

SECTION II

Time—35 minutes

26 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.

Questions 1–2

Sea turtles nest only at their own birthplaces. After hatching on the beach, the turtles enter the water to begin their far-ranging migration, only returning to their birthplaces to nest some 15 to 30 years later. It has been hypothesized that newborn sea turtles learn the smell of their birth environment, and it is this smell that stimulates the turtles to return to nest.

1. Which one of the following, if true, would cast the most serious doubt on the hypothesis in the passage?
 - (A) Beaches on which sea turtles nest tend to be in secluded locations such as on islands.
 - (B) Sea turtles exposed to a variety of environments under experimental conditions preferred the environment that contained sand from their own birthplaces.
 - (C) Electronic tags attached to sea turtles did not alter their nesting patterns.
 - (D) Unlike other types of turtles, sea turtles have a well-developed sense of smell.
 - (E) Sea turtles that had their sense of smell destroyed by exposure to petroleum products returned to nest at their own birthplaces.
2. Which one of the following would be most important to know in evaluating the hypothesis in the passage?
 - (A) how long the expected life span of sea turtles is
 - (B) what the maximum migratory range of mature sea turtles is
 - (C) whether many beaches on which sea turtles were hatched have since been destroyed by development
 - (D) whether immediately before returning to nest, sea turtles are outside the area where the smell of their birthplace would be perceptible
 - (E) whether both sexes of sea turtles are actively involved in the nesting process

3. For Juanita to get to the zoo she must take either the number 12 bus or else the subway. Everyone knows that the number 12 bus is not running this week; so although Juanita generally avoids using the subway, she must have used it today, since she was seen at the zoo this afternoon.

The method of the argument is to

- (A) assert that if something is true, it will be known to be true
- (B) demonstrate that certain possibilities are not exclusive
- (C) show that something is the case by ruling out the only alternative
- (D) explain why an apparent exception to a general rule is not a real exception
- (E) substitute a claim about what invariably occurs for a claim about what typically occurs

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4. If the regulation of computer networks is to be modeled on past legislation, then its model must be either legislation regulating a telephone system or else legislation regulating a public broadcasting service. If the telephone model is used, computer networks will be held responsible only for ensuring that messages get transmitted. If the public broadcast model is used, computer networks will additionally be responsible for the content of those messages. Yet a computer network serves both these sorts of functions: it can serve as a private message service or as a publicly accessible information service. Thus neither of these models can be appropriate for computer networks.

The passage is structured to lead to which one of the following conclusions?

- (A) Regulation of computer networks is required in order to ensure the privacy of the messages transmitted through such networks.
 - (B) The regulation of computer networks should not be modeled on any single piece of past legislation.
 - (C) Computer networks were developed by being modeled on both telephone systems and television networks.
 - (D) Legislators who do not have extensive experience with computers should not attempt to write legislation regulating computer networks.
 - (E) A computer network merely duplicates the functions of a telephone system and a television network.
5. The government has proposed a plan requiring young people to perform services to correct various current social ills, especially those in education and housing. Government service, however, should be compelled only in response to a direct threat to the nation's existence. For that reason, the proposed program should not be implemented.

Which one of the following is an assumption on which the argument depends?

- (A) Government-required service by young people cannot correct all social ills.
- (B) The nation's existence is directly threatened only in times of foreign attack.
- (C) Crises in education and housing constitute a threat to the nation's existence.
- (D) The nation's young people believe that current social ills pose no direct threat to the nation's existence.
- (E) Some of the social ills that currently afflict the nation do not pose a direct threat to the nation's existence.

6. Cigarette smoking has been shown to be a health hazard; therefore, governments should ban all advertisements that promote smoking.

Which one of the following principles, if established, most strongly supports the argument?

- (A) Advertisements should not be allowed to show people doing things that endanger their health.
 - (B) Advertisers should not make misleading claims about the healthfulness of their products.
 - (C) Advertisements should disclose the health hazards associated with the products they promote.
 - (D) All products should conform to strict government health and safety standards.
 - (E) Advertisements should promote only healthful products.
7. Every adult male woolly monkey is larger than even the largest female woolly monkey. In colonies of woolly monkeys, any adult male will dominate any female.
- If the statements above are true, which one of the following must on the basis of them be true of woolly monkeys in colonies?
- (A) Size is the primary determinant of relations of dominance among woolly monkeys.
 - (B) Some large adolescent male woolly monkeys dominate some smaller females of the species.
 - (C) If a male woolly monkey is larger than a female of the species, that male will dominate that female.
 - (D) If a female woolly monkey dominates a male of the species, the dominated male monkey is not an adult.
 - (E) An adult male woolly monkey can dominate a female of the species only if that female is also an adult.

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8. S: Our nation is becoming too averse to risk. We boycott any food reported to contain a toxic chemical, even though the risk, as a mathematical ratio, might be minimal. With this mentality, Columbus would never have sailed west.
- T: A risk-taker in one context can be risk-averse in another: the same person can drive recklessly, but refuse to eat food not grown organically.
- T responds to S by showing that
- (A) a distinction should be made between avoidable and unavoidable risks
 - (B) to risk cannot be reliably assessed without reference to context
 - (C) there is confusion about risk in the minds of many members of the public
 - (D) mathematical odds concerning risk give an unwarranted impression of precision
 - (E) risk cannot be defined in relation to perceived probable benefit
9. Any announcement authorized by the head of the department is important. However, announcements are sometimes issued, without authorization, by people other than the head of the department, so some announcements will inevitably turn out not to be important.

The reasoning is flawed because the argument

- (A) does not specify exactly which communications are to be classified as announcements
- (B) overlooks the possibility that people other than the head of the department have the authority to authorize announcements
- (C) leaves open the possibility that the head of the department never, in fact, authorizes any announcements
- (D) assumes without warrant that just because satisfying a given condition is enough to ensure an announcement's importance, satisfying that condition is necessary for its importance
- (E) fails to distinguish between the importance of the position someone holds and the importance of what that person may actually be announcing on a particular occasion

Questions 10–11

The labeling of otherwise high-calorie foods as “sugar-free,” based on the replacement of all sugar by artificial sweeteners, should be prohibited by law. Such a prohibition is indicated because many consumers who need to lose weight will interpret the label “sugar-free” as synonymous with “low in calories” and harm themselves by building weight-loss diets around foods labeled “sugar-free.” Manufacturers of sugar-free foods are well aware of this tendency on the part of consumers.

10. Which one of the following principles, if established, most helps to justify the conclusion in the passage?
- (A) Product labels that are literally incorrect should be prohibited by law, even if reliance on those labels is not likely to cause harm to consumers.
 - (B) Product labels that are literally incorrect, but in such an obvious manner that no rational consumer would rely on them, should nevertheless be prohibited by law.
 - (C) Product labels that are literally correct but cannot be interpreted by the average buyer of the product without expert help should be prohibited by law.
 - (D) Product labels that are literally correct but will predictably be misinterpreted by some buyers of the product to their own harm should be prohibited by law.
 - (E) Product labels that are literally correct, but only on one of two equally accurate interpretations, should be prohibited by law if buyers tend to interpret the label in the way that does not match the product's actual properties.
11. Which one of the following, if true, provides the strongest basis for challenging the conclusion in the passage?
- (A) Food manufacturers would respond to a ban on the label “sugar-free” by reducing the calories in sugar-free products by enough to be able to promote those products as diet foods.
 - (B) Individuals who are diabetic need to be able to identify products that contain no sugar by reference to product labels that expressly state that the product contains no sugar.
 - (C) Consumers are sometimes slow to notice changes in product labels unless those changes are themselves well advertised.
 - (D) Consumers who have chosen a particular weight-loss diet tend to persist with this diet if they have been warned not to expect very quick results.
 - (E) Exactly what appears on a product label is less important to consumer behavior than is the relative visual prominence of the different pieces of information that the label contains.

12. In the Centerville Botanical Gardens, all tulip trees are older than any maples. A majority, but not all, of the garden's sycamores are older than any of its maples. All the garden's maples are older than any of its dogwoods.

If the statements above are true, which one of the following must also be true of trees in the Centerville Botanical Gardens?

- (A) Some dogwoods are as old as the youngest tulip trees.
 - (B) Some dogwoods are as old as the youngest sycamores.
 - (C) Some sycamores are not as old as the oldest dogwoods.
 - (D) Some tulip trees are not as old as the oldest sycamores.
 - (E) Some sycamores are not as old as the youngest tulip trees.
13. Emissions from automobiles that burn gasoline and automobiles that burn diesel fuel are threatening the quality of life on our planet, contaminating both urban air and global atmosphere. Therefore, the only effective way to reduce such emissions is to replace the conventional diesel fuel and gasoline used in automobiles with cleaner-burning fuels, such as methanol, that create fewer emissions.

Which one of the following is an assumption on which the argument depends?

- (A) Reducing the use of automobiles would not be a more effective means to reduce automobile emissions than the use of methanol.
- (B) There is no fuel other than methanol that is cleaner-burning than both diesel fuel and gasoline.
- (C) If given a choice of automobile fuels, automobile owners would not select gasoline over methanol.
- (D) Automobile emissions constitute the most serious threat to the global environment.
- (E) At any given time there is a direct correlation between the level of urban air pollution and the level of contamination present in the global atmosphere.

14. Dr. Libokov: Certain islands near New Zealand are home to the tuatara, reptiles that are the sole surviving members of the sphenodontids. Sphenodontids were plentiful throughout the world during the age of the dinosaurs. But the survival of sphenodontids near New Zealand, and their total disappearance elsewhere, is no mystery. New Zealand and nearby islands have no native land mammals. Land mammals, plentiful elsewhere, undoubtedly became major predators of sphenodontids and their eggs, leading to their extinction.

Dr. Santos: In fact, the tuatara thrive only on a few islands near New Zealand. On all those where land mammals, such as rats, dogs, or cats, have been introduced in recent years, the tuatara are now extinct or nearly so.

Which one of the following most accurately characterizes Dr. Santos' response to the hypothesis advanced by Dr. Libokov?

- (A) It identifies a flaw in Dr. Libokov's reasoning.
- (B) It restates Dr. Libokov's major hypothesis and thus adds nothing to it.
- (C) It contradicts one of Dr. Libokov's assertions.
- (D) It offers a hypothesis that is incompatible with Dr. Libokov's position.
- (E) It provides additional evidence in support of Dr. Libokov's hypothesis.

15. A standard problem for computer security is that passwords that have to be typed on a computer keyboard are comparatively easy for unauthorized users to steal or guess. A new system that relies on recognizing the voices of authorized users apparently avoids this problem. In a small initial trial, the system never incorrectly accepted someone seeking access to the computer's data. Clearly, if this result can be repeated in an operational setting, then there will be a way of giving access to those people who are entitled to access and to no one else.

The reasoning above is flawed because it

- (A) makes a faulty comparison, in that a security system based on voice recognition would not be expected to suffer from the same problems as one that relied on passwords entered from a keyboard
- (B) bases a general conclusion on a small amount of data
- (C) fails to recognize that a security system based on voice recognition could easily have applications other than computer security
- (D) ignores the possibility that the system sometimes denies access to people who are entitled to access
- (E) states its conclusion in a heavily qualified way

16. Body temperature varies over a 24-hour period, with a low point roughly between 4 a.m. and 5 a.m. Speed of reaction varies in line with body temperature, such that whenever body temperature is low, speed of reaction is low. If low body temperature caused slow reaction, the speed of reaction should increase if we artificially raised body temperature during the period 4 a.m. to 5 a.m. But the speed of reaction does not increase.

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

- (A) Low speeds of reaction cause low body temperature.
- (B) Low speeds of reaction do not cause low body temperature.
- (C) Low body temperatures do not cause low speeds of reaction.
- (D) Low body temperatures cause low speeds of reaction.
- (E) Artificially raising body temperature causes increased speed of reaction.

17. Of the two proposals for solving the traffic problems on Main Street, Chen's plan is better for the city as a whole, as is clear from the fact that the principal supporter of Ripley's plan is Smith Stores. Smith Stores, with its highly paid consultants, knows where its own interest lies and, moreover, has supported its own interests in the past, even to the detriment of the city as a whole.

The faulty reasoning in which one of the following is most parallel to that in the argument above?

- (A) Surely Centreville should oppose adoption of the regional planning commission's new plan since it is not in Centreville's interest, even though it might be in the interest of some towns in the region.
- (B) The school board should support the plan for the new high school since this plan was recommended by the well-qualified consultants whom the school board hired at great expense.
- (C) Of the two budget proposals, the mayor's is clearly preferable to the city council's, since the mayor's budget addresses the needs of the city as a whole, whereas the city council is protecting special interests.
- (D) Nomura is clearly a better candidate for college president than Miller, since Nomura has the support of the three deans who best understand the president's job and with whom the president will have to work most closely.
- (E) The planned light-rail system will clearly serve suburban areas well, since its main opponent is the city government, which has always ignored the needs of the suburbs and sought only to protect the interests of the city.

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Questions 18–19

The format of network television news programs generally allows advocates of a point of view only 30 seconds to convey their message. Consequently, regular watchers become accustomed to thinking of issues in terms only of slogans and catch phrases, and so the expectation of careful discussion of public issues gradually disappears from their awareness. The format of newspaper stories, on the other hand, leads readers to pursue details of stories headed by the most important facts and so has the opposite effect on regular readers—that of maintaining the expectation of careful discussion of public issues. Therefore, in contrast to regular newspaper reading, regular watching of network television news programs increases the tendency to think of public issues in oversimplified terms.

18. The argument assumes which one of the following?
- (A) Viewers of network television news programs would be interested in seeing advocates of opposing views present their positions at length.
 - (B) Since it is not possible to present striking images that would symbolize events for viewers, and since images hold sway over words in television, television must oversimplify.
 - (C) It is not possible for television to present public issues in a way that allows for the nuanced presentation of diverse views and a good-faith interchange between advocates of opposing views.
 - (D) In network television news reports, it is not usual for a reporter to offer additional factual evidence and background information to develop a story in which opposing views are presented briefly by their advocates.
 - (E) Television news reporters introduce more of their own biases into news stories than do newspaper reporters.
19. Which one of the following, if true, most seriously weakens the argument?
- (A) Regular watchers of network television news programs are much more likely than other people to be habitual readers of newspapers.
 - (B) Including any 30-second quotations from proponents of diverse views, the total amount of time devoted to a single topic on regular network television news programs averages less than one and a half minutes.
 - (C) The format of network television news programs does not include roundtable discussion of issues among informed proponents of diverse views.
 - (D) Television news reports tend to devote equal time to discussion of opposing views.
 - (E) People who watch the most television, measured in average number of hours of watching per week, tend not to be regular readers of newspapers.

Questions 20–21

A recent report on an environmental improvement program was criticized for focusing solely on pragmatic solutions to the large number of significant problems that plague the program instead of seriously trying to produce a coherent vision for the future of the program. In response the report's authors granted that the critics had raised a valid point but explained that, to do anything at all, the program needed continued government funding, and that to get such funding the program first needed to regain a reputation for competence.

20. The basic position taken by the report's authors on the criticism leveled against the report is that
- (A) addressing the critics' concern now would be premature
 - (B) the critics' motives are self-serving
 - (C) the notion of a coherent vision would be inappropriate to a program of the sort at issue
 - (D) the authors of the report are more knowledgeable than its critics
 - (E) giving the report a single focus is less desirable than the critics claim
21. Which one of the following, if true, would best serve the critics of the report in their attempt to undermine the position taken by the report's authors?
- (A) The government does not actually provide a full 100 percent of the program's funding.
 - (B) The program will continue to have numerous serious problems precisely because it lacks a coherent vision for its future.
 - (C) The program had a coherent vision at its inception, but that vision has proved impossible to sustain.
 - (D) The government has threatened to cut off funding for the program but has not acted yet on this threat.
 - (E) The program has acquired a worse reputation for incompetence than it deserves.

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22. Oil company representative: We spent more money on cleaning the otters affected by our recent oil spill than has been spent on any previous marine mammal rescue project. This shows our concern for the environment.

Environmentalist: You have no such concern. Your real concern is evident in your admission to the press that news photographs of oil-covered otters would be particularly damaging to your public image, which plays an important role in your level of sales.

The environmentalist's conclusion would be properly drawn if it were true that the

- (A) oil company cannot have more than one motive for cleaning the otters affected by the oil spill
- (B) otter population in the area of the oil spill could not have survived without the cleaning project
- (C) oil company has always shown a high regard for its profits in choosing its courses of action
- (D) government would have spent the money to clean the otters if the oil company had not agreed to do it
- (E) oil company's efforts toward cleaning the affected otters have been more successful than have such efforts in previous projects to clean up oil spills

23. A group of scientists studying calcium metabolism in laboratory rats discovered that removing the rats' parathyroid glands resulted in the rats' having substantially lower than normal levels of calcium in their blood. This discovery led the scientists to hypothesize that the function of the parathyroid gland is to regulate the level of calcium in the blood by raising that level when it falls below the normal range. In a further experiment, the scientists removed not only the parathyroid gland but also the adrenal gland from rats. They made the surprising discovery that the level of calcium in the rats' blood decreased much less sharply than when the parathyroid gland alone was removed.

Which one of the following, if true, explains the surprising discovery in a way most consistent with the scientists' hypothesis?

- (A) The adrenal gland acts to lower the level of calcium in the blood.
- (B) The adrenal gland and the parathyroid gland play the same role in regulating calcium blood levels.
- (C) The absence of a parathyroid gland causes the adrenal gland to increase the level of calcium in the blood.
- (D) If the adrenal gland, and no other gland, of a rat were removed, the rat's calcium level would remain stable.
- (E) The only function of the parathyroid gland is to regulate the level of calcium in the blood.

24. Since Mayor Drabble always repays her political debts as soon as possible, she will almost certainly appoint Lee to be the new head of the arts commission. Lee has wanted that job for a long time, and Drabble owes Lee a lot for his support in the last election.

Which one of the following is an assumption on which the argument depends?

- (A) Mayor Drabble has no political debt that is both of longer standing than the one she owes to Lee and could as suitably be repaid by an appointment to be the new head of the arts commission.
- (B) There is no one to whom Mayor Drabble owes a greater political debt for support in the last election than the political debt she owes to Lee.
- (C) Lee is the only person to whom Mayor Drabble owes a political debt who would be willing to accept an appointment from her as the new head of the arts commission.
- (D) Whether Lee is qualified to head the arts commission is irrelevant to Mayor Drabble's decision.
- (E) The only way that Mayor Drabble can adequately repay her political debt to Lee is by appointing him to head the arts commission.

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25. The fact that tobacco smoke inhaled by smokers harms the smokers does not prove that the much smaller amount of tobacco smoke inhaled by nonsmokers who share living space with smokers harms the nonsmokers to some degree. Many substances, such as vitamin A, are toxic in large quantities but beneficial in small quantities.
- In which one of the following is the pattern of reasoning most similar to that in the argument above?
- (A) The fact that a large concentration of bleach will make fabric very white does not prove that a small concentration of bleach will make fabric somewhat white. The effect of a small concentration of bleach may be too slight to change the color of the fabric.
 - (B) Although a healthful diet should include a certain amount of fiber, it does not follow that a diet that includes large amounts of fiber is more healthful than one that includes smaller amounts of fiber. Too much fiber can interfere with proper digestion.
 - (C) The fact that large amounts of chemical fertilizers can kill plants does not prove that chemical fertilizers are generally harmful to plants. It proves only that the quantity of chemical fertilizer used should be adjusted according to the needs of the plants and the nutrients already in the soil.
 - (D) From the fact that five professional taste testers found a new cereal product tasty, it does not follow that everyone will like it. Many people find broccoli a tasty food, but other people have a strong dislike for the taste of broccoli.
 - (E) Although watching television for half of every day would be a waste of time, watching television briefly every day is not necessarily even a small waste of time. After all, it would be a waste to sleep half of every day, but some sleep every day is necessary.

26. Why should the government, rather than industry or universities, provide the money to put a network of supercomputers in place? Because there is a range of problems that can be attacked only with the massive data-managing capacity of a supercomputer network. No business or university has the resources to purchase by itself enough machines for a whole network, and no business or university wants to invest in a part of a network if no mechanism exists for coordinating establishment of the network as a whole.
- Which one of the following indicates a weakness in the argument?
- (A) It does not furnish a way in which the dilemma concerning the establishment of the network can be resolved.
 - (B) It does not establish the impossibility of creating a supercomputer network as an international network.
 - (C) It fails to address the question of who would maintain the network if the government, rather than industry or universities, provides the money for establishing it.
 - (D) It takes for granted and without justification that it would enhance national preeminence in science for the government to provide the network.
 - (E) It overlooks the possibility that businesses or universities, or both, could cooperate to build the network.

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.