozen so low by the legislature that it was impossible to attract enough qualified applicants.

The regulator responds to the legislator's criticism by

- (A) shifting the blame for the scandals to the legislature

- (B) providing information that challenges the conclusion drawn by legislator
  - (C) claiming that compliance with the legislature's mandate would have been an insufficient response
  - (D) rephrasing the legislator's conclusion in terms more favorable to the regulator
  - (E) showing that the legislator's statements are self contradictory
7. A commonly accepted myth is that left-handed people are more prone to cause accidents than are right-handed people. But this is, in fact, just a myth, as is indicated by the fact that more household accidents are caused by right-handed people than caused by left-handed people.
- The reasoning is flawed because the argument
- (A) makes a distinction where there is no real difference between the things distinguished
  - (B) takes no account of the relative frequency of left-handed people in the population as a whole
  - (C) uses the word "accidents" in two different senses
  - (D) ignores the possibility that some household accidents are caused by more than one person
  - (E) gives wholly irrelevant evidence and simply disparage an opposing position by calling it a "myth"

Questions 8-9

Ornithologist: the curvature of the claws of the modern tree-dwelling birds enables them to perch in trees. The claws of Archeopteryx, the earliest known birdlike creature, show similar curvature that must have enabled the creature to perch on tree limbs. Therefore, Archeopteryx was probably a tree-dwelling creature.

Paleontologist: No, the ability to perch in trees is not good evidence that Archeopteryx was a tree-dwelling bird. Chickens also spend time perched in trees, yet chickens are primarily ground-dwelling.

8. In responding to the ornithologist's hypothesis that Archeopteryx was tree-dwelling, the paleontologist
- (A) questions the qualifications of the ornithologist to evaluate the evidence
  - (B) denies the truth of the claims the ornithologist makes in support of the hypothesis
  - (C) uses a parallel case to illustrate a weakness in the ornithologist's argument
  - (D) shows that the hypothesis contradicts one of the pieces of evidence used to support it
  - (E) provides additional evidence to support the ornithologist's argument
9. Which one of the following is an assumption on which the ornithologist's reasoning depends?

- (A) Modern tree-dwelling birds are the direct descendants of Archeopteryx.
  - (B) Archeopteryx made use of the curvature of its claws.
  - (C) There have never been tree-dwelling birds without curved claws.
  - (D) Archeopteryx was in fact the earliest birdlike creature.
  - (E) The curvature of the claws is the only available evidence for the claim that Archeopteryx was tree-dwelling.
10. There are rumors that the Premier will reshuffle the cabinet this week. However, every previous reshuffle that the Premier has made was preceded by meetings between the Premier and senior cabinet members. No such meetings have occurred or are planned. Therefore the rumors are most likely false.
- Which one of the following most accurately expresses a principle of reasoning employed by the argument?
- (A) When a conclusion follows logically from a set of premises, the probability that the conclusion is true cannot be any less than the probability that the premises are all true.
  - (B) A hypothesis is undermined when a state of affairs does not obtain that would be expected to obtain if the hypothesis were true.
  - (C) It is possible for a hypothesis to be false even though it is supported by all the available data.
  - (D) Even if in the past a phenomenon was caused by particular circumstances, it is erroneous to assume that the phenomenon will recur only under the circumstances in which it previously occurred.
  - (E) If two statements are known to be inconsistent with each other and if one of the statements is known to be false, it cannot be deduced from these known facts that the other statement is true.

### Questions 11-12

Carl: Researchers who perform operations on animals for experimental purposes are legally required to complete detailed pain protocols indicating whether the animals will be at risk of pain and, if so, what step will be taken to minimize or alleviate it. Yet when human beings undergo operations, such protocols are never required. If lawmakers were as concerned about human beings as they seem to be about animals, there would be pain protocols for human beings.

Debbie: But consider this: a person for whom a doctor wants to schedule surgery can simply be told what pain to expect and can then decide whether or not to undergo the operation. So you see, pain protocols are unnecessary for human beings.

11. Debbie attempts to counter Carl's argument by
- (A) showing that one of the claims on which Carl bases his conclusion is inaccurate
  - (B) pointing out a relevant difference to undermine an analogy on which Carl



bases his conclusion

- (C) claiming that Carl's argument should be rejected because it is based on an appeal to sentimentality rather than on reasoned principles
  - (D) drawing an analogy that illustrates a major flaw in Carl's argument
  - (E) offering a specific example to demonstrate that Carl's argument is based on a claim that can be neither confirmed nor disproved
12. Which one of the following, if true, most seriously weakens the argument made by Debbie in response to Carl's argument?
- (A) Not all operations that are performed on human beings are painful.
  - (B) Some experimentation that is now done in animals need not be done at all.
  - (C) Preparing pain protocols is not a time-consuming or costly procedure.
  - (D) Some surgical operations performed on infants are painful.
  - (E) Unalleviated pain after an operation tends to delay the healing process.
13. A company with long-outstanding bills owed by its customers can assign those bills to a collection agency that pays the company a fraction of their amount and then tries to collect payment from the customers. Since these agencies pay companies only 15 percent of the total amount of the outstanding bills, a company interested in reducing losses from long-outstanding bills would be well advised to pursue its debtors on its own.
- The argument depends on the assumption that
- (A) a company that pursues its debtors on its own typically collects more than 15 percent of total amount of the long-outstanding bills that it is owed
  - (B) the cost to a company of pursuing its debtors on its own for payment of long-outstanding bills does not exceed 15 percent of the total amount of those bills
  - (C) collection agencies that are assigned bills for collection by companies are unsuccessful in collecting, on average, only 15 percent of the total amount of those bills
  - (D) at least 15 percent of the customers that owe money to companies eventually pay their bills whether or not those bills are assigned to a collection agency
  - (E) unless most of the customers of a company pay their bills, that company in the long run will not be profitable
14. Herbalist: Many of customers find that their physical coordination improves after drinking juice containing certain herbs. A few doctors assert that the herbs are potentially harmful, but doctors are always trying to maintain a monopoly over medical therapies. So there is no reason not to try my herb juice.
- The reasoning in the herbalist's argument is flawed because the argument
- (A) attempts to force acceptance of a claim by inducing fear of the consequences of rejecting that claim

- (B) bases a conclusion on claims that are inconsistent with each other
- (C) rejects a claim by attacking the proponents of the claim rather than addressing the claim itself
- (D) relies on evidence presented in terms that presuppose the truth if the claim for which the evidence is offered
- (E) mistakes the observation that one thing happens after another for proof that the second thing is the result of the first
15. Because of the lucrative but illegal trade in rhinoceros horns, a certain rhinoceros species has been hunted nearly to extinction. Therefore an effective way to ensure the survival of that species would be to periodically trim off the horns of all rhinoceroses, thereby eliminating the motivation for poaching.
- Which one of the following is an assumption required by the argument?
- (A) Most poachers who are discouraged from hunting rhinoceroses are not likely to hunt other animals for their horns.
- (B) At least some rhinoceroses whose horns are periodically trimmed off will be able to attract mates.
- (C) Poachers hunt at least some immature rhinoceroses whose horns have not yet started to develop.
- (D) The demand for rhinoceros horns will remain constant even if the supply decreases after the periodical trimming-off of the rhinoceros horns has begun.
- (E) Rhinoceroses whose horns have been trimmed off are unable to defend themselves against predators.
16. Motorcoach driver: Professional drivers spend much more time driving, on average, than do other people and hence are more competent drivers than are other, less experienced drivers. Therefore, the speed limit on major highways should not be reduced, because that action would have the undesirable effect of forcing some people who are now both law-abiding and competent drivers to break the law.
- Police officer: All drivers can drive within the legal speed limit if they wish, so it is not true to say that reducing the speed limit would be the cause of such illegal behavior.
- The point at issue between the motorcoach driver and police officer is whether
- (A) it would be desirable to reduce the speed limit on major highway
- (B) professional drivers will drive within the legal speed limit if that limit is reduced
- (C) reducing the speed limit on major highways would cause some professional drivers to break the law
- (D) professional drivers are more competent drivers than are other less experienced drivers

- (E) all drivers wish to drive within the speed limit
17. People cannot devote themselves to the study of natural processes unless they have leisure, and people have leisure when resources are plentiful, not when resources are scarce. Although some anthropologists claim that agriculture, the cultivation of crops, actually began under conditions of drought and hunger, the early societies that domesticated plants must first have discovered how the plants they cultivated reproduced themselves and grew to maturity. These complex discoveries were the result of the active study of natural processes.
- The argument is structured to lead to the conclusion that
- (A) whenever a society has plentiful resources, some members of that society devote themselves to the study of natural processes
  - (B) plants cannot be cultivated by someone lacking theoretical knowledge of the principles of plant generation and grew
  - (C) agriculture first began in societies that at some time in their history had plentiful resources
  - (D) early agricultural societies knew more about the natural sciences than did early nonagricultural societies
  - (E) early societies could have discovered by accident how the plants they cultivated reproduced and grew
18. In the past decade, a decreasing percentage of money spent on treating disease X went to pay for standard methods of treatment, which are known to be effective though they are expensive and painful. An increasing percentage is being spent on nonstandard treatments, which cause little discomfort. Unfortunately, the nonstandard treatments have proved to be ineffective. Obviously, less money is being spent on effective treatments of disease X than was spent ten years ago.
- Which one of the following, if assumed, allows the conclusion above to be properly drawn?
- (A) Varieties of disease X requiring expensive special treatment have become less common during the past decade.
  - (B) Nonstandard methods of treating disease X are more expensive now than they were a decade ago.
  - (C) Of total medical expenditures, the percentage that is due to treatment of disease X increased during the past decade.
  - (D) Most of the money spent on treating disease X during the last decade went to pay for nonstandard treatments.
  - (E) The total amount of money spent on treating disease X slowly declined during the past decade.
19. When an ordinary piece of steel is put under pressure, the steel compresses: that is, its volume slightly decreases. Glass, however, is a fluid, so rather than compressing, it flows when put under pressure; its volume remains unchanged.

Any portion of a sheet of glass that is under sustained pressure will very slowly flow to areas under less pressure. Therefore, if a single, extremely heavy object is placed in the middle of a horizontal sheet of glass of uniform thickness and if the glass is able to support the weight without cracking, the sheet of glass will eventually\_\_\_\_\_

Which one of the following most logically completes the argument?

- (A) become larger in size yet still be of uniform thickness
- (B) flow toward the point at which the pressure of the object is greatest
- (C) compress, although not as much as a piece of steel would
- (D) divide into exactly two pieces that are equal in neither size nor shape to the original piece of glass
- (E) be thinner in the portion of the glass that is under the pressure of the object than in those portions of the glass that are not under that pressure

20. Anyone who insists that music videos are an art form should also agree that television gave rise to an art form, since television gave rise to music videos.

The pattern of reasoning displayed in the argument above most closely parallels that displayed in which one of the following?

- (A) Anyone who claims that all vegetables are nutritious should also agree that some vegetables are harmful if eaten in large quantities.
- (B) Anyone who holds that avocados are a fruit should also hold that pound cake is lower in fat than some fruit, since pound cake is lower in fat than avocados.
- (C) Anyone who dislikes tomatoes should also agree that some people do like tomatoes, if that person agrees that no taste is universal.
- (D) A person who eats a variety of vegetables is probably well nourished, since most people who eat a variety of vegetables generally eat well-balanced meals.
- (E) A person who claims to prefer fruit to vegetables should also prefer cake to bread, since fruit is sweeter than bread.

21. Medieval Arabs had manuscripts of many ancient Greek texts, which were translated into Arabic when there was a demand for them. Medieval Arab philosophers were very interested in Aristotle's *Poetics*, an interest that evidently was not shared by Medieval Arab poets, because a poet interested in the *Poetics* would certainly have wanted to read Homer, to whose epics Aristotle frequently refers. But Homer was not translated into Arabic until modern times.

Which one of the following, if true, most strongly supports the argument above?

- (A) A number of medieval Arab translators possessed manuscripts of the Homeric epics in their original Greek.
- (B) Medieval Arabic story cycles, such as the Arabian Nights, are in some ways similar to parts of the Homeric epics.

- (C) In addition to translating from Greek, medieval Arab translators produced Arabic editions of many works originally written in Indian languages and in Persian.
- (D) Aristotle's *Poetics* has frequently been cited and commented on by modern Arab poets.
- (E) Aristotle's *Poetics* is largely concerned with drama, and dramatic works were written and performed by medieval Arabs.

22. Congenial guests and plentiful supply of good things to eat and drink will ensure a successful dinner party. Since Sylvia has prepared more than enough to eat and drink and her guests are all congenial people, her dinner party is certain to be a success.

The pattern of flawed reasoning exhibited by the argument above is most similar to that exhibited by which one of the following?

- (A) The right ingredients, properly combined and baked in a reliable oven will always produce a well-baked cake. Since Emily has properly combined the right ingredients, her cake is certain to come out well if she bakes it in a reliable oven.
  - (B) If corn is baked with its husks on, the resulting dish will always be moist and sweet. Since George wishes to ensure that the corn he plans to serve is moist, he will be certain both to bake it and to leave its husks on.
  - (C) Making pie dough using ice water and thoroughly chilling the dough before rolling it out will ensure a flaky crust. Andrew thoroughly chilled his pie dough before rolling it out, so since he used ice water in making it, his pie is certain to have a flaky crust.
  - (D) If soup is made with a well-seasoned meat stock and fresh ingredients, it will always be welcome at dinner. Since to his meat stock Arnold added only very fresh ingredients, the resulting soup is certain to be welcome at dinner.
  - (E) Fresh greens, carefully washed and served with a light dressing, always produce a refreshing salad. Since Tisha has developed an exceptionally light dressing but never washes her fresh greens, no salad she serves will be a refreshing one.
23. A museum directors, in order to finance expensive new acquisitions, discreetly sold some paintings by major artists. All of them were paintings that the director privately considered inferior. Critics roundly condemned the sale, charging that the museum had lost first-rate pieces, thereby violating its duty as a trustee of art for future generations. A few months after being sold by the museum, those paintings were resold, in an otherwise stagnant art market, at two to three times the prices paid to the museum. Clearly, these prices settle the issue, since they demonstrate the correctness of the critics' evaluation.

The reasoning in the argument is vulnerable to the criticism that the argument does which one of the following?



- (A) It concludes that a certain opinion is correct on the grounds that it is held by more people than hold the opposing views.
- (B) It rejects the judgment of the experts in an area in which there is no better guide to the truth than expert judgment.
- (C) It rejects a proven means of accomplishing an objective without offering any alternative means of accomplishing that objective.
- (D) It bases a firm conclusion about a state of affairs in the present on somewhat speculative claims about a future state of affairs.
- (E) It bases its conclusion on facts that could, in the given situation, have resulted from causes other than those presupposed by the argument.
24. The United States ranks far behind countries such as Sweden and Canada when it comes to workplace safety. In all three countries, joint labor-management committees that oversee workplace safety conditions have been very successful in reducing occupational injuries. In the United States, such committees are found only in the few companies that have voluntarily established them. However, in Sweden and several Canadian provinces, joint safety committees are required by law and exist in all medium-sized and large workplaces.
- Which one of the following is supported by the information above?
- (A) The establishment of joint safety committees in all medium-sized and large workplaces in the United States would result in reduction of occupational injuries.
- (B) A joint safety committee that is required by law is more effective at reducing occupational injuries than is a joint safety committee that is voluntarily established.
- (C) Workplace in Sweden and Canada was superior to that in the United States even prior to the passage of laws requiring joint safety committees in all medium-sized and large workplaces.
- (D) Joint safety committees had been voluntarily established in most medium-sized and large workplaces in Sweden and several Canadian provinces prior to the passage of laws requiring such committees.
- (E) The United States would surpass Sweden and Canada in workplace safety if joint safety committees were required in all medium-sized and large workplaces in the United States.

#### SECTION IV

Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Three-year-old Sara and her playmate Michael are both ill and have the same symptoms. Since they play together every afternoon, Sara probably has the same illness as Michael does. Since Michael definitely does not have a streptococcal infection, despite his having some symptoms of one, the illness that Sara has is

definitely not a streptococcal infection either.

The reasoning in the argument is flawed because the argument

- (A) presuppose what it sets out to prove
- (B) mistakes the cause of a particular phenomenon for the effect of that phenomenon
- (C) fails to distinguish between acute streptococcal infections on the one hand, and less severe streptococcal infections on the other
- (D) treats evidence that the conclusion is probably true as if that evidence establishes the certainty of the conclusion
- (E) makes a general claim based on particular examples that do not adequately represent the respective groups that they are each intended to represent

2. Lambert: The proposal to raise gasoline taxes to support mass transit networks is unfair. Why should drivers who will never use train or bus lines be forced to pay for them?

Keziah: You have misunderstood. The government has always spent far more, per user, from general revenue sources to fund highways than to fund mass transit. The additional revenue from the gasoline tax will simply allow the government to make its distribution of transportation funds more equitable.

Keziah uses which one of the following argumentative strategies in replying to Lambert?

- (A) elaborating the context of the issue in order to place the proposal in a more favorable light
- (B) appealing the principle that what benefits society as a whole benefits all individual within that society
- (C) challenging the presupposition that fairness is an appropriate criterion on which to judge the matter
- (D) demonstrating that the proposed tax increase will not result in increased expenses for drivers
- (E) declining to argue a point with someone who is poorly informed on the matter under discussion

3. The number of calories in a gram of refined cane sugar is the same as in an equal amount of fructose, the natural sugar found in fruits and vegetables. Therefore, a piece of candy made with a give amount of refined cane sugar is no higher in calories than a pieced of fruit that contains an equal amount of fructose.

The reasoning in the arguments is flawed because the argument

- (A) fails to consider the possibility that fruit might contain noncaloric nutrients that candy does not contain
- (B) presupposes that all candy is made with similar amounts of sugar
- (C) confuses one kind of sugar with another
- (D) presupposes what it sets out to establish, that fruit does not differ from sugar-

based candy in the number of calories each contains

(E) overlooks the possibility that sugar might not be the only calorie-containing ingredient in candy or fruit

4. In order to increase production, ABC Company should implement a flextime schedule, which would allow individual employees some flexibility in deciding when to begin and end their workday. Studies have shown that working under flextime schedules is associated with increased employee morale.

The argument depends on the assumption that

(A) the employees who prefer a flextime schedule are the most productive employees at ABC Company

(B) an increase in the morale of ABC Company's employees could lead to increased production

(C) flextime schedules tend to be associated with reduced lateness and absenteeism

(D) employees are most productive during the part of the day when all employees are present

(E) companies that are in competition with ABC Company also use a flextime schedule

5. Attorneys for a criminal defendant charged that the government, in a cover-up, had destroyed evidence that government replied that there is no evidence that would even tend to support the defendant in the case.

Which one of the following is the most accurate evaluation of the government's reply?

(A) It leaves open the question of whether the government had destroyed such evidence.

(B) It establishes that the attorneys' charge is an exaggeration.

(C) It shows that the attorneys did not know whether their charge was true.

(D) It demonstrates the government's failure to search for evidence in its files.

(E) If true, it effectively disproves the charge made on behalf of the defendant.

6. Videocassette recorders (VCRs) enable people to watch movies at home on videotape. People who own VCRs go to movie theaters more often than do people who do not own VCRs. Contrary to popular belief, therefore, owning a VCR actually stimulates people to go to movie theaters more often than they otherwise would.

The argument is most vulnerable to criticism on the grounds that it

(A) concludes that a claim must be false because of the mere absence of evidence in its favor

(B) cites in support of the conclusion evidence that is inconsistent with other information that is provided

- (C) fails to establish that the phenomena interpreted as cause and effect are not both direct effects of some other factor
- (D) takes a condition that by itself guarantees the occurrence of a certain phenomenon to be a condition that therefore must be met for that phenomenon to occur
- (E) bases a broad claim about the behavior of people in general on a comparison between two groups of people that together include only a small proportion of people overall
7. The cumbersome spears that were the principal weapons used by certain tribes in the early Bronze Age precluded widespread casualties during intertribal conflicts. But the comparatively high number of warrior tombs found in recent excavations of the same tribes' late Bronze Age settlements indicates that in the late Bronze Age, wars between these tribes were frequent, and the casualty rate was high. Hence some archaeologists claim that by the late Bronze Age, these tribes had developed new methods of warfare designed to inflict many casualties.
- Which one of the following, if true, most supports the archaeologists' claim?
- (A) A royal tomb dating to the early Bronze Age contained pottery depicting battle scenes in which warriors use spears.
- (B) There is evidence that many buildings dating to the late Bronze Age were built by prisoners of war taken in battles between enemy tribes.
- (C) Scenes of violent warfare, painted in bright hues, frequently appear on pottery that has been found in some early Bronze Age tombs of warriors.
- (D) Some tombs of warriors dating to the late Bronze Age contain armor and weapons that anthropologists believe were trophies taken from enemies in battle.
- (E) The marks on the bones of many of the late Bronze Age warriors whose tombs were excavated are consistent with the kind of wounds inflicted by arrowheads also found in many late Bronze Age settlements.
8. Based on data collected from policyholders, life insurance companies have developed tables that list standard weight ranges for various heights. Policyholders whose weight fell within the range given for their height lived longer than those whose weight fell outside their given range. Therefore, if people whose weight falls outside their given range modified their weight to fall within that range, their overall life expectancies would improve.
- Which one of the following is an assumption on which the argument relies?
- (A) Some people would be unwilling to modify their weights solely to increase the general population's overall life expectancies.
- (B) Life insurance companies intended their tables to guide individuals in adjusting their weights in order to increase their life spans.
- (C) The tables include data gathered from policyholders whose deaths resulted from accidents in addition to those whose deaths resulted from natural

causes.

(D) Holders of life insurance policies do not have longer overall life expectancies than the general population.

(E) People's efforts to modify their weight to conform to a given range would not damage their health enough to decrease their overall life expectancies.

9. Measurements of the motion of the planet Uranus seem to show Uranus being tugged by a force pulling it away from the Sun and the inner planets. Neptune and Pluto, the two known planets whose orbits are farther from the Sun than is the orbit of Uranus, do not have enough mass to exert the force that the measurements indicate. Therefore, in addition to the known planets, there must be at least one planet in our solar system that we have yet to discover.

Which one of the following, if true, most seriously weakens the argument?

(A) Pluto was not discovered until 1930.

(B) There is a belt of comets beyond the orbit of Pluto with powerful gravitational pull.

(C) Neither Neptune nor Pluto is as massive as Uranus.

(D) The force the Sun exerts on Uranus is weaker than the force it exerts on the inner planets.

(E) Uranus' orbit is closer to Neptune's orbit than it is to Pluto's.

10. Audiences find a speaker more convincing if the speaker begins a speech by arguing briefly against his or her position before providing reasons for accepting it. The reason this technique is so effective is that it makes the speaker appear fair-minded and trustworthy. Therefore, candidates for national political office who wish to be successful in winning votes should use this argumentative technique in the speeches.

Which one of the following, if true, most seriously limits the effectiveness of adopting the argument's recommendation?

(A) Political candidates typically have no control over which excerpts from their speeches will be reported by the news media.

(B) Many people do not find arguments made by politicians convincing, since the arguments are often one-sided or oversimplify the issues.

(C) People decide which political candidate to vote for more on the basis of their opinions of the candidate's character than on the exact positions of the candidate.

(D) People regard a political candidate more favorably if they think that the candidate respects an opponent's position even while disagreeing with it.

(E) Political candidates have to address audiences of many different sizes and at many different locations in the course of a political campaign.

11. Five thousand of the 50,000 books published in country Z in 1991 were novels. Exactly 25 of the films released in country Z in 1992 were based on those novels.



Since 100 films were released in country Z in 1992, no more than one-quarter of them were based on books published in country Z in 1991.

Which one of the following, if assumed, allows the conclusion above to be properly drawn?

- (A) None of the scripts used in films released in 1992 were written by professional novelists.
- (B) None of the films released in country Z in 1992 were based on books other than novels.
- (C) None of the books that were published in country Z in 1992 were based on plots of films released in 1991.
- (D) Some of the films released in country Z in 1992 were based on older films that had been released for the first time many years earlier.
- (E) Some of the films released in 1991 in country Z were based on novels that were published in 1991.

12. On their way from their nest to a food source, ants of most species leave a trail of chemicals called pheromones. The ants use the scent of the pheromones to guide themselves between the food and their nest. All pheromones evaporate without a trace almost immediately when temperatures rise above 45 degrees Celsius (113 degree Fahrenheit), as is typical during afternoons in places such as the Sahara Desert.

The statements above, if true, most strongly support which one of the following?

- (A) Most ants forage for food either only in the morning or only during the night.
- (B) Most ants that do not use pheromones to mark the paths they take between their nest and food live in the Sahara Desert.
- (C) If any ants live in the Sahara Desert and forage for food at no time but in the afternoon, those ants generally do not use pheromones to guide themselves between food and their nest.
- (D) If any ants do not use pheromones to navigate between food and their nest, those ants use a different substance that does not evaporate in temperatures above 45 degrees Celsius.
- (E) If any Saharan ants forage for food in the afternoon, those ants forage for food less efficiently when temperatures are above 45 degrees Celsius than they do when temperatures are lower.

13. Some people think that in every barrel of politicians there are only a few rotten ones. But if deceit is a quality of rottenness, I believe all effective politicians are rotten. They must be deceitful in order to do the job properly. Someone who is scrupulously honest about obeying the rules of society will never be an effective politician.

Assuming that the author's statements are accurate, which one of the following statements CANNOT be true?

- (A) Some people think all politicians are rotten.

- (B) Some politicians are scrupulously honest.
- (C) Some people define a politician's job as obeying the rules of society.
- (D) Some deceitful politicians are ineffective.
- (E) Some scrupulously honest politicians are effective.
14. The Biocarb Company wants to build a sterilization plant to treat contaminated medical waste in a city neighborhood where residents and environmental activists fear that such a facility will pollute the area. Biocarb's president argues that the operation of the plant cannot cause pollution because the waste would be sterile after processing by the plant. He claims that after exposure for an hour to superheated steam in the autoclave, such refuse would be far cleaner than food prepared in the cleanest kitchen.
- The president's argument depends on which one of the following assumptions?
- (A) Environmental activists believe that waste treated with steam will not pollute.
- (B) Handling of the waste before treatment in the proposed facility will not pose a threat of pollution to the area.
- (C) Fear of pollution is the only argument against construction of an autoclave facility for medical waste.
- (D) No others besides environmental activists are concerned about pollution hazards that can result from processing medical waste.
- (E) Treatment by superheated steam represents the surest method of sterilization.
15. Grow-Again ointment is a proven treatment for reversing male hereditary baldness. Five drops daily is the recommended dose, and exceeding this quantity does not increase the product's effectiveness. Therefore, offering a manufacturer's rebate on the purchase price of Grow-Again will not increase sales and consequently would be unprofitable for the manufacturer.
- Which one of the following, if true, would most strengthen the argument?
- (A) When using an ointment, people tend to believe that applying it in greater quantities can make it more effective.
- (B) Grow-Again is more effective on some of the men who use it than it is on others.
- (C) The rebate, if offered, would not attract purchasers who otherwise might not use Grow-Again.
- (D) Baldness in men can be caused by a variety of factors, only one of which is heredity.
- (E) Grow-Again is a product whose per-unit manufacturing cost does not fall significantly when the product is produced in large quantities.

Questions 16-17

Henry: Some scientists explain the dance of honeybees as the means by which

honeybees communicate the location of whatever food source they have just visited to other members of the hive. But honeybees do not need so complicated a mechanism to communicate that information. Forager honeybees returning to their hive simply leave a scent trail from the food source they have just visited. There must therefore be some other explanation for the honeybees' dance.

Winifred: Not necessarily. Most animals have several ways of accomplishing critical tasks. Bees of some species can navigate using either the position of the Sun or the memory of landmarks. Similarly, for honeybees, scent trails are a supplementary not an exclusive means of communicating.

16. The point at issue between Henry and Winifred is whether
- (A) theories of animal behavior can be established on the basis of evidence about only one species of animal
  - (B) there is more than one valid explanation for the dance of honeybees
  - (C) honeybees communicate the location of food sources through their dance
  - (D) the honeybee is the only species of bee that is capable of communicating navigational information to other hive members
  - (E) the honeybee's sense of smell plays a role in its foraging strategies
17. In Winifred's response to Henry, the statement about how bees of some species navigate plays which one of the following roles?
- (A) It addresses an ambiguity in Henry's use of the expression "communicate the location."
  - (B) It provides evidence in support of a general claim.
  - (C) It calls into question the accuracy of key evidence cited by Henry.
  - (D) It points out that Henry's conclusion directly contradicts one of his premises.
  - (E) It proposes an alternative explanation for the honeybee's dance.
18. Politician: A government that taxes incomes at a rate of 100 percent will generate no revenue because all economic activity will cease. So it follows that the lower the rate of income tax, the more revenue the government will generate by that tax.
- Economist: Your conclusion cannot be correct, since it would mean that an income tax of 0 percent would generate the maximum revenue.
- Which one of the following argumentative strategies is used by the economist in responding to the politician?
- (A) stating a general principle that is incompatible with the conclusion the politician derives
  - (B) providing evidence that where the politician's advice has been adopted, the results have been disappointing
  - (C) arguing that the principle derived by the politician, if applied in the limiting case, leads to an absurdly false conclusion
  - (D) undermining the credibility of the politician by openly questioning the

politician's understanding of economics

(E) attacking the politician's argument by giving reason to doubt the truth of a premise

19. Sponges attach to the ocean floor, continually filtering seawater for food and ejecting water they have just filtered to avoid reingesting it. Tubular and vase-shaped sponges can eject filtered water without assistance from surrounding ocean currents and thus are adapted to slow-moving, quiet waters. Because of their shape, however, these sponges cannot live in strong currents, since strong currents would dislodge them. Both of these varieties of sponge were widespread during the late Jurassic period.

The statements above, if true, most strongly support which one of the following claims?

(A) Few tubular or vase-shaped sponges lived before the late Jurassic period.

(B) Tubular and vase-shaped sponges were more common during the late Jurassic period than in succeeding geological eras.

(C) During the late Jurassic period there were many areas of the ocean floor where currents were weak.

(D) All sponges that are neither tubular nor vase-shaped inhabit areas of the ocean floor where there are extremely strong currents.

(E) No types of sponge live in large colonies, since sponges do not flourish in areas where much of the water has been filtered by other sponges.

20. There is strong evidence that the cause of migraines (severe recurrent headaches) is not psychological but instead is purely physiological. Yet several studies have found that people being professionally treated for migraines rate higher on a standard psychological scale of anxiety than do people not being professionally treated for migraines.

Which one of the following, if true, most helps to resolve the apparent discrepancy in the information above?

(A) People who have migraine headaches tend to have relatives who also have migraine headaches.

(B) People who have migraine headaches often suffer these headaches when under emotional stress.

(C) People who rate higher on the standard psychological scale of anxiety are more likely to seek professional treatment than are people who rate lower on the scale.

(D) Of the many studies done on the cause of migraine headaches, most of those that suggest that psychological factors such as anxiety cause migraines have been widely publicized.

(E) Most people who have migraines and who seek professional treatment remain in treatment until they stop having migraines, whether their doctors consider the cause to be physiological or psychological.

21. Not all tenured faculty are full professors. Therefore, although every faculty member in the linguistics department has tenure, it must be the case that not all of the faculty members in the linguistics department are full professors.
- The flawed pattern of reasoning exhibited by the argument above is most similar to that exhibited by which one of the following?
- (A) Although all modern office towers are climate-controlled buildings, not all office buildings are climate-controlled. Therefore, it must be the case that not all office buildings are modern office towers.
  - (B) All municipal hospital buildings are massive, but not all municipal hospital buildings are forbidding in appearance. Therefore, massive buildings need not present a forbidding appearance.
  - (C) Although some buildings designed by famous architects are not well proportioned, all government buildings are designed by famous architects. Therefore, some government buildings are not well proportioned.
  - (D) Not all public buildings are well designed, but some poorly designed public buildings were originally intended for private use. Therefore, the poorly designed public buildings were all originally designed for private use.
  - (E) Although some cathedrals are not built of stone, every cathedral is impressive. Therefore, buildings can be impressive even though they are not built of stone.
22. When a planetary system forms, the chances that a planet capable of supporting life will be formed are high. The chances that a large planet the size of Jupiter or Saturn will be formed, however, are low. Without Jupiter and Saturn, whose gravitational forces have prevented Earth from being frequently struck by large comets, intelligent life would never have arisen on Earth. Since planetary systems are unlikely to contain any large planets, the chances that intelligent life will emerge on a planet are, therefore, low.
- Knowing which one of the following would be most useful in evaluating the argument?
- (A) whether all planetary system are formed from similar amounts of matter
  - (B) whether intelligent species would be likely to survive if a comet struck their planet
  - (C) whether large comets could be deflected by only one large planet rather than be two
  - (D) how high the chances are that planetary systems will contain many large comets
  - (E) how likely it is that planetary systems containing large planets will also contain planets the size of Earth
23. Construction contractors working on the cutting edge of technology nearly always work on a “cost-plus” basis only. One kind of cost-plus contract stipulates the contractor’s profit as a fixed percentage of the contractor’s costs; the other kind



stipulates a fixed amount of profit over and above costs. Under the first kind of contract, higher costs yield higher profits for the contractor, so this is where one might expect final costs in excess of original cost estimates to be more common. Paradoxically, such cost overruns are actually more common if the contract is of the fixed-profit kind.

Which one of the following, if true, most helps to resolve the apparent paradox in the situation described above?

- (A) Clients are much less likely to agree to a fixed-profit type of cost-plus contract when it is understood that under certain conditions the project will be scuttled than they are when there is no such understanding.
- (B) On long-term contracts, cost projections take future inflation into account, but since the figures used are provided by the government, they are usually underestimates.
- (C) On any sizable construction project, the contractor bills the client monthly or quarterly, so any tendency for original cost estimates to be exceeded can be detected early.
- (D) Clients billed under a cost-plus contract are free to review individual billings in order to uncover wasteful expenditures, but they do so only when the contractor's profit varies with cost.
- (E) The practice of submitting deliberately exaggerated cost estimates is most common in the case of fixed-profit contracts, because it makes the profit, as a percentage of estimated cost, appear modest.

24. That wall is supported by several joists. The only thing that can have caused the bulge that the wall now has is a broken joist. Therefore, at least one of the joists is broken.

Which one of the following arguments is most similar in its logical features to the argument above?

- (A) A least one of the players in the orchestra must have made a mistake, since nothing else would have made the conductor grimace in the way she just did.
- (B) The first piece must have been the easiest, since it was the only piece in the entire concert in which the orchestra did not make many mistakes.
- (C) The players play well only when they like the music, since they tend to make mistakes when they play something they do not like.
- (D) One of the orchestra's players must be able to play the harp, since in one of the pieces they are playing at next week's concert the composer specified that a harp should be played.
- (E) The emotion of the music is the only thing that can have caused the conductor to look so angry just then, since the orchestra was playing perfectly.

Questions 25-26

Sasha: Handwriting analysis should be banned in court as evidence of a person's character: handwriting analysts called as witnesses habitually exaggerate the reliability of their analyses.

Gregory: You are right that the current use of handwriting analysis as evidence is problematic. But this problem exists only because there is no licensing board to set professional standards and thus deter irresponsible analyst from making exaggerated claims. When such a board is established, however, handwriting analysis by licensed practitioners will be a legitimate courtroom tool for character assessment.

25. Gregory does which one of the following in responding to Sasha's argument?
- (A) He ignores evidence introduced as support for Sasha's recommendation.
  - (B) He defends a principle by restricting the class to which it is to be applied.
  - (C) He abstracts a general principle from specific evidence.
  - (D) He identifies a self-contradictory statement in Sasha's argument.
  - (E) He shows that Sasha's argument itself manifests the undesirable characteristic that it condemns.
26. Which one of the following, if true, would provide Sasha with the strongest counter to Gregory's response?
- (A) Courts routinely use means other than handwriting analysis to provide evidence of a person's character.
  - (B) Many people can provide two samples of their handwriting so different that only a highly trained professional could identify them as having been written by the same person.
  - (C) A licensing board would inevitably refuse to grant licenses to some responsible handwriting analysts for reasons having nothing to do with their reliability.
  - (D) The only handwriting analysts who claim that handwriting provides reliable evidence of a person's character are irresponsible.
  - (E) The number of handwriting analysts who could conform to professional standards set by a licensing board is very small.

## TEST 24

### SECTION I

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. French divers recently found a large cave along the coast of the Mediterranean Sea. The cave is accessible only through an underwater tunnel. The interior of the cave is completely filled with seawater and contains numerous large stalagmites, which are stony pillars that form when drops of water fall repeatedly on a single

spot on a cave floor, leaving behind mineral deposits that accumulate over time.

The information above most strongly supports which one of the following?

- (A) The Mediterranean Sea was at a higher level in the past than it is now.
- (B) The water level within the cave is higher now than it once was.
- (C) The French divers were the first people who knew that the tunnel leading to the cave existed.
- (D) There was once an entrance to the cave besides the underwater tunnel.
- (E) Seawater in the Mediterranean has a lower mineral content now than it had when the stalagmites were being formed.

2. A director of the Rexx Pharmaceutical Company argued that the development costs for new vaccines that the health department has requested should be subsidized by the government, since the marketing of vaccines promised to be less profitable than the marketing of any other pharmaceutical product. In support of this claim the director argued that sales of vaccines are likely to be lower since each vaccine is administered to a patient only once, whereas medicines that combat diseases and chronic illnesses are administered many times to each patient.

Which one of the following, if true, most weakens the support offered by the company director for the claim concerning the marketing of vaccines?

- (A) Vaccines are administered to many more people than are most other pharmaceutical products.
- (B) Many of the diseases that vaccines are designed to prevent can be successfully treated by medicines.
- (C) Pharmaceutical companies occasionally market products that are neither medicines nor vaccines.
- (D) Pharmaceutical companies other than the Rexx Pharmaceutical Company produce vaccines.
- (E) The cost of administering a vaccine is rarely borne by the pharmaceutical company that manufactures that vaccine.

3. Manager: Our new computer network, the purpose of which is to increase productivity, can be installed during the day, which would disrupt our employees' work, or else at night, which would entail much higher installation charges. Since saving money is important, we should have the network installed during the day.

The manager's argument assumes which one of the following?

- (A) The monetary value of the network equipment would not exceed the cost of having the equipment installed at night.
- (B) The monetary value of any productivity lost during a daytime installation would be less than the difference between daytime and nighttime installation costs.
- (C) A daytime installation would be completed by no larger a crew and would

take the crew no more time than would a nighttime installation.

- (D) Once the network has been installed, most of the company's employees will be able to use it immediately to increase their productivity.
- (E) Most of the company's employees would be able to work productively while a daytime installation is in progress.

4. An ingredient in marijuana known as THC has been found to inactivate herpesviruses in experiments. In previous experiments researchers found that inactivated herpesviruses can convert healthy cells into cancer cells. It can be concluded that the use of marijuana can cause cancer.

Which one of the following, if true, most seriously weakens the argument?

- (A) Several teams of scientists performed the various experiments and all of the teams had similar results.
  - (B) The carcinogenic effect of THC could be neutralized by the other ingredients found in marijuana.
  - (C) When THC kills herpesviruses it weakens the immune system, and it might thus diminish the body's ability to fight other viruses, including viruses linked to cancers.
  - (D) If chemists modify the structure of THC, THC can be safely incorporated into medications to prevent herpes.
  - (E) To lessen the undesirable side effects of chemotherapy, the use of marijuana has been recommended for cancer patients who are free of the herpesvirus.
5. Archaeologist: A large corporation has recently offered to provide funding to restore an archaeological site and to construct facilities to make the site readily accessible to the general public. The restoration will conform to the best current theories about how the site appeared at the height of the ancient civilization that occupied it. This offer should be rejected, however, because many parts of the site contain unexamined evidence.

Which one of the following principles, if valid, justifies the archaeologist's argument?

- (A) The ownership of archaeological sites should not be under the control of business interests.
- (B) Any restoration of an archaeological site should represent only the most ancient period of that site's history.
- (C) No one should make judgments about what constitutes the height of another civilization.
- (D) Only those with a true concern for an archaeological site's history should be involved in the restoration of that site.
- (E) The risk of losing evidence relevant to possible future theories should outweigh any advantages of displaying the results of theories already developed.

6. Besides laying eggs in her own nest, any female wood duck will lay an egg in the nest of another female wood duck if she sees the other duck leaving her nest. Under natural nesting conditions, this parasitic behavior is relatively rare because the ducks' nests are well hidden. However, when people put up nesting boxes to help the ducks breed, they actually undercut the ducks' reproductive efforts. These nesting boxes become so crowded with extra eggs that few, if any, of the eggs in those boxes hatch.

The statements above, if true, most strongly support which one of the following?

- (A) Female wood ducks will establish nests in nest boxes only when natural nesting sites are not available.
- (B) Nesting female wood ducks who often see other female wood ducks are the most successful in their breeding efforts.
- (C) The nesting boxes for wood ducks have less space for eggs than do natural nesting sites.
- (D) The nesting boxes would be more effective in helping wood ducks breed if they were less visible to other wood ducks than they currently are.
- (E) Nesting boxes are needed to supplement the natural nesting sites of wood ducks because of the destruction of much of the ducks' habitat.

7. The crux of creativity resides in the ability to manufacture variations on a theme. If we look at the history of science, for instance, we see that every idea is built upon a thousand related ideas. Careful analysis leads us to understand that what we choose to call a new theme or a new discovery is itself always and without exception some sort of variation, on a deep level, of previous themes.

If all of the statements in the passage are true, each of the following must also be true EXCEPT:

- (A) A lack of ability to manufacture a variation on a previous theme connotes a lack of creativity.
- (B) No scientific idea is entirely independent of all other ideas.
- (C) Careful analysis of a specific variation can reveal previous themes of which it is a variation.
- (D) All great scientific discoverers have been able to manufacture a variation on a theme.
- (E) Some new scientific discoveries do not represent, on a deep level, a variation on previous themes.

8. Millions of female bats rear their pups in Bracken Cave. Although the mothers all leave the cave nightly, on their return each mother is almost always swiftly reunited with her own pup. Since the bats' calls are their only means of finding one another, and a bat pup cannot distinguish the call of its mother from that of any other adult bat, it is clear that each mother bat can recognize the call of her pup.

The argument seeks to do which one of the following?



- (A) derive a general conclusion about all members of a group from facts known about representative members of that group
  - (B) establish the validity of one explanation for a phenomenon by excluding alternative explanations
  - (C) support, by describing a suitable mechanism, the hypothesis that a certain phenomenon can occur
  - (D) conclude that members of two groups are likely to share a certain ability because of other characteristics they share
  - (E) demonstrate that a general rule applies in a particular case
9. Someone who gets sick from eating a meal will often develop a strong distaste for the one food in the meal that had the most distinctive flavor, whether or not that food caused the sickness. This phenomenon explains why children are especially likely to develop strong aversions to some foods.
- Which one of the following, if true, provides the strongest support for the explanation?
- (A) Children are more likely than adults to be given meals composed of foods lacking especially distinctive flavors.
  - (B) Children are less likely than adults to see a connection between their health and the foods they eat.
  - (C) Children tend to have more acute taste and to become sick more often than adults do.
  - (D) Children typically recover more slowly than adults do from sickness caused by food.
  - (E) Children are more likely than are adults to refuse to eat unfamiliar foods.
10. Premiums for automobile accident insurance are often higher for red cars than for cars of other colors. To justify these higher charges, insurance companies claim that, overall, a greater percentage of red cars are involved in accidents than are cars of any other color. If this claim is true, then lives could undoubtedly be saved by banning red cars from the roads altogether.
- The reasoning in the argument is flawed because the argument
- (A) accepts without question that insurance companies have the right to charge higher premiums for higher-risk clients
  - (B) fails to consider whether red cars cost the same to repair as cars of other colors
  - (C) ignores the possibility that drivers who drive recklessly have a preference for red cars
  - (D) does not specify precisely what percentage of red cars are involved in accidents
  - (E) makes an unsupported assumption that every automobile accident results in some loss of life

11. A certain credit-card company awards its customers bonus points for using its credit card. Customers can use accumulated points in the purchase of brand name merchandise by mail at prices lower than the manufacturers' suggested retail prices. At any given time, therefore, customers who purchase merchandise using the bonus points spend less than they would spend if they purchased the same merchandise in retail stores.

Which one of the following is an assumption on which the argument depends?

- (A) The merchandise that can be ordered by mail using the bonus points is not offered at lower prices by other credit-card companies that award bonus points.
  - (B) The bonus points cannot be used by the credit-card customers in the purchase of brand name merchandise that is not available for purchase in retail stores.
  - (C) The credit-card company does not require its customers to accumulate a large number of bonus points before becoming eligible to order merchandise at prices lower than the manufacturers' suggested retail price.
  - (D) The amount credit-card customers pay for shipping the merchandise ordered by mail does not increase the amount customers spend to an amount greater than they would spend if they purchased the same merchandise in retail stores.
  - (E) The merchandise available to the company's credit-card customers using the bonus points is frequently sold in retail stores at prices that are higher than the manufacturers' suggested retail prices.
12. It is probably not true that colic in infants is caused by the inability of those infants to tolerate certain antibodies found in cow's milk, since it is often the case that symptoms of colic are shown by infants that are fed breast milk exclusively.
- Which one of the following, if true, most seriously weakens the argument?
- (A) A study involving 500 sets of twins has found that if one infant has colic, its twin will probably also have colic.
  - (B) Symptoms of colic generally disappear as infants grow older, whether the infants have been fed breast milk exclusively or have been fed infant formula containing cow's milk.
  - (C) In a study of 5,000 infants who were fed only infant formula containing cow's milk, over 4,000 of the infants never displayed any symptoms of colic.
  - (D) When mothers of infants that are fed only breast milk eliminate cow's milk and all products made from cow's milk from their own diets, any colic symptoms that their infants have manifested quickly disappear.
  - (E) Infants that are fed breast milk develop mature digestive systems at an earlier age than do those that are fed infant formulas, and infants with mature digestive systems are better able to tolerate certain proteins and antibodies found in cow's milk.

Questions 13-14

Yolanda: Gaining access to computers without authorization and manipulating the data and programs they contain is comparable to joyriding in stolen cars; both involve breaking into private property and treating it recklessly. Joyriding, however, is the more dangerous crime because it physically endangers people, whereas only intellectual property is harmed in the case of computer crimes.

Arjun: I disagree! For example, unauthorized use of medical records systems in hospitals could damage data systems on which human lives depend, and therefore computer crimes also cause physical harm to people.

13. An issue in dispute between Yolanda and Arjun is
- (A) whether joyriding physically endangers human lives
  - (B) whether the unauthorized manipulation of computer data involves damage to private property
  - (C) whether damage to physical property is more criminal than damage to intellectual property
  - (D) whether the unauthorized use of computers is as dangerous to people as is joyriding
  - (E) whether treating private property recklessly is ever a dangerous crime
14. The reasoning in Arjun's response is flawed because he
- (A) fails to maintain a distinction made in Yolanda's argument
  - (B) denies Yolanda's conclusion without providing evidence against it
  - (C) relies on the actuality of a phenomenon that he has only shown to be possible
  - (D) mistakes something that leads to his conclusion for something that is necessary for his conclusion
  - (E) uses as evidence a phenomenon that is inconsistent with his own conclusion
15. A report of a government survey concluded that Center City was among the ten cities in the nation with the highest dropout rate from its schools. The survey data were obtained by asking all city residents over the age of 19 whether they were high school graduates and computing the proportion who were not. A city school official objected that the result did not seem accurate according to the schools' figures.
- The school official can most properly criticize the reasoning by which the survey report reached its result for failure to do which one of the following?
- (A) take into account instances of respondents' dropping out that occurred before the respondents reached high school
  - (B) ask residents whether they had completed their high school work in fewer than the usual number of years
  - (C) distinguish between residents who had attended the city's schools and those who had received their schooling elsewhere

- (D) predict the effect of the information contained in the report on future high school dropout rates for the city
- (E) consider whether a diploma from the city's high schools signaled the same level of achievement over time
16. Brown dwarfs—dim red stars that are too cool to burn hydrogen—are very similar in appearance to red dwarf stars, which are just hot enough to burn hydrogen. Stars, when first formed, contain substantial amounts of the element lithium. All stars but the coolest of the brown dwarfs are hot enough to destroy lithium completely by converting it to helium. Accordingly, any star found that contains no lithium is not one of these coolest brown dwarfs.
- The argument depends on assuming which one of the following?
- (A) None of the coolest brown dwarfs has ever been hot enough to destroy lithium.
- (B) Most stars that are too cool to burn hydrogen are too cool to destroy lithium completely.
- (C) Brown dwarfs that are not hot enough to destroy lithium are hot enough to destroy helium.
- (D) Most stars, when first formed, contain roughly the same percentage of lithium.
- (E) No stars are more similar in appearance to red dwarfs than are brown dwarfs.
17. Whenever a company loses a major product-liability lawsuit, the value of the company's stocks falls significantly within hours after the announcement. Cotoy has long been involved in a major product-liability lawsuit, and its stocks fell significantly in value today. Therefore, we can be sure that an unfavorable judgment against Cotoy in that lawsuit was announced earlier today.
- Which one of the following contains flawed reasoning that most closely parallels that in the argument above?
- (A) Whenever a business treats its customers discourteously, its customers begin to shop elsewhere. Shopwell wants to keep all of its customers; therefore, its employees will never treat customers discourteously.
- (B) Whenever the large airlines decrease fares, the financial stability of smaller competing airlines is adversely affected. Therefore, the smaller competing airlines' financial stability must be seriously threatened when the large airlines announce a large price decrease.
- (C) Whenever a country shows a lack of leadership on international issues, respect for the country's policies begins to decline. Therefore, to gain respect for its policies, a country should show leadership on international issues.
- (D) Whenever an entering student at Cashman College wins the Performance Fellowship, he or she receives \$10,000. Therefore, Eula, a student who has enrolled at Cashman, must have won the Performance Fellowship, because

she just received \$10,000 from the college.

- (E) Whenever a company advertises its products effectively, the company's sales increase. Oroco's sales have not increased; therefore, it is likely that the company did not advertise its products effectively.

18. In recent years the climate has been generally cool in northern Asia. But during periods when the average daily temperature and humidity in northern Asia were slightly higher than their normal levels the yields of most crops grown there increased significantly. In the next century, the increased average daily temperature and humidity attained during those periods are expected to become the norm. Yet scientists predict that the yearly yields of most of the region's crops will decrease during the next century.

Which one of the following, if true, most helps to resolve the apparent paradox in the information above?

- (A) Crop yields in southern Asia are expected to remain constant even after the average daily temperature and humidity there increase from recent levels.
- (B) Any increases in temperature and humidity would be accompanied by higher levels of atmospheric carbon dioxide, which is vital to plant respiration.
- (C) The climate in northern Asia has generally been too cool and dry in recent years for populations of many crop insect pests to become established.
- (D) In many parts of Asia, the increased annual precipitation that would result from warmer and wetter climates would cause most edible plant species to flourish.
- (E) The recent climate of northern Asia prevents many crops from being farmed there during the winter.
19. No one in the French department to which Professor Alban belongs is allowed to teach more than one introductory level class in any one term. Moreover, the only language classes being taught next term are advanced ones. So it is untrue that both of the French classes Professor Alban will be teaching next term will be introductory level classes.

The pattern of reasoning displayed in the argument above is most closely paralleled by that in which one of the following arguments?

- (A) The Morrison Building will be fully occupied by May and since if a building is occupied by May the new tax rates apply to it, the Morrison Building will be taxed according to the new rates.
- (B) The revised tax code does not apply at all to buildings built before 1900, and only the first section of the revised code applies to buildings built between 1900 and 1920, so the revised code does not apply to the Norton Building, since it was built in 1873.
- (C) All property on Overton Road will be reassessed for tax purposes by the end of the year and the Elnor Company headquarters is on Overton Road, so Elnor's property taxes will be higher next year.



- (D) New buildings that include public space are exempt from city taxes for two years and all new buildings in the city's Alton district are exempt for five years, so the building with the large public space that was recently completed in Alton will not be subject to city taxes next year.
- (E) Since according to recent statute, a building that is exempt from property taxes is charged for city water at a special rate, and hospitals are exempt from property taxes, Founder's Hospital will be charged for city water at the special rate.

Questions 20-21

Some people have been promoting a new herbal mixture as a remedy for the common cold. The mixture contains, among other things, extracts of the plants purple cone-flower and goldenseal. A cold sufferer, skeptical of the claim that the mixture is an effective cold remedy, argued, "Suppose that the mixture were an effective cold remedy. Since most people with colds wish to recover quickly, it follows that almost everybody with a cold would be using it. Therefore, since there are many people who have colds but do not use the mixture, it is obviously not effective."

20. Each of the following is an assumption required by the skeptical cold sufferer's argument EXCEPT:
- (A) Enough of the mixture is produced to provide the required doses to almost everybody with a cold.
  - (B) The mixture does not have side effects severe enough to make many people who have colds avoid using it.
  - (C) The mixture is powerful enough to prevent almost everybody who uses it from contracting any further colds.
  - (D) The mixture is widely enough known that almost everybody with a cold is aware of it.
  - (E) There are no effective cold remedies available that many people who have colds prefer to the mixture.
21. Which one of the following most accurately describes the method of reasoning the cold sufferer uses to reach the conclusion of the argument?
- (A) finding a claim to be false on the grounds that it would, if true, have consequences that are false
  - (B) accepting a claim on the basis of public opinion of the claim
  - (C) showing that conditions necessary to establish the truth of a claim are met
  - (D) basing a generalization on a representative group of instances
  - (E) showing that a measure claimed to be effective in achieving a certain effect would actually make achieving the effect more difficult
22. To hold criminals responsible for their crimes involves a failure to recognize that criminal actions, like all actions, are ultimately products of the environment that forged the agent's character. It is not criminals but people in the law-abiding

majority who by their actions do most to create and maintain this environment. Therefore, it is law-abiding people whose actions, and nothing else, make them alone truly responsible for crime.

The reasoning in the argument is most vulnerable to criticism on the grounds that

- (A) it exploits an ambiguity in the term “environment” by treating two different meanings of the word as though they were equivalent
- (B) it fails to distinguish between actions that are socially acceptable and actions that are socially unacceptable
- (C) the way it distinguishes criminals from crimes implicitly denies that someone becomes a criminal solely in virtue of having committed a crime
- (D) its conclusion is a generalization of statistical evidence drawn from only a small minority of the population
- (E) its conclusion contradicts an implicit principle on which an earlier part of the argument is based

23. Chronic back pain is usually caused by a herniated or degenerated spinal disk. In most cases the disk will have been damaged years before chronic pain develops, and in fact an estimated one in five people over the age of 30 has a herniated or degenerated disk that shows no chronic symptoms. If chronic pain later develops in such a case, it is generally brought about by a deterioration of the abdominal and spinal muscles caused by insufficient exercise.

The statements above, if true, most strongly support which one of the following?

- (A) Four out of five people over the age of 30 can be sure they will never develop chronic back pain.
- (B) People who exercise their abdominal and spinal muscles regularly are sure to be free from chronic back pain.
- (C) Patients rarely suffer even mild and fleeting back pain at the time that a spinal disk first becomes herniated or degenerated.
- (D) Doctors can accurately predict which people who do not have chronic back pain will develop it in the future.
- (E) There is a strategy that can be effective in delaying or preventing the onset of pain from a currently asymptomatic herniated or degenerated spinal disk.

24. Each December 31 in Country Q, a tally is made of the country’s total available coal supplies—that is, the total amount of coal that has been mined throughout the country but not consumed. In 1991 that amount was considerably lower than it had been in 1990. Furthermore, Country Q has not imported or exported coal since 1970.

If the statements above are true, which one of the following must also be true on the basis of them?

- (A) In Country Q, more coal was mined in 1990 than was mined in 1991.
- (B) In Country Q, the amount of coal consumed in 1991 was greater than the

amount of coal mined in 1991.

(C) In Country Q, the amount of coal consumed in 1990 was greater than the amount of coal consumed in 1991.

(D) In Country Q, the amount of coal consumed in 1991 was greater than the amount of coal consumed in 1990.

(E) In Country Q, more coal was consumed during the first half of 1991 than was consumed during the first half of 1990.

25. Tom: Employers complain that people graduating from high school too often lack the vocational skills required for full-time employment. Therefore, since these skills are best acquired on the job, we should require high school students to work at part-time jobs so that they acquire the skills needed for today's job market.

Mary: There are already too few part-time jobs for students who want to work, and simply requiring students to work will not create jobs for them.

Which one of the following most accurately describes how Mary's response is related to Tom's argument?

(A) It analyzes an undesirable result of undertaking the course of action that Tom recommends.

(B) It argues that Tom has mistaken an unavoidable trend for an avoidable one.

(C) It provides information that is inconsistent with an explicitly stated premise in Tom's argument.

(D) It presents a consideration that undercuts an assumption on which Tom's argument depends.

(E) It defends an alternative solution to the problem that Tom describes.

#### SECTION IV

**Time 35 minutes 26 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Critic: People today place an especially high value on respect for others; yet, in their comedy acts, many of today's most popular comedians display blatant disrespect for others. But when people fail to live up to the very ideals they hold in highest esteem, exaggeration of such failings often forms the basis of successful comedy. Thus the current popularity of comedians who display disrespect in their acts is hardly surprising.

The critic's argument depends on which one of the following assumptions?

(A) People who enjoy comedians who display disrespect in their acts do not place a high value on respect for others.

(B) Only comedians who display blatant disrespect in their acts are currently successful.

(C) Many people disapprove of the portrayal of blatant disrespect for others in comedy acts.

- (D) People who value an ideal especially highly do not always succeed in living up to this ideal.
- (E) People today fail to live up to their own ideals more frequently than was the case in the past.

2. The law firm of Sutherlin, Perez, and Associates is one of the most successful law firms whose primary specialization is in criminal defense cases. In fact, the firm has a better than 90 percent acquittal rate in such cases. Dalton is an attorney whose primary specialization is in divorce cases, so Dalton certainly cannot be a member of Sutherlin, Perez, and Associates.

The reasoning in the argument is flawed because the argument

- (A) offers in support of its conclusion pieces of evidence that are mutually contradictory
- (B) overlooks the possibility that a person can practice law without being a member of a law firm
- (C) concludes that someone is not a member of a group on the grounds that that person does not have a characteristic that the group as a whole has
- (D) takes a high rate of success among the members of a group to indicate that the successes are evenly spread among the members
- (E) states a generalization based on a selection that is not representative of the group about which the generalization is supposed to hold true

3. Opponents of allowing triple-trailer trucks to use the national highway system are wrong in claiming that these trucks are more dangerous than other commercial vehicles. In the western part of the country, in areas where triple-trailers are now permitted on some highways, for these vehicles the rate of road accident fatalities per mile of travel is lower than the national rate for other types of commercial vehicles. Clearly, triple-trailers are safer than other commercial vehicles.

Which one of the following, if true, most substantially weakens the argument?

- (A) It takes two smaller semitrailers to haul as much weight as a single triple-trailer can.
- (B) Highways in the sparsely populated West are much less heavily traveled and consequently are far safer than highways in the national system as a whole.
- (C) Opponents of the triple-trailers also once opposed the shorter twin-trailers, which are now common on the nation's highways.
- (D) In areas where the triple-trailers are permitted, drivers need a special license to operate them.
- (E) For triple-trailers the rate of road accident fatalities per mile of travel was higher last year than in the two previous years.

4. Whittaker: There can be no such thing as the number of medical school students who drop out before their second year, because if they drop out, they never have a second year.

Hudson: By your reasoning I cannot help but become rich, because there is similarly no such thing as my dying before my first million dollars is in the bank.

Hudson responds to Whittaker by

- (A) showing that a relevantly analogous argument leads to an untenable conclusion
  - (B) citing a specific example to counter Whittaker's general claim
  - (C) pointing out that Whittaker mistakes a necessary situation for a possible situation
  - (D) claiming that what Whittaker says cannot be true because Whittaker acts as if it were false
  - (E) showing that Whittaker's argument relies on analyzing an extreme and unrepresentative case
5. A newly developed light bulb is much more cost-effective than conventional light bulbs: it costs only about 3 times what a conventional light bulb costs but it lasts up to 10 times as long as a conventional light bulb. Despite the manufacturer's intense efforts to publicize the advantages of the new bulb, one analyst predicts that these new bulbs will prove to sell very poorly.
- Each of the following, if true, provides support for the analyst's prediction EXCEPT:
- (A) The light generated by the new bulb is in the yellow range of the spectrum, a type of artificial light most people find unappealing.
  - (B) Most people who purchase light bulbs prefer to buy inexpensive light bulbs rather than more durable but expensive light bulbs.
  - (C) A manufacturer of one brand of conventional light bulb has advertised claims that the new light bulb uses more electricity than do conventional light bulbs.
  - (D) The new bulb is to be marketed in several different quantities, ranging from packages containing one bulb to packages containing four bulbs.
  - (E) A competing manufacturer is about to introduce a light bulb that lasts 10 times as long as a conventional bulb but costs less than a conventional bulb.
6. The *Rienzi*, a passenger ship, sank as a result of a hole in its hull, possibly caused by sabotage. Normally, when a holed ship sinks as rapidly as the *Rienzi* did, water does not enter the ship quickly enough for the ship to be fully flooded when it reaches the ocean floor. Full flooding can be achieved, however, by sabotage. Any ship that sinks deep into the ocean when not fully flooded will implode. Deep-sea photographs, taken of the sunken *Rienzi* where it rests on the ocean floor, reveal that the *Rienzi* did not implode.
- Which one of the following must be true on the basis of the information above?
- (A) The *Rienzi* was so constructed as to reduce the risk of sinking by impact.
  - (B) If the *Rienzi* became fully flooded, it did so only after it reached the ocean



floor.

- (C) If the *Rienzi* was not sunk by sabotage, water flooded into it unusually fast.
- (D) If the *Rienzi* had sunk more slowly, it would have imploded.
- (E) The *Rienzi* was so strongly constructed as to resist imploding under deep-sea pressure.

7. For every 50 dogs that contract a certain disease, one will die from it. A vaccine exists that is virtually 100 percent effective in preventing this disease. Since the risk of death from complications of vaccination is one death per 5,000 vaccinations, it is therefore safer for a dog to receive the vaccine than not to receive it.

Which one of the following would it be most helpful to know in order to evaluate the argument?

- (A) the total number of dogs that die each year from all causes taken together
  - (B) whether the vaccine is effective against the disease in household pets other than dogs
  - (C) the number of dogs that die each year from diseases other than the disease in question
  - (D) the likelihood that a dog will contract another disease such as rabies
  - (E) the likelihood that an unvaccinated dog will contract the disease in question
8. The symptoms of mental disorders are behavioral, cognitive, or emotional problems. Some patients with mental disorders can be effectively treated with psychotherapy. But it is now known that in some patients mental disorders result from chemical imbalances affecting the brain. Thus these patients can be effectively treated only with medication that will reduce or correct the imbalance. The argument depends on assuming which one of the following?
- (A) Treatment by psychotherapy can produce no effective reduction in or correction of chemical imbalances that cause mental disorders.
  - (B) Treatment with medication always shows faster results for patients with mental disorders than does treatment with psychotherapy.
  - (C) Most mental disorders are not the result of chemical imbalances affecting the brain.
  - (D) Medication is always more effective in treating patients with mental disorders than is psychotherapy.
  - (E) Treatment with psychotherapy has no effect on mental disorders other than a reduction of the symptoms.

### Questions 9-10

Curator: The decision to restore the cloak of the central figure in Veronese's painting from its present red to the green found underneath is fully justified. Reliable x-ray and chemical tests show that the red pigment was applied after the painting had been

completed, and that the red paint was not mixed in Veronese's workshop. Hence it appears likely that an artist other than Veronese tampered with Veronese's painting after its completion.

Art critic: But in a copy of Veronese's painting made shortly after Veronese died, the cloak is red. It is highly unlikely that a copyist would have made so major a change so soon after Veronese's death.

9. The assertion that a later artist tampered with Veronese's painting serves which one of the following functions in the curator's argument?
- (A) It is the main point toward which the argument as a whole is directed.
  - (B) It is a subsidiary conclusion that supports the argument's main conclusion.
  - (C) It is a clarification of a key term of the argument.
  - (D) It is a particular instance of the general position to be defended.
  - (E) It is a reiteration of the main point that is made for the sake of emphasis.
10. The art critic's response to the curator would provide the strongest support for which one of the following conclusions?
- (A) The copy of Veronese's painting that was made soon after the painter's death is indistinguishable from the original.
  - (B) No painting should be restored before the painting is tested with technologically sophisticated equipment.
  - (C) The proposed restoration will fail to restore Veronese's painting to the appearance it had at the end of the artist's lifetime.
  - (D) The value of an artist's work is not necessarily compromised when that work is tampered with by later artists.
  - (E) Veronese did not originally intend the central figure's cloak to be green.
11. John works five days each week except when on vacation or during weeks in which national holidays occur. Four days a week he works in an insurance company; on Fridays he works as a blacksmith. Last week there were no holidays, and John was not on vacation. Therefore, he must have worked in the insurance company on Monday, Tuesday, Wednesday, and Thursday last week. Which one of the following is an assumption on which the argument depends?
- (A) John never takes a vacation of more than one week in length.
  - (B) Every day last week that John worked, he worked for an entire workday.
  - (C) John does not take vacations in weeks in which national holidays occur.
  - (D) Last week John worked neither on Saturday nor on Sunday.
  - (E) There were no days last week on which John both worked in the insurance company and also worked as a blacksmith.
12. After several attempts to distract his young parrot from chewing on furniture, George reluctantly took an expert's advice and gently hit the parrot's beak whenever the bird started to chew furniture. The bird stopped chewing furniture,

but it is now afraid of hands and will sometimes bite. Since chewing on the furniture would not have hurt the bird, George should not have hit it.

When Carla's puppy escaped from her yard, it bounded into a busy street. Although Carla does not generally approve of physical discipline, she hit the puppy sharply with her hand. Now the puppy enters the street only when accompanied by Carla, so Carla was justified in disciplining the puppy.

Which one of the following principles, if established, would justify the judgments about George's and Carla's actions?

- (A) When disciplining an animal physically, a trainer should use an object such as a rolled up newspaper to avoid making the animal frightened of hands.
  - (B) When training an animal, physical discipline should be used only when such discipline is necessary to correct behavior that could result in serious harm to the animal.
  - (C) Using physical discipline to train an animal is justified only when all alternative strategies for correcting undesirable behavior have failed.
  - (D) Physical discipline should not be used on immature animals.
  - (E) Physical discipline should not be used by an animal trainer except to correct persistent behavior problems.
13. Mature white pines intercept almost all the sunlight that shines on them. They leave a deep litter that dries readily, and they grow to prodigious height so that, even when there are large gaps in a stand of such trees, little light reaches the forest floor. For this reason white pines cannot regenerate in their own shade. Thus, when in a dense forest a stand of trees consists of nothing but mature white pines, it is a fair bet that\_\_\_\_\_
- Which one of the following most logically concludes the argument?
- (A) the ages of the trees in the stand do not differ from each other by much more than the length of time it takes a white pine to grow to maturity
  - (B) the land on which the stand is now growing had been cleared of all trees at the time when the first of the white pines started growing
  - (C) competition among the trees in the stand for sunlight will soon result in some trees' dying and the stand thus becoming thinner
  - (D) other species of trees will soon begin to colonize the stand, eventually replacing all of the white pines
  - (E) any differences in the heights of the trees in the stand are attributable solely to differences in the ages of the trees
14. Advertisement: A leading economist has determined that among people who used computers at their place of employment last year, those who also owned portable ("laptop") computers earned 25 percent more on average than those who did not. It is obvious from this that owning a laptop computer led to a higher-paying job.
- Which one of the following identifies a reasoning error in the argument?

- (A) It attempts to support a sweeping generalization on the basis of information about only a small number of individuals.
  - (B) Its conclusion merely restates a claim made earlier in the argument.
  - (C) It concludes that one thing was caused by another although the evidence given is consistent with the first thing's having caused the second.
  - (D) It offers information as support for a conclusion when that information actually shows that the conclusion is false.
  - (E) It uncritically projects currently existing trends indefinitely into the future.
15. Rhonda will see the movie tomorrow afternoon only if Paul goes to the concert in the afternoon. Paul will not go to the concert unless Ted agrees to go to the concert. However, Ted refuses to go to the concert. So Rhonda will not see the movie tomorrow afternoon.

The pattern of reasoning displayed above is most closely paralleled in which one of the following?

- (A) If Janice comes to visit, Mary will not pay the bills tomorrow. Janice will not come to visit unless she locates a babysitter. However, Janice has located a babysitter, so she will visit Mary.
  - (B) Gary will do his laundry tomorrow only if Peter has to go to work. Unless Cathy is ill, Peter will not have to go to work. Since Cathy is not ill, Gary will not do his laundry tomorrow.
  - (C) Kelly will barbecue fish tonight if it does not rain and the market has fresh trout. Although the forecast does not call for rain, the market does not have fresh trout. So Kelly will not barbecue fish tonight.
  - (D) Lisa will attend the family reunion next week only if one of her brothers, Jared or Karl, also attends. Karl will not attend the reunion, but Jared will. So Lisa will attend the reunion.
  - (E) George will not go to the museum tomorrow unless Mark agrees to go. Mark will go to the museum only if he can postpone most of his appointments. Mark has postponed some of his appointments, so he will go to the museum.
16. Private industry is trying to attract skilled research scientists by offering them high salaries. As a result, most research scientists employed in private industry now earn 50 percent more than do comparably skilled research scientists employed by the government. So, unless government-employed research scientists are motivated more by a sense of public duty than by their own interests, the government is likely to lose its most skilled research scientists to private industry, since none of these scientists would have problems finding private-sector jobs.

Which one of the following is an assumption on which the argument depends?

- (A) Government research scientists are less likely to receive acknowledgment for their research contributions than are research scientists in the private sector.

- (B) None of the research scientists currently employed by the government earns more than the highest-paid researchers employed in the private sector.
- (C) The government does not employ as many research scientists who are highly skilled as does any large company in the private sector which employs research scientists.
- (D) The government does not provide its research scientists with unusually good working conditions or fringe benefits that more than compensate for the lower salaries they receive.
- (E) Research scientists employed in the private sector generally work longer hours than do researchers employed by the government.
17. Using fossil energy more efficiently is in the interest of the nation and the global environment, but major improvements are unlikely unless proposed government standards are implemented to eliminate products or practices that are among the least efficient in their class.
- Objection: Decisions on energy use are best left to the operation of the market.
- Which one of the following, if true, most directly undermines the objection above?
- (A) It would be unrealistic to expect society to make the changes necessary to achieve maximum energy efficiency all at once.
- (B) There are products, such as automobiles, that consume energy at a sufficient rate that persons who purchase and use them will become conscious of any unusual energy inefficiency in comparison with other products in the same class.
- (C) Whenever a new mode of generating energy, such as a new fuel, is introduced, a number of support systems, such as a fuel-distribution system, must be created or adapted.
- (D) When energy prices rise, consumers of energy tend to look for new ways to increase energy efficiency, such as by adding insulation to their houses.
- (E) Often the purchaser of a product, such as a landlord buying an appliance, chooses on the basis of purchase price because the purchaser is not the person who will pay for energy used by the product.
18. Dobson: Some historians claim that the people who built a ring of stones thousands of years ago in Britain were knowledgeable about celestial events. The ground for this claim is that two of the stones determine a line pointing directly to the position of the sun at sunrise at the spring equinox. There are many stones in the ring, however, so the chance that one pair will point in a celestially significant direction is large. Therefore, the people who built the ring were not knowledgeable about celestial events.
- Which one of the following is an error of reasoning in Dobson's argument?
- (A) The failure of cited evidence to establish a statement is taken as evidence that that statement is false.



- (B) Dobson's conclusion logically contradicts some of the evidence presented in support of it.
- (C) Statements that absolutely establish Dobson's conclusion are treated as if they merely give some support to that conclusion.
- (D) Something that is merely a matter of opinion is treated as if it were subject to verification as a matter of fact.
- (E) Dobson's drawing the conclusion relies on interpreting a key term in two different ways.
19. Nearly all mail that is correctly addressed arrives at its destination within two business days of being sent. In fact, correctly addressed mail takes longer than this only when it is damaged in transit. Overall, however, most mail arrives three business days or more after being sent.
- If the statements above are true, which one of the following must be true?
- (A) A large proportion of the mail that is correctly addressed is damaged in transit.
- (B) No incorrectly addressed mail arrives within two business days of being sent.
- (C) Most mail that arrives within two business days of being sent is correctly addressed.
- (D) A large proportion of mail is incorrectly addressed.
- (E) More mail arrives within two business days of being sent than arrives between two and three business days after being sent.
20. The report released by the interior ministry states that within the past 5 years the national land-reclamation program has resulted in a 19 percent increase in the amount of arable land within the country. If these figures are accurate, the program has been a resounding success. Senator Armand, a distinguished mathematician and a woman of indisputable brilliance, maintains, however, that the reclamation program could not possibly have been successful. Clearly, therefore, the figures cited in the report cannot be accurate.
- The argument above exhibits an erroneous pattern of reasoning most similar to that exhibited by which one of the following?
- (A) Albert's father claims that Albert does not know where the spare car keys are hidden. Yesterday, however, Albert reported that he had discovered the spare car keys in the garage toolbox, so his father's claim cannot be true.
- (B) Gloria's drama teacher claims that her policy is to give each student the opportunity to act in at least one play during the year but, since Gloria, who attended every class, reports that she was not given such an opportunity, the teacher's claim cannot be true.
- (C) Amos claims that he can hold his breath under water for a full hour. Dr. Treviso, a cardiopulmonary specialist, has stated that humans are physiologically incapable of holding their breath for even half that long; so Amos' claim cannot be true.

- (D) Evelyn reports that she got home before midnight. Robert, who always knows the time, insists that she did not. If Robert is right, Evelyn could not possibly have listened to the late news; since she admits not having listened to the late news, her report cannot be true.
- (E) Moira, after observing the finish of the 60-kilometer bicycle race, reports that Lee won with Adams a distant third. Lomas, a bicycle engineering expert, insists, however, that Lee could not have won a race in which Adams competed; so Moira's report cannot be true.

Questions 21-22

Wirth: All efforts to identify a gene responsible for predisposing people to manic-depression have failed. In fact, nearly all researchers now agree that there is no "manic-depression gene." Therefore, if these researchers are right, any claim that some people are genetically predisposed to manic-depression is simply false.

Chang: I do not dispute your evidence, but I take issue with your conclusion. Many of the researchers you refer to have found evidence that a set of several genes is involved and that complex interactions among these genes produce a predisposition to manic-depression.

21. The point at issue between Wirth and Chang is whether
- (A) efforts to identify a gene or set of several genes responsible for predisposing people to manic-depression have all failed
  - (B) it is likely that researchers will ever be able to find a single gene that predisposes people to manic-depression
  - (C) nearly all researchers now agree that there is no manic-depression gene
  - (D) current research supports the claim that no one is genetically predisposed to manic-depression
  - (E) the efforts made to find a gene that can produce a predisposition to manic-depression were thorough
22. Which one of the following most accurately expresses Chang's criticism of Wirth's argument?
- (A) It presupposes only one possibility where more than one exists.
  - (B) It depends on separate pieces of evidence that contradict each other.
  - (C) It relies on the opinion of experts in an area outside the experts' field of expertise.
  - (D) It disallows in principle any evidence that would disconfirm its conclusion.
  - (E) It treats something that is merely unlikely as though it were impossible.
23. Garbage dumps do not harm wildlife. Evidence is furnished by the Masai-Mara reserve in Kenya, where baboons that use the garbage dumps on the reserve as a food source mature faster and have more offspring than do baboons on the reserve that do not scavenge on garbage.

Each of the following statements, if true, casts doubt on the argument EXCEPT:

- (A) The baboons that feed on the garbage dump are of a different species from those that do not.
- (B) The life expectancy of baboons that eat garbage is significantly lower than that of baboons that do not eat garbage.
- (C) The cholesterol level of garbage-eating baboons is dangerously higher than that of baboons that do not eat garbage.
- (D) The population of hyenas that live near unregulated garbage landfills north of the reserve has doubled in the last two years.
- (E) The rate of birth defects for the baboon population on the reserve has doubled since the first landfills were opened.

Questions 24-25

Marianne is a professional chess player who hums audibly while playing her matches, thereby distracting her opponents. When ordered by chess officials to cease humming or else be disqualified from professional chess, Marianne protested the order. She argued that since she was unaware of her humming, her humming was involuntary and that therefore she should not be held responsible for it.

24. Which one of the following principles, if valid, most helps to support Marianne's argument against the order?
- (A) Chess players who hum audibly while playing their matches should not protest if their opponents also hum.
  - (B) Of a player's actions, only those that are voluntary should be used as justification for disqualifying that player from professional chess.
  - (C) A person should be held responsible for those involuntary actions that serve that person's interests.
  - (D) Types of behavior that are not considered voluntary in everyday circumstances should be considered voluntary if they occur in the context of a professional chess match.
  - (E) Chess players should be disqualified from professional chess matches if they regularly attempt to distract their opponents.
25. Which one of the following, if true, most undermines Marianne's argument against the order?
- (A) The officials of chess have little or no authority to control the behavior of its professional players outside of matches.
  - (B) Many of the customs of amateur chess matches are not observed by professional chess players.
  - (C) Not all of a person's involuntary actions are actions of which that person is unaware.
  - (D) A person who hums involuntarily can easily learn to notice it and can thereby come to control it.

(E) Not all of Marianne's opponents are distracted by her humming during chess matches.

26. Smoking in bed has long been the main cause of home fires. Despite a significant decline in cigarette smoking in the last two decades, however, there has been no comparable decline in the number of people killed in home fires.

Each one of the following statements, if true, over the last two decades, helps to resolve the apparent discrepancy above EXCEPT:

- (A) Compared to other types of home fires, home fires caused by smoking in bed usually cause relatively little damage before they are extinguished.
- (B) Home fires caused by smoking in bed often break out after the home's occupants have fallen asleep.
- (C) Smokers who smoke in bed tend to be heavy smokers who are less likely to quit smoking than are smokers who do not smoke in bed.
- (D) An increasing number of people have been killed in home fires that started in the kitchen.
- (E) Population densities have increased, with the result that one home fire can cause more deaths than in previous decades.

## TEST 25

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Braille is a method of producing text by means of raised dots that can be read by touch. A recent development in technology will allow flat computer screens to be made of a material that can be heated in patterns that replicate the patterns used in Braille. Since the thermal device will utilize the same symbol system as Braille, it follows that anyone who is accustomed to reading Braille can easily adapt to the use of this electronic system.

Which of the following is an assumption on which the conclusion depends?

- (A) Braille is the only symbol system that can be readily adapted for use with the new thermal screen.
- (B) Only people who currently use Braille as their sole medium for reading text will have the capacity to adapt to the use of thermal screen.
- (C) People with the tactile ability to discriminate symbols in Braille have an ability to discriminate similar patterns on a flat heated surface.
- (D) Some symbol systems encode a piece of text by using dots that replicate the shape of letters of the alphabet.
- (E) Eventually it will be possible to train people to read Braille by first training them in the use of the thermal screen.

2. Mayor of Outerville, a suburb of Center City: Outerville must grow if it is to survive, so, as we have agreed, efforts should be made to attract more residents. The best strategy for attracting residents is to renovate the train station. The numbers of jobs in Center City and of people who prefer to live in suburban towns are increasing. With the rise in tolls, driving into the city is becoming more expensive than train travel. Therefore, people want to live in towns where train travel is convenient and pleasant.

The argument leads to the conclusion that

- (A) the town of Outerville should attract more residents
  - (B) the train station in Outerville should be renovated
  - (C) residents of Outerville who are in need of work should look for jobs in Center City
  - (D) people who work in Center City but live in Outerville should commute by train rather than driving
  - (E) people who want to live where train travel is convenient and pleasant should live in Outerville
3. Land developer: By attempting to preserve endangered species that otherwise would become extinct during our lifetime, we are wasting money on species that will disappear over time regardless of our efforts. Paleontologists have established that extinction is the normal fate of species on the geological time scale of millions of years.
- Environmentalist: To claim that we should let species disappear because all species eventually die out makes about as much sense as arguing that we should not spend money to find a cure for cancer because all humans are inevitably mortal.
- The method the environmentalist uses to object to the land developer's argument is to
- (A) clarify a dilemma that is embedded in the land developer's argument
  - (B) attack the character of the land developer rather than the position the land developer is taking
  - (C) show that more evidence is needed to substantiate the land developer's conclusion
  - (D) show that the land developer's line of reasoning would lead to an unacceptable conclusion if applied to a different situation
  - (E) argue that there are problems that money, however judiciously spent, cannot solve
4. Most small children are flat-footed. This failure of the foot to assume its natural arch, if it persists past early childhood, can sometimes result in discomfort and even pain later in life. Traditionally, flat-footedness in children has been treated by having the children wear special shoes that give extra support to the foot, in order to foster the development of the arch.



Which of the following, if true, most calls into question the efficacy of the traditional treatment described above?

- (A) Many small children who have normal feet wear the same special shoes as those worn by flat-footed children.
  - (B) Studies of flat-footed adults show that flat feet are subject to fewer stress fractures than are feet with unusually high arches.
  - (C) Although most children's flat-footedness is corrected by the time the children reach puberty, some people remain flat-footed for life.
  - (D) Flat-footed children who do not wear the special shoes are as likely to develop natural arches as are flat-footed children who wear the special shoes.
  - (E) Some children who are not flat-footed have hip and lower leg bones that are rotated excessively either inward or outward.
5. The chances that tropical storms will develop in a given area increase whenever the temperature of a large body of water in that area exceeds 26 degrees Celsius to a depth of about 60 meters. If the amount of carbon dioxide in the earth's atmosphere continues to increase, the temperatures of all of the Earth's waters will rise, with the result that the number of large bodies of water whose temperatures exceed 26 degrees Celsius to a depth of about 60 meters will eventually be greater than it is today.
- The statements above, if true, most strongly support which one of the following conclusions?
- (A) There are likely to be more tropical storms if the amount of carbon dioxide in the Earth's atmosphere continues to increase.
  - (B) Tropical storms can occur only when the air temperature exceeds 26 degrees Celsius.
  - (C) The number of large bodies of water whose temperatures exceed 26 degrees Celsius to a depth of about 60 meters is greater today than it ever was.
  - (D) The ferocity of tropical storms does not depend on the amount of carbon dioxide in the Earth's atmosphere.
  - (E) Any increase in the temperatures of the Earth's oceans would cause the amount of carbon dioxide in the atmosphere to increase as well.
6. Astorga's campaign promises are apparently just an attempt to please voters. What she says she will do if elected mayor is simply what she has learned from opinion polls that voters want the new mayor to do. Therefore, voters are not being told what Astorga actually intends to do if she becomes mayor.
- Which of the following is a questionable assumption on which the argument relies?
- (A) If she is elected mayor, Astorga will not be capable of carrying out the campaign promises she has made.
  - (B) The opinion polls on which Astorga's promises are based do not accurately

- reflect what voters want the new mayor to do.
- (C) Most voters are unlikely to be persuaded by Astorga's campaign promises to vote for her in the mayoral election.
- (D) Astorga has no strong opinions of her own about what the new mayor ought to do in office.
- (E) Astorga does not actually intend, if elected, to do what she has learned from the public opinion polls that voters want the new mayor to do.
7. Newsletter for community-center volunteers: Retired persons who regularly volunteer their time to help others generally display fewer and milder effects of aging than their nonvolunteering contemporaries: in social resources, mental outlook, physical health, economic resources, and overall functioning, they are found to be substantially stronger than nonvolunteers. Volunteering is often described as doing good works to improve the lives of others. How good to know that there is evidence that it can equally benefit your own well-being!
- The inference drawn above is unwarranted because
- (A) the center has a self-interested motive to attract new volunteers
- (B) it interprets "well-being" as including the factors of social and economic resources, mental outlook, physical health, and overall functioning
- (C) some of those who do not volunteer might be older than some volunteers and so could not be considered their peers
- (D) growing older might not necessarily result in a change in mental outlook
- (E) those with better resources, health, outlook, and functioning are more able to work as volunteers

### Questions 8-9

The local agricultural official gave the fruit growers of the District 10 Farmers Cooperative a new pesticide that they applied for a period of three years to their pear orchards in place of the pesticide they had formerly applied. During those three years, the proportion of pears lost to insects was significantly less than it had been during the previous three-year period. On the basis of these results, the official concluded that the new pesticide was more effective than the old pesticide, at least in the short term, in limiting the loss of certain fruit to insects.

8. Each of the following, if true, weakens the official's argument EXCEPT:
- (A) The amount of fruit that an orchard can potentially produce depends in part on how many mature trees it contains, and the number of mature pear trees in District 10 has declined steadily over the past eight years.
- (B) During the past five years, the farmers of the District 10 Farmers' Cooperative have been gradually implementing a variety of insect-abatement programs, and some of these programs have proven successful.
- (C) Over the past five years, one of the several species of birds that typically prey on the insects that feed on pears has gradually shifted its migratory

- patterns, spending more and more months each year in the region that contains District 10.
- (D) Some of the species of insects in District 10 that infest pear trees are water breeders, and the reservoirs and marshlands in this district have been shrinking rapidly over the past three years.
- (E) The effects of certain pesticides, including the pesticide that had formerly been used in District 10, are cumulative and persist for several years after the pesticide is no longer applied.
9. The official's conclusion is most strongly supported if which one of the following groups of trees did not show a reduction in losses of fruit to insects?
- (A) peach trees grown in the district that were treated with the new pesticide instead of the old pesticide
- (B) peach trees grown in the district that were treated with the new pesticide in addition to the old pesticide
- (C) pear trees grown in the district that were treated with the old pesticide instead of the new pesticide
- (D) pear trees grown in neighboring district that were treated with neither the old nor the new pesticide
- (E) pear trees grown in a neighboring district that were treated with the new pesticide instead of the old pesticide
10. The only motives that influence all human actions arise from self-interest. It is clear, therefore, that self-interest is the chief influence on human action.
- The reasoning in the argument is fallacious because the argument
- (A) denies that an observation that a trait is common to all the events in a pattern can contribute to a causal explanation of the pattern
- (B) takes the occurrence of one particular influence on a patterns or classes of events as showing that its influence outweighs any other influence on those events
- (C) concludes that a characteristic of pattern or class of events at one time is characteristic of similar patterns or classes of events at all times
- (D) concludes that because an influence is the paramount influence on a particular pattern or class of events, that influence is the only influence on the pattern or class of events
- (E) undermines its own premise that a particular attribute is present in all instances of a certain pattern or class of events
11. Astronomer: Astronomical observatories in many areas have become useless because light from nearby cities obscures the stars. Many people argue that since streetlights are needed for safety, such interference from lights is inevitable. Here in Sandsville, however, the local observatory's view remains relatively clear, since the city has restricted unnecessary lighting and installed special street lamps

than direct all their light downward. It is therefore possible to have both well-lighted streets and relatively dark skies.

The astronomer's argument proceeds by

- (A) appealing to scientific authority to challenge a widely held belief
- (B) questioning the accuracy of evidence given in support of the opposing position
- (C) proposing an alternative scientific explanation for a natural phenomenon
- (D) making a distinction between terms
- (E) offering a counterexample to a general claim

12. Music critic: Some people argue that, unlike certain works of Handel, which set to music familiar religious texts, the organ symphonies of Louis Vierne are not religious music. Quite the contrary. Sitting in Notre Dame cathedral in Paris and hearing his organ symphonies demonstrates that Vierne's works are divinely inspired.

The music critic's reasoning is vulnerable to criticism on the ground that it

- (A) takes for granted that all religious music is inspiring
- (B) confuses two different meanings of the term "religious"
- (C) overlooks the possibility that some organ music is not divinely inspired
- (D) confuses two different meanings of the term "symphonies"
- (E) takes for granted that all organ symphonies are religious music

### Questions 13-14

Charles: During recessions unemployment typically rises. Thus, during a recession air pollution due to automobile exhaust decreases, since fewer people commute in cars to jobs and so cars emitting pollutants into the air are used less.

Darla: Why think that air pollution would decrease? During a recession fewer people can afford to buy new cars, and cars tend to emit more pollutants as they get older.

13. Which one of the following most accurately describes how Darla's response is related to Charles's argument?
- (A) It calls into question the truth of the premises that Charles uses to support his conclusion.
  - (B) It makes an additional claim that can be true only if Charles's conclusion is false.
  - (C) It presents an additional consideration that weakens the support given to Charles's conclusion by his evidence.
  - (D) It argues that Charles's conclusion is true, although not for the reasons Charles gives to support that conclusion.
  - (E) It presents an argument showing that the premises in Charles's argument support an absurd conclusion that Charles has overlooked.

14. Which one of the following is an assumption on which Charles's argument depends?
- (A) People who have never been employed drive no less frequently during a recession than they would otherwise.
  - (B) Most air pollution is caused by automobile exhaust emitted by cars used by people commuting to jobs.
  - (C) Most people who are employed do not use any form of public transportation to commute to their jobs.
  - (D) During a recession, decreases in the use of cars resulting from reductions in commuting to jobs are not offset by increased use of cars for other reasons.
  - (E) During a recession, a higher proportion of people who commute in cars to their jobs lose those jobs than do people who do not use cars to commute to their jobs.
15. For the condor to survive in the wild, its breeding population must be greatly increased. But because only a few eggs can be produced by a breeding pair over their lifetime, any significant increase in the number of birds depends upon most of these eggs hatching, which is extremely unlikely in the wild due to environmental dangers. One possible way to eliminate the effects of these factors is to breed the birds in captivity and subsequently return them to the wild. Which one of the following is most strongly supported by the information above?
- (A) The condor as a species will eventually become extinct in the wild.
  - (B) The best way to save the condor from extinction is to breed it in captivity.
  - (C) It is almost impossible to eliminate all the environmental threats to the eggs of condors.
  - (D) If more condor eggs do not hatch, the condor as a species will not survive in the wild.
  - (E) The most feasible way to save the condor from extinction is to increase egg production.
16. Allowing more steel imports would depress domestic steel prices and harm domestic steel manufacturers. Since the present government will not do anything that would harm the domestic steel industry, it will not lift restrictions on steel imports.
- The pattern of reasoning in the argument above is most similar to that in which one of the following?
- (A) Building construction increases only when people are confident that the economy is doing well. Therefore, since people are now confident in the economy we can expect building construction to increase.
  - (B) Since workers are already guaranteed the right to a safe and healthful workplace by law, there is no need for the government to establish further costly health regulations for people who work all day at computer terminals.



- (C) In countries that have deregulated their airline industry, many airlines have gone bankrupt. Since many companies in other transportation industries are in weaker economic condition than were those airlines, deregulating other transportation industries will probably result in bankruptcies as well.
- (D) The chief executive officer of Silicon, Inc., will probably not accept stock in the company as a bonus next year, since next year's tax laws will require companies to pay a new tax on stock given to executives.
- (E) The installation of bright floodlights on campus would render the astronomy department's telescope useless. The astronomy department will not support any proposal that would render its telescope useless; it will therefore not support proposals to install bright floodlights on campus.
17. Wild cheetahs live in the African grasslands. Previous estimates of the size that the wild cheetah population must be in order for these animals to survive a natural disaster in the African grasslands region were too small, and the current population barely meets the previous estimates. At present, however, there is not enough African grassland to support a wild cheetah population larger than the current population.
- The statements above, if true, most strongly support which one of the following conclusions?
- (A) Previous estimates of the size of the existing wild cheetah population were inaccurate.
- (B) The cheetah's natural habitat is decreasing in size at a faster rate than is the size of the wild cheetah population.
- (C) The principal threat to the endangered wild cheetah population is neither pollution nor hunting, but a natural disaster.
- (D) In the short term, the wild cheetah population will be incapable of surviving a natural disaster in the African grasslands.
- (E) In regions where land is suitable for cheetah habitation, more natural disasters are expected to occur during the next decade than occurred during the past decade.
18. To classify a work of art as truly great, it is necessary that the work have both originality and far-reaching influence upon the artistic community.
- The principle above, if valid, most strongly supports which one of the following arguments?
- (A) By breaking down traditional schemes of representation, Picasso redefined painting. It is this extreme originality that warrants his work being considered truly great.
- (B) Some of the most original art being produced today is found in isolated communities, but because of this isolation these works have only minor influence, and hence cannot be considered truly great.
- (C) Certain examples of the drumming practiced in parts of Africa's west coast

employ a musical vocabulary that resists representation in Western notational schemes. This tremendous originality, coupled with the profound impact these pieces are having on musicians everywhere, is enough to consider these works to be truly great.

- (D) The piece of art in the lobby is clearly not classified as truly great, so it follows that it fails to be original.
- (E) Since Bach's music is truly great, it not only has both originality and a major influence on musicians, it has broad popular appeal as well.

19. Professor Robinson: A large meteorite impact crater in a certain region was thought to be the clue to explaining the mass extinction of plant and animal species that occurred at the end of the Mesozoic era. However, the crystalline structure of rocks recovered at the site indicates that the impact that formed this crater was not the culprit. When molten rocks crystallize, they display the polarity of Earth's magnetic field at that time. But the recrystallized rocks recovered at the site display normal magnetic polarity, even though Earth's magnetic field was reversed at the time of the mass extinction.

Each of the following is an assumption on which Professor Robinson's argument depends EXCEPT:

- (A) The crater indicates an impact of more than sufficient size to have caused the mass extinction.
  - (B) The recovered rocks recrystallized shortly after they melted.
  - (C) No other event caused the rocks to melt after the impact formed the crater.
  - (D) The recovered rocks melted as a result of the impact that formed the crater.
  - (E) The mass extinction would have occurred soon after the impact that supposedly caused it.
20. Pieces of music consist of sounds and silences presented to the listener in a temporal order. A painting, in contrast, is not presented one part at a time to the viewer; there is thus no particular path that the viewer's eye must follow in order to "read" the painting. Therefore, an essential distinction between the experiences of hearing music and of viewing paintings is that hearing music has a temporal dimension but viewing a painting has none.

The reasoning in the argument is flawed because

- (A) the argument does not allow for the possibility of being immersed in experiencing a painting without being conscious of the passage of time
- (B) the argument is based on a very general definition of music that does not incorporate any distinctions among particular styles
- (C) the argument fails to bring out the aspects of music and painting that are common to both as forms of artistic expression
- (D) relying on the metaphor of "reading" to characterize how a painting is viewed presupposes the correctness of the conclusion to be drawn on the basis of that characterization

(E) the absence of a particular path that the eye must follow does not entail that the eye follows no path

21. A study of the difference in earnings between men and women in the country of Naota found that the average annual earnings of women who are employed full time is 80 percent of the average annual earnings of men who are employed full time. However, other research consistently shows that, in Naota, the average annual earnings of all employed women is 65 percent of the average annual earnings of all employed men.

Which one of the following, if also established by research, most helps explain the apparent discrepancy between the research results described above?

- (A) In Naota, the difference between the average annual earnings of all female workers and the average annual earnings of all male workers has been gradually increasing over the past 30 years.
- (B) In Naota, the average annual earnings of women who work full time in exactly the same occupations and under exactly the same conditions as men is almost the same as the men's average annual earnings.
- (C) In Naota, a growing proportion of female workers hold full-time managerial, supervisory, or professional positions, and such positions typically pay more than other types of positions pay.
- (D) In Naota, a larger proportion of female workers than male workers are part-time workers, and part-time workers typically earn less than full-time workers earn.
- (E) In ten other countries where the proportion of women in the work force is similar to that of Naota, the average annual earnings of women who work full time ranges from a low of 50 percent to a high of 90 percent of the average annual earnings of men who work full time.
22. Biologist: Some speculate that the unusually high frequency of small goats found in island populations is a response to evolutionary pressure to increase the number of goats so as to ensure a diverse gene pool. However, only the reproductive success of a trait influences its frequency in a population. So, the only kind of evolutionary pressure that can reduce the average size of the members of a goat population is that resulting from small goats achieving greater reproductive success than their larger cousins.
- The biologist's view, if true, provides the most support for which one of the following?
- (A) The evolutionary pressure to ensure a diverse gene pool could have the effect of increasing the frequency of a gene for small size.
- (B) The unusual frequency of small goats in island populations is not a result of the greater reproductive success small goats possess when space is limited.
- (C) Contrary to what some believe, large goats achieve greater reproductive success than small goats even when space is limited.

- (D) The evolutionary pressure to ensure diverse gene pool does not have the effect of increasing the frequency of a gene for small size.
- (E) A diverse gene pool cannot be achieved in a goat population unless the average size of its members is reduced.

23. Several carefully conducted studies showed that 95 percent of strict vegetarians reached age 50 without developing serious heart disease. We can conclude from this that avoiding meat increases one's chances of avoiding serious heart disease. Therefore, people who want to reduce the risk of serious heart disease should not eat meat.

The flawed pattern of reasoning exhibited by which one of the following is most similar to that exhibited by the argument above?

- (A) The majority of people who regularly drive over the speed limit will become involved in traffic accidents. To avoid harm to people who do not drive over the speed limit, we should hire more police officers to enforce the speed laws.
- (B) Studies have shown that cigarette smokers have a greater chance of incurring heart disease than people who do not smoke. Since cigarette smoking increases one's chances of incurring heart disease, people who want to try to avoid heart disease should give up cigarette smoking.
- (C) The majority of people who regularly drink coffee experience dental problems in the latter part of their lives. Since there is this correlation between drinking coffee and incurring dental problems, the government should make coffee less accessible to the general public.
- (D) Studies show that people who do not exercise regularly have a shorter life expectancy than those who exercise regularly. To help increase their patients' life expectancy, doctors should recommend regular exercise to their patients.
- (E) Most people who exercise regularly are able to handle stress. This shows that exercising regularly decreases one's chances of being overwhelmed by stress. So people who want to be able to handle stress should regularly engage in exercise.

24. Mr. Nance: Ms. Chan said that she retired from Quad Cities Corporation, and had received a watch and a wonderful party as thanks for her 40 years of loyal service. But I overheard a colleague of hers say that Ms. Chan will be gone for much of the next year on business trips and is now working harder than she ever did before; that does not sound like retirement to me. At least one of them is not telling the truth.

M. Nance's reasoning is flawed because it

- (A) is based in part on hearsay
- (B) criticizes Ms. Chan rather than the claims she made
- (C) draws a conclusion based on equivocal language

- (D) fails to consider that Ms. Chan's colleague may have been deceived by her
- (E) fails to infer that Ms. Chan must be a person of superior character, given her long loyal service
25. A recent survey showed that 50 percent of people polled believe that elected officials should resign if indicted for a crime, whereas 35 percent believe that elected officials should resign only if they are convicted of a crime. Therefore, more people believe that elected officials should resign if indicted than believe that they should resign if convicted.
- The reasoning above is flawed because it
- (A) draws a conclusion about the population in general based only on a sample of that population
- (B) confuses a sufficient condition with a required condition
- (C) is based on an ambiguity of one of its terms
- (D) draws a conclusion about a specific belief based on responses to queries about two different specific beliefs
- (E) contains premises that cannot all be true

#### SECTION IV

#### Time 35 minutes 26 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Advertisement: Among popular automobiles, Sturdimades stand apart. Around the world, hundreds of longtime Sturdimade owners have signed up for Sturdimade's "long distance" club, members of which must have a Sturdimade they have driven for a total of at least 100,000 miles or 160,000 kilometers. Some members boast of having driven their Sturdimades for a total of 300,000 miles (480,000 kilometers). Clearly, if you buy a Sturdimade you can rely on being able to drive it for a very long distance.
- Construed as an argument, the advertisement's reasoning is most vulnerable to criticism on which one of the following grounds?
- (A) It draws a general conclusion from cases selected only on the basis of having a characteristic that favors that conclusion.
- (B) Its conclusion merely restates the evidence given to support it.
- (C) It fails to clarify in which of two possible ways an ambiguous term is being used in the premises.
- (D) The evidence given to support the conclusion actually undermines that conclusion.
- (E) It treats popular opinion as if it constituted conclusive evidence for a claim.
2. Faced with a financial crisis, Upland University's board of trustees reduced the budget for the university's computer center from last year's \$4 million to \$1.5 million for the coming year. However, the center cannot operate on less than \$2.5



million. Since the board cannot divert funds from other programs to the computer center, there is no way that the center can be kept operating for the coming year.

The conclusion of the argument is properly drawn if which one of the following is assumed?

- (A) The computer center did not use all of the \$4 million that was budgeted to it last year.
- (B) The budgets of other programs at the university were also reduced.
- (C) The computer center has no source of funds other than those budgeted to it for the coming year by the university's board of trustees.
- (D) No funds from any program at the university can be diverted to other programs.
- (E) The board of trustees at the university value other programs at the university more highly than they do the computer center.

Questions 3-4

Muriel: I admire Favilla's novels, but she does not deserve to be considered a great writer. The point is that, no matter how distinctive her style may be, her subject matter is simply not varied enough.

John: I think you are wrong to use that criterion. A great writer does not need any diversity in subject matter; however, a great writer must at least have the ability to explore a particular theme deeply.

3. Which one of the following is a point at issue between Muriel and John?
- (A) whether Favilla has treated a wide variety of subjects in her novels
  - (B) whether Favilla should be considered a great writer because her style is distinctive
  - (C) whether treating a variety of subjects should be prerequisite for someone to be considered a great writer
  - (D) whether the number of novels that a novelist has written should be a factor in judging whether that novelist is great
  - (E) whether there are many novelists who are considered to be great but do not deserve to be so considered
4. John's statements commit him to which one of the following position?
- (A) Even if the subject matter in Favilla's writings is not particularly varied, she should not thereby be excluded from being considered a great writer.
  - (B) Even if Favilla cannot explore any particular theme deeply in her writings, she should not thereby be excluded from being considered a great writer.
  - (C) If Favilla has explored some particular theme exceptionally deeply in her writings, she deserves to be considered a great writer.
  - (D) If the subject matter in Favilla's writings were exceptionally varied, she would not deserve to be considered a great writer.

(E) If Favilla's writings show no evidence of a distinctive style, she does not deserve to be considered a great writer.

5. Astronaut: Any moon, by definition, orbits some planet in a solar system. So, the moons in solar system S4 all orbit the planet Alpha.

The astronaut's conclusion follows logically if which one of the following is assumed?

- (A) There is only one moon in S4.
- (B) Every moon in S4 orbits the same planet.
- (C) Alpha is the only planet in S4.
- (D) Every planet in S4 is orbited by more than one moon.
- (E) There is at least one moon that orbits Alpha.

6. A worker for a power company trims the branches of trees that overhang power lines as a prevention against damage to the lines anticipated because of the impending stormy season. The worker reasons that there will be no need for her to trim the overhanging branches of a certain tree because the owners of the tree have indicated that they might cut it down anyway.

Which one of the following decisions is based on flawed reasoning that is most similar to the worker's flawed reasoning?

- (A) A well inspector has a limited amount of time to inspect the wells of a town. The inspector reasons that the wells should be inspected in the order of most used to least used, because there might not be enough time to inspect them all.
- (B) All sewage and incoming water pipes in a house must be replaced. The plumber reasons that the cheaper polyvinyl chloride pipes should be used for sewage rather than copper pipes, since the money saved might be used to replace worn fixtures.
- (C) A mechanic must replace the worn brakes on a company's vans that are used each weekday. The mechanic reasons that since one of the vans is tentatively scheduled to be junked, he will not have to replace its brakes.
- (D) A candidate decides to campaign in the areas of the city where the most new votes are concentrated. The candidate reasons that campaigning on other areas is unnecessary because in those areas the candidate's message is actually liable to alienate voters.
- (E) None of the children in a certain kindergarten class will take responsibility for the crayon drawing on the classroom wall. The teacher reasons that it is best to keep all the kindergarten children in during recess in order to be certain to punish the one who did the drawing on the wall.

7. Currently, the city of Grimchester is liable for any injury incurred because of a city sidewalk in need of repair or maintenance. However, Grimchester's sidewalks are so extensive that it is impossible to hire enough employees to locate

and eliminate every potential danger in its sidewalks. Governments should be liable for injuries incurred on public property only if they knew about the danger beforehand and negligently failed to eliminate it.

Which one of the following describes an injury for which the city of Grimchester is now liable, but should not be according to the principle cited above?

- (A) A person is injured after tripping on a badly uneven city sidewalk, and the city administration had been repeatedly informed of the need to repair the sidewalk for several years.
  - (B) A person is injured after tripping over a shopping bag that someone had left lying in the middle of the sidewalk.
  - (C) A person is injured after stepping in a large hole in a city sidewalk, and the city administration had first learned of the need to repair that sidewalk minutes before.
  - (D) A person who is heavily intoxicated is injured after falling on a perfectly even city sidewalk with no visible defects.
  - (E) A person riding a bicycle on a city sidewalk is injured after swerving to avoid a pedestrian who had walked in front of the bicycle without looking.
8. Early in the development of a new product line, the critical resource is talent. New marketing ventures require a degree of managerial skill disproportionate to their short-term revenue prospects. Usually, however, talented managers are assigned only to established high-revenue product lines and, as a result, most new marketing ventures fail. Contrary to current practice, the best managers in a company should be assigned to development projects.
- Which one of the following, if true, most strengthens the author's argument?
- (A) On average, new ventures under the direction of managers at executive level survive no longer than those managed by lower-ranking managers.
  - (B) For most established companies, the development of new product lines is a relatively small part of the company's total expenditure.
  - (C) The more talented a manager is, the less likely he or she is to be interested in undertaking the development of a new product line.
  - (D) The current revenue and profitability of an established product line can be maintained even if the company's best managers are assigned elsewhere.
  - (E) Early short-term revenue prospects of a new product line are usually a good predictor of how successful a product line will ultimately be.
9. Television news coverage gives viewers a sense of direct involvement with current events but does not provide the depth of coverage needed for the significance of those events to be appreciated. Newspapers, on the other hand, provide depth of coverage but no sense of direct involvement. Unfortunately, a full understanding of current events requires both an appreciation of their significance and a sense of direct involvement with them. Therefore, since few people seek out news sources other than newspapers and television, few people

ever full understand current events.

The reasoning in the argument is flawed because the argument

- (A) treats two things, neither one of which can plausibly be seen as excluding the others, as though they were mutually exclusive
- (B) ignores the possibility that people read newspapers or watch television for reasons other than gaining a full understanding of current events
- (C) makes crucial use of the term “depth of coverage” without defining it
- (D) fails to consider the possible disadvantages of having a sense of direct involvement with tragic or violent events
- (E) mistakenly reasons that just because something has the capacity to perform a given function it actually does so

10. Critic: Some writers have questioned Stalin’s sanity during his last years. They typically characterized his vindictiveness and secrecy as “paranoia” and “morbid suspiciousness,” the latter almost a standard term applied by the Soviet writers under *glasnost* to explain this extraordinary man’s misdeeds. But Stalin’s cruelty and deviousness are not more apparent during those years than in earlier periods of his rule. “Morbid suspiciousness” has to be a characteristic of tyrants. Without it they would not remain long in power.

Which one of the following most accurately expresses a point of disagreement between the critic and the writers?

- (A) whether Stalin should be held guilty of the cruel deeds attributed to him
  - (B) whether Stalin’s cruel misdeeds provide evidence of morbid suspiciousness
  - (C) whether it is Stalin’s state of paranoia or rather his cruelty that gives the stronger reason for doubting his sanity
  - (D) whether tyranny tends to lead to cruelty
  - (E) whether it was Stalin’s psychological state or rather his political condition that was the primary cause of his cruel misdeeds
11. Even though apes are the only nonhuman creatures able to learn human language, no ape has ever used its human language skills to ask such philosophical questions as, “How am I different from all creatures?” Therefore, philosophical thought is unique to humans.
- The conclusion in the passage above relies on which one of the following assumptions?
- (A) Human language is unique to humans.
  - (B) Apes are incapable of thinking in human language.
  - (C) Philosophical thought can be expressed only in human language.
  - (D) Speaking in human language is easier than thinking in human language.
  - (E) It is more difficult to learn human language than to express philosophical questions.

12. Most adults in country X consume an increasing amount of fat as they grow older. However, for nearly all adults in country X, the percentage of fat in a person's diet stays the same throughout adult life.

The statements above, if true, most strongly support which one of the following conclusions about adults in country X?

- (A) They generally consume more fat than do people of the same age in other countries.
  - (B) They generally eat more when they are older than they did earlier in their adulthood.
  - (C) They generally have diets that contain a lower percentage of fat than do the diets of children in country X.
  - (D) They tend to eat more varied kinds of food as they become older.
  - (E) They tend to lose weight as they become older.
13. Politician: The bill that makes using car phones while driving illegal should be adopted. My support of this bill is motivated by a concern for public safety. Using a car phone seriously distracts the driver, which in turn poses a threat to safe driving. People would be deterred from using their car phones while driving if it were illegal to do so.

The argument's main conclusion follows logically if which one of the following is assumed?

- (A) The more attention one pays to driving, the safer a driver one is.
  - (B) The only way to reduce the threat to public safety posed by car phones is through legislation.
  - (C) Some distractions interfere with one's ability to safely operate an automobile.
  - (D) Any proposed law that would reduce a threat to public safety should be adopted.
  - (E) Car phone use by passengers does not distract the driver of the car.
14. When soil is plowed in the spring, pigweed seeds that have been buried in the soil all winter are churned up to the surface and redeposited just under the surface. The brief exposure of the seeds to sunlight stimulates receptors, which have become highly sensitive to sunlight during the months the seeds were buried in the soil, and the stimulated receptors trigger germination. Without the prolonged darkness, followed by exposure to sunlight, the seeds do not germinate.
- The statements above, if true, most strongly support which one of the following statements about a field that will be plowed in the spring and in which pigweed seeds have been buried in the soil all winter?
- (A) Fewer pigweed plants will grow in the field if it is plowed only at night than if it is plowed during the day.
  - (B) Fewer pigweed plants will grow in the field if it is not plowed at all than if it is plowed only at night.



- (C) Fewer pigweed plants will grow in the field if it is plowed just before sunrise than if it is plowed just after sunset.
- (D) The pigweed seeds that are churned up to the surface of the soil during the plowing will not germinate unless they are redeposited under the surface of the soil.
- (E) All of the pigweed seeds that are already on the surface of the soil before the field is plowed will germinate.
15. In 1992, there were over 250 rescues of mountain climbers, costing the government almost 3 million dollars. More than 25 people died in climbing mishaps that year. Many new climbers enter the sport each year. Members of a task force have proposed a bonding arrangement requiring all climbers to post a large sum of money to be forfeited to the government in case of calamity. Each of the following principles, if valid, supports the task force members' proposal EXCEPT:
- (A) Taxpayers should not subsidize a freely chosen hobby and athletic endeavor of individuals.
- (B) The government is obliged to take measures to deter people from risking their lives.
- (C) For physically risky sports the government should issue permits only to people who have had at least minimal training in the sport.
- (D) Citizens who use publicly subsidized rescue services should be required to pay more toward the cost of these services than citizens who do not.
- (E) People who engage in physically risky behavior that is not essential to anyone's welfare should be held responsible for the cost of treating any resulting injuries.
16. The familiar slogan "survival of the fittest" is popularly used to express the claim, often mistakenly attributed to evolutionary biologists, that the fittest are most likely to survive. However, biologists use the term "fittest" to mean "most likely to survive are the most likely to survive," so the slogan is merely claiming that the most likely to survive are the most likely to survive. While this claim is clearly true, it is a tautology and so is neither informative nor of scientific interest.
- The argument above depends on assuming which one of the following?
- (A) All claims that are of scientific interest are informative.
- (B) Only claims that are true are of scientific interest.
- (C) Popular slogans are seldom informative or of scientific interest.
- (D) Informative scientific claims cannot use terms in the way they are popularly used.
- (E) The truth of a purported scientific claim is not sufficient for it to be of scientific interest.

17. Council member: The preservation of individual property rights is of the utmost importance to the city council. Yet, in this city, property owners are restricted to little more than cutting grass and weeding. Anything more extensive, such as remodeling, is prohibited by our zoning laws.
- Which one of the following provides a resolution to the apparent inconsistency described by the council member?
- (A) Property owners are sometimes allowed exemptions from restrictive zoning laws.
  - (B) It is in the best interest of property owners to maintain current laws in order to prevent an increase in their property taxes.
  - (C) The city council places less importance on property rights than do property owners.
  - (D) An individual's property rights may be infringed upon by other people altering their own property.
  - (E) Zoning laws ensure that property rights are not overly extensive.
18. Coach: Our team has often been criticized for our enthusiasm in response to both our successes and our opponents' failures. But this behavior is hardly unprofessional, as our critics have claimed. On the contrary, if one looks at the professionals in this sport, one will find that they are even more effusive. Our critics should leave the team alone and let the players enjoy the game.
- The coach's argument is most vulnerable to the charge that it
- (A) misleadingly equates enthusiasm with unethical play
  - (B) misinterprets the critics' claim that the team is unprofessional
  - (C) too quickly generalizes from the sport at one level to the sport at a different level
  - (D) shifts the blame for the team's behavior to professional players
  - (E) takes everyone on the team to have performed the actions of a few
19. Speaker: Contemporary business firms need to recognize that avoiding social responsibility leads to the gradual erosion of power. This is Davis and Blomstrom's Iron Law of Responsibility: "In the long run, those who do not use power in a manner which society considers responsible will tend to lose it." The law's application to human institutions certainly stands confirmed by history. Though the "long run" may require decades or even centuries in some instances, society ultimately acts to reduce power when society thinks it is not being used responsibly. Therefore, a business that wishes to retain its power as long as it can must act responsibly.
- Which one of the following statements, if true, most weakens the speaker's argument?
- (A) Government institutions are as subject to the Iron Law of Responsibility as business institutions.

- (B) Public relations programs can cause society to consider an institution socially responsible even when it is not.
  - (C) The power of some institutions erodes more slowly than the power of others, whether they are socially responsible or not.
  - (D) Since no institution is eternal, every business will eventually fail.
  - (E) Some businesses that have used power in socially responsible ways have lost it.
20. It would be wrong to conclude that a person has a *Streptococcus* infection if there is no other evidence than the fact that *Streptococcus* bacilli are present in the person's throat; after all, infection does not occur unless the host is physically run down.

The reasoning in which one of the following is most similar to the reasoning in the argument above?

- (A) When a person experiences blurred vision, it does not follow that a physical defect in the person's eyes is the cause, since blurring of a person's vision also can be induced by certain drugs.
  - (B) Even if a healthy lavender plant receives six or more hours of direct sunlight each day, one cannot predict on that basis alone that the plant will bloom, because lavender requires both six or more hours of sunlight per day and slightly alkaline soil to bloom.
  - (C) When a bee colony fails to survive the winter, it would be wrong to conclude that low temperatures were the causes. Bees have very good defense mechanisms against extreme cold, which are designed to ensure survival of the colony, though not of individual bees.
  - (D) A female holly plant cannot produce berries without a male plant nearby to provide pollen. But it does not follow that two or more male hollis in the vicinity will cause a female plant to bear more berries than it would with only a single male holly nearby.
  - (E) A person cannot be presumed to be hypertensive on the basis of a high reading for blood pressure that is exceptional for that person, since only people with chronically high blood pressure are properly called hypertensive.
21. Terry: Some actions considered to be bad by our society have favorable consequences. But an action is good only if it has favorable consequences. So, some actions considered to be bad by our society are actually good.

Pat: I agree with your conclusion, but not with the reasons you give for it. Some good actions actually do not have favorable consequences. But no actions considered to be bad by our society have favorable consequences, so your conclusion, that some actions our society considers bad are actually good, still holds.

Which one of the following correctly describes both an error in Terry's reasoning

and an error in Pat's reasoning?

- (A) presupposing that if a certain property distinguishes one type of action from another type of action, then that property is one of many properties distinguishing the two types of action
- (B) presupposing that if most actions of a certain type share a certain property, then all actions of that type share that property
- (C) presupposing that if a certain property is shared by actions of a certain type in a given society, then that property is shared by actions of that type in every society
- (D) presupposing that if an action's having a certain property is necessary for its being a certain type of action, then having that property is sufficient for being that type of action
- (E) presupposing that if a certain property is shared by two types of action, then that property is the only property distinguishing the two types of action from actions of other types

22. Dinosaur expert: Some paleontologists have claimed that birds are descendants of a group of dinosaurs called dromeosaurs. They appeal to the fossil record, which indicates that dromeosaurs have characteristics more similar to birds than do most dinosaurs. But there is a fatal flaw in their argument; the earliest bird fossils that have been discovered date back tens of millions of years farther than the oldest known dromeosaur fossils. Thus the paleontologists' claim is false.

The expert's argument depends on assuming which one of the following?

- (A) Having similar characteristics is not a sign that types of animals are evolutionarily related.
- (B) Dromeosaurs and birds could have common ancestors.
- (C) Knowledge of dromeosaur fossils and the earliest bird fossils is complete.
- (D) Known fossils indicate the relative dates of origin of birds and dromeosaurs.
- (E) Dromeosaurs are dissimilar to birds in many significant ways.

Questions 23-24

Party spokesperson: The opposition party's proposal to stimulate economic activity in the province by refunding \$600 million in provincial taxes to taxpayers, who could be expected to spend the money, envisions an illusory benefit. Since the province's budget is required to be in balance, either new taxes would be needed to make up the shortfall, in which case the purpose of the refund would be defeated, or else workers for the province would be dismissed. So either the province's taxpayers or its workers, who are also residents of the province, will have the \$600 million to spend, but there can be no resulting net increase in spending to stimulate the province's economy.

23. The spokesperson proceeds by

- (A) reinterpreting a term that is central to an opposing argument
- (B) arguing that a predicted advantage would be offset by an accompanying

disadvantage

- (C) casting doubt on the motives of opponents
  - (D) drawing a distinction between different kinds of economic activity
  - (E) seeking to show that the assumption that taxpayers would spend money that might be refunded to them is dubious
24. The conclusion about whether there would be a resulting net increase in spending would not follow if the
- (A) taxpayers of the province would spend outside the province at least \$300 million of any \$600 million refunded to them
  - (B) taxpayers of the province would receive any refund in partial payments during the year rather than in a lump sum
  - (C) province could assess new taxes in a way that would avoid angering taxpayers
  - (D) province could instead of refunding the money, stimulate its economy by redirecting its spending to use the \$600 million for construction projects creating jobs around the province
  - (E) province could keep its workers and use them more effectively with a resulting savings of \$600 million in its out-of-province expenditures
25. Essayist: Every contract negotiator has been lied to by someone or other, and whoever lies to anyone is practicing deception. But, of course, anyone who has been lied to has also lied to someone or other.
- If the essayist's statements are true, which one of the following must also be true?
- (A) Every contract negotiator has practiced deception.
  - (B) Not everyone who practices deception is lying to someone.
  - (C) Not everyone who lies to someone is practicing deception.
  - (D) Whoever lies to a contract negotiator has been lied to by a contract negotiator.
  - (E) Whoever lies to anyone is lied to by someone.
26. A member of the British Parliament is reputed to have said, "The first purpose of good social reform is to increase the sum total of human happiness. So, any reform which makes somebody happy is achieving its purpose. Since the reform I propose would make my constituents happy, it is a good social reform."
- Which one of the following, if true, most seriously weakens the argument attributed to the member of Parliament?
- (A) Different things make different people happy.
  - (B) The proposed reform would make a few people happy, but would not increase the happiness of most other people.
  - (C) The proposed reform would affect only the member of Parliament's



constituents and would make them happy.

- (D) Increasing some people's happiness might not increase the sum total of human happiness if others are made unhappy.
- (E) Good social reforms usually have widespread support.

## TEST 26

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Anita: Since 1960 the spotted owl population has declined alarmingly. Timber companies that have been clearing the old-growth forests where the spotted owl lives are responsible for this.  
Jean: No, the spotted owl's decline is due not to the timber companies but a rival species. For the past three decades, the more prolific barred owl has been moving steadily into the spotted owl habitat and replacing the spotted owl.  
Jean does which one of the following in her response to Anita?
  - (A) denies the truth of Anita's premise that timber companies have been clearing old-growth forests
  - (B) challenges Anita's assumption that the decline in the population of the spotted owl poses a threat to the species' continued survival
  - (C) proposes an alternative explanation for the decline in the spotted owl population
  - (D) argues that Anita's conclusion is not valid because she has failed to consider the spotted owl population over a long enough time period
  - (E) suggest that Anita overlooked the possibility that spotted owls are able to live in forests that are old-growth forests

#### Questions 2-3

Veterinarian: A disease of purebred racehorses that is caused by a genetic defect prevents afflicted horses from racing and can cause paralysis and death. Some horse breeders conclude that because the disease can have such serious consequences, horses with the defect should not be bred. But they are wrong because, in most cases, the severity of the disease can be controlled by diet and medication and the defect also produces horses of extreme beauty that are in great demand in the horse show industry.

2. The point of the veterinarian's response to the horse breeders is most accurately expressed by which one of the following?
  - (A) Racehorses that have the genetic defect need not be prevented from racing.
  - (B) There should not be an absolute ban on breeding racehorses that have the

genetic defect.

- (C) Racehorses that are severely afflicted with the disease have not been provided with the proper diet.
- (D) The best way to produce racehorses of extreme beauty is to breed horses that have the genetic defect.
- (E) There should be no prohibition against breeding racehorses that have any disease that can be controlled by diet and exercise.
3. The veterinarian's argument employs which one of the following techniques?
- (A) calling into question the motives of the horse breeders cited
- (B) demonstrating that the horse breeders' conclusion is inconsistent with the evidence advanced to support it
- (C) providing evidence that contradicts the horse breeder's evidence
- (D) disputing the accuracy of evidence on which the horse breeder's argument depends
- (E) introducing considerations that lead to a conclusion different from that of the horse breeders' argument
4. Political scientist: The concept of freedom is hopelessly vague. Any definition of freedom will either exclude some acts that intuitively qualify as free or admit some acts that intuitively fall outside the concept. The notion of justice, fairness, and equality are equally indeterminate. This is why political organization should be disavowed as futile.
- The reasoning in the argument is questionable because the argument
- (A) generalizes from an unrepresentative sample to every political idea
- (B) makes the unsupported claim that the concept of freedom is hopelessly vague
- (C) ignores the fact that some people view freedom as indispensable
- (D) fails to show any specific link between the vagueness of concepts such as freedom and the rejection of political organization
- (E) is mounted by some who has vested interest in the rejection of political organization
5. A recent passed law requires all places of public accommodation to eliminate discrimination against persons with disabilities by removing all physical barriers to accessibility. Private schools, therefore, are legally obligated to make their campuses physically accessible to persons with disabilities.
- The conclusion above follows logically if which one of the following is assumed?
- (A) No private school can legally deny admission to a person with a disability.
- (B) Private schools have historically been resistant to changes in government policy on discrimination.
- (C) Private schools, like public schools, are places of public accommodation.

- (D) Private schools have enough funds to make their campuses barrier-free.
- (E) Private property is often considered to be public space by groups that have historically been subjects of discrimination.

6. Prehistoric chimpanzee species used tools similar to those used by prehistoric humans: prehistoric tools recently found in East Africa are of a type used by both species. The area where the tools were found, however, is a savanna, and whereas there were prehistoric humans who lived in savanna habitats, prehistoric chimpanzees lived only in forests. Therefore, the tools must have been used by humans rather than chimpanzees.

Which of the following is an assumption on which the argument depends?

- (A) Prehistoric humans did not carry their tools with them when they traveled from one place to another.
- (B) Since the evolution of the first primates, East Africa has been predominantly savanna.
- (C) Prehistoric humans never ventured into areas of the forest that were inhabited by prehistoric chimpanzees.
- (D) The area where the tools were found was not a forest at the time the tools were in use.
- (E) The prehistoric ancestors of modern chimpanzees were not capable of using tools more sophisticated than those found recently in East Africa.

7. Computers perform actions that are closer to thinking than anything non-human animals do. But computers do not have volitional powers, although some non-human animals do.

Which of the following is most strongly supported by the information above?

- (A) Having volitional powers need not involve thinking.
- (B) Things that are not animals do not have volitional powers.
- (C) Computers possess none of the attributes of living things.
- (D) It is necessary to have volitional powers in order to think.
- (E) Computer will never be able to think as human beings do.

8. The caterpillar of the monarch butterfly feeds on milkweed plants, whose toxins make the adult monarch poisonous to many predators. The viceroy butterfly, whose caterpillars do not feed on milkweed plants, is very similar in appearance to the monarch. Therefore, it can be considered that the viceroy is so seldom preyed on because of its visual resemblance to the monarch.

Which of the following, if it were discovered to be true, would most seriously undermine the argument?

- (A) Some predators do not have a toxic reaction to insects that feed on milkweed plants.
- (B) Being toxic to predators will not protect individual butterflies unless most members of the species to which such butterflies belong are similarly toxic.

- (C) Some of the predators of the monarch butterfly also prey on viceroys.
- (D) The viceroy butterfly is toxic to most predators.
- (E) Toxic to predators is the principal means of protection for only a few butterfly species.

9. Every action has consequences and among the consequences of any action are other actions. And knowing whether an action is good requires knowing whether its consequences are good, but we cannot know the future, so good actions are impossible.

Which of the following is an assumption on which the argument depends?

- (A) Some actions have only other actions as consequences.
  - (B) We can know that past actions were good.
  - (C) To know that an action is good requires knowing that refraining from performing it is bad.
  - (D) Only actions can be the consequences of other actions.
  - (E) For an action to be good we must be able to know that it is good.
10. All bridges built from 1950 to 1960 are in serious need of rehabilitation. Some bridges constructed in this period, however, were built according to faulty engineering design. That is the bad news. The good news is that at least some bridges in serious need of rehabilitation are not suspension bridges, since no suspension bridges are among the bridges that were built according to faulty engineering design.
- If the statements above are true, then, on the basis of those statements, which one of the following must be true?
- (A) Some suspension bridges are not in serious need of rehabilitation.
  - (B) Some suspension bridges are in serious need of rehabilitation.
  - (C) Some bridges that were built according to faulty engineering design are in serious need of rehabilitation.
  - (D) Some bridges built from 1950 to 1960 are not in serious need of rehabilitation.
  - (E) Some bridges that were built according to faulty engineering design are not bridges other than suspension bridges.
11. A severe blow to the head can cause one to lose consciousness; from this some people infer that consciousness is a product of the brain and cannot survive bodily death. But a radio that becomes damaged may suddenly cease to broadcast the program it had been receiving, and we do not conclude from this that the program itself has ceased to exist. Similarly, more substantial evidence would be needed to conclude that consciousness does not survive bodily death.

Which one of the following most accurately describes the role played in the argument by the example of the damaged radio?

- (A) It is cited as evidence that consciousness does in fact survive bodily death.

- (B) It is cited as a counterexample to a widely accepted belief about the nature of consciousness.
- (C) It is cited as a case analogous to loss of consciousness in which people do not draw the same sort of conclusion that some people draw about consciousness.
- (D) It is cited as the primary piece of evidence for the conclusion that the relationship of consciousness to the brain is analogous to that of a radio program to the radio that receives it.
- (E) It is cited as an example of a case in which something consisting purely of energy depends on the existence of something material to provide evidence of its existence.
12. Political theorist: The vast majority of countries that have a single political party have corrupt national governments, but some countries with a plurality of parties also have corrupt national governments. What all countries with corrupt national governments have in common, however, is the weakness of local governments. If all of the political theorist's statements are true, which one of the following must also be true?
- (A) Every country with weak local government has a single political party.
- (B) Some countries with local governments have a plurality of political parties.
- (C) Some countries with weak local governments do not have corrupt national governments.
- (D) The majority of countries with weak local governments have a single political party.
- (E) Fewer multiparty countries than single party countries have weak local governments.
13. Committee member: We should not vote to put at the top of the military's chain of command an individual whose history of excessive drinking is such that that person would be barred from commanding a missile wing, a bomber squadron, or a contingent of fighter jets. Leadership must be established from the top down. The committee member's argument conforms most closely to which one of the following principles?
- (A) No one who would be barred from important jobs in an organization should lead that organization.
- (B) Whoever leads an organization must have served at every level in the organization.
- (C) Whoever leads an organization must be qualified to hold each important job in the organization.
- (D) No one who drinks excessively should hold a leadership position anywhere along the military's chain of command.
- (E) No one who cannot command a missile wing should be at the top of the



military's chain of command.

Questions 14-15

Kim: In northern Europe during the eighteenth century a change of attitude occurred that found expression both in the adoption of less solemn and elaborate death rites by the population at large and in a more optimistic view of the human condition as articulated by philosophers. This change can be explained as the result of a dramatic increase in life expectancy that occurred in northern Europe early in the eighteenth century.

Lee: Your explanation seems unlikely, because it could not be correct unless the people of the time were aware that their life expectancy had increased.

14. Which one of the following, if true, provides the strongest defense of Kim's explanation against Lee's criticism?
- (A) An increase in life expectancy in a population often gives rise to economic changes that, in turn, directly influence people's attitudes.
  - (B) Present day psychologists have noted that people's attitude toward life can change in response to information about their life expectancy.
  - (C) Philosophers in northern Europe during the eighteenth century made many conjectures that did not affect the ideas of the population at large.
  - (D) The concept of life expectancy is based on statistical theories that had not been developed in the eighteenth century.
  - (E) Before the eighteenth century the attitudes of northern Europeans were more likely to be determined by religious teaching than by demographic phenomena.
15. Which one of the following most accurately describes Lee's criticism of Kim's explanation?
- (A) It refers to sources of additional data that cannot easily be reconciled with the facts.
  - (B) It offers an alternative explanation that is equally supported by the evidence Kim cites.
  - (C) It cites an analogous case in which Kim's explanation clearly cannot hold.
  - (D) It suggests that Kim's explanation depends on a questionable assumption.
  - (E) It points out that Kim's explanation is based on two hypotheses that contradict each other.
16. Some health officials are concerned about the current sustained increase in reported deaths from alcohol-related conditions, attributing this increase to a rise in alcoholism. What these health officials are overlooking, however, is that attitudes toward alcoholism have changed radically. Alcoholism is now widely viewed as a disease, whereas in the past it was considered a moral failing. It is therefore likely that more deaths are being reported as alcohol-related because

physicians are more likely to identify these deaths as alcohol-related.

Which one of the following, if true, provides the most support for the argument?

- (A) The frequent use of alcohol by young people is being reported as occurring at increasingly early age.
- (B) In some places and times, susceptibility to any kind of disease has been viewed as a moral failing.
- (C) More physicians now than in the past are trained to recognize the physical effects of alcoholism.
- (D) Even though alcoholism is considered to be disease, most doctors recommend psychological counseling and support groups as the best treatment.
- (E) Many health officials are not physicians.

17. Studies show that the most creative engineers get their best and most useful ideas only after doodling and jotting down what turn out to be outlandish ideas. Now that many engineers do their work with computers instead of on paper, however, doodling is becoming much less common, and some experts fear that the result will be fewer creative and useful engineering ideas. These experts argue that this undesirable consequence would be avoided if computer programs for engineering work included simulated notepads that would allow engineers to suspend their “serious” work on the computer, type up outlandish ideas, and then quickly return to their original work.

Which one of the following is an assumption on which the experts’ reasoning depends?

- (A) Most creative engineers who work with paper and pencil spend about as much time doodling as they spend on what they consider serious work.
- (B) Simulated notepads would not be used by engineers for any purpose other than typing up outlandish ideas.
- (C) No engineers who work with computers keep paper and pencil near their computers in order to doodle and jot down ideas.
- (D) The physical act of working on paper is not essential in providing engineers with the benefits that can be gained by doodling.
- (E) Most of the outlandish ideas engineers jot down while doodling are later incorporated into projects that have practical applications.

18. Columnist: The advent of television helps to explain why the growth in homicide rates in urban areas began significantly earlier than the growth in homicide rates in rural areas. Television sets became popular in urban households about four years earlier than in rural households. Urban homicide rates began increasing in 1958, about four years earlier than a similar increase in rural homicide rates began.

Which one of the following, if true, most support the columnist’s argument?

- (A) In places where the number of violent television programs is low, the

homicide rates are also low.

- (B) The portrayal of violence on television is a cause, not an effect of the violence in society.
- (C) There were no violent television programs during the early years of television.
- (D) The earlier one is exposed to violence on television, the more profound the effect.
- (E) Increasing one's amount of leisure time increases one's inclination to act violently.
19. Even in ancient times, specialized farms (farms that grow a single type of crop or livestock) existed only where there were large commercial markets for farm products, and such markets presuppose urban populations. Therefore the extensive ruins in the archaeological site at Kadishim are probably the remains of a largely uninhabited ceremonial structure rather than of a densely populated city, since the land in the region of Kadshim could never have supported any farms except mixed farms, which grow a variety of crops and livestock.
- Which one of the following is an error of reasoning in the argument?
- (A) taking the fact that something is true of one sample of a class of things as evidence that the same is true of the entire class of things
- (B) taking the nonexistence of something as evidence that a necessary precondition for that thing also did not exist
- (C) interpreting an ambiguous claim in one way in one part of the argument and in another way in another part of the argument
- (D) supposing that because two things usually occur in conjunction with one another, one of them must be the cause of the other
- (E) drawing a conclusion that is simply a restatement of one of the premises on which the argument is based
20. It has been found that job prospects for college graduates have never been better. The trend is likely to continue over the next decade. A recent survey found that most employers simply did not know that the number of students graduating would drop by 25 percent over the past ten years, and had not anticipated or planned for this trend. Most employers were not aware that, although the supply of graduates currently meets demand, this situation could change. The same survey revealed that the number of undergraduates choosing to study subjects in high demand, like mathematics and engineering, has dropped substantially. This trend is likely to continue over the next decade.
- Which one of the following can properly be concluded from the passage above?
- (A) Soon, more graduates are likely to be competing for fewer jobs.
- (B) Soon, there is likely to be a shortage of graduates to fill certain vacancies.
- (C) Employers are aware of changing trends in subjects studied by undergraduates.

- (D) Soon, fewer graduates are likely to be competing for fewer available jobs.
- (E) Employers who are well-informed about future trends have anticipated and planned for them.
21. The cities of Oldtown and Spoonville are the same in area and size of population. Since certain health problems that are caused by crowded living conditions are widespread in Oldtown, such problems must be as widespread in Spoonville. The reasoning in the argument is most vulnerable to criticism on the grounds that the argument
- (A) presupposes without warrant that the health problems that are widespread in any particular city cannot be caused by the living conditions in that city
- (B) fails to distinguish between the size of the total population of a city and the size of the geographic region covered by that city
- (C) fails to indicate whether average life expectancy is lowered as a result of living in crowded conditions
- (D) fails to distinguish between those health problems that are easily treatable and those are not
- (E) fails to take into account that having identical overall population density is consistent with great disparity in living conditions
22. Shortly after the Persian Gulf War, investigators reported that the area, which had been subjected to hundreds of smoky oil fires and deliberate oil spills when regular oil production slowed down during the war, displayed less oil contamination than they had witnessed in prewar surveys of the same area. They also reported that the levels of polycyclic aromatic hydrocarbons (PAHs)—used as a marker of combustion products spewed from oil wells ignited during the war—were also relatively low, comparable to those recorded in the temperate oil producing areas of the Baltic Sea.
- Which one of the following, if true, does most to resolve the apparent discrepancy in the information above?
- (A) Oil contaminants have greater environmental effects in temperate regions than in desert regions.
- (B) Oil contamination and PAH pollution dissipate more rapidly in temperate regions than in desert regions.
- (C) Oil contamination and PAH pollution dissipate more rapidly in desert regions than in temperate regions.
- (D) Peacetime oil production and transport in the Persian Gulf result in high levels of PAHs and massive oil dumping.
- (E) The Persian Gulf War ended before the oil fires and spills caused as much damage as originally expected.
23. An independent audit found no indication of tax avoidance on the part of the firm in the firm's accounts, therefore no such problem exists.

The questionable reasoning in the argument above is most closely paralleled by that in which one of the following?

- (A) The plan for the introduction of the new product has been unmodified so far; therefore, it will not be modified in the future.
- (B) The overall budget for the projects has been exceeded by a large amount; therefore, at least one of the projects has exceeded its budget by large amount.
- (C) A compilation of the best student essays of the year includes no essays on current events; therefore, students have become apathetic toward current events.
- (D) A survey of schools in the district found no school without a need for building repair; therefore, the education provided to students in this district is substandard.
- (E) An examination of the index of the book found no listing for the most prominent critic of the theory the book advocates; therefore, the book fails to refer to that critic.

24. One of the great difficulties in establishing animal rights based merely on the fact that animals are living things concern scope. If one construes the term “living things” broadly, one is bound to bestow rights on organisms that are not animals (e.g. plants). But if this term is construed narrowly, one is apt to refuse rights to organisms that, at least biologically, are considered members of the animal kingdom.

If the statements above are true, which one of the following can be most reasonably inferred from them?

- (A) Not all animals should be given rights.
- (B) One cannot bestow rights on animals without also bestowing rights on at least some plants.
- (C) The problem of delineating the boundary of the set of living things interferes with every attempt to establish animal rights.
- (D) Successful attempts to establish rights for all animals are likely either to establish rights for some plants or not to depend solely on the observation that animals are living things.
- (E) The fact that animals are living things is irrelevant to the question of whether animals should or should not be accorded rights, because plants are living things too.

25. Economist: No economic system that is centrally planned can efficiently allocate resources, and efficient allocation of resources is a necessary condition for achieving a national debt of less than 5 percent of Gross Domestic Product (GDP). It follows that any nation with a centrally planned economy has a national debt that is at least 5 percent of GDP.

The pattern of reasoning exhibited by the economist’s argument is most similar



to that exhibited by which one of the following?

- (A) Not all mammals are without wings, because bats are mammals and bats have wings.
- (B) All of the rural districts are free of major air pollution problems because such problems occur only where there is a large concentration of automobiles, and there are no such places in the rural districts.
- (C) All of the ungulates are herbivores, and most herbivores would not attack a human being. It follows that any animal that would attack a human being is unlikely to be ungulate.
- (D) All rock stars who are famous have their own record companies, and all rock stars with their own record companies receive company profits over and above their regular royalties. This implies that receiving large regular royalties is a necessary condition of being a famous rock star.
- (E) Every mutual fund manager knows someone who trades on inside information, and no one who trades on inside information is unknown to every mutual fund manager. One must conclude that no mutual fund manager is unknown to every one who trades on inside information.

26. Editorialist: Additional restrictions should be placed on drivers' licenses of teenagers because teenagers lack basic skills. Even though drivers of age nineteen and younger make up only 7 percent of registered drivers, they are responsible for over 14 percent of traffic fatalities.

Each of the following, if true, weakens the argument that teenagers lack basic driving skill EXCEPT:

- (A) Teenagers tend to drive older and less stable cars than other drivers.
- (B) Teenagers and their passengers are less likely to use seat belts and shoulder straps than others.
- (C) Teenagers drive, on average, over twice as far each year as other drivers.
- (D) Teenagers cause car accidents that are more serious than those caused by others.
- (E) Teenagers are likely to drive with more passengers than the average driver.

### SECTION III

**Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Question withheld from scoring.
2. Owners of deeply indebted and chronically unprofitable small businesses sometimes try to convince others to invest money in their companies. Since the money thus acquired will inevitably be used to pay off debts, rather than to expand operation, this money will not stimulate sales growth in such companies. Thus, most people are reluctant to make these investments. Surprisingly,

however, such investments often earn handsome returns in the very first year they are made.

Which one of the following, if true, most helps to explain the surprising results of such investments?

- (A) Investors usually choose to reinvest their returns on such investments.
  - (B) Expanding production in such companies would usually require more funds than would paying off debts.
  - (C) Paying off debts, by saving a company the money it would otherwise owe in interest, decreases the company's overall expenses and thereby increases its profits.
  - (D) Banks are reluctant to lend money to any company that is already heavily in debt and chronically unprofitable.
  - (E) If the sales of a company do not grow, there is usually little need to devote a large share of company resources to expanding production.
3. After purchasing a pot-bellied pig at the pet store in Springfield, Amy was informed by a Springfield city official that she would not be allowed to keep the pig as a pet, since city codes classify pigs as livestock, and individuals may not keep livestock in Springfield.
- The city official's argument depends on assuming which one of the following?
- (A) Amy lives in Springfield.
  - (B) Pigs are not classified as pets in Springfield.
  - (C) Any animal not classified as livestock may be kept in Springfield.
  - (D) Dogs and cats are not classified as livestock in Springfield.
  - (E) It is legal for pet stores to sell pigs in Springfield.
4. Historian: The central claim of the "end-of-history" theory is that history has reached its final stage of development. According to its adherents, democratic ideals have triumphed over their rivals, and history is effectively at an ideological end. But, this view fails to consider that it is impossible to stand outside all of history to judge whether history is really at an end.
- Which one of the following can be most reasonably inferred from the historian's statements?
- (A) We can never know whether the end-of-history theory is true.
  - (B) Advocates of the end-of-history theory have too ideological an understanding of history.
  - (C) If we were at the end of history, we would automatically know whether the end-of-history theory is true.
  - (D) It is impossible for the end-of-history theory to be true.
  - (E) Ideological developments are the essential elements of history.
5. John: As I was driving to work this morning, I was stopped by a police officer

and ticketed for speeding. Since there were many other cars around me that were going as fast as I was, the police officer clearly treated me unfairly.

Mary: You were not treated unfairly, since the police officer was obviously unable to stop all the drivers who were speeding. Everyone who was speeding at that time and place had an equal chance of being stopped.

Which one of the following principles, if established, would most help to justify Mary's position?

- (A) If all those who violate a traffic law on a particular occasion are equally likely to be penalized for violating it, then the law is fairly applied to whoever among them is then penalized.
- (B) The penalties attached to traffic laws should be applied not as punishments for breaking the law but rather as deterrents to unsafe driving.
- (C) The penalties attached to traffic laws should be imposed on all people who violate those laws, and only those people.
- (D) It is fairer not to enforce a traffic law at all than it is to enforce it in some, but not all, of the cases to which it applies.
- (E) Fairness in the application of a traffic law is ensured not by all violator's having an equal chance of being penalized for their violation of the law, but rather by penalizing all known violators to the same extent.

6. A purse containing 32 ancient gold coins that had been minted in Morocco was discovered in the ruins of an ancient Jordanian city some 4,000 kilometers to the east of Morocco. In its time the Jordanian city was an important trading center along the trade route linking China and Europe, and it was also a popular stopover for pilgrims on the route between Morocco and Mecca. The purse of a trader in the city would probably have contained a more diverse set of coins.

The statements above, if true, most strongly support which one of the following hypotheses?

- (A) Moroccan coins were more valuable in the ancient city than were Jordanian coins.
- (B) Most gold coins available during the time when the ancient city thrived were minted in Morocco.
- (C) The purse with the gold coins had been brought to the ancient city by a pilgrim on the route between Morocco and Mecca.
- (D) Gold coins were the only medium of exchange used in the ancient city.
- (E) Pilgrims and traders in the ancient city were unlikely to have interacted with one another.

7. Studies indicate that the rate at which water pollution is increasing is leveling off: the amount of water pollution caused this year is almost identical to the amount caused last year. If this trend continues, the water pollution problem will no longer be getting more serious.

The reasoning is questionable because it ignores the possibility that

- (A) some types of water pollution have no noticeable effect on organisms that use the water
  - (B) the types of water pollution caused this year are less dangerous than those caused last year
  - (C) the leveling-off trend of water pollution will not continue
  - (D) air and soil pollution are becoming more serious
  - (E) the effects of water pollution are cumulative
8. One researcher writes, "Human beings are innately aggressive." As evidence, the researcher cites the prevalence of warfare in history and then discounts any current disinclination to fight: "The most peaceable peoples of today were often ravagers of yesteryear and will probably fight again in the future." But if some peoples are peaceable now, then aggression itself cannot be coded in our genes, only the potential for it. If "innate" only means *possible*, or *even likely in certain environments*, then everything we do is innate and the word has no meaning.
- Which one of the following most accurately describes the technique used in the passage to weaken the argument for the claim that aggressiveness is innate to human beings?
- (A) The accuracy of the historical data cited in the argument for innate aggressiveness is called into question.
  - (B) The force of the concept of innateness used in the argument for innate aggressiveness is called into question.
  - (C) An attempt is made to undermine the argument for innate aggressiveness by arguing that there are no genetically based traits.
  - (D) An attempt is made to undermine the argument for innate aggressiveness by suggesting that it appeals to emotional considerations rather than to reason.
  - (E) An attempt is made to undermine the argument for innate aggressiveness by arguing that all peoples are peaceable.

Questions 9-10

If a person chooses to walk rather than drive, there is one less vehicle emitting pollution into the air than there would be otherwise. Therefore if people would walk whenever it is feasible for them to do so, then pollution will be greatly reduced.

9. Which one of the following is an assumption on which the argument depends?
- (A) Cutting down on pollution can be achieved in a variety of ways.
  - (B) Taking public transportation rather than driving is not always feasible.
  - (C) Walking is the only feasible alternative to driving that results in a reduction in pollution.
  - (D) There are people who never drive but who prefer walk.
  - (E) People sometimes drive when it is feasible to walk instead.
10. Which one of the following, if true, most strengthen the argument?

- (A) If automobile passengers who never drive walk instead of ride, there will be fewer vehicles on the road as a result.
- (B) Nonmoving running vehicles, on average, emit half as much pollution per second as moving vehicles, but the greater congestion is, the more nonmoving running vehicles there are.
- (C) Since different vehicles can pollute at different rates, it is possible for one driver who walks to make a greater contribution to pollution prevention than another driver who walks.
- (D) On average, buses pollute more than cars do, but buses usually carry more passengers than cars do.
- (E) Those who previously rode as passengers in a vehicle whose driver decides to walk instead of drive might themselves decide to drive.
11. Editorial: The most vocal proponents of the proposed law are not permanent residents of this island but rather a few of the wealthiest summer residents, who leave when the vacation months have passed. These people will benefit from passage of this law while not having to deal with the problems associated with its adoption. Therefore, anyone who supports the proposed law is serving only the interests of a few outsiders at the cost of creating problems for the island's permanent residents.
- Which one of the following is an assumption on which the argument depends?
- (A) The average income of the island's summer residents is greater than the average income of its permanent residents.
- (B) The problems associated with this law outweigh any benefit it might provide the island's permanent residents.
- (C) Most of the island's summer residents would benefit from passage of this law.
- (D) Most of the island's summer residents support passage of this law.
- (E) Most of the island's permanent residents oppose passage of this law.
12. Vitamin XYZ has long been a favorite among health food enthusiasts. In a recent large study, those who took large amounts of vitamin XYZ daily for two years showed on average a 40 percent lower risk of heart disease than did members of a control groups. Researchers corrected for differences in relevant health habits, such as diet.
- Which one of the following inference is most supported by the passage?
- (A) Taking large amount of vitamins is probably worth risking the side effects.
- (B) Those who take large doses of vitamin XYZ daily for the next two years will exhibit on average an increase in the likelihood of avoiding heart disease.
- (C) Li, who has taken large amounts of vitamin XYZ daily for the past two years, has a 40 percent lower risk.
- (D) Taking large amounts of vitamin XYZ daily over the course of one's adult



life should be recommended to most adults.

(E) Health food enthusiasts are probably correct in believing that large daily doses of multiple vitamins promote good health.

13. In 1988, a significant percentage of seals in the Baltic Sea died from viral disease: off the coast of Scotland, however, the death rate due to viral diseases was approximately half what it was for the Baltic seals. The Baltic seals had significantly higher levels of pollutants in their blood than did the Scottish seals. Since pollutants are known to impair marine mammal's ability to fight off viral infection, it is likely that the higher death rate among the Baltic seals was due to the higher levels of pollutants in their blood.

Which one of the following, if true, provides the most additional support for the argument?

- (A) The large majority of Scottish seals that died were either old or unhealthy animals.
- (B) The strain of virus that killed Scottish seals overwhelms impaired immune systems much more quickly than it does healthy immune systems.
- (C) There were slight fluctuations in the levels of pollutants found in the blood of Baltic seals.
- (D) The kinds of pollutants found in the Baltic Sea are significantly different from those that have been detected in the waters off the coast of Scotland.
- (E) Among marine mammals other than seals, the death rate due to viral diseases in 1988 was higher in the Baltic Sea than it was off the Scottish coast.

14. If the proposed tax reduction package is adopted this year, the library will be forced to discontinue its daily story hours for children. But if the daily story hours are discontinued, many parents will be greatly inconvenienced. So the proposed tax reduction package will not be adopted this year.

Which one of the following, if assumed, allows the argument's conclusion to be properly drawn?

- (A) Any tax reduction package that will not force the library to discontinue daily story hours will be adopted this year.
- (B) Every tax reduction package that would force the library to discontinue daily story hours would greatly inconvenience parents.
- (C) No tax reduction package that would greatly inconvenience parents would fail to force the library to discontinue daily story hours.
- (D) No tax reduction package that would greatly inconvenience parents will be adopted this year.
- (E) Any tax reduction package that will not greatly inconvenience parents will be adopted this year.

15. Funding opponent: Some people favor city funding for the spaying and neutering of pets at the owners' request. They claim that the decrease in the number of stray

animals to contend with will offset the costs of the funding. These people fail to realize that over 80 percent of pet owners already pay to spay or neuter their animals, so there will not be a significant decrease in the number of stray animals in the city if funding is provided.

Each of the following, if true, strengthens the argument of the funding opponent EXCEPT:

- (A) Very few of the stray animals in the city are offspring of pets.
  - (B) Many pet owners would have their animals spayed or neutered sooner if funding were provided by the city.
  - (C) The only way the number of stray animals can decrease is if existing strays are spayed or neutered.
  - (D) Most people owners who do not have their pets spayed or neutered believed that spaying and neutering are morally wrong.
  - (E) The majority of pets that are not spayed or neutered are used for breeding purposes, and are not likely to produce stray animals.
16. Research indicates that college professors generally were raised in economically advantaged households. For it was discovered that, overall, college professors grew up in communities with average household incomes that were higher than the average household income for the nation as a whole.
- The reasoning in the argument is flawed because the argument:
- (A) inappropriately assumes a correlation between household income and economic advantage
  - (B) fails to note there are some communities with high average household incomes in which no college professors grew up
  - (C) presumes without justification that college professors generally were raised in households with incomes that are average or above average for their communities
  - (D) does not take into account the fact that college professors generally have lower salaries than their counterparts in the private sector
  - (E) fails to take into account the fact that many college professors live in rural communities which generally have low average household incomes
17. Magazine article: Punishment for crimes is justified if it actually deters people from committing them. But a great deal of carefully assembled and analyzed empirical data show clearly that punishment is not a deterrent. So punishment is never justified.

The reasoning in the magazine article's argument is flawed because the argument

- (A) depends on data that there is reason to suspect may be biased
- (B) mistakenly allows the key term "punishment" to shift in meaning
- (C) mistakes being sufficient to justify punishment for being required to justify it
- (D) ignores the problem of mistakenly punishing the innocent

(E) attempts to be more precise than its subject matter properly allows

18. If the recording now playing on the jazz program is really “Louis Armstrong recorded in concert in 1989,” as the announcer said, then Louis Armstrong was playing some of the best jazz of his career years after his death. Since the trumpeter was definitely Louis Armstrong, somehow the announcer must have gotten the date of the recording wrong.

The patten of reasoning in the argument above is most similar to that in which one of the following arguments?

- (A) The museum is reported as having acquired a painting “by Malvina Hoffman, an artist who died in 1966.” But Hoffman was sculptor, not a painter, so the report must be wrong about the acquisition being a painting.
- (B) This painting titled *La Toilette* is Berthe Morisot’s *La Toilette* only if a painting can be in two museums at the same time. Since nothing can be in two places at once, this painting must somehow have been mistitled.
- (C) Only if a twentieth-century Mexican artist painted in Japan during the seventeenth century can this work both be “by Frida Kahlo” as labeled and the seventeenth century Japanese landscape it appears to be. Since it is what it appears to be, the label is wrong.
- (D) Unless Kathe Kollwitz was both a sculptor and a printmaker, the volunteer museum guide is wrong in his attribution of this sculpture. Since what Kollwitz is known for is her prints, the guide must be wrong.
- (E) If this painting is a portrait done in acrylic, it cannot be by Elisabeth Vigee-Lebrun, since acrylic paint was developed only after her death. Thus, since it is definitely a portrait, the paint must not be acrylic.
19. When a stone is trimmed by a mason and exposed to the elements, a coating of clay and other minerals, called rock varnish gradually accumulates on the freshly trimmed surface. Organic matter trapped beneath the varnish on stones of an Andean monument was found to be over 1000 years old. Since the organic matter must have grown on the stone shortly after it was trimmed, it follows that the monument was built long before the arrival of Europeans in the Americas in 1492.

Which one of the following, if true, most seriously weakens the argument?

- (A) Rock varnish itself contains some organic matter.
- (B) The reuse of ancient trimmed stones was common in the Andes both before and after 1492.
- (C) The Andean monument bears striking resemblance to monuments found in ancient sites in western Asia.
- (D) The earliest written reference to the Andean monuments dates from 1778.
- (E) Rock varnish forms very slowly, if at all, on trimmed stones that stored in a dry, sheltered place.

20. Legal rules are expressed in general terms. They concern classification of persons and actions and they prescribe legal consequences for persons and actions falling into the relevant categories. The application of a rule to a particular case, therefore, involves a decision on whether the facts of that case fall within the categories mentioned in the rule. This decision establishes the legal effect of what happened rather than any matter of fact.

The passage provides the most support for which one of the following?

- (A) Legal rules, like matters of fact, are concerned with classifications of things such as actions.
- (B) Matters of fact, like legal rules, can sometimes be expressed in general terms.
- (C) Making a legal decision does not involve matters of fact.
- (D) The application of a rule to a particular case need not be left to a judge.
- (E) Whether the facts of a case fall into a relevant category is not itself a matter of fact.

Questions 21-22

Helen: It was wrong of my brother Mark to tell our mother that the reason he had missed her birthday party the evening before was that he had been in a traffic accident and that by the time he was released from the hospital emergency room the party was long over. Saying something that is false can never be other than morally wrong, and there had been no such accident—Mark had simply forgotten all about the party.

21. The main conclusion drawn in Helen's argument is that
- (A) Mark did not tell his mother the truth
  - (B) the real reason Mark missed his mother's birthday party was that he had forgotten all about it
  - (C) it is wrong to attempt to avoid blame for one's failure to do something by claiming that one was prevented from doing that thing by events outside one's control
  - (D) it was wrong of Mark to tell his mother that he had missed her birthday party as a result of having been in a traffic accident
  - (E) it is always wrong not to tell the truth
22. The justification Helen offers for her judgment of Mark's behavior is most vulnerable to criticism on the grounds that the justification
- (A) ignores an important moral distinction between saying something that is false and failing to say something that one knows to be true
  - (B) confuses having identified one cause of a given effect with having eliminated the possibility of there being any other causes of that effect
  - (C) judges behavior that is outside an individual's control according to moral standards that can properly be applied only to behavior that is within such control

- (D) relies on an illegitimate appeal to pity to obscure the fact that the conclusion does not logically follow from the premises advanced
- (E) attempts to justify a judgment about a particular case by citing a general principle that stands in far greater need of support than does the particular judgment

23. Candidate: The government spends \$500 million more each year promoting highway safety than it spends combating cigarette smoking. But each year many more people die from smoking-related diseases than die in highway accidents. So the government would save lives by shifting funds from highway safety programs to antismoking programs.

The flawed reasoning in which one of the following arguments most closely parallels the flawed reasoning in the candidate's argument?

- (A) The government enforces the speed limit on freeways much more closely than on tollways. But many more people die each year in auto accidents on freeways than die in auto accidents on tollways. So the government would save lives by shifting funds from enforcement of speed limits on freeways to enforcement of speed limits on tollways.
  - (B) A certain professional musician spends several times as many hours practicing guitar as she spends practicing saxophone. But she is hired much more often to play saxophone than to play guitar, so she would increase her number of playing engagements by spending less time practicing guitar and more time practicing saxophone.
  - (C) Automobiles burn more gas per minute on highways than on residential streets. But they get fewer miles per gallon on residential streets. Therefore, gas would be saved by driving less on residential streets and more on highways.
  - (D) The local swim team spends many more hours practicing the backstroke than it spends practicing the breaststroke. But the team's lap times for the breaststroke are much better than its times for the backstroke, so the team would win more swim meets if it spent less time practicing the backstroke and more time practicing the breaststroke.
  - (E) Banks have a higher profit margin on loans that have a high interest rate than on loans that have a low interest rate. But borrowers are willing to borrow larger sums at low rates than at high rates. Therefore, banks would be more profitable if they gave more loans on low rates and fewer loans at high rates.
24. A person's failure to keep a promise is wrong only if, first, doing so harms the one to whom the promise is made and, second, all of those who discover the failure to keep the promise lose confidence in the person's ability to keep promises.

Which one of the following judgments most closely conforms to the principle above?

- (A) Ann kept her promise to repay Felicia the money she owed her. Further, this



convinced everyone who knew Ann that she is trustworthy. Thus, Ann's keeping her promise was not wrong.

- (B) Jonathan took an oath of secrecy concerning the corporation's technical secrets, but he sold them to a competitor. His action was wrong even though the corporation intended that he leak these secrets to its competitors.
- (C) George promised to repay Reiko the money he owed her. However, George was unable to keep his promise to Reiko and as a result, Reiko suffered a serious financial loss. Thus, George's failure to keep his promise was wrong.
- (D) Because he lost his job, Carlo was unable to repay the money he promised to Miriam. However, Miriam did not need this money nor did she lose confidence in Carlo's ability to keep promises. So, Carlo's failure to keep his promise to Miriam was not wrong.
- (E) Elizabeth promised to return the book she borrowed from Steven within a week. But she was unable to do so because she became acutely ill. Not knowing this, Steven lost confidence in her ability to keep a promise. So, Elizabeth's failure to return the book to Steven was wrong.

25. The end of an action is the intended outcome of the action and not a mere by-product of the action, and the end's value is thus the only reason for the action. So while it is true that not every end's value will justify any means, and even, perhaps, that there is no end whose value will justify every means, it is clear that nothing will justify a means except an end's value.

Which one of the following most accurately expresses the main conclusion of the argument?

- (A) The value of some ends may justify any means.
- (B) One can always justify a given action by appeal to the value of its intended outcome.
- (C) One can justify an action only by appeal to the value of its intended outcome.
- (D) Only the value of the by-products of an action can justify that action.
- (E) Nothing can justify the intended outcome of an action except the value of that action's actual outcomes.

## TEST 27

### SECTION II

Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Psychiatrist: We are learning that neurochemical imbalances can cause behavior ranging from extreme mental illness to less serious but irritating behavior such as obsessive fantasizing, petulance, or embarrassment. These findings will promote

compassion and tolerance when looking at a mental illness, quirk, or mere difference between two persons, since being mentally healthy can now begin to be seen as simply having the same neurochemical balances as most people.

Which one of the following most accurately expresses the conclusion of the psychiatrist's argument?

- (A) Understanding the role of the neurochemical in behavior will foster empathy toward others.
- (B) Neurochemical imbalances can cause mental illness and other behaviors.
- (C) Neurochemical balances and imbalances are the main determinants of mental behavior.
- (D) Being mentally healthy is a matter of having the same neurochemical balances as most people.
- (E) Advances in neurochemistry enhance our theories of mental illness.

2. No one wants this job as much as Joshua does, but he is not applying for it. It follows that there will not be any applicants no matter how high the salary that is being offered.

The flawed reasoning in the argument above most closely parallels that in which one of the following?

- (A) Beth knows better than anyone else how to spot errors in a computer program, yet even she has not found any in this program so far. So it is clear that the errors must all be in the rest of the program.
- (B) If anyone can decipher this inscription, it is Professor Alvarez, but she is so involved with her new research that it will be impossible to interest her in this sort of task. Therefore, all we can do now is hope to find someone else.
- (C) Although he has the strongest motive of anyone for buying Anna's plot of land, Manfred is not pursuing the matter. Therefore, regardless of how low a price Anna is prepared to accept, she will be looking for a buyer in vain.
- (D) The person initially most interested in obtaining the contract was Mr. Moore, but he of all people suddenly withdrew his bid. This means that, no matter how discouraged the other bidders had been, they will now redouble their efforts.
- (E) Three times Paul would have liked to take advantage of a special vacation package for himself and his family, but each time he was indispensable at the factory just then. So the more seniority Paul acquires, the greater are the constraints on his personal life.

3. Many people limit the intake of calories and cholesterol in their diet in order to lose weight and reduce the level of cholesterol in their blood. When a person loses weight, the fat cells in that person's body decrease in size but not in number. As they decrease in size, fat cells spill the cholesterol they contain into the bloodstream. Therefore, a person who goes on a low-calorie, low-cholesterol diet\_\_\_\_\_

Which one of the following most logically completes the argument?

- (A) might at first have an increased level of cholesterol in his or her blood
- (B) will not lose weight any faster than will a person whose diet is high in calories
- (C) might lose more weight by going on a low-calorie, high-cholesterol diet than by going on the low-calorie, low-cholesterol diet
- (D) will not decrease the size of his or her fat cells
- (E) will both decrease the level of cholesterol in his or her blood and gain weight

Questions 4-5

Advances in photocopying technology allow criminals with no printing expertise to counterfeit paper currency. One standard anticounterfeiting technique, microprinting, prints paper currency with tiny designs that cannot be photocopied distinctly. Although counterfeits of microprinted currency can be detected easily by experts, such counterfeits often circulate widely before being detected. An alternative, though more costly, printing technique would print currency with a special ink. Currency printed with the ink would change color depending in how ordinary light strikes it, whereas photocopied counterfeits of such currency would not. Because this technique would allow anyone to detect photocopied counterfeit currency easily, it should be adopted instead of microprinting, despite the expense.

4. Which one of the following, if true, provides the most support for the recommendation made by the argument?
- (A) When an anticounterfeiting technique depends on the detection of counterfeits by experts, the cost of inspection by experts adds significantly to the cost to society of that technique.
  - (B) For any anticounterfeiting technique to be effective, the existence of anticounterfeiting techniques should be widely broadcast, but the method by which counterfeits are detected should be kept secret.
  - (C) The process of microprinting paper currency involves fewer steps than does the printing of paper currency with the special ink.
  - (D) Before photocopying technology existed, most counterfeits of paper currency were accomplished by master engravers.
  - (E) Many criminals do not have access to the advanced photocopiers that are needed to produce counterfeits of microprinted paper currency that cashiers will accept as real.
5. Which one of the following, if true, most seriously undermines the argument?
- (A) The longer the interval between the time a counterfeit bill passes into circulation and the time the counterfeit is detected, the more difficult it is for law enforcement of officials to apprehend the counterfeiter.
  - (B) Sophisticated counterfeiters could produce currency printed with the special ink but cannot duplicate microprinted currency exactly.

- (C) Further advances in photocopying technology will dramatically increase the level of detail that photocopies can reproduce.
- (D) The largest quantities of counterfeit currency now entering circulation are produced by ordinary criminals who engage in counterfeiting only briefly.
- (E) It is very difficult to make accurate estimates of what the costs to society would be if large amounts of counterfeit currency circulated widely.

6. One test to determine whether a person has been infected with tuberculosis consists of injecting the person with proteins extracted from the tuberculosis bacterium. Once a person has been infected by a bacterium, the person's immune system subsequently recognizes certain proteins present in that bacterium and attacks the bacterium. This recognition also takes place in the test and results in a skin irritation at the injection site. Hence the physicians who designed the test reasoned that anyone who reacts in this manner to an injection with the tuberculosis proteins has been infected with tuberculosis.

Which one of the following is an assumption on which the physicians' reasoning depends?

- (A) All of the proteins present in disease-causing bacteria can be recognized by the body's immune system.
- (B) Localized skin irritations are a characteristic symptom of tuberculosis in most people.
- (C) The ability of the proteins present in the tuberculosis bacterium to trigger the skin irritation is exclusive to that bacterium.
- (D) Some people who have been injected with proteins extracted from the tuberculosis bacterium will contract tuberculosis as a result of the injection.
- (E) The body's immune system cannot recognize infectious bacteria unless there are sufficient quantities of the bacteria to cause overt symptoms of disease.

7. Generations of European-history students have been taught that a political assassination caused the First World War. Without some qualification, however, this teaching is bound to mislead, since the war would not have happened without the treaties and alliances that were already in effect and the military force that was already amassed. These were the deeper causes of the war, whereas the assassination was a cause only in a trivial sense. It was like the individual spark that happens to ignite a conflagration that was, in the prevailing conditions, inevitable.

Which one of the following most accurately restates the main point of the passage?

- (A) The assassination did not cause the war, since the assassination was only the last in a chain of events leading up to the war, each of which had equal claim to being called its "cause."
- (B) The war was destined to happen, since the course of history up to that point could not have been altered.

- (C) Though the statement that the assassination caused the war is true, the term “cause” more fundamentally applies to the conditions that made it possible for that event to start the war.
- (D) If the assassination had occurred when it did but less military force had at that time been amassed, then the war’s outbreak might have been considerably delayed or the war might not have occurred at all.
- (E) Although the conditions prevailing at the time the war started made war inevitable, if the war had not been triggered by the assassination it would not have taken the course with which students of history are familiar.
8. Toddlers are not being malicious when they bite people. For example, a child may want a toy, and feel that the person he or she bites is preventing him or her from having it.
- The situation as described above most closely conforms to which one of the following generalizations?
- (A) Biting people is sometimes a way for toddlers to try to solve problems.
- (B) Toddlers sometimes engage in biting people in order to get attention from adults.
- (C) Toddlers mistakenly believe that biting people is viewed as acceptable behavior by adults.
- (D) Toddlers do not recognize that by biting people they often thwart their own ends.
- (E) Resorting to biting people is in some cases an effective way for toddlers to get what they want.
9. Consumer advocate: Last year’s worldwide alarm about a computer “virus”—a surreptitiously introduced computer program that can destroy other programs and data—was a fraud. Companies selling programs to protect computers against such viruses raised worldwide concern about the possibility that a destructive virus would be activated on a certain date. There was more smoke than fire, however, only about a thousand cases of damage were reported around the world. Multitudes of antivirus programs were sold, so the companies’ warning was clearly only an effort to stimulate sales.
- The reasoning in the consumer advocate’s argument is flawed because this argument
- (A) restates its conclusion without attempting to offer a reason to accept it
- (B) fails to acknowledge that antivirus programs might protect against viruses other than the particular one described
- (C) asserts that the occurrence of one event after another shows that the earlier event was the cause of the later one
- (D) used inflammatory language as a substitute for providing any evidence
- (E) overlooks the possibility that the protective steps taken did work and, for many computer, prevented the virus from causing damage



10. Insects can see ultraviolet light and are known to identify important food sources and mating sites by sensing the characteristic patterns of ultraviolet light that these things reflect. Insects are also attracted to *Glomosis* spiderwebs, which reflect ultraviolet light. Thus, insects are probably attracted to these webs because of the specific patterns of ultraviolet light that these webs reflect.

Which one of the following, if true, most strongly supports the argument?

- (A) When webs of many different species of spider were illuminated with a uniform source of white light containing an ultraviolet component, many of these webs did not reflect the ultraviolet light.
  - (B) When the silks of spiders that spin silk only for lining burrows and covering eggs were illuminated with white light containing an ultraviolet component, the silks of these spiders reflected ultraviolet light.
  - (C) When webs of the comparatively recently evolved common garden spider were illuminated with white light containing an ultraviolet component, only certain portions of these webs reflected ultraviolet light.
  - (D) When *Drosophila* fruit flies were placed before a *Glomosis* web and a synthetic web of similar pattern that also reflected ultraviolet light and both webs were illuminated with white light containing an ultraviolet component, many of the fruit flies flew to the *Glomosis* web.
  - (E) When *Drosophila* fruit flies were placed before two *Glomosis* webs, one illuminated with white light containing an ultraviolet component and one illuminated with white light without an ultraviolet component, the majority flew to the ultraviolet reflecting web.
11. The Habitat Conservation Plan (HCP) is based on a law that allows developers to use land inhabited by endangered species in exchange for a promise to preserve critical habitat or provide replacement land nearby. Some individuals of endangered species are lost in return for assurances by the owner or developer that habitat for those remaining animals will be protected. Environmentalists are pleased that HCPs allowed them to win concessions from developers who would otherwise ignore rarely enforced environmental laws. Satisfied property owners prefer HCPs to more restrictive prohibitions of land use.

The situation described above most closely conforms to which one of the following principles?

- (A) In order to avoid protracted legal battles environmentalists should compromise with developers.
- (B) Developers should adhere only to those environmental laws that are not overburdensome.
- (C) Laws should not be designed to serve the interests of all the parties concerned since they are often so weak that no one's interest is served well.
- (D) Laws should be fashioned in such a way as to reconcile the interests of developers and environmentalists.

- (E) The most effective means of preserving endangered species is to refrain from alienating property owners.
12. It has long been thought that lizards evolved from a group of amphibians called anthracosaurs, no fossils of which have been found in any rocks older than 300 million years. However, a fossil of a lizard was recently found that is estimated to be 340 million years old. Lizards could not have evolved from creatures that did not exist until after the first lizards. Therefore, lizards did not have evolved from anthracosaurs.
- An assumption made in the argument is that there are no
- (A) unknown anthracosaur fossils older than 340 million years
  - (B) unknown lizard fossils older than 340 million years
  - (C) known lizard fossils that predate some anthracosaur fossils
  - (D) known anthracosaur fossils that predate some lizard fossils
  - (E) known lizard fossils whose age is uncertain

Questions 13-14

Numismatist: In medieval Spain, most gold coins were minted from gold mined in West Africa, in the area that is now Senegal. The gold mined in this region was the purest known. Its gold content of 92 percent allowed coins to be minted without refining the gold, and indeed coins minted from this source of gold can be recognized because they have that gold content. The mints could refine gold and produced other kinds of coins that had much purer gold content, but the Senegalese gold was never refined.

13. Which one of the following inferences about gold coins minted in medieval Spain is most strongly supported by the information the numismatist gives?
- (A) Coins minted from Senegalese gold all contained the same weight, as well as the same proportion of gold.
  - (B) The source of some refined gold from which coins were minted was unrefined gold with a gold content of less than 92 percent.
  - (C) Two coins could have the same monetary value even though they differed from each other in the percentage of gold they contained.
  - (D) No gold coins were minted that had a gold content of less than 92 percent.
  - (E) The only unrefined gold from which coins could be minted was Senegalese gold.
14. As a preliminary to negotiating prices, merchants selling goods often specified that payment should be in the coins minted from Senegalese gold. Which one of the following, if true, most helps to explain this preference?
- (A) Because refined gold varied considerably in purity, specifying a price as a number of refined-gold coins did not fix the quantity of gold received in payment.

- (B) During this period most day-to-day trading was conducted using silver coins, though gold coins were used for costly transactions and long-distance commerce.
- (C) The mints were able to determine the purity, and hence the value, of gold coins by measuring their density.
- (D) Since gold coins' monetary value rested on the gold they contained, payments were frequently made using coins minted in several different countries.
- (E) Merchants obtaining gold to resell for use in jewelry could not sell the metal unless it was first refined.
15. Some plants have extremely sensitive biological thermometers. For example, the leaves of rhododendrons curl when the temperature of the air around them is below  $0^{\circ}\text{C}$  (Celsius). Similarly, mature crocus blossoms open in temperatures above  $2^{\circ}\text{C}$ . So someone who simultaneously observed rhododendrons with uncurled leaves, crocuses with mature but unopened blossoms, and a thermometer showing  $1^{\circ}\text{C}$  could determine that the thermometer's reading was accurate to within plus or minus  $1^{\circ}\text{C}$ .
- Which one of the following, if true, most seriously undermines the reasoning above?
- (A) Neither rhododendrons nor crocuses bloom for more than a few weeks each year, and the blossoms of rhododendrons growing in any area do not appear until at least several weeks after crocuses growing in that area have ceased to bloom.
- (B) Many people find it unpleasant to be outdoors for long periods when the temperature is at or about  $1^{\circ}\text{C}$ .
- (C) The climate and soil conditions that favor the growth of rhododendrons are also favorable to the growth of crocuses.
- (D) Air temperature surrounding rhododendrons, which can grow 12 feet tall, is likely to differ from air temperature surrounding crocuses, which are normally only a few inches high, by more than  $1^{\circ}\text{C}$ , even if the two plants are growing side by side.
- (E) Certain types of thermometers that are commonly used to measure outdoor temperatures can be extremely accurate in moderate temperature ranges but much less accurate in warmer or colder temperature range.
16. Political scientist: The dissemination of political theories is in principle able to cause change in existing social structures. However, all political theories are formulated in the educationally privileged setting of the university, leading to convoluted language that is alienating to many individuals outside academia who would be important agents of change. It follows that, with respect to political theory, there is a special role for those outside the university context to render it into accessible, clear language.

Which one of the following is an assumption on which the argument depends?

- (A) Persons outside academic settings are the most important agents of change to the social structure.
- (B) Persons within academic settings who formulate political theories attempt to change existing social structure.
- (C) Persons outside academic settings are better left out of the initial formulation of political theories.
- (D) Persons outside academic settings stand to gain more from the dissemination of political theories than persons inside.
- (E) Persons within academic settings are less willing or less able than persons outside to write in a straightforward way.

17. Nicotine has long been known to cause heart attacks and high blood pressure. Yet a recent study has shown that the incidence of heart attacks and high blood pressure is significantly higher among cigarette smokers who do not chew tobacco than among nonsmokers exposed to an equal amount of nicotine through tobacco chewing.

Which one of the following, if true, helps LEAST to resolve the apparent discrepancy described above?

- (A) People who smoke but do not chew tobacco tend to exercise less than those who chew tobacco but do not smoke.
- (B) Chemicals other than nicotine present in chewing tobacco but not present in cigarette smoke mitigate the effects that nicotine has on the cardiovascular system.
- (C) People who chew tobacco but do not smoke tend to have healthier diets than those who smoke but do not chew tobacco.
- (D) Chemicals other than nicotine present in chewing tobacco but not present in cigarette smoke can cause cancer.
- (E) Chemicals other than nicotine present in cigarette smoke but not present in chewing tobacco raise blood pressure.

18. President of Central Supply Company: Profits are at an all-time low this fiscal year because of decreased demand for our products. If this situation continues, the company may have to declare bankruptcy. So it is important to prevent any further decrease in profits. Consequently, the only options are to reduce planned expansion or to eliminate some less profitable existing operations.

Which one of the following most accurately describes a flaw in the company president's reasoning?

- (A) It presumes without giving justification that survival of the company has been a good thing.
- (B) It does not take into account that there are alternatives to declaring the bankruptcy.

- (C) It presumes without giving justification that only decreased demand can ever be the cause of decreased profits.
- (D) It does not allow for the possibility that profits will decrease only slightly during the next fiscal year.
- (E) It does not take into account that there may be other ways to stop the decrease in profits.

19. In all mammalian species, the period of a young mammal's life in which it is most frequently playful coincides with the periods of most rapid growth of the neural connections in the mammal's brain that give rise to various complex patterns of movement, posture, and social response. Indeed, the neural connections created by frequent play during this period later become indispensable for the mammal's survival and well-being as an adult.

The statements above, if true, serve LEAST well as evidence for which one of the following?

- (A) Young mammals of species that are preyed on by other animals are likely to engage in forms of sudden mock flight, bolting away from locations where no predators are to be found.
  - (B) The young predators of nonmammalian species such as fish, reptiles, and birds do not normally engage in playful behavior that serves the function served by play in the development of young mammals.
  - (C) Adult mammals are more likely to engage in interactive play with their young if they engaged in similar forms of play when they themselves were young.
  - (D) Mammals that cannot engage in certain common forms of play when young are likely to show certain deficits that limit their subsequent success as adults.
  - (E) Young mammals of predatory species tend to practice in their play inoffensive versions of motions and actions that are useful in finding and catching prey when these mammals become adults.
20. Physicist: Determinism is the view that every event has a preceding cause sufficient for its occurrence. That is, if determinism is true, then the events that are presently occurring could not have failed to occur given the state of the universe a moment ago. Determinism, however, is false because it is impossible to know the complete state of the universe at any given time since it is impossible to measure accurately both the position and velocity of any given subatomic particle at a particular time.

The physicist's reasoning is most vulnerable to criticism on which one of the following grounds?

- (A) That it is impossible to measure accurately both the position and velocity of any given subatomic particle does not imply that it is impossible to know either the position or velocity of all subatomic particles.



- (B) That the complete state of the universe at any given time is unknowable does not imply that the states at that time of the individual subatomic particles making it up are unknowable.
- (C) That it is impossible to measure accurately both the position and velocity of any given subatomic particle at a particular time does not imply that its position or velocity cannot be accurately measured separately.
- (D) That it is impossible to know the complete state of the universe at any given time does not imply that there is no complete state of the universe at that time.
- (E) That the position and velocity of any given subatomic particle cannot be jointly measured with accuracy does not imply that this is the case for the position and velocity of all subatomic particles.
21. If this parking policy is unpopular with the faculty, then we should modify it. If it is unpopular among students, we should adopt a new policy. And, it is bound to be unpopular either with the faculty or among students.
- If the statements above are true, which one of the following must also be true?
- (A) We should attempt to popularize this parking policy among either the faculty or students.
- (B) We should modify this parking policy only if this will not reduce its popularity among students.
- (C) We should modify this parking policy if modification will not reduce its popularity with the faculty.
- (D) If this parking policy is popular among students, then we should adopt a new policy.
- (E) If this parking policy is popular with the faculty, then we should adopt a new policy.
22. It is absurd idea that whatever artistic endeavor the government refuses to support it does not allow, as one can see by rephrasing the statement to read: No one is allowed to create art without a government subsidy.
- The pattern of reasoning in which one of the following is most similar to that in the argument above?
- (A) The claim that any driver who is not arrested does not break the law is absurd, as one can see by rewording it: Every driver who breaks the law gets arrested.
- (B) The claim that any driver who is not arrested does not break the law is absurd, as one can see by rewording it: Every driver who gets arrested has broken the law.
- (C) The notion that every scientist who is supported by a government grant will be successful is absurd, as one can see by rewording it: No scientist who is successful is so without a government grant.
- (D) The notion that every scientist who is supported by a government grant will

be successful is absurd, as one can see by rewording it: No scientist lacking governmental support will be successful.

- (E) The notion that every scientist who has been supported by a government grant will be successful is absurd, as one can see by rewording it: No scientist is allowed to do research without a government grant.

23. Politician: Nobody can deny that homelessness is a problem, yet there seems to be little agreement on how to solve it. One thing, however, is clear: ignoring the problem will not make it go away. Only if the government steps in and provides the homeless with housing will this problem disappear, and this necessitates increased taxation. For this reason, we should raise taxes.

Which one of the following principles, if valid, most supports the politician's argument?

- (A) Only if a measure is required to solve a problem, should it be adopted.  
(B) Only if a measure is sufficient to solve a problem, should it be adopted.  
(C) If a measure is required to solve a problem, it should be adopted.  
(D) If a measure is sufficient to solve a problem, then it should be adopted.  
(E) If a measure is sufficient to solve a problem, any steps necessitated by that measure should be adopted.

24. Trade official: Country X deserves economic retribution for its protectionism. However, it is crucial that we recognize that there are overriding considerations in this case. We should still sell to X the agricultural equipment it ordered: there is high demand in our country for agricultural imports from X.

The argument depends on assuming which one of the following principles?

- (A) Agricultural components of international trade are more important than nonagricultural commodities.  
(B) The ability to keep popular products available domestically is less important than our being able to enter international market.  
(C) We should never jeopardize the interests of our people to punish a protectionist country.  
(D) In most cases, punishing a protectionist country should have priority over the interests of our people.  
(E) We should balance the justice of an action with the consequences for our interests of undertaking that action.

25. Jack's aunt gave him her will, asking him to make it public when she died; he promised to do so. After her death, Jack looked at the will: it stipulated that all her money go to her friend George. Jack knew that if he made the will public, George would squander the money benefiting neither George nor anyone else. Jack also knew that if he did not make the will public, the money would go to his own mother, who would use it to benefit herself and others, harming no one. After reflection, he decided not to make the will public.

Which one of the following principles, if valid, would require Jack to act as he did in the situation described?

- (A) Duties to family members take priority over duties to people who are not family members.
- (B) Violating a promise is impermissible whenever doing so would become known by others.
- (C) One must choose an alternative that benefits some and harms no one over an alternative that harms some and benefits no one.
- (D) When faced with alternatives it is obligatory to choose whichever one will benefit the greatest number of people.
- (E) A promise becomes nonbinding when the person to whom the promise was made is no longer living.

#### SECTION IV

**Time 35 minutes 26 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Taxpayer: For the last ten years, Metro City's bridge-maintenance budget of \$1 million annually has been a prime example of fiscal irresponsibility. In a well-run bridge program, the city would spend \$15 million a year on maintenance, which would prevent severe deterioration, thus limiting capital expenses for needed bridge reconstruction to \$10 million. However, as a result of its attempt to economize, the city is now faced with spending \$400 million over two years on emergency reconstruction of its bridges.

The main point of the taxpayer's argument is that Metro City

- (A) should have budgeted substantially more money for maintenance of its bridges
  - (B) would have had a well-run bridge program of it had spent more money for reconstruction of its bridges
  - (C) is spending more than it needs to on maintenance of its bridges
  - (D) is economizing on its bridge program to save money in case of emergencies
  - (E) has bridges that are more expensive to maintain than they were to build
2. Twenty professional income-tax advisors were given identical records from which to prepare an income-tax return. The advisors were not aware that they were dealing with fictitious records compiled by a financial magazine. No two of the completed tax returns agreed with each other, and only one was technically correct.

If the information above is correct, which one of the following conclusion can be properly drawn on the basis of it?

- (A) Only one out of every twenty income-tax returns prepared by any given professional income-tax advisor will be correct.

- (B) The fact that a tax return has been prepared by a professional income-tax advisor provides no guarantee that the tax return has been correctly prepared.
- (C) In order to ensure that tax returns are correct, it is necessary to hire professional income-tax advisor to prepare them.
- (D) All professional income-tax advisors make mistakes on at least some of the tax returns they prepare.
- (E) People are more likely to have an incorrectly prepared tax return if they prepare their own tax returns than if they hire a professional income-tax advisor.
3. The manager of a nuclear power plant defended the claim that the plant was safe by revealing its rate of injury for current workers: only 3.2 injuries per 200,000 hours of work, a rate less than half the national average for all industrial plants. The manager claimed that, therefore, by the standard of how many injuries occur, the plant was safer than most other plants where the employees could work. Which one of the following, if true, most calls into question the manager's claim?
- (A) Workers at nuclear power plants are required to receive extra training in safety precautions on their own time and at their own expense.
- (B) Workers at nuclear power plants are required to report to the manager any cases of accidental exposure to radiation.
- (C) The exposure of the workers to radiation at nuclear power plants was within levels the government considers safe.
- (D) Workers at nuclear power plants have filed only a few lawsuits against the management concerning unsafe working conditions.
- (E) Medical problems arising from work at a nuclear power plant are unusual in that they are not likely to appear until after an employee has left employment at the plant.
4. Columnist: The country is presently debating legislation that, if passed, would force manufacturers to increase the number of paid vacation days for employees, to pay higher overtime wages, and to pay all day-care expenses for children of each employee. This legislation is being supported by members of groups that have resorted to violent tactics in the past, and by individuals who are facing indictment on tax-evasion charges. We must defeat this legislation and what it stands for.
- The columnist's argument is flawed because it
- (A) attack's legislation by calling into question the integrity of the originators of the legislation
- (B) assails legislation on the basis of the questionable character of supporters of the legislation
- (C) attempts to discredit legislation by appealing to public sentiment for those

who would be adversely affected

- (D) presupposes that legislation is bad legislation whenever it has only a small number of supporters outside the country's national legislative body
- (E) rejects legislation on the ground that its supporters are inconsistently in seeking to place burdens on manufacturers upon whose business success the supporters depend

5. If the ivory trade continues, experts believe, the elephant will soon become extinct in Africa, because poaching is rife in many areas. A total ban on ivory trading would probably prevent the extinction. However, the country of Zimbabwe—which has virtually eliminated poaching within its borders and which relies on income from carefully culling elephant herds that threaten to become too big—objects to such a ban. Zimbabwe holds that the problem lies not with the ivory trade but with the conservation policies of other countries.

Which one of the following principles forms a logical basis for Zimbabwe's objection to a ban?

- (A) International measures to correct a problem should not adversely affect countries that are not responsible for the problem.
  - (B) Freedom of trade is not a right but a consequence of agreements among nations.
  - (C) Respecting a country's sovereignty is more important than preventing the extinction of a species.
  - (D) Prohibitions affecting several countries should be enforced by a supranational agency.
  - (E) Effective conservation cannot be achieved without eliminating poaching.
6. The male sage grouse has air sacs that when not inflated, lie hidden beneath the grouse's neck feathers. During its spring courtship ritual, the male sage grouse inflates these air sacs and displays them to the female sage grouse. Some scientists hypothesize that this courtship ritual serves as a means for female sage grouse to select healthy mates.

Which one of the following, if true, most strongly supports the scientists' hypothesis?

- (A) Some female sage grouse mate with unhealthy male sage grouse.
- (B) When diseased male sage grouse were treated with antibiotics, they were not selected by female sage grouse during the courtship ritual.
- (C) Some healthy male sage grouse do not inflate their air sacs as part of the courtship ritual.
- (D) Male sage grouse are prone to parasitic infections that exhibit symptoms visible on the birds' air sacs.
- (E) The sage grouse is commonly afflicted with a strain of malaria that tends to change as the organism that causes it undergoes mutation.



7. Consumers will be hurt by the new lower ceiling on halibut catches. Given the law of supply and demand these restrictions are likely to result in an increase in the price of the fish.
- Which one of the following, if assumed, would do most to justify the claim that the price of halibut will increase?
- (A) The demand for halibut will not decrease substantially after the new restrictions are imposed.
  - (B) There is a connection between the supply of halibut and the demand for it.
  - (C) The lost production of halibut will not be replaced by increased production of other fish.
  - (D) The demand for other fish will be affected by the new restrictions.
  - (E) The amount of halibut consumed represents a very small proportion of all fish consumed.
8. Knowledge of an ancient language is essential for reading original ancient documents. Most ancient historical documents, however, have been translated into modern languages, so scholars of ancient history can read them for their research without learning ancient languages. Therefore, aspirants to careers as ancient history scholars no longer need to take the time to learn ancient languages.
- The argument is vulnerable to criticism on which one of the following grounds?
- (A) It concludes that something is never necessary on the grounds that it is not always necessary.
  - (B) A statement of fact is treated as if it were merely a statement of opinion.
  - (C) The conclusion is no more than a restatement of the evidence provides as support of that conclusion.
  - (D) The judgment of experts is applied to a matter in which their expertise is irrelevant.
  - (E) Some of the evidence presented in support of the conclusion is inconsistent with other evidences provided.

Questions 9-10

The Board of Trustees of the Federici Art Museum has decided to sell some works from its collection in order to raise the funds necessary to refurbish its galleries. Although this may seem like a drastic remedy, the curator had long maintained that among the paintings that the late Ms. Federici collected for the museum were several unsuccessful immature works by Renoir and Cezanne that should be sold because they are of inferior quality and so add nothing to the overall quality of the museum's collection. Hence, the board's action will not detract from the museum's collection.

9. The conclusion drawn depends on which one of the following assumption?
- (A) Art speculators are unable to distinguish an inferior painting by Renoir from a masterpiece by him.

- (B) All of the paintings that the board of trustee sells will be among those that the curator recommends selling.
- (C) All of the paintings by Renoir and Cezanne that are owned by the Federici Art Museum were purchased by Ms. Federici herself.
- (D) Only an avid collector of paintings by Cezanne would be willing to pay a high price for early works by this artist.
- (E) A great work of art can be truly appreciated only if it is displayed in a carefully designed and well-maintained gallery.
10. Which one of the following, if true, most weaken the argument?
- (A) The directors of an art museum can generally raise funds for refurbishing the building in which the museum's collection is housed by means other than selling parts of its collection.
- (B) The quality of an art collection is determined not just by the quality of its paintings, but by what development of the artistic talent and ideas of the artists represented.
- (C) The immature woks by Renoir and Cezanne that were purchased by Ms. Federici were at that time thought by some critics to be unimportant juvenile works.
- (D) Those people who speculate in art by purchasing artworks merely to sell them at much higher prices welcome inflation in the art market, but curators of art museum regret the inflation in the art market.
- (E) The best work of a great artist demands much higher prices in the art market than the worst work of that same artist.
11. Taken together, some 2,000 stocks recommended on a popular television show over the course of the past 12 years by the show's guests, most of whom are successful consultants for multibillion-dollar stock portfolios, performed less successfully than the market as a whole for this 12-year period. So clearly, no one should ever follow any recommendation by these so-called experts.
- Each of the following, if true, weakens the argument EXCEPT:
- (A) Taken together, the stocks recommended on the television show performed better than the market as a whole for the past year.
- (B) Taken together, the stocks recommended on the television show performed better for the past 12-year period than stock portfolios that were actually selected by any other means.
- (C) Performance of the stocks recommended on the television show was measured by stock dividends, whereas the performance of the market as a whole was measured by change in share value.
- (D) Performance of the stocks recommended on the television show was measured independently by a number of analysts, and the results of the all the measurements concurred.
- (E) The stock portfolios for which the guests were consultants performed better

for the past 12-year period than the market as a whole.

12. The school principal insisted that student failures are caused by bad teaching. In a relatively short time failing grades disappeared from the school. The principal happily recognized this as evidence that the teaching had improved at the school. The flawed pattern of reasoning in the above is most similar to that in which one of the following?
- (A) The nutritionist insisted that the weight gain that team members complained of was caused by overeating. In a brief time all the members stopped overeating. The nutritionist was pleased to conclude that they had stopped gaining weight.
  - (B) The manager insisted that the workers who filed complaints had too many difference tasks. The manager simplified the jobs, and complains stopped. The manager happily concluded that the working environment had been improved.
  - (C) The nutritionist insisted that the weight gain that team members complained of was merely in their imagination. Members were given weight charts for the last three months. The nutritionist was pleased to conclude that the complaints of weight gain had stopped.
  - (D) The manager insisted that the workers who filed complaints did not have enough to do. Soon there were no more complaints filed. The manager was pleased to conclude that the workers were now productively filling their time.
  - (E) The nutritionist insisted that the weight gain that team members complained of was cause by their thinking of food too often. The nutritionist was happy to conclude that the weight gain had stopped once the team members reported that they had stopped thinking of food so often.
13. Unlike other primroses, self-pollinating primroses do not need to rely on insects for pollination. In many years insect pollinators are scarce, and in those years a typical non-self-pollinating primrose produces fewer seeds than does a typical self-pollinating primrose. In other years, seed production is approximately equal. Thus, self-pollinating primroses have the advantage of higher average seed production. Aside from seed production, these self-pollinating primroses are indistinguishable from non-self-pollinating primroses. Nevertheless, self-pollinating primrose plants remain rare among primroses.
- Which one of the following, if true, most helps to resolve the apparent discrepancy in the information above?
- (A) Insects that collect pollen from primroses do not discriminate between self-pollinating primroses and non-self-pollinating primroses.
  - (B) When insect pollinators are scarce, non-self-pollinating primroses produce larger seeds that are more likely to germinate than are seeds from self-pollinating primroses.

- (C) Self-pollinating primroses that are located in areas with few insects produce no fewer seeds than do self-pollinating primroses that are located in areas with many insects.
- (D) Many primroses are located in areas in which the soil conditions that are optimal for seed germination are not present.
- (E) Self-pollinating primroses can be assisted by insects during pollination but do not require the assistance of insects to be pollinated.
14. We have a moral obligation not to destroy books, even if they belong to us. The reason is quite simple: If preserved, books will almost certainly contribute to the intellectual and emotional enrichment of future generations.
- Which one of the following most accurately expresses the principle underlying the argument?
- (A) It is morally incumbent upon us to devote effort to performing actions that have at least some chance of improving other people's lives.
- (B) We are morally obligated to preserve anything that past generations had preserved for our intellectual and emotional enrichment.
- (C) The moral commitments we have to future generations supersede the moral commitments we have to the present generation.
- (D) We are morally obligated not to destroy anything that will most likely enrich, either intellectually or emotionally, our posterity.
- (E) Being morally obligated not to destroy something requires that we be reasonably assured that that thing will lead to the betterment of someone we know.
15. The southern half of a certain region of the earth was covered entirely by water during the Cretaceous period, the last 75 million years of the Mesozoic era, the era when dinosaurs roamed the earth. Dinosaurs lived only on land. Thus, Plesiosaurs—swimming reptile that lived during the Cretaceous period exclusively—were not dinosaurs. No single species of dinosaur lived throughout the entire Mesozoic era.
- If the statements in the passage are true, each of the following could be true EXCEPT:
- (A) Dinosaurs inhabited the northern half of the region throughout the entire Mesozoic era.
- (B) Plesiosaurs did not inhabit the southern half of the region during the Cretaceous periods.
- (C) Plesiosaurs did not inhabit the southern half of the region before the Cretaceous period.
- (D) Dinosaurs did not inhabit the northern half of the region during the Cretaceous period.
- (E) Dinosaurs inhabited the southern half of the region throughout the entire Mesozoic era.

16. Essayist: Wisdom and intelligence are desirable qualities. However, being intelligent does not imply that one is wise, nor does being wise imply that one is intelligent. In my own experience, the people I meet have one or the other of these qualities but not both.
- If the essayist's statements are true, then each of the following could be true EXCEPT:
- (A) Most people are neither intelligent, nor wise.
  - (B) Most people are both intelligent and wise.
  - (C) No one is both wise and intelligent.
  - (D) No one is either wise or intelligent.
  - (E) Many people are intelligent and yet lack wisdom.
17. Concerned citizen: The mayor, an outspoken critic of the proposed restoration of city hall, is right when he notes that the building is outdated, but that the restoration would be expensive at a time when the budget is already tight. We cannot afford such a luxury item in this time of financial restraint, he says. However, I respectfully disagree. The building provides the last remaining link to the days of the city's founding, and preserving a sense of municipal history is crucial to maintaining respect for our city government and its authority. So to the question, "Can we really afford to?" I can only respond, "Can we afford not to?"
- Which one of the following most accurately characterizes a flaw in the concerned citizen's argument?
- (A) The argument is solely an emotional appeal to history.
  - (B) The argument ambiguously uses the word "afford."
  - (C) The argument inappropriately appeals to the authority of the mayor.
  - (D) The argument incorrectly presumes that the restoration would be expensive.
  - (E) The argument inappropriately relies on the emotional connotations of words such as "outdated" and "luxury."
18. Obviously, we cannot in any real sense mistreat plants. Plants do not have nervous systems, and having a nervous system is necessary to experience pain. The conclusion above follows logically if which one of the following is assumed?
- (A) Any organism that can experience pain can be mistreated.
  - (B) Only organisms that have nervous systems can experience pain.
  - (C) Any organism that has a nervous system can experience pain.
  - (D) Only organisms that can experience pain can be mistreated.
  - (E) Any organism that has a nervous system can be mistreated.
19. Inez: In these poor economic times, people want to be sure they are getting good value for their money. I predict people would be more willing to buy antiques at our fair if we first have the objects inspected by professional appraisers who



would remove any objects of questionable authenticity.

Anika: I disagree with your prediction. Our customers already are antiques experts. Furthermore, hiring professional appraisers would push up our costs considerably, thus forcing us to raise the prices on all antiques.

Anika's response proceeds by

- (A) indicating that a particular plan would have an effect contrary to the anticipated effect
- (B) claiming that a particular plan should not be adopted because, while effective, it would have at least one undesirable consequence
- (C) arguing that an alternative plan could achieve a desired result more easily than the plan originally proposed
- (D) questioning the assumption that authorities are available who have special knowledge of the problem under discussion
- (E) offering a counterexample in order to show that a particular general claim is too broadly stated

20. In some ill-considered popularizations of interesting current research, it is argued that higher apes have the capacity for language but have never put it to use—a remarkable biological miracle, given the enormous selectional advantage of even minimal linguistic skills. It is rather like claiming that some animal has wings adequate for flight but has never thought to fly.

Which one of the following is most similar in its reasoning to the argument above?

- (A) Arguing that there are some humans who never sleep is rather like discovering a species of lion that does not eat meat.
- (B) Arguing that Earth has been visited by aliens from outer space is rather like claiming that early explorers had visited North American but never founded cities.
- (C) Arguing that the human brain has telekinetic powers that no humans have ever exercised is rather like arguing that some insect has legs but never uses them to walk.
- (D) Claiming that some people raised tobacco but did not smoke it is rather like claiming that a society that knew how to brew alcohol never drink it.
- (E) Arguing that not all people with cars will drive them is rather like claiming that humans invented gasoline long before they used it as fuel for transportation.

### Questions 21-22

Sarah: some schools seek to foster a habit of volunteering in their students by requiring them to perform community service. But since a person who has been forced to do something has not really volunteered and since the habit of volunteering cannot be said to have been fostered in a person who has not yet volunteered for

anything, there is no way this policy can succeed by itself.

Paul: I disagree. Some students forced to perform community service have enjoyed it so much that they subsequently actually volunteer to do something similar. In such cases, the policy can clearly be said to have fostered a habit of volunteering.

21. Paul responds to Sarah's argument using which one of the following argumentative techniques?
- (A) He argues that Sarah is assuming just what she sets out to prove.
  - (B) He argues that Sarah's conception of what it means to volunteer excludes certain activities that ought to be considered instances of volunteering.
  - (C) He introduces considerations that call into question one of Sarah's assumptions.
  - (D) He questions Sarah's motives for advancing an argument against the school policy.
  - (E) He argues that a policy Sarah fails to consider could accomplish the same aim as the policy that Sarah considers.
22. The main point at issue between Sarah and Paul is whether
- (A) there are any circumstances under which an individual forced to perform a task can correctly be said to have genuinely volunteered to perform that task
  - (B) being forced to perform community service can provide enjoyment to the individual who is forced to perform such service
  - (C) being forced to perform community service can by itself encourage a genuine habit of volunteering in those students who are forced to perform such service
  - (D) it is possible for school to develop policies that foster the habit of volunteering in their students
  - (E) students who develop a habit of volunteering while in school are inclined to perform community service later in their lives
23. Only computer scientists understand the architecture of personal computers, and only those who understand the architecture of personal computers appreciate the advances in technology made in the last decade. It follows that only those who appreciate these advances are computer scientists.
- Which one of the following most accurately describes a flaw in the reasoning in the argument?
- (A) The argument contains no stated or implied relationship between computer scientists and those who appreciate the advances in technology in the last decade.
  - (B) The argument ignores the fact that some computer scientists may not appreciate the advances in technology made in the last decade.
  - (C) The argument ignores the fact that computer scientists may appreciate other things besides the advances in technology made in the last decade.

- (D) The premises of the argument are stated in such a way that they exclude the possibility of drawing any logical conclusion.
- (E) The premises of the argument presuppose that everyone understands the architecture of personal computers.

24. Sociologist: Research shows, contrary to popular opinion, that, all other things being equal, most people who have pets are less happy than most people who do not. Therefore, any person who wants to be as happy as possible would do well to consider not having a pet.

Which one of the following, if true, most seriously weakens the sociologist's argument?

- (A) Some people who have pets are happier than most people who do not.
- (B) Most people who have no pets occasionally wish that they had pets.
- (C) Most people who have pets are reasonably happy.
- (D) Most people who have pets feel happier because they have pets.
- (E) All people who have no pets admit to feeling unhappy sometimes.

25. The dwarf masked owl, a rare migratory bird of prey, normally makes its winter home on the Baja peninsula, where it nests in the spiny cactus. In fact, there are no other suitable nesting sites for the dwarf masked owl on the Baja peninsula. But a blight last spring destroyed all of the spiny cacti on the Baja peninsula. So unless steps are taken to reestablish the spiny cactus population, the dwarf masked owl will not make its home on the Baja peninsula this winter.

The argument depends on assuming which one of the following?

- (A) No birds of prey other than the dwarf masked owl nest in the spiny cactus.
- (B) If the Baja peninsula contains spiny cacti, then the dwarf masked owl makes its winter home there.
- (C) On occasion the dwarf masked owl has been known to make its winter home far from its normal migratory route.
- (D) The dwarf masked owl will not make its winter home on the Baja peninsula only if that region contains no spiny cacti.
- (E) Suitable nesting sites must be present where the dwarf masked owl makes its winter home.

26. At night, a flock of crows will generally perch close together in a small place—often a piece of wooded land—called a roost. Each morning, the crows leave the roost and fan out in small groups to hunt and scavenge the surrounding area. For most flocks, the crow's hunting extends as far as 100 to 130 kilometers (60 to 80 miles) from the roost. Normally, a flock will continue to occupy the same roost for several consecutive years, and when it abandons a roost site for a new one the new roost is usually less than eight kilometers (five miles) away.

Of the following claims, which one can most justifiably be rejected on the basis of the statement above?

- (A) Crows will abandon their roost site only in response to increase in the population of the flock.
- (B) When there is a shortage of food in the area in which a flock of crows normally hunts and scavenges, some members of the flock will begin to hunt and scavenge outside that area.
- (C) Most of the hunting and scavenging that crows do occurs more than eight kilometers (five miles) from their roost.
- (D) Once a flock of crows has settled on a new roost site, it is extremely difficult to force it to abandon that site for another.
- (E) When a flock of crows moves to a new roost site, it generally does so because the area in which it has hunted and scavenged has been depleted of food sources.

## TEST 28

### SECTION II

**Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Insurance that was to become effective at 9 A.M. on a certain date was taken out on the life of a flight attendant. He died on that date at 10 A.M. local time, which was two hours before 9 A.M. in the time zone where the policy had been purchased. The insurance company contended that the policy had not become effective; a representative of the flight attendant's beneficiary, his mother, countered by arguing that the policy amount should be paid because the attendant had been his mother's sole support, and she was ill.  
The representative's argument is flawed as a counter to the insurance company's contention because
  - (A) the conclusion is no more than a paraphrase of evidence offered in support of it
  - (B) it appeals to the emotion of pity rather than addressing the issue raised
  - (C) it makes an unwarranted distinction between family obligations and business obligations
  - (D) it substitutes an attack on a person for the giving of reasons
  - (E) a cause and its effect are mistaken for each other
2. Once a child's imagination becomes developed, a host of imaginary creatures may torment the child. But this newly developed cognitive capacity may also be used to render these creatures harmless. For instance, a child's new toy may be imagined as an ally, powerful enough to ward off any imaginary threats.  
The type of situation described above most closely conforms to which one of the following propositions?

- (A) Some newly developed capacities only give rise to problems.
- (B) Sometimes the cause of a problem may also provide its solution.
- (C) Children are not able to distinguish between real and imaginary threats.
- (D) The most effective way for children to address their fears is to acknowledge them.
- (E) Most problems associated with child-rearing can be solved with a little imagination.

3. Trisha: Today's family is declining in its ability to carry out its functions of child-rearing and providing stability for adult life. There must be a return to the traditional values of commitment and responsibility.

Jerod: We ought to leave what is good enough alone. Contemporary families may be less stable than traditionally, but most people do not find that to be bad. Contemporary criticisms of the family are overblown and destructive.

Trisha and Jerod disagree over whether the institution of the family is

- (A) adequate as it is
- (B) changing over time
- (C) valued by most people
- (D) not going to survive
- (E) no longer traditional

4. Politician P: My opponent claims that the government is obligated to raise taxes to increase funding for schools and health care. Because raising taxes to increase funding for schools and health care would make taxpayers upset over their loss of buying power, my opponent is simply mistaken.

Politician P's reasoning is questionable because it involves

- (A) presupposing that a claim is mistaken on the grounds that the person defending it advocates other unpopular views
- (B) assuming that a claim is false on the grounds that the person defending it is of questionable character
- (C) concluding that a view is false on the grounds that its implementation would lead to unhappiness
- (D) appealing to wholly irrelevant issues to deflect attention away from the real issue
- (E) insisting that an obligation exists without offering any evidence that exists

5. In defending the Hyperion School of Journalism from charges that its program is of little or no value to its students, the dean of the school pointed to this recent success in placing students: 65 percent of its graduates went on to internships or jobs in print or broadcast journalism.

Which one of the following, if true, most seriously undermines the defense offered by the dean?



- (A) More than half of the school's students came from jobs in journalism to improve their skills.
- (B) Some newspaper editors do not regard journalism school as a necessary part of the training of a journalist.
- (C) The number of cities with more than one major newspaper has declined sharply over the last 25 years.
- (D) The program offered by the Hyperion School of Journalism is similar in quality and content to those offered by its peer institutions.
- (E) The proportion of applicants to the Hyperion School of Journalism that are admitted is lower than it was the years ago.
6. The largest volcano on Mars rises 26 Kilometers above the surrounding plain and covers an area roughly the size of Romania. Even if the Earth's gravity were as low as the gravity of Mars, no volcano of such size could exist on Earth, for the Earth's crust, although of essentially the same composition as that of the Mars, is too thin to support even a small fraction of that mass and would buckle under it, causing the mountain to sink.
- If the statements above are true, which of following must also be true on the basis of them?
- (A) The surface of Mars is less subject to forces of erosion than is the surface of the Earth.
- (B) The highest volcanoes on Mars occur where its crust is thickest.
- (C) On average, volcanoes on Mars are higher than those on Earth.
- (D) The crust of Mars, at least at certain points on the planet, is thicker than the crust of the Earth.
- (E) At least some of Earth's volcanoes would be larger than they actually are if the Earth's crust were thicker than it is.
7. Speakers of the Caronian language constitute a minority of the population in several large countries. An international body has recommended that the regions where Caronian-speakers live be granted autonomy as an independent nation in which Caronian-speakers would form a majority. But Caronian-speakers live in several, widely scattered areas that cannot be united within a single continuous boundary while at the same time allowing Caronian-speakers to be the majority population. Hence, the recommendation cannot be satisfied.
- The argument relies on which one of the following assumptions?
- (A) A nation once existed in which Caronian-speakers formed the majority of the population.
- (B) Caronian-speakers tend to perceive themselves as constituting a single community.
- (C) The recommendation would not be satisfied by the creation of a nation formed of disconnected regions.

(D) The new Caronian nation will not include as citizens anyone who does not speak Caronian.

(E) In most nations several different languages are spoken.

8. Sociologist: The welfare state cannot be successfully implemented because it rests on the assumption that human beings are unselfish—a seemingly false assumption. The welfare state is feasible only if wage earners are prepared to have their hard-earned funds used to help others in greater need, and that requires an unselfish attitude. But people innately seek their own well-being, especially when the interests of others threaten it.

Which one of the following most accurately expresses the main conclusion of the sociologist's argument?

(A) The welfare state will not work.

(B) The welfare state unfairly asks those who work hard to help those in greater need.

(C) The assumption that human beings are unselfish is false.

(D) The interests of the less fortunate impinge on the interests of others.

(E) The welfare state relies on the generosity of wage earners.

9. Early pencil leads were made of solid graphite mined in Cumberland, in Britain. Modern methods of manufacturing pencil leads from powdered graphite are the result of research sponsored by the government of France in the 1790s, when France was at war with Britain and thus had no access to Cumberland graphite.

The information above most strongly supports which one of the following?

(A) The world's only deposit of graphite suitable for manufacture of pencils is in Cumberland, in Britain.

(B) In the 1790s, France's government did not know of any accessible source of solid graphite appropriate to meet France's need for pencils.

(C) One of the causes of war between France and Britain in the 1790s was the British government's attempt to limit the amount of Cumberland graphite being exported to France.

(D) Government-sponsored research frequently gives rise to inventions that are of great benefit to society.

(E) Even today, all pencil leads contain Cumberland graphite.

### Questions 10-11

Commercial passenger airplanes can be equipped with a collision-avoidance radar system that provide with information about the proximity of other airplanes. Because the system warns pilots to take evasive action when it indicates a possible collision, passengers are safer on airplanes equipped with the system than on comparable airplanes not so equipped, even though the system frequently warns pilots to evade phantom airplanes.

10. Which one of the following is an assumption on which the argument depends?
- (A) Passengers feel no safer on airplanes equipped with the radar system than on comparable airplanes not so equipped.
  - (B) Warnings given by a collision-avoidance system about phantom airplanes are not caused by distorted radar signals.
  - (C) The frequency of invalid warnings will not cause pilots routinely to disregard the system's warnings.
  - (D) Commercial passenger airplanes are not the only planes that can be equipped with collision-avoidance system.
  - (E) The greatest safety risk for passengers traveling on commercial passenger airplanes is that of a midair collision.
11. Which one of the following, if true, most strengthens the argument?
- (A) Evasive action taken in response to the system's warning poses no risk to the passengers.
  - (B) Commercial passenger airplanes are in greater danger of colliding with other airplanes while on the ground than they are while on flight.
  - (C) Commercial passenger airplanes are rarely involved in collisions while in flight.
  - (D) A study by ground-based air traffic controllers found that 63 percent of the warnings by the system were invalid.
  - (E) The collision-avoidance radar system is run by a computerized device on the plane that scans the sky and calculates the distances between planes.
12. The higher the average fat intake among the residents of a country, the higher the incidence of cancer in that country; the lower the average fat intake, the lower the incidence of cancer. So individuals who want to reduce their risk of cancer should reduce their fat intake.
- Which one of the following, if true, most weakens the argument?
- (A) The differences in average fat intake between countries are often due to the varying makeup of traditional diets.
  - (B) The countries with a high average fat intake tend to be among the wealthiest in the world.
  - (C) Cancer is a prominent cause of death in countries with a low average fat intake.
  - (D) The countries with high average fat intake are also the countries with highest levels of environmental pollution.
  - (E) An individual resident of a country whose population has a high average fat intake may have a diet with a low fat intake.
13. A local television station is considering a plan to create a panel of child psychologists to review programs in advance of their airing and rate the level of violence. A program that portrays a high level of violence would be listed in

newspapers with four guns after the title. On the other hand, if a show has little violence, one gun would appear after its listing. The station believes that this remedy would forewarn parents about the level of violence in any given program.

Which one of the following must the television station assume in order to conclude that the plan will meet its stated purpose?

- (A) Parents would read and pay attention to the ratings listed in the newspapers.
- (B) There would be fewer shows rated with one gun than with four guns.
- (C) The rating system described in the passage is the most effective system available.
- (D) The local television station has an obligation to forewarn parents of the level of violence in television shows.
- (E) Television producers of programs rated as having high levels of violence would make an effort to reduce those levels.

14. The common ancestors of Australian land- and tree-dwelling kangaroos had prehensile (grasping) tails and long opposable thumbs, attributes that are well-adapted to tree-dwelling but offer kangaroos few advantages on land. It is hardly surprising, therefore, that land-dwelling kangaroos eventually lost these attributes; what is puzzling is the fact that all modern tree-dwelling kangaroos now lack them as well.

Which one of the following, if true, most helps explain the puzzling fact cited above?

- (A) Modern tree-dwelling kangaroos must back down tree trunks slowly and carefully, but the common ancestors of modern tree- and land-dwelling kangaroos used their opposable thumbs to descend trees quickly headfirst.
- (B) Modern tree-dwelling kangaroos are smaller than most modern land-dwelling kangaroos but larger than their common ancestors.
- (C) Modern tree-dwelling kangaroos' tails cannot grasp branches, but they are somewhat longer and more flexible than those of modern land-dwelling kangaroos.
- (D) Modern tree-dwelling kangaroos are descended from species of land-dwelling kangaroos that had been land-dwellers for many generations before modern tree-dwelling kangaroos started to develop.
- (E) Modern tree-dwelling kangaroos have smaller and weaker hind legs than modern land-dwelling kangaroos, and they move more slowly on land than do modern land-dwelling kangaroos.

15. Editorialist: Society is obliged to bestow the privileges of adulthood upon its members once they are mature enough to accept the corresponding responsibilities. But science has established that physiological development is completed in most persons by age seventeen. Since this maturing process has been completed by most seventeen-year-olds, there is no reason not to grant these citizens all of privileges of adulthood.

The editorialist's argument is most vulnerable to criticism on the ground that it

- (A) assumes that it is trying to prove
- (B) too hastily reaches a general conclusion on the basis of a few examples
- (C) equivocates with respect to a central concept
- (D) too readily accepts acclaim by appeal to inappropriate authority
- (E) ignores the fact that some people are mature at age sixteen

16. Every new play that runs for more than three months is either a commercial or a critical success. Last year, all new plays that were critical successes were also commercial successes. Therefore, every new play that ran for more than three months last year was commercial success.

The pattern of reasoning in which one of the following arguments is most similar to that in the argument above?

- (A) Most new restaurants are either good publicity or a good location in order to succeed. But most restaurants with a good location also receive good publicity. Hence, a restaurant that has a good location is guaranteed to succeed.
- (B) Every best-selling cookbook published last year is both well written and contains beautiful photographs. The cookbook Cynthia Cleveland published last year is well written and contains beautiful photographs. Therefore, Cleveland's cookbook is a best seller.
- (C) All students at the Freeman School of Cooking study either desserts or soups in their second year. This year, all Freeman students studying soups are also studying desserts. Therefore, every second-year students at Freeman is studying desserts this year.
- (D) Chefs who become celebrities either open their own restaurants or write books about their craft, but not both. John Endicott is a celebrated chef who opened his own restaurant. Therefore, Endicott does not write books about his craft.
- (E) Every catering service in Woodside Township will accept both residential and business catering assignments. Peggy's Fine Foods is a catering service that will not accept business catering assignments. Hence, Peggy's Fine Foods is not in Woodside Townships.

17. Commissioner: I have been incorrectly criticized for having made my decision on the power plant issue prematurely. I based my decision on the report prepared by the neighborhood association and although I have not studied it thoroughly, I am sure that the information it contains is accurate. Moreover, you may recall that when I received input from the neighborhood association on jail relocation, I agreed with its recommendation.

The commissioner's argument is LEAST vulnerable to which one of the following criticism?

- (A) It takes for granted that the association's information is not distorted by bias.



- (B) It draws a conclusion about the recommendations of the association from incomplete recollections.
- (C) It takes for granted that the association's report is the only direct evidence that needed to be considered.
- (D) It hastily concludes that the association's report is accurate without having studied it in detail.
- (E) It takes for granted that agreeing with the association's past recommendation helps justify agreeing with its current recommendation.
18. Each child in a group of young children read aloud both a short paragraph and a list of randomly ordered words from the paragraph. The more experienced readers among them made fewer pronunciation errors in whichever task they performed second, whether it was the list or the paragraph. The order in which the two tasks were performed, however, had no effect on the performance of beginning readers, who always made fewer pronunciation errors when reading the paragraph than when reading the list.
- Which one of the following, if true, most helps to explain why the order in which the tasks were performed was not significant for the beginning readers?
- (A) Because several words were used more than once in the paragraph but only once in the list, the list was shorter than the paragraph.
- (B) In reading the paragraph, the more experienced readers were better at using context to guess at difficult words than were the beginning readers.
- (C) The more experienced readers sounded out difficult words, while the beginning readers relied solely on context to guess at difficult words.
- (D) Both tasks used the same words, so that the words the children read in whichever task was performed first would be recognized in the second task.
- (E) The beginning readers made more pronunciation errors than the more experienced readers did in reading both the paragraph and the list.
19. Anthropologist: Violence is an extreme form of aggression, and is distinct from the self-expression sufficient for survival under normal conditions. Human beings in certain situations react to unpleasant stimuli with violence—but only because they are conditioned by their culture to react in this manner.
- Each of the following can be logically inferred from the anthropologist's statements EXCEPT:
- (A) Not all aggression is violent.
- (B) The self-expression required for survival is generally nonaggressive.
- (C) Some behaviors are influenced by the cultures in which human beings live.
- (D) In normal circumstance, human beings can survive by responding nonviolently.
- (E) Violent behavior is a product of one's cultural environment.
20. Martha's friend, who is very knowledgeable about edible flowers, told Martha

that there are no edible daisies, at least not any that are palatable. Martha, however, reasons that since there are daisies that are a kind of chrysanthemum and since there are edible chrysanthemums that are quite palatable, what her friend told her must be incorrect.

Which one of the following has a flawed pattern of reasoning most like that in Martha's reasoning?

- (A) Jeanne is a member of the city chorus, and the city chorus is renowned. So Jeanne is an excellent singer.
- (B) Rolfe belongs to the library reading group, and all members of that group are avid readers. So Rolfe is an avid reader.
- (C) Some of Noriko's sisters are on the debate team, and some members of the debate team are poor students. So at least one of Noriko's sisters must be a poor student.
- (D) Most of Leo's friends are good swimmers, and quite strong. So it is likely that at least some of Leon's friends are quite strong.
- (E) Many of Teresa's colleagues have written books. Most of the books they have written are on good writing. So some of Teresa's colleagues are good writers.

21. Attorney for Ziegler: My client continued to do consulting work between the time of his arrest for attempted murder and the start of this trial. But I contend that Ziegler was insane at the time that he fired the shot. This is the only reasonable conclusion to draw from the fact that the accusers have submitted no evidence that he was sane at the time he pulled the trigger, only that he was sane some time after he did so.

Which one of the following most accurately describes a flaw in the reasoning of Ziegler's attorney?

- (A) It presumes that being a well-educated professional is relevant to being guilty or innocent.
- (B) It concludes on the basis of evidence against Ziegler's being sane that there is a lack of evidence for Ziegler's being sane.
- (C) It fails to consider that Ziegler might have been insane when he worked as a consultant.
- (D) It presumes that whether one is sane is relevant to whether one is morally responsible for one's actions.
- (E) It fails to consider the possibility that Ziegler's being sane after the shooting is an indication that he was sane at the time of the shooting.

22. Most students are bored by history courses as they are usually taught, primarily because a large amount of time is spent teaching dates and statistic. The best way to teach history, therefore, is to spend most class time recounting the lives of historical figures and very little on dates and statistics.

Each of the following is an assumption on which the argument depends

EXCEPT:

- (A) One should avoid boring one's students when teaching a history course.
- (B) It is not incompatible with the attainable goals of teaching history to spend very little class time on dates and statistics.
- (C) It is possible to recount the lives of historical figures without referring to dates and statistics.
- (D) It is compatible with the attainable goals of teaching history to spend most class time recounting the lives of historical figures.
- (E) Students are more bored by history courses as they are usually taught than they would be by courses that spend most class time recounting the lives of historical figures.

23. In a certain municipality, a judge overturned a suspect's conviction for possession of an illegal weapon. The suspect had fled upon seeing police and subsequently discarded the illegal weapon after the police gave chase. The judge reasoned as follows: the only cause for the police giving chase was the suspect's flight; by itself, flight from the police does not create a reasonable suspicion of a criminal act; evidence collected during an illegal chase is inadmissible; therefore, the evidence in this case was inadmissible.

Which one of the following principles, if valid, most helps to justify the judge's decision that the evidence was inadmissible?

- (A) Flight from the police could create a reasonable suspicion of a criminal act as long as other significant factors are involved.
- (B) People can legally flee from the police only when those people are not involved in a criminal act at the time.
- (C) Police can legally give chase to a person only when the person's actions have created a reasonable suspicion of a criminal act.
- (D) Flight from the police should not itself be considered a criminal act.
- (E) In all cases in which a person's actions have created a reasonable suspicion of a criminal act, police can legally give chase to that person.

Questions 24-25

Monica: The sculpture commissioned for our town plaza has been scorned by the public ever since it went up. But since the people in our town do not know very much about contemporary art, the unpopularity of the work says nothing about its artistic merit and thus gives no reason for removing it.

Hector: You may be right about what the sculpture's popularity means about its artistic merit. However, a work of art that was commissioned for a public space ought to benefit the public, and popular opinion is ultimately the only way of determining what the public feels is to its benefit. Thus, if public opinion of this sculpture is what you say, then it certainly ought to be removed.

24. Monica's and Hector's statements commit them to disagreeing about which one

of the following principles?

- (A) Public opinion of a work of art is an important consideration in determining the work's artistic merit.
- (B) Works of art commissioned for public spaces ought at least to have sufficient artistic merit to benefit the public.
- (C) The only reason for removing a work of art commissioned for a public space would be that the balance of public opinion is against the work.
- (D) The sculpture cannot benefit the public by remaining in the town plaza unless the sculpture has artistic merit.
- (E) In determining whether the sculpture should remain in the town plaza, the artistic merit of the sculpture should be central consideration.

25. The argument Hector makes in responding to Monica depends on the assumption that

- (A) no matter what the public's opinion is on an issue affecting the public good, that public opinion ought to be acted on, even though the opinion may not be a knowledgeable one
- (B) Monica's assessment of the public's opinion of the sculpture is accurate
- (C) if the sculpture had artistic merit, then even a public that was not knowledgeable about modern art would not scorn the sculpture
- (D) works of art commissioned for public spaces ought not to be expected to have artistic merit
- (E) if the public feels that it does not benefit from the sculpture, this shows that the public does not in fact benefit from the sculpture

### SECTION III

#### **Time 35 minutes 25 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

#### Questions 1-2

From the tenth century until around the year 1500, there were Norse settlers living in Greenland. During that time, average yearly temperatures fell slightly worldwide, and some people claim that this temperature drop wiped out the Norse settlements by rendering Greenland too cold for human habitation. But this explanation cannot be correct, because Inuit settlers from North America, who were living in Greenland during the time the Norse settlers were there, continued to thrive long after 1500.

1. Which one of the following, if true, most helps explain why the Norse settlements in Greenland disappeared while the Inuit settlements survived?
  - (A) The drop in average yearly temperature was smaller in Greenland than it was in the world as a whole.
  - (B) The Norse settlers' diet, unlike that of the Inuit, was based primarily on

- livestock and crops that were unable to survive the temperature drop.
- (C) There were settlements in North America during the fifteenth century that were most likely founded by Norse settlers who had come from Greenland.
- (D) The Inuit and the Norse settlements were typically established in coastal areas.
- (E) The Norse community in Norway continued to thrive long after 1500.
2. Which one of the following is a technique of reasoning used in the statement?
- (A) denying the relevance of an analogy
- (B) producing evidence that is inconsistent with the claim being opposed
- (C) presenting an alternative explanation that purports to account for more of the known facts
- (D) citing a general rule that undermines the claim being opposed
- (E) redefining a term in a way that is favorable to the argument's conclusion
3. Even though trading in ivory has been outlawed by international agreement, some piano makers still use ivory, often obtained illegally, to cover piano keys. Recently, experts have devised a synthetic ivory that, unlike earlier ivory substitutes, has found favor with concert pianists throughout the world. But because piano makers have never been major consumers of ivory, the development of the synthetic ivory will therefore probably do little to help curb the killing of elephants, from whose tusks most natural ivory is obtained.
- Which one of the following, if true, most helps to strengthen the argument?
- (A) Most people who play the piano but are not concert pianists can nonetheless easily distinguish between the new synthetic ivory and inferior ivory substitutes.
- (B) The new synthetic ivory can be manufactured to resemble in color and surface texture any of the various types of natural ivory that have commercial uses.
- (C) Other natural products such as bone or tortoise shell have not proven to be acceptable substitutes for natural ivory in piano keys.
- (D) The most common use for natural ivory is in ornamental carvings, which are prized not only for the quality of their workmanship but also for the authenticity of their materials.
- (E) It costs significantly less to produce the new synthetic ivory than it does to produce any of the ivory substitutes that scientists had developed previously.
4. The government has spent heavily to clean ground water contaminated by toxic chemical spills. Yet not even one spill site has been completely cleaned, and industrial accidents are spilling more toxic chemicals annually than are being cleaned up. More of the government's budget should be redirected to preventing spills. Since prevention is far more effective than cleanup, it makes little sense



that the entire annual budget for prevention is less than the amount spent annually on one typical cleanup site.

The proposal about how the government's budget should be redirected plays which one of the following roles in the argument?

- (A) It represents an unsupported speculation.
- (B) It both supports another claim in the argument and is supported by others.
- (C) It is the claim that the argument as a whole is structured to support.
- (D) It is a presupposition on which the argument is explicitly based.
- (E) It presents an objection to another proposal mentioned in the argument.

5. Consumer: I would like to have the features contained in the latest upgrade to your computer software package, but I am leery of installing the upgrade because a friend has told me he had a problem with it.

Company representative: We have distributed nearly 3,000 copies of the upgrade and we have received fewer than 100 calls saying that it has caused problems. So it is very unlikely that you will experience any problems with the upgrade.

The reasoning in the company representative's argument is most vulnerable to criticism because it fails to consider the possibility that

- (A) the company will issue another upgrade that correct the problems with the current upgrade
- (B) some of the problems people have experienced with the upgrade have been quite serious
- (C) a significant number of people have experienced problems with the upgrade but have not reported them
- (D) the consumer will experience software problems if the upgrade is not installed
- (E) some of the reported problems were a result of users failing to follow instructions

6. First legislator: Medical research is predominantly done on groups of patients that include only men. For example, the effects of coffee drinking on health are evaluated only for men, and studies are lacking on hormone treatments for older women. Government-sponsored medical research should be required to include studies of women.

Second legislator: Considerations of male/female balance such as this are inappropriate with respect to research; they have no place in science.

Which one of the following rejoinders, if true, most directly counters the second legislator's objection?

- (A) Government-sponsored research is supported by all taxpayers, both male and female.
- (B) Serving as a subject for medical research can provide a patient access to new treatments but also can subject the patient to risks.

- (C) Government-sponsored medical research is often done in military hospitals or prisons that hold only male residents.
- (D) The training of male and female scientists does not differ according to their sex.
- (E) Restriction to males of the patient base on which data are collected results in inadequate science.

7. Lack of exercise produces the same or similar bodily effects as aging. In fact, the physical changes that accompany aging can often be slowed down by appropriate exercise. No drug, however, holds any promise for slowing down the changes associated with aging. Therefore, \_\_\_\_\_

Which one of the following provides a logical completion to the passage above?

- (A) taking drugs has the same effect on aging as does a lack of exercise
- (B) people who do not exercise are likely to need drugs to sustain their health
- (C) appropriate exercise can prevent the physical changes associated with aging
- (D) people who do not exercise when they are young will gain few benefits from beginning to exercise at a late age
- (E) if the physical changes of aging are to be slowed, it is more practical to rely on exercise than on drugs

8. Grasses and woody plants are planted on dirt embankments to keep the embankments from eroding. The embankments are mowed to keep the grasses from growing too tall; as a result, clippings pile up. These piles of clippings smother the woody plants, causing their roots, which serve to keep the embankments from eroding, to rot; they also attract rodents that burrow into the dirt and damage the woody plant's roots. Therefore, bringing in predators to eradicate the rodents will prevent erosion of the embankments.

Which one of the following is an error of reasoning in the argument?

- (A) Two events that merely co-occur are treated as if one caused the other.
- (B) A highly general proposal is based only on an unrepresentative set of facts.
- (C) The conclusion is no more than a restatement of one of the pieces of evidence provided to support it.
- (D) One possible solution to a problem is claimed to be the only possible solution to that problem.
- (E) An action that would eliminate one cause of a problem is treated as if it would solve the entire problem.

9. Scientific and technological discoveries have considerable effects on the development of any society. It follows that predictions of the future condition of societies in which scientific and technological discovery is particularly frequent are particularly untrustworthy.

The argument depends on assuming which one of the following?

- (A) Predictions of scientific and technological discoveries, or predictions of their

- effects, have harmful consequences in some societies.
- (B) The development of a society requires scientific and technological discoveries.
- (C) Forecasts of scientific and technological discoveries, or forecasts of their effects, are not entirely reliable.
- (D) An advanced scientific and technological society frequently benefits from new discoveries.
- (E) It is not as difficult to predict scientific and technological discoveries in a technologically more advanced society as it is in a technologically less advanced society.
10. Tires maybe either underinflated, overinflated, or neither. We are pretty safe in assuming that underinflation or overinflation of tires harms their tread. After all, no one has been able to show that these do not harm tire tread.
- Which one of the following most accurately describes a flaw in the argument's reasoning?
- (A) The argument assumes what it attempting to demonstrate.
- (B) The argument overlooks that what is not in principle susceptible to proof might be false.
- (C) The argument fails to specify how it is that underinflation or overinflation harms tire tread.
- (D) The argument rejects the possibility that what has not been proven is nevertheless true.
- (E) The argument fails to precisely define the terms "underinflation" and "overinflation."
11. Linsey has been judged to be a bad songwriter simply because her lyrics typically are disjointed and subjective. This judgment is ill founded, however, since the writings of many modern novelists typically are disjointed and subjective and yet these novelists are widely held to be good writers.
- Which one of the following is an assumption on which the argument depends?
- (A) Disjointed and subjective writing has a comparable effect in modern novels and in songs.
- (B) Some readers do not appreciate the subtleties of the disjointed and subjective style adopted by modern novelists.
- (C) Song lyrics that are disjointed and subjective have at least as much narrative structure as any other song lyrics do.
- (D) A disjointed and subjective style of writing is usually more suitable for novels and song lyrics than it is for any other written works.
- (E) The quality of Linsey's songs is better judged by quality of their lyrics than by the quality of their musical form.
12. The Levant—the area that borders the eastern Mediterranean—was heavily

populated in prehistoric times. The southern Levant was abandoned about 6,000 years ago, although the northern Levant, which shared the same climate, remained heavily populated. Recently archaeologists have hypothesized that the sudden depopulation in the southern Levant was due to an economic collapse resulting from deforestation.

If the statements above are true and the archaeologists' hypothesis is correct, which one of the following CANNOT be true?

- (A) The sheep and goats herded by the peoples of the southern Levant until 6,000 years ago grazed extensively on the seedlings and saplings of indigenous tress species.
  - (B) Trees were used in the production of lime plasters, a building material used extensively throughout the southern Levant until 6,000 years ago.
  - (C) Organic remains from the northern Levant reliably indicate that tree species flourished there without interruption during the period when the southern Levant was being abandoned.
  - (D) Carbon dating of organic remains from the southern Levant reliably demonstrates that there were no forests present in that area prior to 6,000 years ago.
  - (E) Since there are few traces of either quarried stone or of mud brick in buildings excavated in the southern Levant, it is likely that the buildings built there prior to 6,000 years ago were made almost entirely of timber.
13. Using rational argument in advertisements does not persuade people to buy the products being advertised. Therefore, advertisers who replace rational argument with nonrational appeals to emotion in advertisements will persuade people to buy the products being advertised.
- Which one of the following contains flawed reasoning most similar to the flawed reasoning in the argument above?
- (A) People who ask others for favors are refused. Therefore, anyone who has not had the experience of being refused has never asked for a favor.
  - (B) In the past, people who have tried to solve their problems by discussing them have often failed. Therefore, in the future, people who try to solve their problems by discussing them will often fail.
  - (C) Using a computer has not improved students' writing skills. Thus, students should not try to improve their writing skills by using a computer.
  - (D) A person who does not have positive letters of reference cannot get a good job. Therefore, the better the letters of reference a person has, the better the job that person will get.
  - (E) People never learn to program a computer by reading poorly written directions. Therefore, if people read well-written directions, they will learn to program a computer.
14. A commercial insect trap consists of a small box containing pesticide mixed with

glucose, a sweet substance known to attract insect pests. Yet in households where this type of trap has been used regularly for the past several years, recently installed traps are far less effective in eliminating insect pests than were traps of that type installed several years ago. Research scientists have hypothesized that traps in those households decreased in effectiveness because successive generations of the pests developed a resistance to the pesticide in the traps.

Which one of the following, if true, most seriously undermines the hypothesis?

- (A) In households where the traps have been used regularly, the proportion of insect pests that have a natural aversion to eating glucose has increased with each successive generation.
  - (B) Even when only a few individuals out an entire generation of insects survive the effects of a pesticide, the offspring of those individuals are usually resistant to that pesticide.
  - (C) After eating glucose mixed with the pesticide, insects that live in households that do not use the trap tend to die in greater numbers than do insects from households where the traps have been used regularly.
  - (D) After the manufacturer of the traps increased the concentration of the pesticide used in the traps, the traps were no more effective in eliminating household insect pests than were the original traps.
  - (E) The kind of glucose used to bait the traps is one of several different kinds of glucose that occur naturally.
15. A person's dietary consumption of cholesterol and fat is one of the most important factors determining the level of cholesterol in the person's blood (serum cholesterol). Serum cholesterol levels rise proportionally to increased cholesterol and fat consumption until that consumption reaches a threshold, but once consumption of these substances exceeds that threshold, serum cholesterol levels rise only gradually, even with dramatic increases in consumption. The threshold is one fourth the consumption level of cholesterol and fat in today's average North American diet.
- The statements above, if true, most strongly support which one of the following?
- (A) The threshold can be lowered by lowering the dietary consumption of cholesterol and fat.
  - (B) People who consume an average North American diet cannot increase their consumption of cholesterol and fat without dramatically increasing their serum cholesterol levels.
  - (C) People who consume half as much cholesterol and fat as in the average North American diet will not necessarily have half the average serum cholesterol level.
  - (D) Serum cholesterol levels cannot be affected by nondietary modifications in behavior by nondietary modifications in behavior, such as exercising more or smoking less.



(E) People who consume less cholesterol and fat than the threshold cannot reduce their serum cholesterol levels.

16. The recently negotiated North American Free Trade Agreement among Canada, Mexico, and the United States is misnamed, because it would not result in truly free trade. Adam Smith, the economist who first articulated the principles of free trade, held that any obstacle placed in the way of the free movement of goods, investment, or labor would defeat free trade. So since under the agreement workers would be restricted by national boundaries from seeking the best conditions they could find, the resulting obstruction of the flow of trade would, from a free-trade perspective, be harmful.

The argument proceeds by

- (A) ruling out alternatives
  - (B) using a term in two different senses
  - (C) citing a nonrepresentative instance
  - (D) appealing to a relevant authority
  - (E) responding to a different issue from the one posed
17. Parents who wish to provide a strong foundation for the musical ability of their children should provide them with a good musical education. Since formal instruction is often a part a good musical education, parents who wish to provide this strong foundation need to ensure that their children receive formal instruction.
- The reasoning is most vulnerable to criticism on the grounds that it fails to consider that
- (A) parents might not be the only source of a child's musical education
  - (B) some children might not be interested in receiving a strong foundation for their musical ability
  - (C) there are many examples of people with formal instruction whose musical ability is poor
  - (D) formal instruction might not always be a part of a good musical education
  - (E) some children might become good musicians even if they have not had good musical educations
18. A stingray without parasites is healthier than it would be if it had parasites. Nevertheless, the lack of parasites in stingrays is an indicator that the ecosystem in which the stingrays live is under environmental stress such as pollution.
- Which one of the following, if true, most helps to reconcile the discrepancy indicated above?
- (A) During part of their life cycles, the parasites of stingrays require as hosts shrimp or oysters, which are environmentally vulnerable organisms.
  - (B) A stingray is a free-ranging predator that feeds on smaller organisms but has few predators itself.

- (C) A parasite drains part of the vitality of its host by drawing nourishment from the host.
- (D) An ecosystem can be considered stressed if only a few species of very simple organisms can live there.
- (E) Since the life of parasites depends on that of their host, they need to live without killing their host or else to reproduce and infect other individuals before their own host dies.

19. Over the past 20 years, skiing has become a relatively safe sport due to improvement in ski equipment. There has been a 50 percent drop in the number of ski injuries over the last 20 years. Clearly, however, there have not been decreases in the number of injuries in all categories, as statistical data readily show, for although broken legs and ankle injuries have decreased by an astounding 90 percent, knee injuries now represent 16 percent of all ski injuries, up significantly from the 11 percent of 20 years ago.

The reasoning in the argument is flawed because the argument does which one of the following?

- (A) It fails to allow for there being ski injuries other than broken legs, ankle injuries, and knee injuries.
- (B) It infers disparate effects from the same single cause.
- (C) It ignores the possibility that the number of skiers has increased over the past 20 years.
- (D) It assumes that an increase in the proportion of knee injuries rules out a decrease in the number of knee injuries.
- (E) It proceeds as though there could be a greater decrease in injuries in each category of injury than there is in injuries overall.

20. Only poetry cannot be translated well, and therefore it is poets who preserve languages, for we would not bother to learn a language if we could get everything written in it from translation. So, since we cannot witness the beauty of poetry except in the language in which it is composed, we have motivation to learn the language.

The information above provides the LEAST support for which one of the following?

- (A) All nonpoetic literature can be translated well.
- (B) One purpose of writing poetry is to preserve the language in which it is written.
- (C) Some translations do not capture all that was expressed in the original language.
- (D) The beauty of poetry is not immediately accessible to people who do not understand the language in which the poetry was written.
- (E) Perfect translation from one language to another is sometimes impossible.

21. The companies that are the prime purchasers of computer software will not buy a software package if the costs of training staff to use it are high, and we know that it is expensive to teach people a software package that demands the memorization of unfamiliar commands. As a result, to be successful, commercial computer software cannot require users to memorize unfamiliar commands.

The conclusion above follows logically if which one of the following is assumed?

- (A) If more prime purchasers of computer software buy a software product, that product will be successful.
- (B) Commercial computer software that does not require users to memorize unfamiliar commands is no more expensive than software that does.
- (C) Commercial computer software will not be successful unless prime purchasers buy it.
- (D) If the initial cost of computer software is high, but the cost of training users is low, prime purchasers will still buy that software.
- (E) The more difficult it is to learn how to use a piece of software, the more expensive it is to teach a person to use that software.

Questions 22-23

Whenever she considers voting in an election to select one candidate for a position and there is at least one issue important to her, Kay uses the following principle in choosing which course of action to take: it is acceptable for me to vote for a candidate whose opinions differ from mine on at least one issue important to me whenever I disagree with each of the other candidates on even more such issues; it is otherwise unacceptable to vote for that candidate. In the upcoming mayoral election, the three candidates are Legrand, Medina, and Norton. There is only one issue important to Kay, and only Medina shares her opinion on that issue.

22. If the statements in the passage are true, which one of the following must also be true about Kay's course of action in any election to select one candidate for a position?
- (A) If there are no issues important to her, it is unacceptable for her to vote for any candidate in the election.
  - (B) If she agrees with each of the candidates on most of the issues important to her, it is unacceptable for her to vote for any candidate in the election.
  - (C) If she agrees with a particular candidate on only one issue important to her, it is unacceptable for her to vote for that candidate.
  - (D) If she disagrees with each of the candidates on exactly three issues important to her, it is unacceptable for her to vote for any candidate in the election.
  - (E) If there are more issues important to her on which she disagrees with a particular candidate than there are such issues on which she agrees with that candidate, it is unacceptable for her to vote for that candidate.

23. According to the principle stated in the passage, in the upcoming mayoral election
- (A) it is acceptable for Kay to vote for either Medina or Legrand, but it is unacceptable for her to vote for Norton
  - (B) the only unacceptable courses of action are for Kay to vote for Norton and for her to vote for Legrand
  - (C) it is unacceptable for Kay to vote for any of the candidates
  - (D) the only unacceptable course of action is for Kay to vote for Medina
  - (E) it is acceptable for Kay to vote for any of the candidates
24. Over the last 25 years, the average price paid for a new car has steadily increased in relation to average individual income. This increase indicates that individuals who buy new cars today spend, on average, a larger amount relative to their incomes buying a car than their counterparts did 25 years ago.
- Which one of the following, if true, most weakens the argument?
- (A) There has been a significant increase over the last 25 years in the proportion of individuals in households with more than one wage earner.
  - (B) The number of used cars sold annually is the same as it was 25 years ago.
  - (C) Allowing for inflation, average individual income has significantly declined over the last 25 years.
  - (D) During the last 25 years, annual new-car sales and population have both increased, but new-car sales have increased by a greater percentage.
  - (E) Sales to individuals make up a smaller proportion of all new-car sales they did 25 years ago.
25. Credit card companies justify charging cardholders additional fees for late payments by asserting the principle that those who expose other individuals, companies, or institutions to financial risk should pay for that risk, and by pointing out that late-paying cardholders present a greater risk of default than other cardholders. Without late fees, the companies argue, they would have spread the cost of the risk over all cardholders.
- The principle invoked by the credit card companies would, if established, be most usefully invoked in which one of the following arguments?
- (A) School authorities should use student activity funds to pay for student-caused damages to school property since, even though only a few students cause any significant damage, authorities cannot in most instances determine which students caused the damage.
  - (B) Insurance companies should demand higher insurance rates of drivers of sports cars than of other drivers, since sports car drivers are more likely to cause accidents and thus are more likely to require the companies pay money in claims.
  - (C) Libraries should charge high fines for overdue books, since if they did not do

so some people would keep books out indefinitely, risking inconvenience to other library users who want to use the books.

- (D) Cities should impose high fines for littering. The risk of being caught littering is quite low, so the fine for those who are caught must be correspondingly high in order to deter people from littering.
- (E) Municipalities should use tax money to pay for the maintenance of municipal roads, since if individuals paid for only those roads they used, some important roads in remote areas would be inadequately maintained.

## TEST 2001.6

### SECTION II

#### Time 35 minutes 25 Questions

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. In his new book on his complex scientific research, R frequently imputes bad faith to researchers disagreeing with him. A troubling aspect of R's book is his stated conviction that other investigators' funding sources often determine what "findings" those investigators report. Add to this that R has often shown himself to be arrogant, overly ambitious, and sometimes plain nasty, and it becomes clear that R's book does not merit attention from serious professionals.  
The author of the book review commits which one of the following reasoning errors?
  - (A) using an attack on the character of the writer of the book as evidence that this person is not competent on matters of scientific substance
  - (B) taking it for granted that an investigator is unlikely to report findings that are contrary to the interests of those funding the investigation
  - (C) dismissing a scientific theory by giving a biased account of it
  - (D) presenting as facts several assertions about the book under review that are based only on strong conviction and would be impossible for others to verify
  - (E) failing to distinguish between the criteria of being true and of being sufficiently interesting to merit attention
2. Having an efficient, attractive subway system makes good economic sense. So, the city needs to purchase new subway cars, since the city should always do what makes good economic sense.  
The conclusion drawn above follows logically if which one of the following is assumed?
  - (A) The city should invest in an efficient, attractive subway system.
  - (B) Cost-effective subway cars are an integral part of an efficient subway system.
  - (C) Investment in new subway cars makes better economic sense than many of



- the other investment options open to the city.
- (D) New subway cars are financially affordable.
- (E) New subway cars are required in order for the city to have a subway system that is efficient and attractive.
3. Restaurant manager: In response to requests from our patrons for vegetarian main dishes, we recently introduced three: an eggplant and zucchini casserole with tomatoes, brown rice with mushrooms, and potatoes baked with cheese. The first two are frequently ordered, but no one orders the potato dish, although it costs less than the other two. Clearly, then, our patrons prefer not to eat potatoes.
- Which one of the following is an error of reasoning in the restaurant manager's argument?
- (A) concluding that two things that occur at the same time have a common cause
- (B) drawing a conclusion that is inconsistent with one premise of the argument
- (C) ignoring possible differences between what people say they want and what they actually choose
- (D) attempting to prove a claim on the basis of evidence that a number of people hold that claim to be true
- (E) treating one of several plausible explanations of a phenomenon as the only possible explanation
4. For newborns of age four to six weeks whose mothers have been the primary caregivers, the following is true: When the newborns are crying due to hunger or other similar discomfort, merely hearing the mother's voice will lead to a temporary halt in crying, while the voices of others do not have this effect.
- Which one of the following is most reasonably supported by the information above?
- (A) Babies more easily learn to recognize the voices of their mothers than the voices of other people.
- (B) A mother's voice is the first thing a baby learns to recognize.
- (C) Babies associate the voice of the primary caregiver with release from discomfort.
- (D) Often only a primary caregiver can provide comfort to a newborn.
- (E) Discomfort in newborns is best relieved by hearing the mother's voice.
5. Many elementary schools have recently offered computer-assisted educational programs. Students' reactions after several years have been decidedly mixed. Whereas students have found computers very useful in studying arithmetic, they have found them of little help in studying science, and of no help at all with their reading and writing skills.
- Which one of the following, if true, most helps to explain the students' mixed reactions?
- (A) Students in these schools began reading and doing arithmetic before learning

to use computers.

- (B) Of the disciplines and skills mentioned, the exactness of arithmetic makes it most suitable to computer-assisted education.
- (C) Many elementary school teachers are reluctant to use computer technology in their classrooms.
- (D) Young students are more likely to maintain interest in training programs that use the newest computers and video graphics than in those that do not.
- (E) The elementary schools have offered more computer-assisted programs in reading and writing than in arithmetic and science.

6. The notion that one might be justified in behaving irrationally in the service of a sufficiently worthy end is incoherent. For if such action is justified, then one would be behaving rationally, not irrationally.

Which one of the following arguments is most similar in its reasoning to the argument above?

- (A) A representative of the law, such as a judge or a police officer, ought not to commit crimes. For if representatives of the law commit crimes, they will be ineffective in preventing crime.
- (B) One cannot intend to spill a glass of water accidentally. Spilling it accidentally means that the act will not have been done intentionally.
- (C) One cannot live the good life and be unhappy. If one's own neighbors see that one is unhappy, then they will see that one is not living the good life.
- (D) Doctors cannot perform self-diagnosis, for they cannot objectively evaluate their own symptoms, and thus will be practicing poor medicine.
- (E) One ought not to have both a cat and a goldfish. The goldfish is the natural prey of the cat, so it is unethical to place it at the cat's disposal.

7. A certain moral system holds that performing good actions is praiseworthy only when one overcomes a powerful temptation in order to perform them. Yet this same moral system also holds that performing good actions out of habit is sometimes praiseworthy.

Which one of the following, if true, does the most to reconcile the apparent conflict in the moral system described above?

- (A) People who perform good actions out of habit have often acquired this habit after years of having resisted temptation.
- (B) Most people face strong moral temptation from time to time but few people have to endure it regularly.
- (C) People virtually always perform actions they think are good, regardless of what other people may think.
- (D) Since it is difficult to tell what is going on in another person's mind, it is often hard to know exactly how strongly a person is tempted.
- (E) It is far more common for people to perform good actions out of habit than

for them to do so against strong temptation.

8. Conservationist: The risk to airplane passengers from collisions between airplanes using the airport and birds from the wildlife refuge is negligible. In the 10 years since the refuge was established, only 20 planes have been damaged in collisions with birds, and no passenger has been injured as a result of such a collision. The wildlife refuge therefore poses no safety risk.

Pilot: You neglect to mention that 17 of those 20 collisions occurred within the past 2 years, and that the number of birds in the refuge is rapidly increasing. As the number of collisions between birds and airplanes increases, so does the likelihood that at least one such collision will result in passenger injuries.

The pilot counters the conservationist by

- (A) attempting to show that the conservationist's description of the fact is misleading
  - (B) questioning the conservationist's motives for reaching a certain conclusion
  - (C) asserting that dangerous situations inevitably become more dangerous with the passage of time
  - (D) discrediting the moral principle on which the conservationist's argument is based
  - (E) disputing the accuracy of the figures cited by the conservationist
9. A university study reported that between 1975 and 1983 the length of the average workweek in a certain country increased significantly. A governmental study, on the other hand, shows a significant decline in the length of the average workweek for the same period. Examination of the studies shows, however, that they used different methods of investigation; thus there is no need to look further for an explanation of the difference in the studies' results.
- The argument's reasoning is flawed because the argument fails to
- (A) distinguish between a study produced for the purposes of the operation of government and a study produced as part of university research
  - (B) distinguish between a method of investigation and the purpose of an investigation
  - (C) recognize that only one of the studies has been properly conducted
  - (D) recognize that two different methods of investigation can yield identical results
  - (E) recognize that varying economic conditions result in the average workweek changing in length
10. Although the charter of Westside School states that the student body must include some students with special educational needs, no students with learning disabilities have yet enrolled in the school. Therefore, the school is currently in violation of its charter.

The conclusion of the argument follows logically if which one of the following is

assumed?

- (A) All students with learning disabilities have special educational needs.
- (B) The school currently has no students with learning disabilities.
- (C) The school should enroll students with special educational needs.
- (D) The only students with special educational needs are students with learning disabilities.
- (E) The school's charter cannot be modified in order to avoid its being violated.

11. Some psychologists claim that, in theory, the best way to understand another person would be through deep empathy, whereby one would gain a direct and complete grasp of that person's motivations. But suppose they are right; then there would be no way at all to achieve understanding, since it is psychologically impossible to gain a direct and complete grasp of another person's motivations. But obviously one can understand other people; thus these psychologists are wrong.

The argument is most vulnerable to the criticism that it

- (A) fails to adequately define the key phrase "deep empathy"
- (B) assumes something that it later denies, resulting in a contradiction
- (C) confuses a theoretically best way of accomplishing something with the only way of accomplishing it
- (D) accepts a claim on mere authority, without requiring sufficient justification
- (E) fails to consider that other psychologists may disagree with the psychologists cited

12. The five senses have traditionally been viewed as distinct yet complementary. Each sense is thought to have its own range of stimuli that are incapable of stimulating the other sense. However, recent research has discovered that some people taste a banana and claim that they are tasting blue, or see a color and say that it has a specific smell. This shows that such people, called synesthiacs, have sense that do not respect the usual boundaries between the five recognized senses.

Which one of the following, if true, most seriously weakens the argument?

- (A) Synesthiacs demonstrate a general, systematic impairment in their ability to use and understand words.
- (B) Recent evidence strongly suggests that there are other senses besides sight, touch, smell, hearing, and taste.
- (C) The particular ways in which sensory experiences overlap in synesthiacs follow a definite pattern.
- (D) The synesthetic phenomenon has been described in the legends of various cultures.
- (E) Synesthiacs can be temporarily rid of their synesthetic experiences by the use of drugs.

13. Essayist: One of the claims of laissez-faire economics is that increasing the minimum wage reduces the total number of minimum-wage jobs available. In a recent study, however, it was found that after an increase in the minimum wage, fast-food restaurants kept on roughly the same number of minimum-wage employees as before the increase. Therefore, laissez-faire economics is not entirely accurate.
- The essayist's argument depends on assuming which one of the following?
- (A) If Laissez-faire economics makes an incorrect prediction about the minimum wages, then all the doctrines of laissez-faire economics are inaccurate.
  - (B) Minimum-wage job availability at fast-food restaurants included in the study was representative of minimum-wage job availability in general.
  - (C) No study has ever found that a business has decreased the number of its minimum-wage employees after an increase in the minimum wage.
  - (D) The fast-food restaurants included in the study did not increase the average wage paid to employees.
  - (E) The national unemployment rate did not increase following the increase in the minimum wage.
14. Some people claim that every human discovery or invention is an instance of self-expression. But what they seem to ignore is that, trivially, anything we do is self-expressive. So, until they can give us a more interesting interpretation of their claim, we are not obliged to take their claim seriously.
- Which one of the following, if true, provides the most support for the reasoning above?
- (A) All claims that are trivial are uninteresting.
  - (B) Most people do not take trivial claims seriously.
  - (C) No claims that are trivial are worthy of serious consideration.
  - (D) Every claim is open to both interesting and uninteresting interpretations.
  - (E) Every interpretation is either trivial or uninteresting.

Questions 15-16

Camera manufacturers typically advertise their products by citing the resolution of their camera's lenses, the resolution of a lens being the degree of detail the lens is capable of reproducing in the image it projects onto the film. Differences between cameras in this respect are irrelevant for practical photography, however, since all modern lenses are so excellent that they project far more detail onto the film than any photographic film is capable of reproducing in a developed image.

15. Which one of the following most accurately states the main point of the argument?
- (A) Camera manufacturers ought to concentrate on building other desirable qualities into their cameras' lenses, rather than concentrating only on the lenses' resolution.



- (B) Apart from differences in resolution, there is no practical difference among modern cameras in the quality of the images that they produce.
- (C) Advertised differences among cameras in the resolution of their lenses have no practical bearing on the cameras' relative quality as photographic tools.
- (D) In concentrating their advertising on the issue of image quality, manufacturers are making a mistake about the interests of potential purchasers of cameras.
- (E) Differences among photographic films in the amount of detail they reproduce have a more significant effect on the quality of the developed image than do differences in the resolution of camera lenses.
16. The argument depends on assuming which one of the following?
- (A) The definition of the term "resolution" does not capture an important determinant of the quality of photographic instruments and materials.
- (B) In determining the amount of detail reproduced in the developed photographic image, differences in the resolutions of available lenses do not compound the deficiencies of available film.
- (C) Variations in the method used to process the film do not have any significant effect on the film's resolution.
- (D) Flawless photographic technique is needed to achieve the maximum image resolution possible with the materials and equipment being used.
- (E) The only factors important in determining the degree of detail reproduced in the final photographic print are the resolution of the camera's lens and the resolution of the film.
17. Dietary researcher: A recent study reports that laboratory animals that were fed reduced-calorie diets lived longer than laboratory animals whose caloric intake was not reduced. In response, some doctors are advocating reduced-calorie diets, in the belief that North Americans' life spans can thereby be extended. However, this conclusion is not supported. Laboratory animals tend to eat much more than animals in their natural habitats, which leads to their having a shorter life expectancy. Restricting their diets merely brings their caloric intake back to natural optimal levels and reinstates their normal life spans.
- Which one of the following, if true, would most weaken the dietary researcher's argument?
- (A) North Americans, on average, consume a higher number of calories than the optimal number of calories for a human diet.
- (B) North Americans with high-fat, low-calorie diets generally have a shorter life expectancy than North Americans with low-fat, low-calorie diets.
- (C) Not all scientific results that have important implications for human health are based on studies of laboratory animals.
- (D) Some North Americans who follow reduced-calorie diets are long-lived.
- (E) There is a strong correlation between diet and longevity in some species of

animals.

18. Editorist: The positions advanced by radical environmentalists often contain hypotheses that are false and proposals that are economically infeasible. But there is a positive role to be played even by these extremists, for the social and political inertia that attends environmental issues is so stubborn that even small areas of progress can be made only if the populace fears environmental disaster, however untenable the reasons for those fears may be.

Which one of the following most accurately expresses the main conclusion of the editorialist's argument?

- (A) The little progress that has been made in improving the environment is mainly due to the fear created by radical environmentalists.
  - (B) Radical environmentalists, by promoting their views, stimulate progress on environmental issues.
  - (C) Social and political inertia is most effectively overcome by an extremely fearful populace, regardless of whether its fears are well-founded.
  - (D) Radical environmentalists often put forth untenable positions in order to produce the fear that is required to bring about moderate reforms.
  - (E) Radical environmentalists advocate positions without regard for factual support or economic feasibility.
19. People should avoid taking the antacid calcium carbonate in doses larger than half a gram, for despite its capacity to neutralize stomach acids, calcium carbonate can increase the calcium level in the blood and thus impair kidney function. Moreover, just half a gram of it can stimulate the production of gastrin, stomach hormone that triggers acid secretion.

Which one of the following is most strongly supported by the information above?

- (A) Cessation of gastrin production is a more effective method of controlling excess stomach acid than is direct neutralization of stomach acid.
- (B) People who avoid taking more than half a gram of calcium carbonate are less likely than average to suffer from impaired kidney function.
- (C) Doses of calcium carbonate smaller than half a gram can reduce stomach acid more effectively than much larger doses do.
- (D) Half a gram of calcium carbonate can causally contribute to both the secretion and the neutralization of stomach acids.
- (E) Impaired kidney function may increase the level of calcium in the blood.

Questions 20-21

Professor Chan: The literature department's undergraduate courses should cover only true literary works, and not such frivolous material as advertisements.

Professor Wigmore: Advertisements might or might not be true literary works but they

do have a powerfully detrimental effect on society—largely because people cannot discern their real messages. The literature department's courses give students the critical skills to analyze and understand texts. Therefore, it is the literature department's responsibility to include the study of advertisements in its undergraduate courses.

20. Which one of the following principles most strongly supports Professor Wigmore's argument?
- (A) Advertisements ought to be framed in such a way that their real messages are immediately clear.
  - (B) Any text that is subtly constructed and capable of affecting people's thought and action ought to be considered a form of literature.
  - (C) All undergraduate students ought to take at least one course that focuses on the development of critical skills.
  - (D) The literature department's courses ought to enable students to analyze and understand any text that could have a harmful effect on society.
  - (E) Any professor teaching an undergraduate course in the literature department ought to be free to choose the material to be covered in that course.
21. Which one of the following is an assumption on which Professor Wigmore's argument depends?
- (A) Texts that are true literary works never have a detrimental effect on society.
  - (B) Courses offered by the literature department cannot include both true literary works and material such as advertisement.
  - (C) Students who take courses in the literature department do not get from those courses other skills besides those needed to analyze and understand texts.
  - (D) Forms of advertising that convey their message entirely through visual images do not have a detrimental effect on society.
  - (E) The literature department's responsibility is not limited to teaching students how to analyze true literary works.
22. Sociologist: Some people argue that capital punishment for theft was an essential part of the labor discipline of British capitalism. Critics of such a view argue that more people were executed for theft in preindustrial England than were executed in England after industrialization. But such a criticism overlooks the fact that industrialization and capitalism are two very different social phenomena, and that the latter predated the former by several centuries.
- Which one of the following most accurately describes the role played in the passage by the point that capitalism and industrialization are distinct?
- (A) It is cited as some evidence against the claim that capital punishment for theft was an essential part of the labor discipline of British capitalism.
  - (B) It is cited as a direct contradiction of the claim that capital punishment for theft was an essential part of the labor discipline of British capitalism.

- (C) It is an attempt to conclusively prove the claim that capital punishment for theft was an essential part of the labor discipline of British capitalism.
- (D) It is cited as a fact supporting the critics of the view that capital punishment for theft was an essential part of the labor discipline of British capitalism.
- (E) It is an attempt to undermine the criticism cited against the claim that capital punishment for theft was an essential part of the labor discipline of British capitalism.
23. To be horrific, a monster must be threatening. Whether or not it presents psychological, moral, or social dangers, or triggers enduring infantile fears, if a monster is physically dangerous then it is threatening. In fact, even a physically benign monster is horrific if it inspires revulsion.
- Which one of the following logically follows from the statements above?
- (A) Any horror-story monster that is threatening is also horrific.
- (B) A monster that is psychologically dangerous, but that does not inspire revulsion, is not horrific.
- (C) If a monster triggers infantile fears but is not physically dangerous, then it is not horrific.
- (D) If a monster is both horrific and psychologically threatening, then it does not inspire revulsion.
- (E) All monsters that are not physically dangerous, but that are psychologically dangerous and inspire revulsion, are threatening.
24. Lawyer: The defendant wanted to clear the snow off his car and in doing so knocked snow on the sidewalk. This same snow melted and refroze, forming ice on which the plaintiff fell, breaking her hip. We argue that the defendant maliciously harmed the plaintiff, because malice is intention to cause harm and the defendant intentionally removed the snow from his car and put it on the sidewalk, which, unbeknownst to the defendant at the time, would subsequently cause the injury suffered by the plaintiff.
- The flawed reasoning in which one of the following is most similar to that in the lawyer's argument?
- (A) Alice asked her sister to lie in court. Unbeknownst to Alice's sister, lying in court is against the law. So what Alice asked her sister to do was illegal.
- (B) Bruce wanted to eat the mincemeat pie. Unbeknownst to Bruce, the mincemeat pie was poisonous. So Bruce wanted to eat poison.
- (C) Cheryl denigrated the wine. Cheryl's sister had picked out the wine. So though she may not have realized it, Cheryl indirectly denigrated her sister.
- (D) Deon had lunch with Ms. Osgood. Unbeknownst to Deon, Ms. Osgood is generally thought to be an industrial spy. So Deon had lunch with an industrial spy.
- (E) Edwina bought a car from Mr. Yancy, then resold it. Unbeknownst to Edwina, Mr. Yancy had stolen the car. So Edwina sold a stolen car.

25. Although wood-burning stoves are more efficient than open fireplaces, they are also more dangerous. The smoke that wood-burning stoves release up the chimney is cooler than the smoke from an open flame. Thus it travels more slowly and deposits more creosote, a flammable substance that can clog a chimney—or worse, ignite inside it.
- Which one of the following, if true, most seriously weakens the augment?
- (A) The most efficient wood-burning stoves produce less creosote than do many open fireplaces.
  - (B) The amount of creosote produced depends not only on the type of flame but on how often the stove or fireplace is used.
  - (C) Open fireplaces pose more risk of severe accidents inside the home than do wood-burning stoves.
  - (D) Open fireplaces also produce a large amount of creosote residue.
  - (E) Homeowners in warm climates rarely use fireplaces or wood-burning stoves.

### SECTION III

#### **Time 35 minutes 26 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. If a doctor gives a patient only a few options for lifestyle modification, the patient is more likely to adhere to the doctor's advice than if the doctor gives the patient many options.
- Which one of the following most accurately expresses the principle illustrated above?
- (A) People are especially likely to ignore the advice they get from doctors if they are confused about that advice.
  - (B) People dislike calculating the best of a variety of choices unless they can see a clear difference among the benefits that would result from each choice.
  - (C) The tendency people have to alter their behavior varies inversely with the number of alternatives available to them for behavior modification.
  - (D) Most people are unlikely to follow their doctor's advice unless they can vividly imagine the consequences of not following the advice.
  - (E) In getting good results, the clarity with which a doctor instructs a patient is of equal importance to the accuracy of the doctor's diagnosis on which the instruction is based.
2. To acquire a better understanding of the structure and development of the human personality, some psychologists study the personalities of animals.
- Each of the following, if true, contributes to an explanation of the practice mentioned above EXCEPT:
- (A) The actions of humans and animals are believed to be motivated by similar instincts, but these instincts are easier to discern in animals.



- (B) The law forbids certain experiments on humans but permits them on animals.
- (C) It is generally less expensive to perform experiments on animals than it is to perform them on humans.
- (D) Proper understanding of human personality is thought to provide a model for better understanding the personality of animals.
- (E) Field observations of the behavior of young animals often inspire insightful hypotheses about human personality development.
3. Sigatoka disease drastically reduces the yield of banana trees and is epidemic throughout the areas of the world where bananas are grown. The fungus that causes the disease can be controlled with fungicides, but the fungicides can pose a health hazard to people living nearby. The fungicides are thus unsuitable for small banana groves in populated areas. Fortunately, most large banana plantations are in locations so isolated that fungicides can be used safely there. Therefore, most of the world's banana crop is not seriously threatened by Sigatoka disease.
- Which one of the following is an assumption on which the argument depends?
- (A) It will eventually be possible to breed strains of bananas that are resistant to Sigatoka disease.
- (B) Large plantations produce most or all of the world's bananas.
- (C) Sigatoka disease spreads more slowly on large plantations than in small banana groves.
- (D) Sigatoka disease is the only disease that threatens bananas on a worldwide scale.
- (E) Most of the banana trees that have not been exposed to the Sigatoka fungus grow in small banana groves.
4. A group of 1,000 students was randomly selected from three high schools in a medium-sized city and asked the question, "Do you plan to finish your high school education?" More than 89 percent answered "Yes." This shows that the overwhelming majority of students want to finish high school, and that if the national dropout rate among high school students is high, it cannot be due to a lack of desire on the part of the students.
- The reasoning of the argument above is questionable because the argument
- (A) fails to justify its presumption that 89 percent is an overwhelming majority
- (B) attempts to draw two conflicting conclusions from the results of one survey
- (C) overlooks the possibility that there may in fact not be a high dropout rate among high school students
- (D) contradicts itself by admitting that there may be a high dropout rate among students while claiming that most students want to finish high school
- (E) treats high school students from a particular medium-sized city as if they are representative of high school students nationwide
5. Columnist: A democratic society cannot exist unless its citizens have established

strong bonds of mutual trust. Such bonds are formed and strengthened only by participation in civic organizations, political parties, and other groups outside the family. It is obvious then that widespread reliance on movies and electronic media for entertainment has an inherently corrosive effect on democracy.

Which one of the following is an assumption on which the columnist's argument depends?

- (A) Anyone who relies on movies and electronic media for entertainment is unable to form a strong bond of mutual trust with a citizen.
  - (B) Civic organizations cannot usefully advance their goals by using electronic media.
  - (C) Newspapers and other forms of print media strengthen, rather than weaken, democratic institutions.
  - (D) Relying on movies and electronic media for entertainment generally makes people less likely to participate in groups outside their families.
  - (E) People who rely on movies and electronic media for entertainment are generally closer to their families than are those who do not.
6. Standard archaeological techniques make it possible to determine the age of anything containing vegetable matter, but only if the object is free of minerals containing carbon. Prehistoric artists painted on limestone with pigments composed of vegetable matter, but it is impossible to collect samples of this prehistoric paint without removing limestone, a mineral containing carbon, with the paint. Therefore, it is not possible to determine the age of prehistoric paintings on limestone using standard archaeological techniques.

Which one of the following, if true, most seriously weakens the argument?

- (A) There exist several different techniques for collecting samples of prehistoric pigments on limestone.
- (B) Laboratory procedures exist that can remove all the limestone from a sample of prehistoric paint on limestone.
- (C) The age of the limestone itself can be determined from samples that contain no vegetable-based paint.
- (D) Prehistoric artists did not use anything other than vegetable matter to make their paints.
- (E) The proportion of carbon to other elements in limestone is the same in all samples of limestone.

### Questions 7-8

Dr. Jones: The new technology dubbed "telemedicine" will provide sustained improvement in at least rural patient care since it allows rural physicians to televise medical examinations to specialists who live at great distances—specialists who will thus be able to provide advice the rural patient would otherwise not receive.

Dr. Carabella: Not so. Telemedicine might help rural patient care initially. However,

small hospitals will soon realize that they can minimize expenses by replacing physicians with technicians who can use telemedicine to transmit examinations to large medical centers, resulting in fewer patients being able to receive traditional, direct medical examinations. Eventually, it will be the rare individual who ever gets truly personal attention. Hence, rural as well as urban patient care will suffer.

7. which one of the following is a point at issue between Dr. Jones and Dr. Carabella?
- (A) whether medical specialists in general offer better advice than rural physicians
  - (B) whether telemedicine technology will be installed only in rural hospitals and rural medical centers
  - (C) whether telemedicine is likely to be widely adopted in rural areas in future years
  - (D) whether the patients who most need the advice of medical specialists are likely to receive it through telemedicine
  - (E) whether the technology of telemedicine will benefit rural patients in the long run
8. Dr. Carabella uses which one of the following strategies in responding to Dr. Jones?
- (A) listing a set of considerations to show that a prescribed treatment that seems to be benefiting a patient in fact harms that patient
  - (B) describing the application of the technology discussed by Dr. Jones as one step that initiates a process that leads to an undesirable end
  - (C) citing evidence that Dr. Jones lacks the professional training to judge the case at issue
  - (D) invoking medical statistics that cast doubt on the premises used in Dr. Jones's argument
  - (E) providing grounds for dismissing Dr. Jones's interpretation of a key term in medical technology
9. Lines can be parallel in a Euclidean system of geometry. But the non-Euclidean system of geometry that has the most empirical verification is regarded by several prominent physicists as correctly describing the universe we inhabit. If these physicists are right, in our universe there are no parallel lines.
- Which one of the following is an assumption that is required by the argument?
- (A) There are no parallel lines in the non-Euclidean system of geometry that has the most empirical verification.
  - (B) Most physicists have not doubted the view that the universe is correctly described by the non-Euclidean system of geometry that has the most empirical verification.
  - (C) There are no parallel lines in every non-Euclidean system of geometry that

has any empirical verification.

- (D) The universe is correctly described by the non-Euclidean system of geometry that has the most empirical verification if prominent physicists maintain that it is.
- (E) Only physicists who are not prominent doubt the view that the universe is correctly described the non-Euclidean system of geometry that has the most empirical verification.

10. Philosopher: People are not intellectually well suited to live in large, bureaucratic societies. Therefore, people can find happiness, if at all, only in smaller political units such as villages.

The reasoning in the philosopher's argument is flawed because the argument takes for granted that

- (A) no one can ever be happy living in a society in which she or he is not intellectually well suited to live
- (B) the primary purpose of small political units such as villages is to make people happy
- (C) all societies that are plagued by excessive bureaucracy are large
- (D) anyone who lives in a village or other small political unit that is not excessively bureaucratic can find happiness
- (E) everyone is willing to live in villages or other small political units

11. The present goal of the field of medicine seems to be to extend life indefinitely. Increasingly, the ability to transplant such organs as hearts, lungs, livers, and kidneys will allow us to live longer. But we can never achieve brain transplants. There are, for a start, ten million nerves running from the brain down the neck, not to mention the millions joining the brain to the sensing organs. Clearly, then, as the transplantation of organs allows more and more people to live longer, those with degenerative brain disorders will form an ever-increasing proportion of the population.

The argument above is based on which one of the following assumptions?

- (A) Degenerative brain disorders will increasingly strike younger and younger patients.
- (B) It is still quite rare for people to live long enough to need more than one transplant of any give organ.
- (C) There are degenerative brain disorders that will not be curable without brain transplants.
- (D) Degenerative brain disorders account for a very small proportion of deaths in the population at large.
- (E) More is being spent on research into degenerative brain disorders than on research into transplantation.

12. Politician: My opponents argue that the future of our city depends on

compromise—that unless the city’s leaders put aside their differences and work together toward common goals, the city will suffer. However, the founders of this city based the city’s charter on definite principles, and anyone who compromises those principles betrays the city founders’ goals. What any opponents are advocating, therefore, is nothing less than betraying the goals of the city’s founders.

Critic: I’m afraid your argument is flawed. Unless you’re assuming that the differences among the city’s leaders are differences of principle, your argument depends on a misleading use of the term\_\_\_\_\_.

Which one of the following provides the most logical completion of the critic’s statement?

- (A) betray
- (B) common
- (C) compromise
- (D) principles
- (E) opponents

13. Though many insects die soon after reproducing for the first time, some may live for years after the survival of the next generation has been secured. Among the latter are some insects that work for the benefit of the ecosystem—for example, bees.

Which one of the following can be properly inferred from the information above?

- (A) Survival of the species, rather than of the individual, is the goal of most insect populations.
- (B) Insects that do not play a vital role in the ecosystem are more likely to die after reproducing for the first time.
- (C) Most bees live well beyond the onset of the generation that follows them.
- (D) Those bees that reproduce do not always die soon after reproducing for the first time.
- (E) Most insects are hatched self-sufficient and do not need to be cared for by adult insects.

14. People’s political behavior frequently does not match their rhetoric. Although many complain about government intervention in their lives, they tend not to reelect inactive politicians. But a politician’s activity consists largely in the passage of laws whose enforcement affects voters’ lives. Thus, voters often reelect politicians whose behavior they resent.

Which one of the following most accurately describes the role played in the argument by the claim that people tend not to reelect inactive politicians?

- (A) It describes a phenomenon for which the argument’s conclusion is offered as an explanation.



- (B) It is a premise offered in support of the conclusion that voters often reelect politicians whose behavior they resent.
- (C) It is offered as an example of how a politician's activity consists largely in the passage of laws whose enforcement interferes with voters' lives.
- (D) It is a generalization based on the claim that people complain about government intervention in their lives.
- (E) It is cited as evidence that people's behavior never matches their political beliefs.
15. Lea: Contemporary art has become big business. Nowadays art has less to do with self-expression than with making money. The work of contemporary artists is utterly bereft of spontaneity and creativity, as a visit to any art gallery demonstrates.
- Susan: I disagree. One can still find spontaneous, innovative new artwork in most of the smaller, independent galleries.
- Lea's and Susan's remarks provide the most support for holding that they disagree about whether
- (A) large galleries contain creative artwork
- (B) most galleries contain some artwork that lacks spontaneity and creativity
- (C) contemporary art has become big business
- (D) some smaller art galleries still exhibit creative new artwork
- (E) contemporary art, in general, is much less concerned with self-expression than older art is
16. Ethicist: In a recent judicial decision, a contractor was ordered to make restitution to a company because of a bungled construction job, even though the company had signed a written agreement prior to entering into the contract that the contractor would not be financially liable should the task not be adequately performed. Thus, it was morally wrong for the company to change its mind and seek restitution.
- Which one of the following principles, if valid, most helps to justify the ethicist's reasoning?
- (A) It is morally wrong for one party not to abide by its part of an agreement only if the other party abides by its part of the agreement.
- (B) It is morally wrong to seek a penalty for an action for which the agent is unable to make restitution.
- (C) It is morally wrong for one person to seek to penalize another person for an action that the first person induced the other person to perform.
- (D) It is morally wrong to ignore the terms of an agreement that was freely undertaken only if there is clear evidence that the agreement was legally permissible.
- (E) It is morally wrong to seek compensation for an action performed in the

context of a promise to forgo such compensation.

17. Zoologist: Animals can certainly signal each other with sounds and gestures. However, this does not confirm the thesis that animals possess language, for it does not prove that animals possess the ability to use sounds or gestures to refer to concrete objects or abstract ideas.
- Which one of the following is an assumption on which the zoologist's argument depends?
- (A) Animals do not have the cognitive capabilities to entertain abstract ideas.
  - (B) If an animal's system of sounds or gestures is not a language, then that animal is unable to entertain abstract ideas.
  - (C) When signaling each other with sounds or gestures, animals refer neither to concrete objects nor abstract ideas.
  - (D) If a system of sounds or gestures contains no expressions referring to concrete objects or abstract ideas, then that system is not a language.
  - (E) Some animals that possess a language can refer to both concrete objects and abstract ideas.
18. A person is more likely to become disabled as that person ages. Among adults in the country of East Wendell, however, the proportion receiving disability benefit payments shrinks from 4 percent among 55 to 64 year olds to 2 percent for those aged 65 to 74 and 1 percent for those aged 75 and older. The explanation of this discrepancy is that the proportion of jobs offering such a disability benefit has greatly increased in recent years.
- Which one of the following, if true about East Wendell, shows that the explanation above is at best incomplete?
- (A) The treatment of newly incurred disabilities is more successful now than in the past in restoring partial function in the affected area within six months.
  - (B) Some people receive disability benefit payments under employer's insurance plans, and some receive them from the government.
  - (C) Medical advances have prolonged the average lifespan beyond what it was 20 years ago.
  - (D) For person receiving disability benefit payments, those payments on average represent a smaller share of their predisability income now than was the case 20 years ago.
  - (E) Under most employers' plans, disability benefit payments stop when an employee with a disability reaches the usual retirement age of 65.
19. Light is registered in the retina when photons hit molecules of the pigment rhodopsin and change the molecules' shape. Even when they have not been struck by photons of light, rhodopsin molecules sometimes change shape because of normal molecular motion, thereby introducing error into the visual system. The amount of this molecular motion is directly proportional to the temperature of the

retina.

Which one of the following conclusion is most strongly supported by the information above?

- (A) The temperature of an animal's retina depends on the amount of light the retina is absorbing.
- (B) The visual systems of animals whose body temperature matches that of their surroundings are more error-prone in hot surroundings than in cold ones.
- (C) As the temperature of the retina rises, rhodopsin molecules react more slowly to being struck by photons.
- (D) Rhodopsin molecules are more sensitive to photons in animals whose retinas have large surface areas than in animals whose retinas have small surface areas.
- (E) Molecules of rhodopsin are the only pigment molecules that occur naturally in the retina.

20. Critic: Political utility determines the popularity of a metaphor. In authoritarian societies, the metaphor of society as a human body governed by a head is pervasive. Therefore, the society-as-body metaphor, with its connection between society's proper functioning and governance by a head, promotes greater acceptance of authoritarian repression than do other metaphors, such as likening society to a family.

Which one of the following statements, if true, most weakens the critic's argument?

- (A) In authoritarian societies, the metaphor of society as a family is just as pervasive as the society-as-body metaphor.
- (B) Every society tries to justify the legitimacy of its government through the use of metaphor.
- (C) The metaphor of society as a human body is sometimes used in nonauthoritarian societies.
- (D) Authoritarian leaders are always searching for new metaphors for society in their effort to maintain their power.
- (E) The metaphor of society as a human body governed by head is rarely used in liberal democracies.

21. Thirty years ago, the percentage of their income that single persons spent on food was twice what it is today. Given that incomes have risen over the past thirty years, we can conclude that incomes have risen at a greater rate than the price of food in that period.

Which one of the following, if assumed, helps most to justify the conclusion drawn above?

- (A) The amount of food eaten per capita today is identical to the amount of food eaten per capita thirty years ago.

- (B) In general, single persons today eat healthier foods and eat less than their counterparts of thirty years ago.
- (C) Single persons today, on average, purchase the same kinds of food items in the same quantities as they did thirty years ago.
- (D) The prices of nonfood items single person purchase have risen faster than the price of food over the past thirty years.
- (E) Unlike single persons, families today spend about the same percentage of their income on food as they did thirty years ago.

22. Viruses can have beneficial effects. For example, some kill more complex microorganisms, some of which are deadly to humans. But viruses have such simple structures that replacing just a few of a beneficial virus's several million atoms can make it deadly to humans. Clearly, since alterations of greater complexity than this are commonly produce by random mutations, any virus could easily become dangerous to humans.

If the statements above are true, then each of the following statements could also be true EXCEPT:

- (A) Random mutation makes some deadly viruses beneficial to humans.
- (B) Some organisms of greater complexity than viruses are no more likely than viruses to undergo significant alterations through random mutation.
- (C) Some microorganisms that are more complex than viruses are beneficial to humans.
- (D) Some viruses that fail to kill other viruses that are deadly to humans are nevertheless beneficial to humans.
- (E) No virus that is deadly to organisms of greater complexity than itself is beneficial to humans.

23. Societies in which value is measured primarily in financial terms invariably fragment into isolated social units. But since money is not the main measure of value in nonindustrial societies, they must tend in contrast to be socially unified. The flawed reasoning in which one of the following is most similar to that in the argument above?

- (A) Animals of different genera cannot interbreed. But that does not prove that jackals and wolves cannot interbreed, for they belong to the same genus.
- (B) Ecosystems close to the equator usually have more species than those closer to the poles. Thus, the Sahara Desert must contain more species than Siberia does, since the latter is farther from the equator.
- (C) Insects pass through several stages of maturation: egg, larva, pupa, and adult. Since insect are arthropods, all arthropods probably undergo similar maturation processes.
- (D) Poets frequently convey their thoughts via nonliteral uses of language such as metaphors and analogies. But journalists are not poets, so surely journalists always use language literally.

(E) Technologically sophisticated machines often cause us more trouble than simpler devices serving the same function. Since computers are more technologically sophisticated than pencils, they must tend to be more troublesome.

24. Ringtail opossums are an Australian wildlife species that is potentially endangered. A number of ringtail opossums that had been orphaned and subsequently raised in captivity were monitored after being returned to the wild. Seventy-five percent of these opossums were killed by foxes, a species not native to Australia. Conservationists concluded that the native ringtail opossum population was endangered not by a scarcity of food, as had been previously thought, but by non-native predator species against which the opossum had not developed natural defenses.

Which one of the following, if true, most strongly supports the conservationists' argument?

- (A) There are fewer non-native predator species that prey on the ringtail opossum than there are native species that prey on the ringtail opossum.
- (B) Foxes, which were introduced into Australia over 200 years ago, adapted to the Australian climate less successfully than did some other foreign species.
- (C) The ringtail opossums that were raised in captivity were fed a diet similar to that which ringtail opossums typically eat in the wild.
- (D) Few of the species that compete with the ringtail opossum for food sources are native to Australia.
- (E) Ringtail opossums that grow to adulthood in the wild defend themselves against foxes no more successfully than do ringtail opossums raised in captivity.

25. Jordan: If a business invests the money necessary to implement ecologically sound practices, its market share will decrease. But if it doesn't implement these practices, it pollutes that environment and wastes resources.

Terry: But if consumers demand environmental responsibility of all businesses, no particular business will be especially hurt.

In which one of the following exchanges is the logical relationship between Jordan's and Terry's statements most similar to the logical relationship between their statements above?

- (A) Jordan: Either it will rain and our plans for a picnic will be thwarted or it won't rain and the garden will go yet another day without much-needed watering.

Terry: But if it doesn't rain, we can buy a hose and water the garden with the hose.

- (B) Jordan: Each person can have either an enjoyable life or a long life, for one must eat vegetables and exercise continuously to stay healthy.

Terry: That's not true: there are many happy health-conscious people.



(C) Jordan: If taxes are raised, many social problems could be solved, but if they're lowered, the economy will grow again. So we can't have both social reform and a growing economy.

Terry: But if taxes remain at their current level, neither social problems nor the economy will get worse.

(D) Jordan: If we remodel the kitchen, the house will be more valuable, but even if we do, there's no guarantee that we'll actually get more for the house when we sell it.

Terry: But if we don't remodel the kitchen, we might get even less for the house than we paid for it.

(E) Jordan: If the dam's spillway is opened, the river might flood the eastern part of town, but if the spillway is not opened, the dam might burst.

Terry: There's no real danger of the dam's bursting, but if we get more heavy rain, opening the spillway is the most prudent policy.

26. The media now devote more coverage to crime than they did ten years ago. Yet this is not because the crime rate has increased, but rather because the public is now more interested in reading and hearing about crime. After all, a crucial factor in the media's decisions about what issues to cover and to what extent to cover them is the interests of their audiences.

The proposition that the public is now more interested in reading and hearing about crime plays which one of the following roles in the argument?

- (A) It supports the conclusion that the media now devote more coverage to crime than the crime rate alone justifies.
- (B) It is presented as evidence that the media decide what to cover and to what extent to cover it depending on the interest of the public.
- (C) It is a counterexample to the claim that the media devote more coverage to crime now than they did ten years ago.
- (D) It is a generalization based on the claim that the crime rate has increased over the past ten years.
- (E) It is offered as an alternative explanation of why the media devote more coverage to crime now than they did ten years ago.

## **TEST Oct 2001**

### **SECTION I**

**Time 35 minutes 26 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Some critics argue that an opera's stage directions are never reflected in its music.

Many comic scenes in Mozart's operas, however, open with violin phrases that sound like the squeaking of changing scenery. Clearly Mozart intended the music to echo the sounds occurring while stage directions are carried out. Hence, a change of scenery—the most basic and frequent stage direction—can be reflected in the music, which means that other operatic stage directions can be as well.

In the argument, the statement that many comic scenes in Mozart's operas open with violin phrases that sound like the squeaking of changing scenery is offered in support of the claim that

- (A) a change of scenery is the stage direction most frequently reflected in an opera's music
- (B) an opera's stage directions are never reflected in its music
- (C) an opera's music can have an effect on the opera's stage directions
- (D) a variety of stage directions can be reflected in an opera's music
- (E) the most frequent relation between an opera's music and its stage directions is one of musical imitation of the sounds that occur when a direction is carried out

2. Lecture: Given our current state of knowledge and technology, we can say that the generalization that the entropy of a closed system cannot decrease for any spontaneous process has not been falsified by any of our tests of that generalization. So we conclude it to be true universally. Yet, it must be admitted that this generalization has not been conclusively verified, in the sense that it has not been tested in every corner of the universe, under every feasible condition. Nevertheless, this generalization is correctly regarded as a scientific law; indeed, it is referred to as the Second Law of Thermodynamics.

Which one of the following principles, if valid, most justifies the lecturer's classification of the generalization described above?

- (A) Whatever is a scientific law has not been falsified.
- (B) If a generalization is confirmed only under a few circumstances, it should not be considered a scientific law.
- (C) Whatever is true universally will eventually be confirmed to the extent current science allows.
- (D) If a generalization is confirmed to the extent current science allows, then it is considered a scientific law.
- (E) Whatever is regarded as a scientific law will eventually be conclusively verified.

3. More women than men suffer from Alzheimer's disease—a disease that is most commonly contracted by elderly persons. This discrepancy has often been attributed to women's longer life span, but his theory may be wrong. A recent study has shown that prescribing estrogen to women after menopause, when estrogen production in the body decreases, may prevent them from developing the disease. Men's supply of testosterone may help safeguard them against

Alzheimer's disease because much of it is converted by the body to estrogen, and testosterone levels stay relatively stable into old age.

Which of the following most accurately expresses the main conclusion of the argument?

- (A) A decrease in estrogen, rather than longer life span, may explain the higher occurrence of Alzheimer's disease in women relative to men.
- (B) As one gets older, one's chances of developing Alzheimer's disease increase.
- (C) Women who go through menopause earlier in life than do most other women have an increased risk of contracting Alzheimer's disease.
- (D) The conversion of testosterone into estrogen may help safeguard men from Alzheimer's disease.
- (E) Testosterone is necessary for preventing Alzheimer's disease in older men.

4. Parent P: Children will need computer skills to deal with tomorrow's world. Computers should be introduced in kindergarten, and computer languages should be required in high school.

Parent O: That would be pointless. Technology advances so rapidly that the computers used by today's high schools would become obsolete by the time these children are adults.

Which one of the following, if true, is the strongest logical counter parent P can make to parent Q's objection?

- (A) When technology is advancing rapidly, regular training is necessary to keep one's skills at a level proficient enough to deal with the society in which one lives.
- (B) Throughout history people have adapted to change, and there is no reason to believe that today's children are not equally capable of adapting to technology as it advances.
- (C) In the process of learning to language, children increase their ability to interact with computer technology.
- (D) Automotive technology is continually advancing too, but that does not result in one's having to relearn to drive cars as the new advances are incorporated into new automobiles.
- (E) Once people have graduated from high school, they have less time to learn about computers and technology than they had during their schooling years.

#### Questions 5-6

Proponent: Irradiation of food by gamma rays would keep it from spoiling before it reaches the consumer in food stores. The process leaves no radiation behind, and vitamin losses are comparable to those that occur in cooking, so there is no reason to reject irradiation on the grounds of nutrition or safety. Indeed, it kills harmful *Salmonella* bacteria, which in contaminated poultry have caused serious illness to consumers.

Opponent: The irradiation process has no effect on the bacteria that cause botulism, a very serious form of food poisoning, while those that cause bad odors that would warn consumers of botulism are killed. Moreover, *Salmonella* and the bacteria that cause botulism can easily be killed in poultry by using a safe chemical dip.

5. The opponent's argument proceeds by
- (A) isolating an ambiguity in a crucial term in the proponent's argument
  - (B) showing that claims made in the proponent's argument result in a self-contradiction
  - (C) establishing that undesirable consequences result from the adoption of either one of two proposed remedies
  - (D) shifting perspective from safety with respect to consumers to safety with respect to producers
  - (E) pointing out an alternative way of obtaining an advantage claimed by the proponent without risking a particular disadvantage
6. Which one of the following could the opponent properly cite as indicating a flaw in the proponent's reasoning concerning vitamin losses?
- (A) After irradiation, food might still spoil if kept in storage for a long time after being purchased by the consumer.
  - (B) Irradiated food would still need cooking, or, if eaten raw, it would not have the vitamin advantage of raw food.
  - (C) Vitamin loss is a separate issue from safety.
  - (D) Vitamins can be ingested in pill form as well as in foods.
  - (E) That food does not spoil before it can be offered to the consumer is primarily a benefit to the seller, not to the consumer.
7. Due to wider commercial availability of audio recordings of authors reading their own books, sales of printed books have dropped significantly.
- Which one of the following conforms most closely to the principle illustrated above?
- (A) Because of the rising cost of farm labor, farmers began to make more extensive use of machines.
  - (B) Because of the wide variety of new computer games on the market, sales of high-quality computer video screens have improved.
  - (C) Because a new brand of soft drink entered the market, consumers reduced their consumption of an established brand of soft drink.
  - (D) Because a child was forbidden to play until homework was completed, that child did much less daydreaming and focused on homework.
  - (E) Because neither of the two leading word processing programs has all of the features consumers want, neither has been able to dominate the market.
8. Lobsters and other crustaceans eaten by humans are more likely to contract gill

diseases when sewage contaminates their water. Under a recent proposal, millions of gallons of local sewage each day would be rerouted many kilometers offshore. Although this would substantially reduce the amount of sewage in the harbor where lobsters are caught, the proposal is pointless, because hardly any lobsters live long enough to be harmed by those diseases.

Which one of the following, if true, most seriously weakens the argument?

- (A) Contaminants in the harbor other than sewage are equally harmful to lobsters.
- (B) Lobsters, like other crustaceans, live longer in the open ocean than in industrial harbors.
- (C) Lobsters breed as readily in sewage-contaminated water as in unpolluted water.
- (D) Gill diseases cannot be detected by examining the surface of the lobster.
- (E) Humans often ill as a result of eating lobsters with gill diseases.

9. Researcher: The rate of psychological problems is higher among children of divorced parents than among other children. But it would be a mistake to conclude that these problems are caused by the difficulty the children have adjusting to divorce. It is just as reasonable to infer that certain behaviors that increase the likelihood of divorce—hostility, distrust, lack of empathy—are learned by children from their parents, and that it is these learned behaviors, rather than the difficulty of adjusting to divorce, that cause the children's psychological problems.

The assertion that children of divorced parents have a higher rate of psychological problems than other children figures in the argument in which one of the following ways?

- (A) It is the conclusion of the argument.
- (B) It is the claim that the argument tries to refute.
- (C) It is offered as evidence for the claim that divorce is harmful to the children of the divorcing parents.
- (D) It is offered as evidence for the claim that certain behaviors are often responsible for divorce.
- (E) It is cited as an established finding for which the argument proposes an explanation.

10. Although marathons are 26.2 miles (42.2 kilometers) long and take even world-class marathoners over 2 hours to run, athletes who train by running 90 minutes a day fare better in marathons than do those who train by running 120 minutes or more a day.

Each of the following, if true, contributes to an explanation of the difference in marathon performances described above EXCEPT:

- (A) The longer the period of time that one runs daily, the greater the chances of suffering adverse health effects due to air pollution.



- (B) The longer the period of time that one runs daily, the easier it is to adjust to different race lengths.
- (C) The longer the run, the more frequent is the occurrence of joint injuries that significantly interfere with overall training.
- (D) Runners who train over 90 minutes per day grow bored with running and become less motivated.
- (E) Runners who train over 90 minutes per day deplete certain biochemical energy reserves, leaving them less energy for marathons.
11. Linguist: Some people have understood certain studies as showing that bilingual children have a reduced “conceptual map” because bilingualism overstresses the child’s linguistic capacities. Vocabulary tests taken by bilingual children appear to show that these children tend to have a smaller vocabulary than do most children of the same age group. But these studies are deeply flawed, since the tests were given in only one language. Dual-language tests revealed that the children often expressed a given concept with a word from only one of their two languages. The linguist’s argument proceeds by
- (A) offering evidence for the advantages of bilingualism over monolingualism
- (B) pointing out an inconsistency in the view that bilingualism overstresses a child’s linguistic capabilities
- (C) offering evidence that undermines the use of any vocabulary test to provide information about a child’s conceptual map
- (D) providing a different explanation for the apparent advantages of bilingualism from the explanation suggested by the results of certain studies
- (E) pointing out a methodological error in the technique used to obtain the purported evidence of a problem with bilingualism
12. Gene splicing can give rise to new varieties of farm animals that have only a partially understood genetic makeup. In addition to introducing the genes for whichever trait is desired, the technique can introduce genes governing the production of toxins or carcinogens, and these latter undesirable traits might not be easily discoverable. The statements above, if true, most strongly support which one of the following?
- (A) All toxin production is genetically controlled.
- (B) Gene splicing to produce new varieties of farm animals should be used cautiously.
- (C) Gene splicing is not effective as a way of producing new varieties of farm animals.
- (D) Most new varieties of farm animals produced by gene splicing will develop cancer.
- (E) Gene splicing will advance to the point where unforeseen consequences are no longer a problem.

13. Journal: In several psychological studies, subjects were given statements to read that caused them to form new beliefs. Later, the subjects were told that the original statements were false. The studies report, however, that most subjects persevered in their newly acquired beliefs, even after being told that the original statements were false. This strongly suggests that humans continue to hold onto acquired beliefs even in the absence of any credible evidence to support them. Which one of the following, if true, most undermines the journal's argument?
- (A) Regardless of the truth of what the subjects were later told, the beliefs based on the original statements were, for the most part, correct.
  - (B) It is unrealistic to expect people to keep track of the original basis of their beliefs, and to revise a belief when its original basis is undercut.
  - (C) The statements originally given to the subjects would be highly misleading even if true.
  - (D) Most of the subjects had acquired confirmation of their newly acquired beliefs by the time they were told that the original statements were false.
  - (E) Most of the subjects were initially skeptical of the statements originally given to them.
14. Novelists cannot become great as long as they remain in academia. Powers of observation and analysis, which schools successfully hone, are useful to the novelist, but an intuitive grasp of the emotions of everyday life can be obtained only by the kind of immersion in everyday life that is precluded by being an academic. Which one of the following is an assumption on which the argument depends?
- (A) Novelists require some impartiality to get an intuitive grasp of the emotions of everyday life.
  - (B) No great novelist lacks powers of observation and analysis.
  - (C) Participation in life, interspersed with impartial observation of life, makes novelists great.
  - (D) Novelists cannot be great without an intuitive grasp of the emotions of everyday life.
  - (E) Knowledge of the emotions of everyday life cannot be acquired by merely observing and analyzing life.
15. Statistician: A financial magazine claimed that its survey of its subscribers showed that North Americans are more concerned about their personal finances than about politics. One question was: "Which do you think about more: politics or the joy of earning money?" This question is clearly biased. Also, the readers of the magazine are a self-selecting sample. Thus, there is reason to be skeptical about the conclusion drawn in the magazine's survey. Each of the following, if true, would strengthen the statistician's argument EXCEPT:
- (A) The credibility of the magazine has been called into question on a number of

occasions.

- (B) The conclusions drawn in most magazine surveys have eventually been disproved.
- (C) Other surveys suggest that North Americans are just as concerned about politics as they are about finances.
- (D) There is reason to be skeptical about the results of surveys that are biased and unrepresentative.
- (E) Other surveys suggest that North Americans are concerned not only with politics and finances, but also with social issues.

Questions 16-17

On the basis of the available evidence, Antarctica has generally been thought to have been covered by ice for at least the past 14 million years. Recently, however, three-million-year-old fossils of a kind previously found only in ocean-floor sediments were discovered under the ice sheet covering central Antarctica. About three million years ago, therefore, the Antarctic ice sheet must temporarily have melted. After all, either severe climatic warming or volcanic activity in Antarctica's mountains could have melted the ice sheet, thus raising sea levels and submerging the continent.

16. Which one of the following is the main conclusion of the argument?
- (A) Antarctica is no longer generally thought to have been covered by ice for the past 14 million years.
  - (B) It is not the case that ancient fossils of the kind recently found in Antarctica are found only in ocean-floor sediments.
  - (C) The ice sheet covering Antarctica has not been continuously present throughout the past 14 million years.
  - (D) What caused Antarctica to be submerged under the sea was the melting of the ice sheet that had previously covered the continent.
  - (E) The ice sheet covering Antarctica was melted either as a result of volcanic activity in Antarctica's mountains or as a result of severe climatic warming.
17. The reasoning in the argument is most vulnerable to which one of the following criticisms?
- (A) That a given position is widely believed to be true is taken to show that the position in question must, in fact, be true.
  - (B) That either of two things could independently have produced a given effect is taken to show that those two things could not have operated in conjunction to produce that effect.
  - (C) Establishing that a certain event occurred is confused with having established the cause of that event.
  - (D) A claim that has a very general application is based entirely on evidence from a narrowly restricted range of cases.
  - (E) An inconsistency that, as presented, has more than one possible resolution is

treated as though only one resolution is possible.

18. The current pattern of human consumption of resources, in which we rely on nonrenewable resources, for example metal ore, must eventually change. Since there is only so much metal ore available, ultimately we must either do without or turn to renewable resources to take its place.

Which one of the following is an assumption required by the argument?

- (A) There are renewable resource replacements for all of the nonrenewable resources currently being consumed.
  - (B) We cannot indefinitely replace exhausted nonrenewable resources with other nonrenewable resources.
  - (C) A renewable resource cannot be exhausted by human consumption.
  - (D) Consumption of nonrenewable resources will not continue to increase in the future.
  - (E) Ultimately we cannot do without nonrenewable resources.
19. Lathyrism, a debilitating neurological disorder caused by the consumption of the legume *Lathyrus sativus*, is widespread among the domestic animals of some countries. Attempts to use rats to study Lathyrism have generally failed. Rats that ingested *Lathyrus sativus* did not produce the symptoms associated with the disorder.

Which one of the following is most strongly supported by the information above?

- (A) The physiology of rats is radically different from that of domestic animals.
  - (B) The rats did not consume as much *Lathyrus sativus* as did the domestic animals that contracted Lathyrism.
  - (C) Not all animal species are equally susceptible to Lathyrism.
  - (D) Most of the animals that can contract Lathyrism are domestic.
  - (E) Laboratory conditions are not conducive to the development of Lathyrism.
20. Columnist: Almost anyone can be an expert, for there are no official guidelines determining what an expert must know. Anybody who manages to convince some people of his or her qualifications in an area—whatever those may be—is an expert.

The columnist's conclusion follows logically if which one of the following is assumed?

- (A) Almost anyone can convince some people of his or her qualifications in some area.
- (B) Some experts convince everyone of their qualification in almost every area.
- (C) Convincing certain people that one is qualified in an area requires that one actually be qualified in that area.
- (D) Every expert has convinced some people of his or her qualifications in some

area.

- (E) Some people manage to convince almost everyone of their qualifications in one or more areas.

21. A patient complained of feeling constantly fatigued. It was determined that the patient averaged only four to six hours of sleep per night, and this was determined to contribute to the patient's condition. However, the patient was not advised to sleep more.

Which one of the following, if true, most helps to resolve the apparent discrepancy in the information above?

- (A) The shorter one's sleep time, the easier it is to awaken from sleeping.  
(B) The first two hours of sleep do the most to alleviate fatigue.  
(C) Some people require less sleep than the eight hours required by the average person.  
(D) Most people who suffer from nightmares experience them in the last hour of sleep before waking.  
(E) Worry about satisfying the need for sufficient sleep can make it more difficult to sleep.

22. No chordates are tracheophytes, and all members of Pteropsida are tracheophytes. So no members of Pteropsida belong to the family Hominidae.

The conclusion above follows logically if which one of the following is assumed?

- (A) All members of the family Hominidae are tracheophytes.  
(B) All members of the family Hominidae are chordates.  
(C) All tracheophytes are members of Pteropsida.  
(D) No members of the family Hominidae are chordates.  
(E) No chordates are members of Pteropsida.

23. Some statisticians claim that the surest way to increase the overall correctness of the total set of one's beliefs is: never change that set, except by rejecting a belief when given adequate evidence against it. However, if this were the only rule one followed, then whenever one were presented with any kind of evidence, one would have to either reject some of one's beliefs or else leave one's beliefs unchanged. But then, over time, one could only have fewer and fewer beliefs. Since we need many beliefs in order to survive, the statisticians' claim must be mistaken.

The argument is most vulnerable to criticism on the grounds that it

- (A) presumes, without providing any justification, that the surest way of increasing the overall correctness of the total set of one's beliefs must not hinder one's ability to survive  
(B) neglects the possibility that even while following the statisticians' rule, one might also accept new beliefs when presented with some kinds of evidence



- (C) overlooks the possibility that some large sets of beliefs are more correct overall than are some small sets of beliefs
- (D) takes for granted that one should accept some beliefs related to survival even when given adequate evidence against them
- (E) takes for granted that the beliefs we need in order to have many beliefs must all be correct beliefs
24. In every case of political unrest in a certain country, the police have discovered that some unknown person or persons organized and fomented that unrest. Clearly, therefore, behind all the cases of political unrest in that country there has been a single mastermind who organized and fomented them all.
- The flawed reasoning in the argument above most closely parallels that in which one of the following?
- (A) Every Chicago driver has a number on his or her license, so the number on some Chicago driver's license is the exact average of the numbers on all Chicago drivers' licenses.
- (B) Every telephone number in North America has an area code, so there must be at least as many area codes as telephone numbers in North America.
- (C) Every citizen of Edmonton has a social insurance number, so there must be one number that is the social insurance number for all citizens of Edmonton.
- (D) Every loss of a single hair is insignificant, so no one who has a full head of hair at twenty ever becomes bald.
- (E) Every moment in Vladimir's life is followed by a later moment in Vladimir's life, so Vladimir's life will never end.
25. A company that produces men's cologne had been advertising the product in general-circulation magazines for several years. Then one year the company decided to advertise its cologne exclusively in those sports magazines with a predominantly male readership. That year the company sold fewer bottles of cologne than it had in any of the three immediately preceding years.
- Which one of the following, if true, best helps to explain why the sale of the company's cologne dropped that year?
- (A) Television advertising reaches more people than does magazine advertising, but the company never advertised its cologne on television because of the high cost.
- (B) The general-circulation magazines in which the company had placed its advertisements experienced a large rise in circulation recently.
- (C) Most men do not wear cologne on a regular basis.
- (D) Women often buy cologne as gifts for male friends or relatives.
- (E) Successful advertisements for men's cologne often feature well-known athletes.
26. Kim: The rapidly growing world population is increasing demands on food

producers in ways that threaten our natural resources. With more land needed for both food production and urban areas, less land will be available for forests and wildlife habitats.

Hampton: You are overlooking the promises of technology. I am confident that improvements in agriculture will allow us to feed the world population of ten billion predicted for 2050 without significantly increasing the percentage of the world's land now devoted to agriculture.

Kim's and Hampton's statements most strongly support the claim that both of them would agree with which one of the following?

- (A) Efforts should be taken to slow the rate of human population growth and to increase the amount of land committed to agriculture.
- (B) Continued research into more-efficient agricultural practices and innovative biotechnology aimed at producing more food on less land would be beneficial.
- (C) Agricultural and wilderness areas need to be protected from urban encroachment by preparing urban areas for greater population density.
- (D) In the next half century, human population growth will continue to erode wildlife habitats and diminish forests.
- (E) The human diet needs to be modified in the next half century because of the depletion of our natural resources due to overpopulation.

#### SECTION IV

#### **Time 35 minutes 26 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. The graphical illustrations mathematics teachers use enable students to learn geometry more easily by providing them with an intuitive understanding of geometric concepts, which makes it easier to acquire the ability to manipulate symbols for the purpose of calculation. Illustrating algebraic concepts graphically would be equally effective pedagogically, even though the deepest mathematical understanding is abstract, not imagistic.  
The statements above provide some support for each of the following EXCEPT:
  - (A) Pictorial understanding is not the final stage of mathematical understanding.
  - (B) People who are very good at manipulating symbols do not necessarily have any mathematical understanding.
  - (C) Illustrating geometric concepts graphically is an effective teaching method.
  - (D) Acquiring the ability to manipulate symbols is part of the process of learning geometry.
  - (E) There are strategies that can be effectively employed in the teaching both of algebra and of geometry.
2. Bureaucratic mechanisms are engineered to resist change. Thus, despite growing

dissatisfaction with complex bureaucratic systems, it is unlikely that bureaucracies will be simplified.

The claim that bureaucratic mechanisms are engineered to resist change plays which one of the following roles in the argument?

- (A) It is a premise offered in support of the claim that it is unlikely that bureaucracies will be simplified.
- (B) It is a conclusion for which the only support offered is the claim that dissatisfaction with complex bureaucratic systems is growing.
- (C) It is cited as evidence that bureaucratic systems are becoming more and more complex.
- (D) It is used to weaken the claim that bureaucracies should be simplified.
- (E) It is a conclusion for which the claim that bureaucracies are unlikely to be simplified is offered as support.

3. In speech, when words or sentences are ambiguous, gesture and tone of voice are used to indicate the intended meaning. Writers, of course, cannot use gesture or tone of voice and must rely instead on style; the reader detects the writer's intention from the arrangement of words and sentences.

Which one of the following statements is most strongly supported by the information above?

- (A) The primary function of style in writing is to augment the literal meanings of the words and sentences used.
- (B) The intended meaning of a piece of writing is indicated in part by the writer's arrangement of words and sentences.
- (C) It is easier for a listener to detect the tone of a speaker than for a reader to detect the style of the writer.
- (D) A writer's intention will always be interpreted differently by different readers.
- (E) The writer's arrangement of words and sentences completely determines the aesthetic value of his or her writing.

4. Last year a large firm set a goal of decreasing its workforce by 25 percent. Three divisions, totaling 25 percent of its workforce at that time, were to be eliminated and no new people hired. These divisions have since been eliminated and no new people have joined the firm, but its workforce has decreased by only 15 percent.

Which one of the following, if true, contributes most to an explanation of the difference in the planned versus the actual reduction in the workforce?

- (A) The three divisions that were eliminated were well run and had the potential to earn profits.
- (B) Normal attrition in the retained divisions continued to reduce staff because no new people were added to the firm.
- (C) Some of the employees in the eliminated divisions were eligible for early

retirement and chose that option.

- (D) As the divisions were being eliminated some of their employees were assigned to other divisions.
- (E) Employees in the retained divisions were forced to work faster to offset the loss of the eliminated divisions.

5. One of the advantages of *Bacillus thuringiensis* (B.t.) toxins over chemical insecticides results from their specificity for pest insects. The toxins have no known detrimental effects on mammals or birds. In addition, the limited range of activity of the toxins toward insects means that often a particular toxin will kill pest species but not affect insects that prey upon the species. This advantage makes B.t. toxins preferable to chemical insecticides for use as components of insect pest management programs.

Which one of the following statements, if true, most weakens the argument?

- (A) Chemical insecticides cause harm to a greater number of insect species than do B.t. toxins.
  - (B) No particular B.t. toxin is effective against all insects.
  - (C) B.t. toxins do not harm weeds that do damage to farm crops.
  - (D) Insects build up resistance more readily to B.t. toxins than to chemical insecticides.
  - (E) Birds and rodents often do greater damage to farm crops than do insects.
6. Many people are alarmed about the population explosion. They fail to appreciate that the present rise in population has in fact been followed by equally potent economic growth. Because of this connection between an increase in population and an increase in economic activity, population control measures should not be taken.

The questionable pattern of reasoning in the argument above is most similar to that in which one of the following?

- (A) Subscribers to newsmagazines are concerned that increased postage costs will be passed on to them in the form of higher subscription rates. But that is a price they have to pay for having the magazines delivered. No group of users of the postal system should be subsidized at the expense of others.
- (B) Most of the salespeople are concerned with complaints about the sales manager's aggressive behavior. They need to consider that sales are currently increasing. Due to this success, no action should be taken to address the manager's behavior.
- (C) Parents are concerned about their children spending too much time watching television. Those parents should consider television time as time they could spend with their children. Let the children watch television, but watch it with them.
- (D) Nutritionists warn people not to eat unhealthy foods. Those foods have been in people's diets for years. Before cutting all those foods out of diets it

would be wise to remember that people enjoy culinary variety.

- (E) Some consumers become concerned when the price of a product increases for several years in a row, thinking that the price will continue to increase. But these consumers are mistaken since a long-term trend of price increases indicates that the price will probably decline in the future.

7. Attorney: I ask you to find Mr. Smith guilty of assaulting Mr. Jackson. Regrettably, there were no eyewitnesses to the crime, but Mr. Smith has a violent character. Ms. Lopez testified earlier that Mr. Smith, shouting loudly, had threatened her. Smith never refuted this testimony.

The attorney's argument is fallacious because it reasons that

- (A) aggressive behavior is not a sure indicator of a violent character  
(B) Smith's testimony is unreliable since he is loud and aggressive  
(C) since Smith never disproved the claim that he threatened Lopez, he did in fact threaten her  
(D) Lopez's testimony is reliable since she is neither loud nor aggressive  
(E) having a violent character is not necessarily associated with the commission of violent crimes

8. It is widely believed that by age 80, perception and memory are each significantly reduced from their functioning levels at age 30. However, a recent study showed no difference in the abilities of 80-year-olds and 30-year-olds to play a card game devised to test perception and memory. Therefore, the belief that perception and memory are significantly reduced by age 80 is false.

The reasoning above is most vulnerable to criticism on the grounds that it fails to consider the possibility that

- (A) the study's card game does not test cognitive abilities other than perception and memory  
(B) card games are among the most difficult cognitive tasks one can attempt to perform  
(C) perception and memory are interrelated in ways of which we are not currently aware  
(D) the belief that 80-year-olds' perception and memory are reduced results from prejudice against senior citizens  
(E) playing the study's card game perfectly requires fairly low levels of perception and memory

9. Moralist: Humans have a natural disposition to altruism—that is, to behavior that serves the needs of others regardless of one's own needs—but that very disposition prevents some acts of altruism from counting as moral. Reason plays an essential role in any moral behavior. Only behavior that is intended to be in accordance with a formal set of rules, or moral code, can be considered moral behavior.



Which one of the following most accurately states the main conclusion of the moralist's argument?

- (A) All moral codes prohibit selfishness.
- (B) All moral behavior is motivated by altruism.
- (C) Behavior must serve the needs of others in order to be moral behavior.
- (D) Not all altruistic acts are moral behavior.
- (E) Altruism develops through the use of reason.

10. A recent study suggests that Alzheimer's disease, which attacks the human brain, may be caused by a virus. In the study, blood from 11 volunteers, each of whom had the disease, was injected into rats. The rats eventually exhibited symptoms of another degenerative neurological disorder, Creutzfeldt-Jakob disease, which is caused by a virus. This led the scientist who conducted the study to conclude that Alzheimer's disease might be caused by a virus.

Which one of the following statements, if true, would most strengthen the scientist's hypothesis that Alzheimer's disease is caused by a virus?

- (A) Alzheimer's disease in rats is not caused by a virus.
- (B) Creutzfeldt-Jakob disease affects only motor nerves in rats' limbs, not their brains.
- (C) The virus that causes Creutzfeldt-Jakob disease in rats has no effect on humans.
- (D) The symptoms known, respectively, as Creutzfeldt-Jakob disease and Alzheimer's disease are different manifestations of the same disease.
- (E) Blood from rats without Creutzfeldt-Jakob disease produced no symptoms of the disease when injected into other experimental rats.

11. One approach to the question of which objects discussed by a science are real is to designate as real all and only those entities posited by the most explanatorily powerful theory of the science. But since most scientific theories contain entities posited solely on theoretical grounds, this approach is flawed.

Which one of the following principles, if valid, most helps to justify the reasoning above?

- (A) Any object that is posited by a scientific theory and that enhances the explanatory power of that theory should be designated as real.
- (B) Objects posited for theoretical reasons only should never be designated as real.
- (C) A scientific theory should not posit any entity that does not enhance the explanatory power of the theory.
- (D) A scientific theory should sometimes posit entities on grounds other than theoretical ones.
- (E) Only objects posited by explanatorily powerful theories should be designated as real.

12. Most doctors recommend that pregnant women eat a nutritious diet to promote the health of their babies. However, most babies who are born to women who ate nutritious diets while pregnant still develop at least one medical problem in their first year.
- Which one of the following, if true, does most to resolve the apparent discrepancy in the information above?
- (A) Women who regularly eat a nutritious diet while pregnant tend to eat a nutritious diet while breast-feeding.
  - (B) Most of the babies born to women who did not eat nutritious diet while pregnant develop no serious medical problems later in childhood.
  - (C) Babies of women who did not eat nutritious diets while pregnant tend to have more medical problems in their first year than do other babies.
  - (D) Medical problems that develop in the first year of life tend to be more serious than those that develop later in childhood.
  - (E) Many of the physicians who initially recommended that pregnant women consume nutritious diets have only recently reaffirmed their recommendation.
13. Mayor: The law prohibiting pedestrians from crossing against red lights serves no useful purpose. After all, in order to serve a useful purpose, a law must deter the kind of behavior it prohibits. But pedestrians who invariably violate this law are clearly not dissuaded by it; and those who comply with the law do not need it, since they would never cross against red light even if there were no law prohibiting pedestrians from crossing against red lights.
- The mayor's argument is flawed because it
- (A) takes for granted that most automobile drivers will obey the law that prohibits them from driving through red lights
  - (B) uses the word "law" in one sense in the premises and in another sense in the conclusion
  - (C) ignores the possibility that a law might not serve a useful purpose even if it does deter the kind of behavior it prohibits
  - (D) fails to consider whether the law ever dissuades people who sometimes but not always cross against red lights
  - (E) provides no evidence that crossing against red lights is more dangerous than crossing on green lights
14. Marian Anderson, the famous contralto, did not take success for granted. We know this because Anderson had to struggle early in life, and anyone who has to struggle early in life is able to keep a good perspective on the world.
- The conclusion of the argument follows logically if which one of the following is assumed?
- (A) Anyone who succeeds takes success for granted.

- (B) Anyone who is able to keep a good perspective on the world does not take success for granted.
- (C) Anyone who is able to keep a good perspective on the world has to struggle early in life.
- (D) Anyone who does not take success for granted has to struggle early in life.
- (E) Anyone who does not take success for granted is able to keep a good perspective on the world.
15. Geneticist: Ethicists have fears, many of them reasonable, about the prospect of cloning human beings, that is, producing exact genetic duplicates. But the horror-movie image of a wealthy person creating an army of exact duplicates is completely unrealistic. Clones must be raised and educated, a long-term process that could never produce adults identical to the original in terms of outlook, personality, or goals. More realistic is the possibility that wealthy individuals might use clones as living “organ banks.”
- The claim that cloning will not produce adults with identical personalities plays which one of the following roles in the geneticist’s argument?
- (A) It is a reason for dismissing the various fears raised by ethicists regarding the cloning of human beings.
- (B) It is evidence that genetic clones will never be produced successfully.
- (C) It illustrates the claim that only wealthy people would be able to have genetic duplicates made of themselves.
- (D) It is evidence for the claim that wealthy people might use genetic duplicates of themselves as sources of compatible organs for transplantation.
- (E) It is a reason for discounting one possible fear concerning the cloning of human beings.
16. Publicity campaigns for endangered species are unlikely to have much impact on the most important environmental problems, for while the ease of attributing feelings to large mammals facilitates evoking sympathy for them, it is more difficult to elicit sympathy for other kinds of organisms, such as the soil microorganisms on which large ecosystems and agriculture depend.
- Which one of the following is an assumption on which the argument depends?
- (A) The most important environmental problems involve endangered species other than large mammals.
- (B) Microorganisms cannot experience pain or have other feelings.
- (C) Publicity campaigns for the environment are the most effective when they elicit sympathy for some organism.
- (D) People ignore environmental problems unless they believe the problems will affect creatures with which they sympathize.
- (E) An organism can be environmentally significant only if it affects large ecosystems or agriculture.

17. Politician: All nations that place a high tax on income produce thereby a negative incentive for technological innovation, and all nations in which technological innovation is hampered inevitably fall behind in the international arms race. Those nations that, through historical accident or the foolishness of their political leadership, wind up in a strategically disadvantageous position are destined to lose their voice in the world affairs. So if a nation wants to maintain its value system and way of life, it must not allow its highest tax bracket to exceed 30 percent of income.

Each of the following, if true, weakens the politician's argument EXCEPT:

- (A) The top level of taxation must reach 45 percent before taxation begins to deter inventors and industrialists from introducing new technologies and industries.
  - (B) Making a great deal of money is an insignificant factor in driving technological innovation.
  - (C) Falling behind in the international arms race does not necessarily lead to a strategically less advantageous position.
  - (D) Those nations that lose influence in the world community do not necessarily suffer from a threat to their value system or way of life.
  - (E) Allowing one's country to lose its technological edge, especially as concerns weaponry, would be foolish rather than merely a historical accident.
18. Philosopher: Scientists talk about the pursuit of truth, but like most people, they are self-interested. Accordingly, the professional activities of most scientists are directed toward personal career enhancement, and only incidentally toward the pursuit of truth. Hence, the activities of the scientific community are largely directed toward enhancing the status of that community as a whole, and only incidentally toward the pursuit of truth.
- The reasoning in the philosopher's argument is flawed because the argument
- (A) improperly infers that each and every scientist has a certain characteristic from premise that most scientists have that characteristic
  - (B) improperly draws an inference about the scientific community as a whole from a premise about individual scientists
  - (C) presumes, without giving justification, that the aim of personal career enhancement never advances the pursuit of truth
  - (D) illicitly takes advantage of an ambiguity in the meaning of "self-interested"
  - (E) improperly draws an inference about a cause from premises about its effects
19. Several critics have claimed that any contemporary poet who writes formal poetry—poetry that is rhymed and metered—is performing a politically conservative act. This is plainly false. Consider Molly Peacock and Marilyn Hacker, two contemporary poets whose poetry is almost exclusively formal and yet who are themselves politically progressive feminists.

The conclusion drawn above follows logically if which one of the following is

assumed?

- (A) No one who is a feminist is also politically conservative.
- (B) No poet who writes unrhymed or unmetered poetry is politically conservative.
- (C) No one who is politically progressive is capable of performing a politically conservative act.
- (D) Anyone who sometimes writes poetry that is not politically conservative never writes poetry that is politically conservative.
- (E) The content of a poet's work, not the work's form, is the most decisive factor in determining what political consequences, if any, the work will have.

20. Archaeologist: A skeleton of a North American mastodon that became extinct at the peak of the Ice Age was recently discovered. It contains a human-made projectile dissimilar to any found in that part of Eurasia closest to North America. Thus, since Eurasians did not settle in North America until shortly before the peak of the Ice Age, the first Eurasian settlers in North America probably came from a more distant part of Eurasia.

Which one of the following, if true, most seriously weakens the archaeologist's argument?

- (A) The projectile found in the mastodon does not resemble any that were used in Eurasia before or during the Ice Age.
- (B) The people who occupied the Eurasian area closest to North America remained nomadic throughout the Ice Age.
- (C) The skeleton of a bear from the same place and time as the mastodon skeleton contains a similar projectile.
- (D) Other North American artifacts from the peak of the Ice Age are similar to ones from the same time found in more distant parts of Eurasia.
- (E) Climatic conditions in North America just before the Ice Age were more conducive to human habitation than were those in the part of Eurasia closest to North America at that time.

21. All social systems are based upon a division of economic roles. The values of a social system are embodied in the prestige accorded persons who fill various economic roles. It is therefore unsurprising that, for any social system, the introduction of labor-saving technology that makes certain economic roles obsolete will tend to undermine the values in that social system.

Which one of the following can most reasonably be concluded on the basis of the information above?

- (A) Social systems will have unchanging values if they are shielded from technological advancement.
- (B) No type of technology will fail to undermine the values in a social system.
- (C) A social system whose values are not susceptible to change would not be one



in which technology can eliminate economic roles.

- (D) A technologically advanced society will place little value on the prestige associated with an economic role.
- (E) A technological innovation that is implemented in a social system foreign to the one in which it was developed will tend to undermine the foreign social system.

22. Multiple sclerosis is an autoimmune disease: white blood cells attack the myelin sheath that protects nerve fibers in the spinal cord and brain. Medical science now has a drug that can be used to successfully treat multiple sclerosis, but the path that led medical researchers to this drug was hardly straightforward. Initially, some scientists believed attacks characteristic of multiple sclerosis might be triggered by chronic viral infections. So in 1984 they began testing gamma interferon, one of the body's own antiviral weapons. To their horror, all the multiple sclerosis patients tested became dramatically worse. The false step proved to be instructive however.

Which of the following is LEAST compatible with the results of the gamma interferon experiment?

- (A) Gamma interferon stops white blood cells from producing myelin-destroying compounds.
  - (B) Administering gamma interferon to those without multiple sclerosis causes an increase in the number of white blood cells.
  - (C) Medical researchers have discovered that the gamma interferon level in the cerebrospinal fluid skyrocket just before and during multiple sclerosis infections.
  - (D) It has now been established that most multiple sclerosis sufferers do not have chronic viral infections.
  - (E) The drug now used to treat multiple sclerosis is known to inhibit the activity of gamma.
23. The higher the altitude, the thinner the air. Since Mexico City's altitude is higher than that of Panama City, the air must be thinner in Mexico City than in Panama City.

Which one of the following arguments is most similar in its reasoning to the argument above?

- (A) As one gets older one gets wiser. Since Henrietta is older than her daughter, Henrietta must be wiser than her daughter.
- (B) The more egg whites used and the longer they are beaten, the fluffier the meringue. Since Lydia used more egg whites in her meringue than Joseph used in his, Lydia's meringue must be fluffier than Joseph's.
- (C) The people who run the fastest marathons these days are faster than the people who ran the fastest marathons ten years ago. Charles is a marathon runner. So Charles must run faster marathons these days than he did ten

years ago.

- (D) The older a tree, the more rings it has. The tree in Lou's yard is older than the tree in Theresa's yard. Therefore, the tree in Lou's yard must have more rings than does the tree in Theresa's yard.
- (E) The bigger the vocabulary a language has, the harder it is to learn. English is harder to learn than Italian. Therefore, English must have a bigger vocabulary than Italian.

24. A recent study of 6,403 people showed that those treated with the drug pravastatin, one of the effects of which is to reduce cholesterol, had about one-third fewer nonfatal heart attacks and one-third fewer deaths from coronary disease than did those not taking the drug. This result is consistent with other studies, which show that those who have heart disease often have higher than average cholesterol levels. This shows that lowering cholesterol levels reduces the risk of heart disease.

The argument's reasoning is flawed because the argument

- (A) neglects the possibility that pravastatin may have severe side effects
- (B) fails to consider that pravastatin may reduce the risk of heart disease but not as a consequence of its lowering cholesterol levels
- (C) relies on past finding, rather than drawing its principal conclusion from the data found in the specific study cited
- (D) draws a conclusion regarding the effects of lowering cholesterol levels on heart disease, when in fact the conclusion should focus on the relation between pravastatin and cholesterol levels
- (E) fails to consider that percentage of the general population might be taking pravastatin

Questions 25-26

Zachary: The term "fresco" refers to paint that has been applied to wet plaster. Once dried, a fresco indelibly preserves the paint that a painter has applied in this way. Unfortunately, additions known to have been made by later painters have obscured the original fresco work done by Michelangelo in the Sistine Chapel. Therefore, in order to restore Michelangelo's Sistine Chapel paintings to the appearance that Michelangelo intended them to have, everything except the original fresco work must be stripped away.

Stephen: But it was extremely common for painters of Michelangelo's era to add painted details to their own fresco work after the frescos had dried.

25. Stephen's response to Zachary proceeds by
- (A) calling into question an assumption on which Zachary's conclusion depends
  - (B) challenging the definition of a key term in Zachary reaches
  - (C) drawing a conclusion other than the one that Zachary reaches

- (D) denying the truth of one of the stated premises of Zachary's argument
- (E) demonstrating that Zachary's conclusion is not consistent with the premises he uses to support it
26. Stephen's response to Zachary, if true, most strongly supports which one of the following?
- (A) It is impossible to distinguish the later painted additions made to Michelangelo's Sistine Chapel paintings from the original fresco work.
- (B) Stripping away everything except Michelangelo's original fresco work from the Sistine Chapel paintings would be unlikely to restore them to the appearance Michelangelo intended them to have.
- (C) The painted details that painters of Michelangelo's era added to their own fresco work were not an integral part of the completed paintings' overall design.
- (D) None of the painters of Michelangelo's era who made additions to the Sistine Chapel paintings was important artist in his or her own right.
- (E) Michelangelo was rarely satisfied with the appearance of his finished works.

**TEST Oct 2002****SECTION I****Time 35 minutes 24 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

1. Physician: In itself, exercise does not cause heart attacks; rather, a sudden increase in an exercise regimen can be a cause. When people of any physical condition suddenly increase their amount of exercise, they also increase their risk of heart attack. As a result, there will be an increased risk of heart attack among employees of this company due to the new health program.
- The conclusion drawn by the physician follows logically if which one of the following is assumed?
- (A) Employees will abruptly increase their amount of exercise as a result of the new health program.
- (B) The exercised involved in the new health program are more strenuous than those in the previous health program.
- (C) The new health program will force employees of all levels of health to exercise regularly.
- (D) The new health program constitutes a sudden change in the company's policy.
- (E) All employees, no matter what their physical condition, will participate in the new health program.

2. Last month OCF, Inc., announced what it described as a unique new product: an adjustable computer workstation. Three days later ErgoTech unveiled an almost identical product. The two companies claim that the similarities are coincidental and occurred because the designers independently reached the same solution to the same problem. The similarities are too fundamental to be mere coincidence, however. The two products not only look alike, but they also work alike. Both are oddly shaped with identically placed control panels with the same types of controls. Both allow the same types of adjustments and the same types of optional enhancements.

The main point of the argument is that

- (A) The two products have many characteristics in common.
- (B) ErgoTech must have copied the design of its new product from OCF's design.
- (C) The similarities between the two products are not coincidental.
- (D) Product designers sometimes reach the same solution to a given problem without consulting each other.
- (E) New products that at first appear to be unique are sometimes simply variations of other products.

Questions 3-4

An anthropologist hypothesized that a certain medicinal power contained a significant amount of the deadly toxin T. When the test she performed for the presence of toxin T was negative, the anthropologist did not report the results. A chemist who nevertheless learned about the test results charged the anthropologist with fraud. The anthropologist, however, countered that those results were invalid because the power had inadvertently been test in acidic solution.

3. In the absence of the anthropologist's reply, which one of the following principles, if established, would most support the chemist's charge?
- (A) Reporting results for an experiment that was not conducted and reporting a false result for an actual experiment are both instances of scientific fraud.
  - (B) Scientists can commit fraud and yet report some disconfirmations of their hypothesis.
  - (C) Scientists can neglect to report some disconfirmations of their hypotheses and yet be innocent of fraud.
  - (D) Scientists commit fraud whenever they report as valid any test result they know to be invalid.
  - (E) Scientists who neglect to report any experiment that could be interpreted as disconfirming their hypothesis have thereby committed fraud.
4. Which one of the following, if true, most strengthens the anthropologist's counterargument?
- (A) The anthropologist had evidence from fieldwork that the medicinal powder

was typically prepared using toxin T.

- (B) The activity level of toxin T tends to decline if the powder is stored for a long time.
- (C) When it is put into an acidic solution, toxin T becomes undetectable.
- (D) A fresh batch of powder for a repeat analysis was available at the time of the test.
- (E) The type of analysis used was insensitive to very small amounts of toxin T.

5. Naima: The proposed new computer system, once we fully implemented it, would operate more smoothly and efficiently than the current system. So we should devote the resources necessary to accomplish the conversion as soon as possible.

Nakai: We should keep the current system for as long as we can. The cost in time and money of converting to the new system would be greater than any predicted benefits.

- (A) The predicted benefits of the new computer system will be realized.
- (B) It is essential to have the best computer system available.
- (C) Accomplishing the conversion is technically impossible.
- (D) The current computer system does not work well enough to do what it is supposed to do.
- (E) The conversion to a new computer system should be delayed.

6. Every year, new reports appear concerning the health risks posed by certain substances, such as coffee and sugar. One year an article claimed that coffee is dangerous to one's health. The next year, another article argued that coffee has some benefits for one's health. From these contradictory opinions, we see that experts are useless for guiding one's decisions about one's health.

Which one of the following most accurately describes a flaw in the argument above?

- (A) The argument takes for granted that coffee is dangerous to one's health.
- (B) The argument presumes, without providing warrant, that one always wants expert guidance in making decisions about one's health.
- (C) The argument fails to consider the nature of expert opinion in areas other than health.
- (D) The argument presumes, with out providing justification, that because expert opinion is trustworthy in one case, it must therefore be trustworthy in all cases.
- (E) The argument fails to consider that coffee may be harmful to one's health in some respects and beneficial in others.

7. Because people are generally better at detecting mistakes in others' work than in their own, a prudent principle is that one should always have one's own work checked by someone else.



Which one of the following provides the best illustration of the principle above?

- (A) The best elementary school math teachers are not those for whom math was always easy. Teachers who had to struggle through math themselves are better able to explain math to students.
- (B) One must make a special effort to clearly explain one's views to someone else; people normally find it easier to understand their own views than to understand others' views.
- (C) Juries composed of legal novices, rather than panels of lawyers, should be the final arbiters in legal proceedings. People who are not legal experts are in a better position to detect good legal arguments by lawyers than are other lawyers.
- (D) People should always have their writing proofread by someone else. Someone who does not know in advance what is meant to be said is in a better position to spot typographical errors.
- (E) Two people going out for dinner will have a more enjoyable meal if they order for each other. By allowing someone else to choose, one opens oneself up to new and exciting dining experience.

8. Pundit: The only airline providing service for our town announces that because the service is unprofitable, it will discontinue this service next year. Town officials have urged the community to use the airline's service more frequently so that the airline will change its decision. There is no reason to comply with their recommendation, however, for just last week these same officials drove to an out-of-town conference instead of flying.

The Pundit's reasoning is most vulnerable to criticism on the grounds that it presumes, without providing justification, that

- (A) Increasing the number of tickets sold without increasing ticket prices will be sufficient to make continued air service economically feasible.
- (B) Suspending service and losing money by continuing service are the airline's only options.
- (C) The town officials paid for their trip with taxpayers' money rather than their own money.
- (D) Ground transportation is usually no less expensive than airplane transportation.
- (E) If the town officials did not follow their own advice, then that advice is not worth following.

9. Some scientists believe that 65 million years ago an asteroid struck what is now the Yucatan Peninsula, thereby causing extinction of the dinosaurs. These scientists have established that such a strike could have hurled enough debris into the atmosphere to block sunlight and cool the atmosphere. Without adequate sunlight, food sources for herbivorous dinosaurs would have disappeared, and no dinosaurs could have survived a prolonged period of low temperatures. These

same scientists, however, have also established that most debris launched by the asteroid would have settled to the ground within six months, too soon for the plants to disappear or the dinosaurs to freeze.

Which one of the following, if true, most helps to resolve the apparent discrepancy between the scientists' beliefs and the scientists' results, as described above?

- (A) Loss of the herbivorous dinosaurs would have deprived the carnivorous dinosaurs of their food source.
- (B) Dinosaurs inhabited most landmasses on the planet but were not especially abundant in the area of the asteroid strike.
- (C) A cloud of debris capable of diminishing sunlight by 20 percent would have cooled the earth's surface by 7 to 10 degrees Celsius.
- (D) The asteroid was at least 9.6 km in diameter, large enough for many dinosaurs to be killed by the strike itself and by subsequent tidal waves.
- (E) Dinosaurs were susceptible to fatal respiratory problems caused by contamination of the air by asteroid debris.

10. Bernard: For which language, and thus which frequency distribution of letters and letter sequences, was the standard typewriter keyboard designed?

Cora: To ask this question, you must be making a mistaken assumption: that typing speed was to be maximized. The real danger with early typewriters was that operators would hit successive keys too quickly, thereby crashing typebars into each other, bending connecting wires and so on. So the idea was to slow the operator down by making the most common letter sequences awkward to type.

Bernard: This is surely not right! These technological limitations have long since vanished, yet the keyboard is still as it was then.

Which one of the following, if true, could be used by Cora to counter Bernard's rejection of her explanation?

- (A) Typewriters and word-processing equipment are typically sold to people who have learned to use the standard keyboard and who, therefore, demand it in equipment they buy.
- (B) Typewriters have been superseded in most offices by word-processing equipment, which has inherited the standard keyboard from typewriters.
- (C) The standard keyboard allows skilled operators to achieve considerable typing speeds, though it makes acquiring such skills relatively difficult.
- (D) A person who has learned one keyboard layout can readily learn to use a second one in place of the first, but only with difficulty learn to use a second one alongside the first.
- (E) It is now possible to construct typewriter and word-processing equipment in which a single keyboard can accommodate two or even more different keyboard layouts, each accessible to the operator at will.

11. Some teachers claim that students would not learn curricular content without the

incentive of grades. But students with intense interest in the material would learn it without this incentive, while the behavior of students lacking all interests in the material is unaffected by such an incentive. The incentive of grades, therefore, serves no essential academic purpose.

The reasoning in the argument is flawed because the argument

- (A) take for granted that the only purpose of school is to convey a fixed body of information to students
- (B) takes for granted that students who are indifferent to the grades they receive are genuinely interested in the curricular material
- (C) fails to consider that the incentive of grades may serve some useful nonacademic purpose
- (D) ignore the possibility that students who lack interest in the curricular material would be quite interested in it if allowed to choose their own curricular material
- (E) fails to consider that some students may be neither fascinated by nor completely indifferent to the subject being taught

12. Economist: Technology now changes so rapidly that workers need periodic retraining. Such retraining can be efficient only if it allows individual companies to meet their own short-term needs. Hence, large governmental job retraining programs are no longer a viable option in the effort to retrain workers efficiently.

Which one of the following is an assumption required by the economist's argument?

- (A) Workers did not need to be retrained when the pace of technological change was slower than it is currently.
- (B) Large job retraining programs will be less efficient than smaller programs if the pace of technological change slows.
- (C) No single type of retraining program is most efficient at retraining technological workers.
- (D) Large governmental job retraining programs do not meet the short-term needs of different individual companies.
- (E) Technological workers are more likely now than in the past to move in order to find work for which they are already trained.

13. Recent research indicates that increased consumption of fruits and vegetables by middle-aged people reduces their susceptibility to stroke in later years. The researchers speculate that this may be because fruits and vegetables are rich in folic acid. Low levels of folic acid are associated with high levels of homocysteine, an amino acid that contributes to blocked arteries.

Which one of the following statements is most strongly supported by the information above?

- (A) An increased risk of stroke is correlated with low levels of homocysteine.

- (B) A decreased risk of stroke is correlated with increased levels of folic acid.
- (C) An increased propensity for blocked arteries is correlated with decreased levels of homocysteine.
- (D) A decreased propensity for blocked arteries is correlated with low levels of folic acid.
- (E) Stroke is prevented by ingestion of folic acid in quantities sufficient to prevent a decline in the levels of homocysteine.

14. Thirty years ago, the percentage of the British people who vacationed in foreign countries was very small compared with the large percentage of the British population who travel abroad for vacations now. Foreign travel is, and always has been, expensive from Britain. Therefore, British people must have, on average, more money to spend on vacations now than they did 30 years ago.

The argument requires assuming which one of the following?

- (A) If foreign travel had been less expensive 30 years ago, British people would still not have had enough money to take vacation abroad.
- (B) If travel to Britain were less expensive, more people of other countries would travel to Britain for their vacations.
- (C) If the percentage of British people vacationing abroad was lower 30 years ago, then the British people of 30 years ago must have spent more money on domestic vacations.
- (D) If more of the British people 30 years ago had had enough money to vacation abroad, more would have done so.
- (E) If British people are now wealthier than they were 30 years ago, then they must have more money to spend on vacations now than they did 30 years ago.

15. Mystery stories often feature a brilliant detective and the detective's dull companion. Clues are presented in the story, and the companion wrongly infers an inaccurate solution to the mystery using the same clues that the detective uses to deduce the correct solution. Thus, the author's strategy of including the dull companion gives readers a chance to solve the mystery while also diverting them from the correct solution.

Which one of the following is most strongly supported by the information above?

- (A) Most mystery stories feature a brilliant detective who solves the mystery presented in the story.
- (B) Mystery readers often solve the mystery in a story simply by spotting the mistakes in the reasoning of the detective's dull companion in that story.
- (C) Some mystery stories give readers enough clues to infer the correct solution to the mystery.
- (D) The actions of the brilliant detective in a mystery story rarely divert readers from the actions of the detective's dull companion.

- (E) The detective's dull companion in a mystery story generally uncovers the misleading clues that divert readers from the mystery's correct solution.
16. Policy analyst: Increasing the size of a police force is only a stopgap method of crime prevention. It does not get at the root causes of crime. Therefore, city officials should not respond to rising crime rates by increasing the size of their city's police force.
- The flawed reasoning in which one of the following arguments most closely resembles the flawed reasoning in the policy analyst's argument?
- (A) Some people think that rules with higher standards than people can live up to, such as those enjoining total honesty, prevent some immoral behavior by giving people a guide to self-improvement. But such rules actually worsen behavior by make people cynical about rules. Thus, societies should not institute overly demanding rules.
- (B) Swamps play an important role in allaying the harsh effects of floods because they absorb a great deal of water. Although dams prevent many floods, they worsen the effects of the greatest floods by drying up swamps. Thus dams should not be built.
- (C) Although less effective in preventing theft than security guards, burglar alarm systems are more affordable to maintain. Because the greater loss from theft when alarms are used is outweighed by their lower cost, companies are advised always to use burglar alarm systems.
- (D) Because taking this drug does not cure the disease for which it is prescribed, but only reduces the disease's most harmful effects, doctors should not continue to prescribe this drug.
- (E) We will never fully understand what causes people to engage in criminal activity. Therefore, we should investigate other ways to improve society's ability to combat crime.

Question 17-18

In order to determine automobile insurance premiums for a driver, insurance companies calculate various risk factors; as the risk factors increase, so does the premium. Certain factors, such as the driver's age and past accident history, play an important role in these calculations. Yet these premiums should also increase drives. After all, a person's chance of being involved in a mishap increases in proportion to the number of times that person drives.

17. Which one of the following, if true, most undermines the argument?
- (A) People who drive in frequently are more likely to be involved accidents that occur on small roads than in highway accidents.
- (B) People who drive infrequently are less likely to follow rules for safe driving than are people who drive frequently.
- (C) People who drive infrequently are less likely to violate local speed limits than are people who drive frequently.



- (D) People who drive frequently are more likely to make long-distance trips in the course of a year than are people who drive infrequently.
- (E) People who drive frequently are more likely to become distracted while driving than are people who drive infrequently.
18. The claim that insurance premiums should increase as the frequency with which a driver drives increases plays which one of the following roles in the argument?
- (A) a premise of the argument
- (B) the conclusion of the argument
- (C) evidence offered in support of one of the premises
- (D) an assertion phrased to preclude an anticipated objection
- (E) a clarification of a key term in the argument
19. Essayist: Only happiness is intrinsically valuable; other things are valuable only insofar as they contribute to happiness. Some philosophers argue that the fact that we do not approve of a bad person's being happy shows that we value happiness only when it is deserved. This supposedly shows that we find something besides happiness to be intrinsically valuable. But the happiness people deserve is determined by the amount of happiness they bring to others. Therefore, \_\_\_\_\_
- Which one of the following most logically completes the final sentence of the essayist's argument?
- (A) the notion that people can be deserving of happiness is ultimately incoherent
- (B) people do not actually value happiness as much as they think they do
- (C) the judgment that a person deserves to be happy is itself to be understood in terms of happiness
- (D) the only way to be assured of happiness is to bring happiness to those who have done something to deserve it
- (E) a truly bad person cannot actually be very happy
20. Sociologist: Climate and geology determine where human industry can be established. Drastic shifts in climate always result in migrations, and migrations bring about the intermingling of ideas necessary for rapid advances in civilization.
- The sociologist's statements, if true, most strongly support which one of the following?
- (A) Climate is the primary cause of migration
- (B) All shifts in climate produce a net gain in human progress
- (C) A population remains settled only where the climate is fairly stable.
- (D) Populations settle in every place where human industry can be established
- (E) Every migration is accompanied by rapid advances in civilization
21. Some educators claim that it is best that school courses cover only basic subject

matter, but cover it in depth. These educators argue that if student achieve a solid grasp of the basic concepts and investigatory techniques in a subject, they will be able to explore the breadth of that subject on their own after the course is over. But if they simply learn a lot of factual information, without truly understanding its significance, they will not be well equipped for further study on their own.

The educator's reasoning provides grounds for accepting which one of the following statements?

- (A) It is easier to understand how plants and animals are classified after learning how plants and animals can be useful
- (B) It is more difficult to recall the details of a dull and complicated lecture than of a lively and interesting one.
- (C) It is easier to remember new ideas explained personally by a teacher than ideas that one explores independently.
- (D) It is easier to understand any Greek tragedy after one has analyzed a few of them in detail.
- (E) It is easier to learn many simple ideas well than to learn a few complicated ideas well.

22. Damming the Merv River would provide irrigation for the dry land in its upstream areas; unfortunately, a dam would reduce agricultural productivity in the fertile land downstream by reducing the availability and quality of the water there. The productivity loss in the downstream area would be greater than the productivity gain upstream, so building a dam would yield no overall gain in agricultural productivity in the region as a whole.

The reasoning in the argument above most closely parallels that in which one of the following?

- (A) disease-causing bacteria in eggs can be destroyed by overcooking the eggs, but the eggs then become much less appetizing; health is more important than taste, however, so it is better to overcook eggs than not to do so.
- (B) Increasing the price of transatlantic telephone calls will discourage many private individuals from making them. But since most transatlantic telephone calls are made by businesses, not by private individuals, a rate increase will not reduce telephone company profits.
- (C) A new highway will allow suburban commuters to reach the city more quickly, but not without causing increased delays within the city that will more than offset any time saved on the highway. Therefore, the highway will not educe suburban commuters' overall commuting time.
- (D) Doctors can prescribe antibiotics fro many minor illnesses, but antibiotics are expensive, and these illnesses can often be cured by rest alone. Therefore, it is better to rest at home than to see a doctor for these illnesses.
- (E) A certain chemical will kill garden pest that damage tomatoes, but that chemical will damage certain other plants more severely than the pests

damage the tomatoes, so the only garden that will benefit from the use of the chemical are those in which only tomatoes are grown.

23. Activist: Food producers irradiate food in order to prolong its shelf life. Five animal studies were recently conducted to investigate whether this process alters food in a way that could be dangerous to people who eat it. The studies concluded that irradiated food is safe for human to eat. However, because these studies were subsequently found by a panel of independent scientists to be seriously flawed in their methodology, it follows that irradiated food is not safe for human consumption.

The reasoning in the activist's argument is flawed because that argument

- (A) treats a failure to prove a claim as constituting proof of the denial of that claim
  - (B) treat methodological flaws in past studies as proof that it is currently not possible to devise methodologically adequate alternatives
  - (C) fails to consider the possibility that even a study whose methodology has no serious flaws nonetheless might provide only weak support for its conclusion
  - (D) fails to consider the possibility that what is safe for animals might not always be safe for human beings
  - (E) fails to establish that the independent scientists know more about food irradiation than do the people who produced the five studies
24. One-year-olds ordinarily prefer the taste of sweet food to that of salty food. Yet if one feeds a one-year-old salty food rather than sweet food, then over a period of about a year he or she will develop a taste for the salty flavor and choose to eat salty food rather than sweet food. Thus, a young child's taste preferences can be affected by the type of food he or she has been exposed to.
- Which one of the following is an assumption required by the argument?
- (A) Two-year-olds do not naturally prefer salty food to sweet food
  - (B) A child's taste preferences usually changes between age one and age two.
  - (C) Two-year-olds do not naturally dislike salty food so much that they would not choose it over some other foods.
  - (D) The salty food fed to infants in order to change their taste preferences must taste pleasant
  - (E) Sweet food is better for infant development than is salty food.

#### SECTION IV

#### **Time 35 minutes 27 Questions**

*Directions: The questions in this section are based on the reasoning contained in brief statements or passages...*

#### Question 1-2

Ms. Smith: I am upset that my son's entire class lost two days of recess because some of the children were throwing raisins in the cafeteria. He was not throwing raisins, and it was clear to everyone just who the culprits were.

Principal: I'm sorry you're upset, Ms. Smith, but your son's situation is like being caught in a traffic jam caused by an accident. People who aren't involved in the accident nevertheless have to suffer by sitting there in the middle of it.

1. If the principal is speaking sincerely, then it can be inferred from what the principal says that the principal believes that
  - (A) many children were throwing raisins in the cafeteria
  - (B) Ms. Smith's son might not have thrown raisins in the cafeteria
  - (C) After an accident the resulting traffic jams are generally caused by police activity.
  - (D) Ms. Smith's son know who it was that threw raisins in the cafeteria
  - (E) Losing two days of recess will deter future disruptions.
2. The principal's response to Ms. Smith's complaint is most vulnerable to criticism on which one of the following grounds?
  - (A) it makes a generalization about all the children in the class which is not justified by the facts.
  - (B) It suggests that throwing raisins in the cafeteria produces as much inconvenience as does being caught in a traffic jam.
  - (C) It does not acknowledge the fact that a traffic jam following an accident is unavoidable while the mass punishment was avoidable.
  - (D) It assumes that Ms. Smith's son is guilty when there is evidence to the contrary which the principal has disregarded.
  - (E) It attempts to confuse the point at issue by introducing irrelevant facts about the incident.
3. Journalist: Obviously, though some animals are purely carnivorous, none would survive without plants. But eh dependence is mutual. Many plant species would never have come to be had there been no animals to pollinate, fertilize, and broadcast their seeds. Also, plants' photosynthetic activity would deplete the carbon dioxide in Earth's atmosphere were it not constantly being replenished by the exhalation of animals, engine fumes, and smoke from fires, many set by human beings.

Which one of the following most accurately expresses the main conclusion of the journalist's argument?

  - (A) The photosynthetic activity of plants is necessary for animal life, but animal life is also necessary for the occurrence of photosynthesis in plants.
  - (B) Some purely carnivorous animals would not survive without plants.
  - (C) The chemical composition of Earth and its atmosphere depends, at least to some extent, on the existence and activities of the animals that populate

Earth.

- (D) Human activity is part of what prevents plants from depleting the oxygen in Earth's atmosphere on which plants and animals alike depends.
- (E) Just as animals are dependent on plants for their survival, plants are dependent on animals for theirs.

4. The government-owned gas company has begun selling stoves and other gas appliances to create a larger market for its gas. Merchants who sell such products complain that the competition will hurt their businesses. That may well be; however, the government-owned gas company is within its rights. After all, the owner of a private gas company might will decide to sell such appliances and surely there would be nothing wrong with that.

Which one of the following principles, if valid, most helps justify the reasoning above?

- (A) Government-owned companies have the right to do whatever private businesses have the right to do.
  - (B) A government should always take seriously the complaints of merchants.
  - (C) Private businesses have not right to compete with government monopolies.
  - (D) There is nothing wrong with a government-owned company selling products so long as owners of private companies do not complain.
  - (E) There is nothing wrong with private companies competing against each other.
5. Toxicologist: A survey of oil-refinery workers who work with MBTE, an ingredient currently used in some smog-reducing gasoline, found an alarming incidence of complaints about headaches, fatigue, and shortness of breath. Since gasoline containing MBTE will soon be widely used, we can expect an increased incidence of headaches, fatigue, and shortness of breath.

Each of the following, if true, strengthens the toxicologist's argument EXCEPT:

- (A) Most oil-refinery workers who do not work with MBTE do not have serious health problems involving headaches, fatigue, and shortness of breath.
- (B) Headaches, fatigue, and shortness of breath are among the symptoms of several medical conditions that are potentially serious threats to public health.
- (C) Since the time when gasoline containing MBTE was first introduced in a few metropolitan areas, those areas reported an increase in the number of complaints about headaches, fatigue, and shortness of breath.
- (D) Regions in which only gasoline containing MBTE is used have a much greater incidence of headaches, fatigue, and shortness of breath than do similar regions in which only MBTE-free gasoline is used.
- (E) The oil-refinery workers surveyed were carefully selected to be representative of the broader population in their medical histories prior to exposure to MBTE, as well as in other relevant respects.



6. In any field, experience is required for a proficient person to become an expert. Through experience, a proficient person gradually develops a repertory of model situations that allows an immediate, intuitive response to each new situation. This is the hallmark of expertise, and for this reason computerized “expert systems” cannot be as good as human experts. Although computers have the ability to store millions of bits of information, the knowledge of human experts, who benefit from the experience of thousands of situations, is not stored within their brains in the form of rules and facts.

The argument requires the assumption of which one of the following?

- (A) Computers can show no more originality in responding to a situation than that built into them by their designers.
  - (B) The knowledge of human experts cannot be adequately rendered into the type of information that a computer can store.
  - (C) Human experts rely on information that can be expressed by rules and facts when they respond to new situations.
  - (D) Future advances in computer technology will not render computers capable of sorting through greater amounts of information.
  - (E) Human experts rely heavily on intuition while they are developing a repertory of model situations.
7. When drivers are deprived of sleep there are definite behavioral changes, such as slower responses to stimuli and a reduced ability to concentrate, but people’s self-awareness of these changes is poor. Most drivers think they can tell when they are about to fall asleep, but they cannot.

Each of the following illustrates the principle that the passage illustrates EXCEPT:

- (A) People who have been drinking alcohol are not good judges of whether they are too drunk to drive.
  - (B) Elementary school students who dislike arithmetic are not good judges of whether multiplication tables should be included in the school’s curriculum.
  - (C) Industrial workers who have just been exposed to noxious fumes are not good judges of whether they should keep working.
  - (D) People who have just donated blood and have become faint are not good judges of whether they are ready to walk out of the facility.
  - (E) People who are being treated for schizophrenia are not good judges of whether they should continue their medical treatments.
8. Politician: My opponent says our zoning laws too strongly promote suburban single-family dwellings and should be changed to encourage other forms of housing like apartment buildings. Yet he lives in a house in the country. His lifestyle contradicts his own argument, which should therefore not be taken seriously.

The politician’s reasoning is most vulnerable to criticism on the ground that

- (A) Its characterization of the opponent's lifestyle reveals the politician's own prejudice against constructing apartment buildings.
- (B) It neglects the fact that apartment buildings can be built in the suburbs just as easily as in the center of the city.
- (C) It fails to mention the politician's own living situation
- (D) Its discussion of the opponent's lifestyle is irrelevant to the merits of the opponent's argument.
- (E) It ignores the possibility that the opponent may have previously lived in an apartment building.
9. Consumers are deeply concerned about the quantity of plastic packaging on the market and have spurred manufacturers to find ways to recycle plastic materials. Despite their efforts, however, only 6.5 percent of plastic is not being recycled, as compared to 33 percent of container glass.
- Each of the following, if true, helps to explain the relatively low rate of plastic recycling EXCEPT:
- (A) Many factories are set up to accept and make economical use of recycled glass, whereas there are few factories that make products out of recycled plastic.
- (B) Many plastic products are incompatible and cannot be recycled together, whereas most containers made of glass are compatible.
- (C) The manufacture of new plastic depletes oil reserves, whereas the manufacture of new glass uses renewable resources.
- (D) Unlike glass, which can be heated to thousands of degrees during the recycling process to burn off contaminants, recycled plastic cannot be heated enough to sterilize it.
- (E) Plastic polymers tend to break down during the recycling process and weaken the resulting product, whereas glass does not break down.
10. Technological progress makes economic growth and widespread prosperity possible; it also makes a worker's particular skills less crucial to production. Yet workers' satisfaction in their work depends on their believing that their work is difficult and requires uncommon skills. Clearly, then, technological progress

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Which one of the following most logically completes the argument?

- (A) decreases the quality of most products
- (B) provides benefits only to those whose work is not directly affected by it
- (C) is generally opposed by the workers whose work will be directly affected by it
- (D) cause workers to feel less satisfaction in their work
- (E) eliminates many worker's jobs
11. Environmentalist: The complex ecosystem of the North American prairie has

largely been destroyed to produce cattle feed. But the prairie ecosystem once supported 30 to 70 million bison, whereas North American agriculture now supports about 50 million cattle. Since bison yield as much meat as cattle, and the natural prairie required neither pesticides, machinery, nor government subsidies, returning as much land as possible to an uncultivated state could restore biodiversity without a major decrease in meat production.

Which one of the following most accurately expresses the environmentalist's main conclusion?

- (A) If earlier North American agricultural techniques were reintroduced, meat production would decrease only slightly.
- (B) Protecting the habitat of wild animals so that we can utilize these animals as a food source is more cost effective than raising domesticated animals.
- (C) The biodiversity of the North American prairie ecosystem should not be restored if doing so will have intolerable economic consequences.
- (D) Preservation of the remaining North American bison would be a sensible policy.
- (E) The devastation of the North American prairie ecosystem could be largely reversed without significantly decreasing meat production.

12. Item removed from scoring.

13. A recent study reveals that television advertising does not significantly affect children's preferences for breakfast cereals. The study compared two groups of children. One group had watched no television, and the other group had watched average amounts of television and its advertising. Both groups strongly preferred the sugary cereals heavily advertised on television.

Which one of the following statements, if true, most weakens the argument?

- (A) The preferences of children who do not watch television advertising are influenced by the preferences of children who watch the advertising.
- (B) The preference for sweets is not a universal trait in human and can be influenced by environmental factors such as television advertising.
- (C) Most of the children in the group that had watched television were already familiar with the advertisements for these cereals.
- (D) Both groups rejected cereals low in sugar even when these cereal were heavily advertised on television.
- (E) Cereal preferences of adults who watch television are known to be significantly different from the cereal preferences of adults who do not watch television.

14. Reducing speed limits neither saves lives nor protects the environment. This is because the more slowly a car is driven, the more time it spends on the road spewing exhaust into the air and running the risk of colliding with other vehicles. The argument's reasoning is flawed because the argument

- (A) neglects the fact that some motorists completely ignore speed limits.
- (B) Ignore the possibility of benefits from lowering speed limits other than environmental and safety benefits.
- (C) Fails to consider that if speed limits are reduced, increased driving times will increase the number of cars on the road at any given time.
- (D) Presumes, without providing justification, that total emissions for a given automobile trip are determined primarily by the amount of time the trip takes
- (E) Presumes, without providing justification, that drivers run a significant risk of collision only if they spend a lot of time on the road.
15. Loggerhead turtles live and breed in distinct groups, of which some are in the Pacific Ocean and some are in the Atlantic. New evidence suggests that juvenile pacific loggerheads that feed near the Baja peninsula hatch in Japanese waters 10,000 kilometers away. Ninety-five percent of the DNA samples taken from the Baja turtles match those taken from turtles at the Japanese nesting sites.
- Which one of the following, if true, most seriously weakens the reasoning above?
- (A) Nesting sites of loggerhead turtles have been found off the Pacific coast of North America several thousand kilometers north of the Baja peninsula.
- (B) The distance between nesting sites and feeding sites of Atlantic loggerhead turtles is less than 5,000 kilometers.
- (C) Loggerhead hatchlings in Japanese waters have been declining in number for the last decade while the number of nesting sites near the Baja peninsula had remained constant.
- (D) Ninety-five percent of the DNA samples taken from the Baja turtles match those taken from Atlantic loggerhead turtles.
- (E) Commercial aquariums have been successfully breeding Atlantic loggerheads with Pacific loggerheads for the last five years.
16. People who do not believe that others distrust them are confident in their own abilities, so people who tend to trust others think of a difficult task as a challenge rather than a threat, since this is precisely how people who are confident in their own abilities regard such tasks.
- The conclusion above follows logically if which one of the following is assumed?
- (A) People who believe that others distrust them tend to trust others.
- (B) Confidence in one's own abilities gives one confidence in the trustworthiness of others.
- (C) People who tend to trust others do not believe that others distrust them.
- (D) People who are not threatened by difficult tasks tend to find such tasks challenging.

- (E) People tend to distrust those who they believe lack self-confidence.
17. Mullen has proposed to raise taxes on the rich, who made so much money during the past decade. Yet Mullen's tax records show heavy investment in business during that time and large profits; so Mullen's proposal does not deserve our consideration.
- The flawed reasoning in the argument above is most similar to the flawed reasoning in which one of the following?
- (A) Do not vote for Smith's proposed legislation to subsidize child care for working parents; Smith is a working parent.
- (B) Do not put any credence in Dr. Han's recent proposal to ban smoking in all public places; Dr. Han is a heavy smoker.
- (C) The previous witness's testimony ought to be ignored; he has been convicted of both forgery and mail fraud.
- (D) Board member Timm's proposal to raise the salaries of the company's middle managers does not deserve to be considered; Timm's daughter is a middle manager at the company's headquarters.
- (E) Dr. Wasow's analysis of the design of this bridge should not be taken seriously; after all, Dr. Wasow has previously only designed factory buildings.

Question 18—19

Anders: The physical structure of the brain plays an important role in thinking. So researchers developing "thinking machines"—computers that can make decisions based on both common sense and factual knowledge—should closely model those machines on the structure of the brain.

Yang: Important does not mean essential. After all, no flying machine closely modeled on birds has worked; workable aircraft are structurally very different from birds. So thinking machines closely modeled on the brain are also likely to fail. In developing a workable thinking machine, researchers would therefore increase their chances of success if they focus on the brain's function and simply ignore its physical structure.

18. The statement "thinking machines closely modeled on the brain are also likely to fail" serves which one of the following roles in yang's argument?
- (A) the main conclusion of the argument
- (B) a subsidiary conclusion used in support of the main conclusion
- (C) a principle of research invoked in support of the conclusion
- (D) a particular example illustrating a general claim
- (E) background information providing a context for the argument
19. In evaluating Yang's argument it would be most helpful to know whether
- (A) studies of the physical structure of birds provided information crucial to the development of workable aircraft



- (B) researchers currently working on thinking machines take all thinking to involve both common sense and factual knowledge
- (C) as much time has been spent trying to develop a workable thinking machine as had been spent in developing the first workable aircraft
- (D) researchers who specialize in the structure of the brain are among those who are trying to develop thinking machines
- (E) some flying machines that were not closely modeled on birds failed to work
20. Shy adolescents often devote themselves totally to a hobby to help distract them from the loneliness brought on by their shyness. Sometimes they are able to become friends with others who share their hobby. But if they lose interest in that hobby, their loneliness may be exacerbated. So developing an all-consuming hobby is not a successful strategy for overcoming adolescent loneliness.
- Which one of the following assumptions does the argument depend on?
- (A) Eventually, shy adolescents are going to want a wider circle of friends than is provided by their hobby.
- (B) No successful strategy for overcoming adolescent loneliness ever intensifies that loneliness.
- (C) Shy adolescents will lose interest in their hobbies if they do not make friends through their engagement in those hobbies.
- (D) Some other strategy for overcoming adolescent loneliness is generally more successful than is developing an all-consuming hobby.
- (E) Shy adolescents devote themselves to hobbies mainly because they want to make friends.
21. Political scientist: As a political system, democracy does not promote political freedom. There are historical examples of democracies that ultimately resulted in some of the most oppressive societies. Likewise, there have been enlightened despotisms and oligarchies that have provided a remarkable level of political freedom to their subjects.
- The reasoning in the political scientist's argument is flawed because it
- (A) confuses the conditions necessary for political freedom with the conditions sufficient to bring it about
- (B) fail to consider that a substantial increase in the level of political freedom might cause a society to become more democratic
- (C) appeals to historical examples that are irrelevant to the causal claim being made
- (D) overlooks the possibility that democracy promotes political freedom without being necessary or sufficient by itself to produce it
- (E) bases its historical case on a personal point of view
22. In humans, ingested protein is broken down into amino acids, all of which must compete to enter the brain. Subsequent ingestion of sugars leads to the production

of insulin, a hormone that breaks down the sugars and also rids the bloodstream of residual amino acids, except for tryptophan, Tryptophan then slips into the brain uncontested and is transformed into the chemical serotonin, increasing the brain's serotonin level. Thus sugars can play a major role in mood elevation, helping one to feel relaxed and anxiety-free.

Which one of the following is an assumption on which the argument depends?

- (A) Elevation of mood and freedom from anxiety require increasing the level of serotonin in the brain.
  - (B) Failure to consume foods rich in sugars results in anxiety and a lowering of mood.
  - (C) Serotonin can be produced naturally only if tryptophan is presented in the bloodstream.
  - (D) Increasing the level of serotonin in the brain promotes relaxation and freedom from anxiety.
  - (E) The consumption of protein-rich foods results in anxiety and a lowering of mood.
23. If an act of civil disobedience—willfully breaking a specific law in order to bring about legal reform—is done out of self-interest alone and not out of a concern for others, it cannot be justified. But one is justified in performing an act of civil disobedience if one's conscience requires one to do so.

Which one of the following judgments most closely conforms to the principles stated above?

- (A) Keisha's protest against what she perceived to be a brutal and repressive dictatorship in another country was an act of justified civil disobedience, because in organizing an illegal but peaceful demonstration calling for a return to democratic leadership in that country, she acted purely out of concern for the people of that country.
- (B) Janice's protest against a law that forbade labor strikes was motivated solely by a desire to help local mine workers obtain fair wages. But her conscience did not require her to protest this law, so Janice didn't perform an act of justified civil disobedience.
- (C) In organizing an illegal protest against the practice in her country of having prison inmates work eighteen hours per day, Georgette performed an act of justified civil disobedience: though she acted out of concern for her fellow inmates rather than out of concern for herself.
- (D) Maria's deliberate violation of a law requiring prepublication government approval of all printed materials was an act of justified civil disobedience: though her interest as an owner of a publishing company would be served by repeal of the law, she violated the law because her conscience required doing so on behalf of all publishers.
- (E) In organizing a parade of motorcyclists riding without helmets through the

capital city, Louise's act was not one of justified civil disobedience: she was willfully challenging a specific law requiring motorcyclists to wear helmets, but her conscience did not require her to organize the parade.

24. Most land-dwelling vertebrates have rotating limbs terminating in digits, a characteristic useful for land movement. Biologists who assume that this characteristic evolved only after animals abandoned aquatic environments must consider the *Acanthostega*, a newly discovered ancestor of all land vertebrates. It possessed rotating limbs terminating in digits, but its skeleton was too feeble for land movement. It also breathed using only internal gills, indicating that it and its predecessors were exclusively aquatic.

The statements above, if true, most strongly support which one of the following?

- (A) Many anatomical characteristics common to most land animals represent a disadvantage for survival underwater.
  - (B) None of the anatomical characteristics common to most aquatic animals represent an advantage for survival on land.
  - (C) *Acanthostega* originated as a land-dwelling species; but evolved gills only after moving to an underwater environment.
  - (D) All anatomical characteristics not useful for land movement but common to most land animals represent an advantage for survival underwater.
  - (E) Certain anatomical characteristics common to some aquatic animals represent an advantage for survival on land.
25. One reason why European music has had such a strong influence throughout the world, and why it is a sophisticated achievement, is that over time the original function of the music—whether ritual, dance, or worship—gradually became an aspect of its style, not its defining force. Dance music could stand independent of dance, for example, and sacred music independent of religious worship, because each composition has so much internal coherence that the music ultimately depends on nothing but itself.

The claims made above are compatible with each of the following EXCEPT:

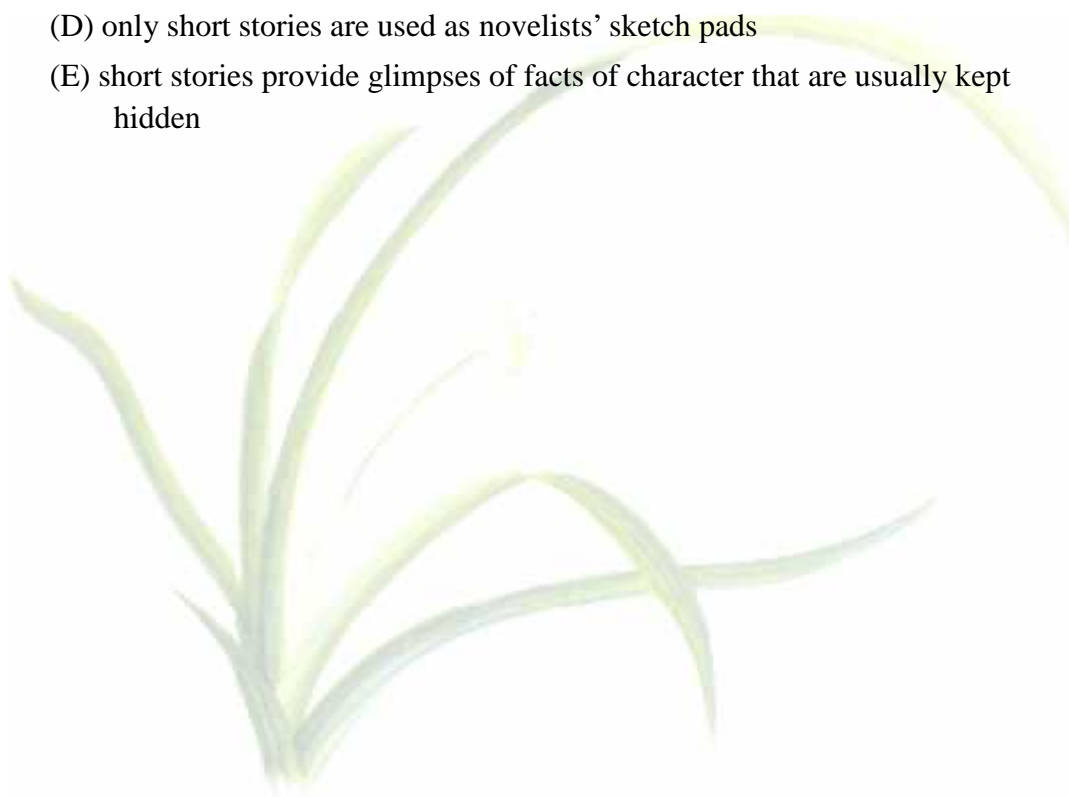
- (A) African music has had a more powerful impact on the world than European music has had.
  - (B) European military and economic expansionism partially explains the global influence of European music.
  - (C) The original functions of many types of Chinese music are no longer their defining forces.
  - (D) Music that is unintelligible when it is presented independently of its original function tends to be the most sophisticated music.
  - (E) Some works of art lose their appeal when they are presented to serve a function other than their original one.
26. Tony: A short story is little more than a novelist's sketch pad. Only novels have

narrative structures that allow writers to depict human lives accurately by portraying characters whose personalities gradually develop through life experience.

Raoul: Life consists not of a linear process of personality development, but rather of a series of completely disjointed vignettes, from many of which the discerning observer may catch glimpses of character. Thus, the short story depicts human lives more faithfully than does the novel.

The dialogue most supports the claim that Tony and Raoul disagree about whether

- (A) human lives are best understood as series of completely disjointed vignettes
- (B) novels and short stories employ the same strategies to depict human lives
- (C) novels usually depict gradual changes in characters' personalities
- (D) only short stories are used as novelists' sketch pads
- (E) short stories provide glimpses of facts of character that are usually kept hidden



**ANSWERS****GMAT****TEST A**

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. D  | 3. D  | 4. E  | 5. B  |
| 6. C  | 7. C  | 8. A  | 9. A  | 10. C |
| 11. E | 12. D | 13. E | 14. B | 15. C |
| 16. C | 17. B | 18. D | 19. A | 20. D |

**TEST B**

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. A  | 3. E  | 4. B  | 5. C  |
| 6. B  | 7. D  | 8. D  | 9. E  | 10. C |
| 11. B | 12. A | 13. E | 14. E | 15. A |
| 16. A | 17. B | 18. C | 19. C | 20. B |

**TEST C**

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. C  | 3. E  | 4. A  | 5. D  |
| 6. D  | 7. D  | 8. E  | 9. D  | 10. C |
| 11. E | 12. B | 13. A | 14. C | 15. C |
| 16. B | 17. B | 18. A | 19. B | 20. B |

**TEST D**

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. D  | 3. C  | 4. E  | 5. B  |
| 6. A  | 7. E  | 8. E  | 9. D  | 10. B |
| 11. A | 12. C | 13. C | 14. D | 15. E |
| 16. B | 17. C | 18. B | 19. A | 20. D |

**TEST I**

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. C  | 3. E  | 4. E  | 5. D  |
| 6. C  | 7. B  | 8. D  | 9. E  | 10. A |
| 11. D | 12. C | 13. E | 14. B | 15. A |
| 16. C | 17. C | 18. A | 19. D | 20. E |

**TEST II**

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. C  | 3. E  | 4. E  | 5. C  |
| 6. A  | 7. D  | 8. D  | 9. E  | 10. D |
| 11. B | 12. B | 13. B | 14. E | 15. A |
| 16. D | 17. C | 18. D | 19. E | 20. E |

**TEST III**

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. B  | 3. E  | 4. B  | 5. A  |
| 6. B  | 7. E  | 8. C  | 9. B  | 10. C |
| 11. C | 12. D | 13. B | 14. E | 15. D |
| 16. D | 17. E | 18. C | 19. C | 20. D |

**TEST 1**

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. B  | 3. E  | 4. D  | 5. A  |
| 6. C  | 7. E  | 8. E  | 9. D  | 10. D |
| 11. C | 12. E | 13. A | 14. C | 15. A |
| 16. B | 17. D | 18. C | 19. C | 20. A |



TEST 2

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. C  | 3. B  | 4. E  | 5. B  |
| 6. E  | 7. D  | 8. B  | 9. B  | 10. B |
| 11. C | 12. A | 13. B | 14. A | 15. D |
| 16. A | 17. A | 18. E | 19. A | 20. D |

TEST 3

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. B  | 3. C  | 4. E  | 5. E  |
| 6. A  | 7. C  | 8. C  | 9. C  | 10. E |
| 11. D | 12. B | 13. B | 14. D | 15. A |
| 16. C | 17. C | 18. D | 19. A | 20. E |

TEST 4

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. C  | 3. B  | 4. A  | 5. B  |
| 6. B  | 7. B  | 8. D  | 9. D  | 10. E |
| 11. C | 12. E | 13. C | 14. B | 15. C |
| 16. D | 17. A | 18. C | 19. E | 20. B |

TEST 5

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. E  | 3. E  | 4. D  | 5. C  |
| 6. B  | 7. B  | 8. D  | 9. C  | 10. E |
| 11. D | 12. E | 13. C | 14. A | 15. A |
| 16. C | 17. C | 18. E | 19. A | 20. C |

TEST 6

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. B  | 3. B  | 4. C  | 5. E  |
| 6. C  | 7. B  | 8. C  | 9. C  | 10. D |
| 11. D | 12. E | 13. A | 14. A | 15. D |
| 16. D | 17. E | 18. E | 19. A | 20. C |

TEST 7

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. C  | 3. E  | 4. C  | 5. A  |
| 6. D  | 7. D  | 8. C  | 9. A  | 10. A |
| 11. D | 12. A | 13. D | 14. B | 15. E |
| 16. E | 17. D | 18. B | 19. E | 20. B |

TEST 8

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. E  | 2. A  | 3. B  | 4. D  | 5. C  |
| 6. A  | 7. A  | 8. B  | 9. E  | 10. B |
| 11. A | 12. A | 13. E | 14. B | 15. B |
| 16. E | 17. B | 18. C | 19. D | 20. E |

TEST 9

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. B  | 3. D  | 4. D  | 5. B  |
| 6. E  | 7. C  | 8. D  | 9. A  | 10. E |
| 11. B | 12. D | 13. A | 14. C | 15. E |
| 16. B | 17. B | 18. A | 19. C | 20. A |

TEST 10

- |      |      |      |      |       |
|------|------|------|------|-------|
| 1. C | 2. C | 3. E | 4. D | 5. A  |
| 6. D | 7. A | 8. D | 9. C | 10. A |

11. D	12. C	13. B	14. B	15. B
16. E	17. A	18. B	19. B	20. D

TEST 11

1. A	2. D	3. B	4. C	5. A
6. E	7. D	8. B	9. E	10. C
11. C	12. D	13. E	14. A	15. B
16. A	17. C	18. B	19. E	20. B

TEST 12

1. D	2. B	3. D	4. C	5. E
6. C	7. E	8. C	9. A	10. C
11. C	12. E	13. C	14. A	15. B
16. E	17. E	18. D	19.	20.

TEST 13

1. D	2. E	3. C	4. B	5. A
6. D	7. D	8. E	9. C	10. C
11. A	12. E	13. A	14. E	15. D

TEST 14

1. E	2. C	3. A	4. B	5. A
6. B	7. E	8. B	9. A	10. E
11. C	12. B	13. D	14. D	15. A
16. B	17.	18.	19.	20.

TEST 15

1. D	2. E	3. D	4. A	5. B
6. D	7. A	8. D	9. A	10. C
11. C	12. E	13. B	14. C	15. B
16. D	17.	18.	19.	20.

TEST 16

1. D	2. A	3. B	4. E	5. B
6. E	7. C	8. D	9. B	10. B
11. C	12. C	13. C	14. A	15. C
16. B	17.	18.	19.	20.

TEST 17

1. B	2. E	3. C	4. C	5. B
6. A	7. D	8. D	9. B	10. A
11. B	12. D	13. E	14. C	15. E
16. D	17.	18.	19.	20.

TEST 18

1. A	2. A	3. E	4. A	5. D
6. E	7. B	8. A	9. E	10. C
11. E	12. D	13. A	14. B	15. C
16. C	17.	18.	19.	20.

TEST 19

1. C	2. A	3. E	4. E	5. B
------	------	------	------	------

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 6. A  | 7. E  | 8. D  | 9. B  | 10. D |
| 11. D | 12. B | 13. D | 14. B | 15. C |
| 16. D | 17.   | 18.   | 19.   | 20.   |

TEST 20

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. E  | 2. B  | 3. E  | 4. D  | 5. A  |
| 6. D  | 7. A  | 8. A  | 9. D  | 10. A |
| 11. E | 12. B | 13. C | 14. D | 15. B |
| 16. A | 17.   | 18.   | 19.   | 20.   |

LSAT**TEST 1**SECTION I

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. E  | 3. C  | 4. E  | 5. D  |
| 6. D  | 7. D  | 8. D  | 9. A  | 10. E |
| 11. E | 12. E | 13. A | 14. D | 15. E |
| 16. C | 17. A | 18. B | 19. D | 20. B |
| 21. B | 22. D | 23. D | 24. E | 25. B |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. E  | 2. B  | 3. D  | 4. C  | 5. E  |
| 6. A  | 7. A  | 8. D  | 9. D  | 10. C |
| 11. B | 12. A | 13. B | 14. C | 15. A |
| 16. A | 17. C | 18. E | 19. D | 20. C |
| 21. B | 22. A | 23. B | 24. D | 25. A |
| 26. D | 27.   | 28.   | 29.   | 30.   |

**TEST 2**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. E  | 3. E  | 4. D  | 5. C  |
| 6. B  | 7. A  | 8. E  | 9. B  | 10. C |
| 11. B | 12. A | 13. C | 14. C | 15. B |
| 16. E | 17. B | 18. B | 19. D | 20. C |
| 21. D | 22. A | 23. E | 24. E | 25.   |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. C  | 3. E  | 4. A  | 5. B  |
| 6. B  | 7. D  | 8. C  | 9. D  | 10. D |
| 11. B | 12. A | 13. B | 14. E | 15. A |
| 16. C | 17. A | 18. D | 19. D | 20. D |
| 21. E | 22. D | 23. C | 24. D | 25. A |

**TEST 3**SECTION I

- |      |      |      |      |       |
|------|------|------|------|-------|
| 1. E | 2. A | 3. E | 4. D | 5. C  |
| 6. E | 7. D | 8. D | 9. A | 10. E |

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 11. C | 12. E | 13. D | 14. C | 15. D |
| 16. A | 17. C | 18. D | 19. D | 20. B |
| 21. B | 22. C | 23. E | 24.   | 25.   |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. E  | 3. C  | 4. A  | 5. D  |
| 6. A  | 7. D  | 8. B  | 9. B  | 10. D |
| 11. B | 12. C | 13. D | 14. E | 15. A |
| 16. C | 17. B | 18. B | 19. E | 20. D |
| 21. E | 22. D | 23. B | 24. D | 25. E |

**TEST 4**SECTION I

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. E  | 2. A  | 3. B  | 4. A  | 5. B  |
| 6. E  | 7. A  | 8. B  | 9. A  | 10. C |
| 11. D | 12. D | 13. E | 14. A | 15. A |
| 16. B | 17. D | 18. B | 19. C | 20. B |
| 21. E | 22. C | 23. B | 24. C | 25. E |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. B  | 3. E  | 4. E  | 5. B  |
| 6. A  | 7. E  | 8. C  | 9. C  | 10. A |
| 11. C | 12. C | 13. D | 14. B | 15. C |
| 16. B | 17. A | 18. A | 19. E | 20. B |
| 21. C | 22. E | 23. D | 24. B | 25. E |

**TEST 5**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. E  | 3. D  | 4. B  | 5. E  |
| 6. C  | 7. A  | 8. B  | 9. D  | 10. E |
| 11. D | 12. D | 13. A | 14. B | 15. D |
| 16. C | 17. C | 18. C | 19. B | 20. C |
| 21. B | 22. A | 23. C | 24. A | 25. E |

SECTION VI

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. C  | 3. C  | 4. D  | 5. C  |
| 6. A  | 7. B  | 8. E  | 9. A  | 10. E |
| 11. E | 12. E | 13. C | 14. D | 15. E |
| 16. A | 17. D | 18. E | 19. D | 20. C |
| 21. B | 22. B | 23. A | 24. E | 25.   |

**TEST 6**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. A  | 3. D  | 4. E  | 5. B  |
| 6. C  | 7. E  | 8. A  | 9. C  | 10. E |
| 11. B | 12. E | 13. E | 14. D | 15. C |
| 16. E | 17. B | 18. E | 19. E | 20. C |

21. D                      22. D                      23. E                      24. C                      25. C

SECTION III

1. A	2. B	3. D	4. B	5. D
6. E	7. A	8. D	9. A	10. D
11. A	12. C	13. E	14. B	15. B
16. E	17. A	18. A	19. D	20. C
21. E	22. A	23. D	24. B	25. E
26. C	27.	28.	29.	30.

**TEST 7**

SECTION I

1. C	2. C	3. E	4. E	5. B
6. E	7. C	8. A	9. D	10. B
11. C	12. A	13. C	14. E	15. A
16. B	17. B	18. C	19. C	20. B
21. B	22. E	23. D	24. A	25. D

SECTION IV

1. D	2. E	3. B	4. E	5. A
6. C	7. A	8. E	9. C	10. D
11. A	12. A	13. D	14. D	15. E
16. E	17. D	18. A	19. B	20. A
21. A	22. D	23. C	24. D	25. E

**TEST 8**

SECTION II

1. D	2. C	3. A	4. D	5. D
6. B	7. B	8. E	9. E	10. E
11. B	12. D	13. C	14. D	15. A
16. D	17. C	18. A	19. B	20. A
21. A	22. B	23. E	24. A	25.

SECTION IV

1. B	2. B	3. E	4. C	5. C
6. D	7. C	8. C	9. B	10. A
11. D	12. C	13. A	14. D	15. A
16. C	17. A	18. D	19. B	20. A
21. E	22. E	23. B	24. D	25. E

**TEST 9**

SECTION I

1. D	2. A	3. A	4. C	5. C
6. C	7. C	8. B	9. D	10. B
11. B	12. E	13. D	14. B	15. A
16. B	17. B	18. E	19. E	20. B
21. D	22. A	23. E	24. B	25. B



SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. D  | 3. D  | 4. A  | 5. C  |
| 6. C  | 7. E  | 8. C  | 9. B  | 10. C |
| 11. A | 12. D | 13. E | 14. A | 15. A |
| 16. C | 17. A | 18. D | 19. D | 20. B |
| 21. A | 22. D | 23. E | 24. C | 25. B |

**TEST 10**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. D  | 3. B  | 4. B  | 5. D  |
| 6. C  | 7. D  | 8. D  | 9. A  | 10. B |
| 11. E | 12. A | 13. D | 14. C | 15. B |
| 16. A | 17. B | 18. E | 19. D | 20. A |
| 21. D | 22. D | 23. A | 24. D | 25. A |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. E  | 3. C  | 4. C  | 5. E  |
| 6. C  | 7. D  | 8. C  | 9. B  | 10. B |
| 11. D | 12. C | 13. A | 14. A | 15. D |
| 16. E | 17. B | 18. C | 19. A | 20. C |
| 21. E | 22. E | 23. E | 24. D | 25. D |

**TEST 11**SECTION I

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. E  | 3. E  | 4. D  | 5. B  |
| 6. C  | 7. A  | 8. E  | 9. D  | 10. E |
| 11. C | 12. B | 13. B | 14. E | 15. A |
| 16. E | 17. B | 18. E | 19. D | 20. D |
| 21. B | 22. C | 23. D | 24. E | 25. E |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. B  | 3. C  | 4. D  | 5. B  |
| 6. D  | 7. A  | 8. C  | 9. D  | 10. A |
| 11. A | 12. D | 13. B | 14. B | 15. B |
| 16. D | 17. E | 18. E | 19. A | 20. E |
| 21. E | 22. E | 23. D | 24. C | 25. C |

**TEST 12**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. E  | 2. D  | 3. C  | 4. B  | 5. E  |
| 6. E  | 7. D  | 8. B  | 9. D  | 10. D |
| 11. B | 12. E | 13. A | 14. E | 15. D |
| 16. C | 17. E | 18. D | 19. A | 20. A |
| 21. B | 22. A | 23. A | 24. A | 25. E |
| 26. E | 27.   | 28.   | 29.   | 30.   |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. C  | 3. E  | 4. D  | 5. C  |
| 6. B  | 7. C  | 8. C  | 9. E  | 10. D |
| 11. B | 12. D | 13. A | 14. A | 15. E |
| 16. A | 17. B | 18. A | 19. A | 20. D |
| 21. E | 22. B | 23. B | 24. A | 25.   |

**TEST 13**SECTION I

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. C  | 3. E  | 4. B  | 5. D  |
| 6. A  | 7. B  | 8. C  | 9. E  | 10. B |
| 11. D | 12. D | 13. D | 14. D | 15. B |
| 16. B | 17. C | 18. A | 19. B | 20. D |
| 21. C | 22. C | 23. C | 24. A | 25. B |
| 26. E | 27.   | 28.   | 29.   | 30.   |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. E  | 3. E  | 4. B  | 5. A  |
| 6. B  | 7. D  | 8. C  | 9. D  | 10. A |
| 11. A | 12. A | 13. C | 14. D | 15. B |
| 16. E | 17. C | 18. E | 19. B | 20. A |
| 21. D | 22. C | 23. C | 24. A | 25.   |

**TEST 14**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. C  | 3. C  | 4. A  | 5. A  |
| 6. E  | 7. B  | 8. A  | 9. D  | 10. A |
| 11. D | 12. D | 13. A | 14. D | 15. E |
| 16. C | 17. A | 18. A | 19. C | 20. A |
| 21. C | 22. D | 23. D | 24. E | 25. A |
| 26. B | 27.   | 28.   | 29.   | 30.   |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. C  | 3. D  | 4. E  | 5. E  |
| 6. B  | 7. E  | 8. D  | 9. C  | 10. D |
| 11. C | 12. B | 13. B | 14. E | 15. B |
| 16. C | 17. D | 18. B | 19. D | 20. E |
| 21. D | 22. A | 23. E | 24. C | 25.   |

**TEST 15**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. C  | 3. B  | 4. E  | 5. D  |
| 6. D  | 7. D  | 8. B  | 9. C  | 10. B |
| 11. D | 12. A | 13. B | 14. C | 15. E |
| 16. D | 17. C | 18. D | 19. E | 20. B |
| 21. A | 22. D | 23. E | 24. D | 25. E |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. E  | 2. D  | 3. C  | 4. C  | 5. B  |
| 6. A  | 7. C  | 8. E  | 9. D  | 10. A |
| 11. E | 12. E | 13. C | 14. D | 15. C |
| 16. A | 17. E | 18. D | 19. A | 20. E |
| 21. B | 22. A | 23. C | 24. C | 25. B |

**TEST 16**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. D  | 3. E  | 4. D  | 5. A  |
| 6. B  | 7. B  | 8. A  | 9. E  | 10. C |
| 11. E | 12. C | 13. E | 14. B | 15. C |
| 16. E | 17. D | 18. B | 19. A | 20. A |
| 21. E | 22. E | 23. B | 24. A | 25.   |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. E  | 3. C  | 4. A  | 5. B  |
| 6. E  | 7. B  | 8. A  | 9. B  | 10. B |
| 11. C | 12. E | 13. A | 14. C | 15. B |
| 16. C | 17. A | 18. A | 19. A | 20. B |
| 21. D | 22. C | 23. E | 24. C | 25. D |
| 26. E | 27.   | 28.   | 29.   | 30.   |

**TEST 17**SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. B  | 3. E  | 4. D  | 5. C  |
| 6. A  | 7. A  | 8. B  | 9. A  | 10. C |
| 11. B | 12. D | 13. C | 14. E | 15. B |
| 16. C | 17. D | 18. E | 19. C | 20. E |
| 21. C | 22. E | 23. C | 24. E | 25. A |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. A  | 3. C  | 4. C  | 5. B  |
| 6. D  | 7. D  | 8. C  | 9. E  | 10. C |
| 11. B | 12. A | 13. B | 14. E | 15. E |
| 16. A | 17. B | 18. E | 19. A | 20. D |
| 21. D | 22. B | 23. C | 24. E | 25.   |

**TEST 18**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. E  | 3. C  | 4. B  | 5. B  |
| 6. C  | 7. A  | 8. B  | 9. D  | 10. D |
| 11. B | 12. D | 13. D | 14. B | 15. C |
| 16. E | 17. B | 18. D | 19. D | 20. E |
| 21. D | 22. E | 23. C | 24. A | 25. E |
| 26. E | 27.   | 28.   | 29.   | 30.   |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. B  | 3. D  | 4. A  | 5. C  |
| 6. A  | 7. A  | 8. A  | 9. E  | 10. C |
| 11. A | 12. D | 13. B | 14. B | 15. D |
| 16. A | 17. A | 18. C | 19. B | 20. C |
| 21. A | 22. D | 23. B | 24. A | 25. A |
| 26. C | 27.   | 28.   | 29.   | 30.   |

**TEST 19**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. A  | 3. D  | 4. E  | 5. C  |
| 6. D  | 7. C  | 8. E  | 9. C  | 10. E |
| 11. D | 12. B | 13. D | 14. D | 15. E |
| 16. E | 17. B | 18. A | 19. A | 20. E |
| 21. A | 22. E | 23. D | 24. E | 25.   |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. B  | 3. B  | 4. C  | 5. D  |
| 6. C  | 7. A  | 8. B  | 9. A  | 10. A |
| 11. E | 12. A | 13. B | 14. E | 15. C |
| 16. C | 17. A | 18. D | 19. A | 20. D |
| 21. D | 22. B | 23. D | 24. B | 25. C |
| 26. A | 27.   | 28.   | 29.   | 30.   |

**TEST 20**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. C  | 3. B  | 4. D  | 5. C  |
| 6. B  | 7. B  | 8. E  | 9. E  | 10. A |
| 11. C | 12. B | 13. D | 14. C | 15. A |
| 16. E | 17. C | 18. A | 19. C | 20. D |
| 21. A | 22. E | 23. B | 24. A | 25. E |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. E  | 2. A  | 3. E  | 4. A  | 5. C  |
| 6. C  | 7. D  | 8. C  | 9. B  | 10. D |
| 11. C | 12. B | 13. A | 14. D | 15. E |
| 16. C | 17. D | 18. D | 19. B | 20. D |
| 21. B | 22. C | 23. C | 24. E | 25. E |

**TEST 21**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. D  | 3. B  | 4. C  | 5. D  |
| 6. C  | 7. A  | 8. B  | 9. C  | 10. E |
| 11. E | 12. C | 13. D | 14. A | 15. A |
| 16. A | 17. B | 18. E | 19. E | 20. B |
| 21. A | 22. D | 23. A | 24. E | 25. A |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. E  | 3. D  | 4. E  | 5. D  |
| 6. D  | 7. E  | 8. C  | 9. E  | 10. D |
| 11. B | 12. D | 13. B | 14. C | 15. E |
| 16. A | 17. A | 18. A | 19. D | 20. B |
| 21. A | 22. C | 23. B | 24. D | 25. D |
| 26. B | 27.   | 28.   | 29.   | 30.   |

**TEST 22**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. E  | 3. C  | 4. E  | 5. D  |
| 6. D  | 7. C  | 8. B  | 9. A  | 10. A |
| 11. E | 12. C | 13. A | 14. C | 15. A |
| 16. B | 17. B | 18. D | 19. E | 20. B |
| 21. C | 22. D | 23. C | 24. A | 25. D |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. D  | 3. D  | 4. D  | 5. E  |
| 6. E  | 7. C  | 8. A  | 9. D  | 10. D |
| 11. B | 12. D | 13. D | 14. E | 15. B |
| 16. A | 17. B | 18. E | 19. E | 20. A |
| 21. A | 22. E | 23. C | 24. E | 25. E |

**TEST 23**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. C  | 3. D  | 4. D  | 5. D  |
| 6. B  | 7. B  | 8. C  | 9. B  | 10. B |
| 11. B | 12. D | 13. A | 14. C | 15. B |
| 16. C | 17. C | 18. E | 19. E | 20. B |
| 21. A | 22. D | 23. E | 24. A | 25.   |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. A  | 3. E  | 4. B  | 5. A  |
| 6. C  | 7. E  | 8. E  | 9. B  | 10. A |
| 11. B | 12. C | 13. E | 14. B | 15. C |
| 16. C | 17. B | 18. C | 19. C | 20. C |
| 21. C | 22. D | 23. D | 24. A | 25. B |
| 26. D | 27.   | 28.   | 29.   | 30.   |

**TEST 24**SECTION I

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. A  | 3. B  | 4. B  | 5. E  |
| 6. D  | 7. E  | 8. B  | 9. C  | 10. C |
| 11. D | 12. D | 13. D | 14. C | 15. C |
| 16. A | 17. D | 18. C | 19. D | 20. C |
| 21. A | 22. E | 23. E | 24. B | 25. D |

SECTION IV



- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. C  | 3. B  | 4. A  | 5. D  |
| 6. C  | 7. E  | 8. A  | 9. B  | 10. C |
| 11. D | 12. B | 13. A | 14. C | 15. B |
| 16. D | 17. E | 18. A | 19. D | 20. E |
| 21. D | 22. A | 23. D | 24. B | 25. D |
| 26. B | 27.   | 28.   | 29.   | 30.   |

**TEST 25**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. B  | 3. D  | 4. D  | 5. A  |
| 6. E  | 7. E  | 8. A  | 9. C  | 10. B |
| 11. E | 12. B | 13. C | 14. D | 15. D |
| 16. E | 17. D | 18. B | 19. A | 20. E |
| 21. D | 22. D | 23. E | 24. C | 25. B |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. C  | 3. C  | 4. A  | 5. C  |
| 6. C  | 7. C  | 8. D  | 9. A  | 10. E |
| 11. C | 12. B | 13. D | 14. A | 15. C |
| 16. E | 17. D | 18. B | 19. B | 20. B |
| 21. D | 22. D | 23. B | 24. E | 25. A |
| 26. D | 27.   | 28.   | 29.   | 30.   |

**TEST 26**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. B  | 3. E  | 4. D  | 5. C  |
| 6. D  | 7. A  | 8. D  | 9. E  | 10. C |
| 11. C | 12. B | 13. A | 14. A | 15. D |
| 16. C | 17. D | 18. B | 19. B | 20. B |
| 21. E | 22. D | 23. E | 24. D | 25. B |
| 26. D | 27.   | 28.   | 29.   | 30.   |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. A  | 3. A  | 4. A  | 5. C  |
| 6. E  | 7. B  | 8. E  | 9. B  | 10. B |
| 11. B | 12. E | 13. D | 14. B | 15. C |
| 16. C | 17. C | 18. B | 19. E | 20. D |
| 21. E | 22. B | 23. D | 24. C | 25.   |

**TEST 27**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. C  | 3. A  | 4. A  | 5. B  |
| 6. C  | 7. C  | 8. A  | 9. E  | 10. E |
| 11. D | 12. A | 13. B | 14. A | 15. D |
| 16. E | 17. D | 18. E | 19. B | 20. D |
| 21. E | 22. A | 23. C | 24. E | 25. D |

SECTION IV

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. B  | 3. E  | 4. B  | 5. A  |
| 6. D  | 7. A  | 8. A  | 9. B  | 10. B |
| 11. D | 12. D | 13. B | 14. D | 15. E |
| 16. D | 17. B | 18. D | 19. A | 20. C |
| 21. C | 22. C | 23. B | 24. D | 25. E |
| 26. E | 27.   | 28.   | 29.   | 30.   |

**TEST 28**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. B  | 3. A  | 4. C  | 5. A  |
| 6. D  | 7. C  | 8. A  | 9. B  | 10. C |
| 11. A | 12. D | 13. A | 14. D | 15. C |
| 16. C | 17. B | 18. C | 19. B | 20. C |
| 21. E | 22. C | 23. C | 24. E | 25. E |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. B  | 2. B  | 3. D  | 4. C  | 5. C  |
| 6. E  | 7. E  | 8. E  | 9. C  | 10. D |
| 11. A | 12. D | 13. E | 14. A | 15. C |
| 16. D | 17. D | 18. A | 19. D | 20. B |
| 21. C | 22. D | 23. B | 24. E | 25. B |

**TEST 2001.6**SECTION II

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. A  | 2. E  | 3. E  | 4. C  | 5. B  |
| 6. B  | 7. A  | 8. A  | 9. D  | 10. D |
| 11. C | 12. A | 13. B | 14. C | 15. C |
| 16. B | 17. A | 18. B | 19. D | 20. D |
| 21. B | 22. E | 23. E | 24. B | 25. C |

SECTION III

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. C  | 2. D  | 3. B  | 4. E  | 5. D  |
| 6. B  | 7. E  | 8. B  | 9. A  | 10. A |
| 11. C | 12. C | 13. D | 14. B | 15. D |
| 16. E | 17. D | 18. E | 19. B | 20. A |
| 21. C | 22. E | 23. D | 24. E | 25. A |
| 26. E | 27.   | 28.   | 29.   | 30.   |

**TEST 2001.10**SECTION I

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 1. D  | 2. D  | 3. A  | 4. C  | 5. E  |
| 6. B  | 7. C  | 8. E  | 9. E  | 10. B |
| 11. E | 12. B | 13. D | 14. D | 15. E |
| 16. C | 17. E | 18. B | 19. C | 20. A |
| 21. E | 22. B | 23. A | 24. C | 25. D |

26. B                      27.                      28.                      29.                      30.

SECTION IV

1. B	2. A	3. B	4. D	5. D
6. B	7. C	8. E	9. D	10. D
11. B	12. C	13. D	14. B	15. E
16. A	17. E	18. B	19. C	20. A
21. C	22. A	23. D	24. B	25. A
26. B	27.	28.	29.	30.

**TEST 2002.10**

SECTION I

1. A	2. C	3. E	4. C	5. E
6. E	7. D	8. E	9. E	10. A
11. E	12. D	13. B	14. D	15. C
16. D	17. B	18. B	19. C	20. C
21. D	22. C	23. A	24. A	25.

SECTION IV

1. B	2. C	3. E	4. A	5. B
6. B	7. B	8. D	9. C	10. D
11. E	12. N/A	13. A	14. D	15. D
16. C	17. B	18. B	19. A	20. B
21. D	22. D	23. D	24. E	25. D
26. A	27.	28.	29.	30.