

SECTION I

Time—35 minutes

25 Questions

Directions: The questions in this section are based on the reasoning contained in brief statements or passages. For some questions, more than one of the choices could conceivably answer the question. However, you are to choose the best answer; that is, the response that most accurately and completely answers the question. You should not make assumptions that are by commonsense standards implausible, superfluous, or incompatible with the passage. After you have chosen the best answer, blacken the corresponding space on your answer sheet.

1. Of all the surgeons practicing at the city hospital, the chief surgeon has the worst record in terms of the percentage of his patients who die either during or immediately following an operation performed by him. Paradoxically, the hospital's administrators claim that he is the best surgeon currently working at the hospital.

Which one of the following, if true, goes farthest toward showing that the administrators' claim and the statistic cited might both be correct?

- (A) Since the hospital administrators appoint the chief surgeon, the administrators are strongly motivated to depict the chief surgeon they have chosen as a wise choice.
- (B) In appointing the current chief surgeon, the hospital administrators followed the practice, well established at the city hospital, of promoting one of the surgeons already on staff.
- (C) Some of the younger surgeons on the city hospital's staff received part of their training from the current chief surgeon.
- (D) At the city hospital those operations that inherently entail the greatest risk to the life of the patient are generally performed by the chief surgeon.
- (E) The current chief surgeon has a better record of patients' surviving surgery than did his immediate predecessor.

2. Between 1971 and 1975, the government office that monitors drug companies issued an average of 60 citations a year for serious violations of drug-promotion laws. Between 1976 and 1980, the annual average for issuance of such citations was only 5. This decrease indicates that the government office was, on average, considerably more lax in enforcing drug-promotion laws between 1976 and 1980 than it was between 1971 and 1975.

The argument assumes which one of the following?

- (A) The decrease in the number of citations was not caused by a decrease in drug companies' violations of drug-promotion laws.
- (B) A change in enforcement of drug-promotion laws did not apply to minor violations.
- (C) The enforcement of drug-promotion laws changed in response to political pressure.
- (D) The government office should not issue more than an average of 5 citations a year to drug companies for serious violations of drug-promotion laws.
- (E) Before 1971 the government office issued more than 60 citations a year to drug companies for serious violations of drug-promotion laws.

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3. Sheila: Health experts generally agree that smoking a tobacco product for many years is very likely to be harmful to the smoker's health.

Tim: On the contrary, smoking has no effect on health at all: although my grandfather smoked three cigars a day from the age of fourteen, he died at age ninety-six.

A major weakness of Tim's counterargument is that his counterargument

- (A) attempts to refute a probabilistic conclusion by claiming the existence of a single counterexample
 - (B) challenges expert opinion on the basis of specific information unavailable to experts in the field
 - (C) describes an individual case that is explicitly discounted as an exception to the experts' conclusion
 - (D) presupposes that longevity and health status are unrelated to each other in the general population
 - (E) tacitly assumes that those health experts who are in agreement on this issue arrived at that agreement independently of one another
4. The case of the French Revolution is typically regarded as the best evidence for the claim that societies can reap more benefit than harm from a revolution. But even the French Revolution serves this role poorly, since France at the time of the Revolution had a unique advantage. Despite the Revolution, the same civil servants and functionaries remained in office, carrying on the day-to-day work of government, and thus many of the disruptions that revolutions normally bring were avoided.
- Which one of the following most accurately characterizes the argumentative strategy used in the passage?
- (A) demonstrating that the claim argued against is internally inconsistent
 - (B) supporting a particular position on the basis of general principles
 - (C) opposing a claim by undermining evidence offered in support of that claim
 - (D) justifying a view through the use of a series of persuasive examples
 - (E) comparing two positions in order to illustrate their relative strengths and weaknesses

5. A person can develop or outgrow asthma at any age. In children under ten, asthma is twice as likely to develop in boys. Boys are less likely than girls to outgrow asthma, yet by adolescence the percentage of boys with asthma is about the same as the percentage of girls with asthma because a large number of girls develop asthma in early adolescence.

Assuming the truth of the passage, one can conclude from it that the number of adolescent boys with asthma is approximately equal to the number of adolescent girls with asthma, if one also knows that

- (A) a tendency toward asthma is often inherited
 - (B) children who develop asthma before two years of age are unlikely to outgrow it
 - (C) there are approximately equal numbers of adolescent boys and adolescent girls in the population
 - (D) the development of asthma in childhood is not closely related to climate or environment
 - (E) the percentage of adults with asthma is lower than the percentage of adolescents with asthma
6. Harry Trevalga: You and your publication have unfairly discriminated against my poems. I have submitted thirty poems in the last two years and you have not published any of them! It is all because I won the Fenner Poetry Award two years ago and your poetry editor thought she deserved it.
- Publisher: Ridiculous! Our editorial policy and practice is perfectly fair, since our poetry editor judges all submissions for publication without ever seeing the names of the poets, and hence cannot possibly have known who wrote your poems.
- The publisher makes which one of the following assumptions in replying to Trevalga's charges of unfair discrimination?
- (A) The poetry editor does not bear a grudge against Harry Trevalga for his winning the Fenner Poetry Award.
 - (B) It is not unusual for poets to contribute many poems to the publisher's publication without ever having any accepted for publication.
 - (C) The poetry editor cannot recognize the poems submitted by Harry Trevalga as his unless Trevalga's name is attached to them.
 - (D) The poetry editor's decisions on which poems to publish are not based strictly on judgments of intrinsic merit.
 - (E) Harry Trevalga submitted his poems to the publisher's publication under his pen name.

7. In a study of the effect of radiation from nuclear weapons plants on people living in areas near them, researchers compared death rates in the areas near the plants with death rates in areas that had no such plants. Finding no difference in these rates, the researchers concluded that radiation from the nuclear weapons plants poses no health hazards to people living near them.

Which one of the following, if true, most seriously weakens the researchers' argument?

- (A) Nuclear power plants were not included in the study.
 - (B) The areas studied had similar death rates before and after the nuclear weapons plants were built.
 - (C) Exposure to nuclear radiation can cause many serious diseases that do not necessarily result in death.
 - (D) Only a small number of areas have nuclear weapons plants.
 - (E) The researchers did not study the possible health hazards of radiation on people who were employed at the nuclear weapons plants if those employees did not live in the study areas.
8. It was once believed that cells grown in laboratory tissue cultures were essentially immortal. That is, as long as all of their needs were met, they would continue dividing forever. However, it has been shown that normal cells have a finite reproductive limit. A human liver cell, for example, divides 60 times and then stops. If such a cell divides 30 times and then is put into a deep freeze for months or even years, it "remembers" where it stopped dividing. After thawing, it divides another 30 times—but no more.

If the information above is accurate, a liver cell in which more than 60 divisions took place in a tissue culture CANNOT be which one of the following?

- (A) an abnormal human liver cell
- (B) a normal human liver cell that had been frozen after its first division and afterward thawed
- (C) a normal cell that came from the liver of an individual of a nonhuman species and had never been frozen
- (D) a normal liver cell that came from an individual of a nonhuman species and had been frozen after its first division and afterward thawed
- (E) an abnormal cell from the liver of an individual of a nonhuman species

9. Complaints that milk bottlers take enormous markups on the bottled milk sold to consumers are most likely to arise when least warranted by the actual spread between the price that bottlers pay for raw milk and the price at which they sell bottled milk. The complaints occur when the bottled-milk price rises, yet these price increases most often merely reflect the rising price of the raw milk that bottlers buy from dairy farmers. When the raw-milk price is rising, the bottlers' markups are actually smallest proportionate to the retail price. When the raw-milk price is falling, however, the markups are greatest.

If all of the statements above are true, which one of the following must also be true on the basis of them?

- (A) Consumers pay more for bottled milk when raw-milk prices are falling than when these prices are rising.
- (B) Increases in dairy farmers' cost of producing milk are generally not passed on to consumers.
- (C) Milk bottlers take substantially greater markups on bottled milk when its price is low for an extended period than when it is high for an extended period.
- (D) Milk bottlers generally do not respond to a decrease in raw-milk prices by straightaway proportionately lowering the price of the bottled milk they sell.
- (E) Consumers tend to complain more about the price they pay for bottled milk when dairy farmers are earning their smallest profits.

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Questions 10–11

If the public library shared by the adjacent towns of Redville and Glenwood were relocated from the library's current, overcrowded building in central Redville to a larger, available building in central Glenwood, the library would then be within walking distance of a larger number of library users. That is because there are many more people living in central Glenwood than in central Redville, and people generally will walk to the library only if it is located close to their homes.

10. Which one of the following, if true, most strengthens the argument?
- (A) The public library was located between Glenwood and Redville before being moved to its current location in central Redville.
 - (B) The area covered by central Glenwood is approximately the same size as that covered by central Redville.
 - (C) The building that is available in Glenwood is smaller than an alternative building that is available in Redville.
 - (D) Many of the people who use the public library do not live in either Glenwood or Redville.
 - (E) The distance that people currently walk to get to the library is farther than what is generally considered walking distance.
11. Which one of the following, if true, most seriously weakens the argument?
- (A) Many more people who currently walk to the library live in central Redville than in central Glenwood.
 - (B) The number of people living in central Glenwood who would use the library if it were located there is smaller than the number of people living in central Redville who currently use the library.
 - (C) The number of people using the public library would continue to increase steadily if the library were moved to Glenwood.
 - (D) Most of the people who currently either drive to the library or take public transportation to reach it would continue to do so if the library were moved to central Glenwood.
 - (E) Most of the people who currently walk to the library would remain library users if the library were relocated to central Glenwood.

12. Light utility trucks have become popular among consumers who buy them primarily for the trucks' rugged appearance. Yet although these trucks are tough-looking, they are exempt from the government's car-safety standards that dictate minimum roof strength and minimum resistance to impact. Therefore, if involved in a serious high-impact accident, a driver of one of these trucks is more likely to be injured than is a driver of a car that is subject to these government standards.

The argument depends on the assumption that

- (A) the government has established safety standards for the construction of light utility trucks
 - (B) people who buy automobiles solely for their appearance are more likely than other people to drive recklessly
 - (C) light utility trucks are more likely than other kinds of vehicles to be involved in accidents that result in injuries
 - (D) the trucks' rugged appearance is deceptive in that their engines are not especially powerful
 - (E) light utility trucks are less likely to meet the car-safety standards than are cars that are subject to the standards
13. Five years ago, during the first North American outbreak of the cattle disease CXC, the death rate from the disease was 5 percent of all reported cases, whereas today the corresponding figure is over 18 percent. It is clear, therefore, that during these past 5 years, CXC has increased in virulence.
- Which one of the following, if true, most substantially weakens the argument?
- (A) Many recent cattle deaths that have actually been caused by CXC have been mistakenly attributed to another disease that mimics the symptoms of CXC.
 - (B) During the first North American outbreak of the disease, many of the deaths reported to have been caused by CXC were actually due to other causes.
 - (C) An inoculation program against CXC was recently begun after controlled studies showed inoculation to be 70 percent effective in preventing serious cases of the illness.
 - (D) Since the first outbreak, farmers have learned to treat mild cases of CXC and no longer report them to veterinarians or authorities.
 - (E) Cattle that have contracted and survived CXC rarely contract the disease a second time.

Questions 14–15

Economist: Some policymakers believe that our country's continued economic growth requires a higher level of personal savings than we currently have. A recent legislative proposal would allow individuals to set up savings accounts in which interest earned would be exempt from taxes until money is withdrawn from the account. Backers of this proposal claim that its implementation would increase the amount of money available for banks to loan at a relatively small cost to the government in lost tax revenues. Yet, when similar tax-incentive programs were tried in the past, virtually all of the money invested through them was diverted from other personal savings, and the overall level of personal savings was unchanged.

14. The passage as a whole provides the most support for which one of the following conclusions?
- (A) Backers of the tax-incentive proposal undoubtedly have some motive other than their expressed aim of increasing the amount of money available for banks to loan.
 - (B) The proposed tax incentive is unlikely to attract enough additional money into personal savings accounts to make up for the attendant loss in tax revenues.
 - (C) A tax-incentive program that resulted in substantial loss of tax revenues would be likely to generate a large increase in personal savings.
 - (D) The economy will be in danger unless some alternative to increased personal savings can be found to stimulate growth.
 - (E) The government has no effective means of influencing the amount of money that people are willing to put into savings accounts.
15. The author criticizes the proposed tax-incentive program by
- (A) challenging a premise on which the proposal is based
 - (B) pointing out a disagreement among policymakers
 - (C) demonstrating that the proposal's implementation is not feasible
 - (D) questioning the judgment of the proposal's backers by citing past cases in which they had advocated programs that have proved ineffective
 - (E) disputing the assumption that a program to encourage personal savings is needed
16. Although all birds have feathers and all birds have wings, some birds do not fly. For example, penguins and ostriches use their wings to move in a different way from other birds. Penguins use their wings only to swim under water at high speeds. Ostriches use their wings only to run with the wind by lifting them as if they were sails.
- Which one of the following is most parallel in its reasoning to the argument above?
- (A) Ancient philosophers tried to explain not how the world functions but why it functions. In contrast, most contemporary biologists seek comprehensive theories of how organisms function, but many refuse to speculate about purpose.
 - (B) Some chairs are used only as decorations, and other chairs are used only to tame lions. Therefore, not all chairs are used for sitting in despite the fact that all chairs have a seat and some support such as legs.
 - (C) Some musicians in a symphony orchestra play the violin, and others play the viola, but these are both in the same category of musical instruments, namely string instruments.
 - (D) All cars have similar drive mechanisms, but some cars derive their power from solar energy, whereas others burn gasoline. Thus, solar-powered cars are less efficient than gasoline-powered ones.
 - (E) Sailing ships move in a different way from steamships. Both sailing ships and steamships navigate over water, but only sailing ships use sails to move over the surface.

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Questions 17–18

Jones: Prehistoric wooden tools found in South America have been dated to 13,000 years ago. Although scientists attribute these tools to peoples whose ancestors first crossed into the Americas from Siberia to Alaska, this cannot be correct. In order to have reached a site so far south, these peoples must have been migrating southward well before 13,000 years ago. However, no such tools dating to before 13,000 years ago have been found anywhere between Alaska and South America.

Smith: Your evidence is inconclusive. Those tools were found in peat bogs, which are rare in the Americas. Wooden tools in soils other than peat bogs usually decompose within only a few years.

17. The point at issue between Jones and Smith is
- (A) whether all prehistoric tools that are 13,000 years or older were made of wood
 - (B) whether the scientists' attribution of tools could be correct in light of Jones's evidence
 - (C) whether the dating of the wooden tools by the scientists could be correct
 - (D) how long ago the peoples who crossed into the Americas from Siberia to Alaska first did so
 - (E) whether Smith's evidence entails that the wooden tools have been dated correctly
18. Smith responds to Jones by
- (A) citing several studies that invalidate Jones's conclusion
 - (B) accusing Jones of distorting the scientists' position
 - (C) disputing the accuracy of the supporting evidence cited by Jones
 - (D) showing that Jones's evidence actually supports the denial of Jones's conclusion
 - (E) challenging an implicit assumption in Jones's argument

19. Editorial: It is clear that if this country's universities were living up to both their moral and their intellectual responsibilities, the best-selling publications in most university bookstores would not be frivolous ones like *TV Today* and *Gossip Review*. However, in most university bookstores the only publication that sells better than *Gossip Review* is *TV Today*.

If the statements in the editorial are true, which one of the following must also be true on the basis of them?

- (A) People who purchase publications that are devoted primarily to gossip or to television programming are intellectually irresponsible.
- (B) It is irresponsible for university bookstores to carry publications such as *Gossip Review* and *TV Today*.
- (C) Most people who purchase publications at university bookstores purchase either *TV Today* or *Gossip Review*.
- (D) Many people who attend this country's universities fail to live up to both their moral and their intellectual responsibilities.
- (E) At least some of this country's universities are not meeting their moral responsibilities or their intellectual responsibilities or both.

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Questions 20–21

Saunders: Everyone at last week's neighborhood association meeting agreed that the row of abandoned and vandalized houses on Carlton Street posed a threat to the safety of our neighborhood. Moreover, no one now disputes that getting the houses torn down eliminated that threat. Some people tried to argue that it was unnecessary to demolish what they claimed were basically sound buildings, since the city had established a fund to help people in need of housing buy and rehabilitate such buildings. The overwhelming success of the demolition strategy, however, proves that the majority, who favored demolition, were right and that those who claimed that the problem could and should be solved by rehabilitating the houses were wrong.

20. Which one of the following principles, if established, would determine that demolishing the houses was the right decision or instead would determine that the proposal advocated by the opponents of demolition should have been adopted?

- (A) When what to do about an abandoned neighborhood building is in dispute, the course of action that would result in the most housing for people who need it should be the one adopted unless the building is believed to pose a threat to neighborhood safety.
- (B) When there are two proposals for solving a neighborhood problem, and only one of them would preclude the possibility of trying the other approach if the first proves unsatisfactory, then the approach that does not foreclose the other possibility should be the one adopted.
- (C) If one of two proposals for renovating vacant neighborhood buildings requires government funding whereas the second does not, the second proposal should be the one adopted unless the necessary government funds have already been secured.
- (D) No plan for eliminating a neighborhood problem that requires demolishing basically sound houses should be carried out until all other possible alternatives have been thoroughly investigated.
- (E) No proposal for dealing with a threat to a neighborhood's safety should be adopted merely because a majority of the residents of that neighborhood prefer that proposal to a particular counterproposal.

21. Saunders' reasoning is flawed because it

- (A) relies on fear rather than on argument to persuade the neighborhood association to reject the policy advocated by Saunders' opponents
- (B) fails to establish that there is anyone who could qualify for city funds who would be interested in buying and rehabilitating the houses
- (C) mistakenly equates an absence of vocal public dissent with the presence of universal public support
- (D) offers no evidence that the policy advocated by Saunders' opponents would not have succeeded if it had been given the chance
- (E) does not specify the precise nature of the threat to neighborhood safety supposedly posed by the vandalized houses

22. For the writers who first gave feudalism its name, the existence of feudalism presupposed the existence of a noble class. Yet there cannot be a noble class, properly speaking, unless both the titles that indicate superior, noble status and the inheritance of such titles are sanctioned by law. Although feudalism existed in Europe as early as the eighth century, it was not until the twelfth century, when many feudal institutions were in decline, that the hereditary transfer of legally recognized titles of nobility first appeared.

The statements above, if true, most strongly support which one of the following claims?

- (A) To say that feudalism by definition requires the existence of a nobility is to employ a definition that distorts history.
- (B) Prior to the twelfth century, the institution of European feudalism functioned without the presence of a dominant class.
- (C) The fact that a societal group has a distinct legal status is not in itself sufficient to allow that group to be properly considered a social class.
- (D) The decline of feudalism in Europe was the only cause of the rise of a European nobility.
- (E) The prior existence of feudal institutions is a prerequisite for the emergence of a nobility, as defined in the strictest sense of the term.

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23. Mayor Smith, one of our few government officials with a record of outspoken, informed, and consistent opposition to nuclear power plant construction projects, has now declared herself in favor of building the nuclear power plant at Littletown. If someone with her past antinuclear record now favors building this power plant, then there is good reason to believe that it will be safe and therefore should be built.

The argument is vulnerable to criticism on which one of the following grounds?

- (A) It overlooks the possibility that not all those who fail to speak out on issues of nuclear power are necessarily opposed to it.
 - (B) It assumes without warrant that the qualities enabling a person to be elected to public office confer on that person a grasp of the scientific principles on which technical decisions are based.
 - (C) It fails to establish that a consistent and outspoken opposition is necessarily an informed opposition.
 - (D) It leads to the further but unacceptable conclusion that any project favored by Mayor Smith should be sanctioned simply on the basis of her having spoken out in favor of it.
 - (E) It gives no indication of either the basis of Mayor Smith's former opposition to nuclear power plant construction or the reasons for her support for the Littletown project.
24. Advertisement: In today's world, you make a statement about the person you are by the car you own. The message of the SKX Mach-5 is unambiguous: Its owner is Dynamic, Aggressive, and Successful. Shouldn't you own an SKX Mach-5?

If the claims made in the advertisement are true, which one of the following must also be true on the basis of them?

- (A) Anyone who is dynamic and aggressive is also successful.
- (B) Anyone who is not both dynamic and successful would misrepresent himself or herself by being the owner of an SKX Mach-5.
- (C) People who buy the SKX Mach-5 are usually more aggressive than people who buy other cars.
- (D) No car other than the SKX Mach-5 announces that its owner is successful.
- (E) Almost no one would fail to recognize the kind of person who would choose to own an SKX Mach-5.

25. The great medieval universities had no administrators, yet they endured for centuries. Our university has a huge administrative staff, and we are in serious financial difficulties. Therefore, we should abolish the positions and salaries of the administrators to ensure the longevity of the university.

Which one of the following arguments contains flawed reasoning that most closely parallels the flawed reasoning in the argument above?

- (A) No airplane had jet engines before 1940, yet airplanes had been flying since 1903. Therefore, jet engines are not necessary for the operation of airplanes.
- (B) The novelist's stories began to be accepted for publication soon after she started using a computer to write them. You have been having trouble getting your stories accepted for publication, and you do not use a computer. To make sure your stories are accepted for publication, then, you should write them with the aid of a computer.
- (C) After doctors began using antibiotics, the number of infections among patients dropped drastically. Now, however, resistant strains of bacteria cannot be controlled by standard antibiotics. Therefore, new methods of control are needed.
- (D) A bicycle should not be ridden without a helmet. Since a good helmet can save the rider's life, a helmet should be considered the most important piece of bicycling equipment.
- (E) The great cities of the ancient world were mostly built along waterways. Archaeologists searching for the remains of such cities should therefore try to determine where major rivers used to run.

S T O P

IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.
DO NOT WORK ON ANY OTHER SECTION IN THE TEST.