
CRITICAL REASONING TEST SECTION 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

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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.

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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.

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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.

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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.

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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 axheads of a type used at the time of the siege were found in the lower level of excavation.

CRITICAL REASONING TEST SECTION 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.

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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.

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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.

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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.

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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

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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.

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- (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.

CRITICAL REASONING TEST SECTION 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.

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- (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.

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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.

to increase.

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

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- (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.

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- (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.

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- (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?

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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.

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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.

CRITICAL REASONING TEST SECTION 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

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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

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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.

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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.

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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.

CRITICAL REASONING TEST SECTION 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.

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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.

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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

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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.

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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.

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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.

CRITICAL REASONING TEST SECTION 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

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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.

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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

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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.

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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

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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.

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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.

CRITICAL REASONING TEST SECTION 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.

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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.

CRITICAL REASONING TEST SECTION 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 tree 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.

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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.

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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.

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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.

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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.

Question 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?

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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.

CRITICAL REASONING TEST SECTION 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.

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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.

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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.

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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.

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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

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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.

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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.

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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.