

## 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.

Questions 1–2

**Politician:** The funding for the new nationwide health-awareness campaign should come from an increase in taxes on cigarettes. It is well established that cigarette smoking causes many serious health problems, and it is only reasonable that people whose unhealthy habits cause so many health problems should bear the costs of that campaign.

**Smoker:** But it is equally well established that regularly eating high-fat, high-cholesterol foods causes as many serious health problems as does smoking, yet it would be manifestly unreasonable to force those who purchase such foods to bear the burden of financing this campaign.

1. Which one of the following is the point at issue between the politician and the smoker?
  - (A) whether the politician's proposal for financing the health-awareness campaign is an unreasonable one
  - (B) whether smokers are more aware of the harmful effects of their habit than are people who regularly eat high-fat, high-cholesterol foods
  - (C) whether the effects of smoking constitute a greater health hazard than do the effects of regularly eating high-fat, high-cholesterol foods
  - (D) whether it is unreasonable to require people who do not benefit from certain governmental programs to share the costs of those programs
  - (E) whether the proposed increase on cigarette taxes is an efficient means of financing the health-awareness campaign
2. The smoker's response to the politician's argument
  - (A) offers a counterexample that calls into question the politician's reasoning
  - (B) presents an alternative solution to that proposed by the politician
  - (C) argues that the method proposed by the politician would be inadequate for its intended purpose
  - (D) questions the accuracy of the information cited by the politician in reaching a conclusion
  - (E) illustrates how the politician's proposal could aggravate the problem it is intended to solve

3. There should be a greater use of gasohol. Gasohol is a mixture of alcohol and gasoline, and has a higher octane rating and fewer carbon monoxide emissions than straight gasoline. Burning gasohol adds no more carbon dioxide to the atmosphere than plants remove by photosynthesis.

Each of the following, if true, strengthens the argument above EXCEPT:

- (A) Cars run less well on gasoline than they do on gasohol.
  - (B) Since less gasoline is needed with the use of gasohol, an energy shortage is less likely.
  - (C) Cars burn on the average slightly more gasohol per kilometer than they do gasoline.
  - (D) Gasohol is cheaper to produce and hence costs less at the pump than gasoline.
  - (E) Burning gasoline adds more carbon dioxide to the atmosphere than plants can remove.
4. Cats spend much of their time sleeping; they seem to awaken only to stretch and yawn. Yet they have a strong, agile musculature that most animals would have to exercise strenuously to acquire.

Which one of the following, if true, most helps to resolve the apparent paradox described above?

- (A) Cats have a greater physiological need for sleep than other animals.
  - (B) Many other animals also spend much of their time sleeping yet have a strong, agile musculature.
  - (C) Cats are able to sleep in apparently uncomfortable positions.
  - (D) Cats derive ample exercise from frequent stretching.
  - (E) Cats require strength and agility in order to be effective predators.

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5. Barnes: The two newest employees at this company have salaries that are too high for the simple tasks normally assigned to new employees and duties that are too complex for inexperienced workers. Hence, the salaries and the complexity of the duties of these two newest employees should be reduced.

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

- (A) The duties of the two newest employees are not less complex than any others in the company.
  - (B) It is because of the complex duties assigned that the two newest employees are being paid more than is usually paid to newly hired employees.
  - (C) The two newest employees are not experienced at their occupations.
  - (D) Barnes was not hired at a higher-than-average starting salary.
  - (E) The salaries of the two newest employees are no higher than the salaries that other companies pay for workers with a similar level of experience.
6. These days, drug companies and health professionals alike are focusing their attention on cholesterol in the blood. The more cholesterol we have in our blood, the higher the risk that we shall die of a heart attack. The issue is pertinent since heart disease kills more North Americans every year than any other single cause. At least three factors—smoking, drinking, and exercise—can each influence levels of cholesterol in the blood.

Which one of the following can be properly concluded from the passage?

- (A) If a person has low blood cholesterol, then that person's risk of fatal heart disease is low.
- (B) Smoking in moderation can entail as great a risk of fatal heart disease as does heavy smoking.
- (C) A high-cholesterol diet is the principal cause of death in North America.
- (D) The only way that smoking increases one's risk of fatal heart disease is by influencing the levels of cholesterol in the blood.
- (E) The risk of fatal heart disease can be altered by certain changes in lifestyle.

7. In Debbie's magic act, a volunteer supposedly selects a card in a random fashion, looks at it without showing it to her, and replaces it in the deck. After several shuffles, Debbie cuts the deck and supposedly reveals the same selected card. A skeptic conducted three trials. In the first, Debbie was videotaped, and no sleight of hand was found. In the second, the skeptic instead supplied a standard deck of cards. For the third trial, the skeptic selected the card. Each time, Debbie apparently revealed the selected card. The skeptic concluded that Debbie uses neither sleight of hand, nor a trick deck, nor a planted "volunteer" to achieve her effect.

Which one of the following most accurately describes a flaw in the skeptic's reasoning?

- (A) The skeptic failed to consider the possibility that Debbie did not always use the same method to achieve her effect.
- (B) The skeptic failed to consider the possibility that sleight of hand could also be detected by some means other than videotaping.
- (C) The skeptic failed to consider the possibility that Debbie requires both sleight of hand and a trick deck to achieve her effect.
- (D) The skeptic failed to consider the possibility that Debbie used something other than sleight of hand, a trick deck, or a planted "volunteer" to achieve her effect.
- (E) The skeptic failed to consider the possibility that Debbie's success in the three trials was something other than a coincidence.

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8. Nutritionist: Many people claim that simple carbohydrates are a reasonable caloric replacement for the fatty foods forbidden to those on low-fat diets. This is now in doubt. New studies show that, for many people, a high intake of simple carbohydrates stimulates an overproduction of insulin, a hormone that is involved in processing sugars and starches to create energy when the body requires energy, or, when energy is not required, to store the resulting by-products as fat.

Which one of the following is most strongly supported by the nutritionist's statements?

- (A) People on low-fat diets should avoid consumption of simple carbohydrates if they wish to maintain the energy that their bodies require.
  - (B) People who produce enough insulin to process their intake of simple carbohydrates should not feel compelled to adopt low-fat diets.
  - (C) People who consume simple carbohydrates should limit their intake of foods high in fat.
  - (D) People who wish to avoid gaining body fat should limit their intake of foods high in simple carbohydrates.
  - (E) People who do not produce an excessive amount of insulin when they consume foods high in simple carbohydrates will not lose weight if they restrict only their intake of these foods.
9. Jean: Our navigational equipment sells for \$1,100 and dominates the high end of the market, but more units are sold by our competitors in the \$700 to \$800 range. We should add a low-cost model, which would allow us to increase our overall sales while continuing to dominate the high end.

Tracy: I disagree. Our equipment sells to consumers who associate our company with quality. Moving into the low-cost market would put our competitors in the high-cost market on an equal footing with us, which could hurt our overall sales.

Jean's and Tracy's statements most strongly suggest that they disagree over which one of the following propositions?

- (A) There is a greater potential for profits in the low-cost market than there is in the high-cost market.
- (B) The proposed cheaper model, if it were made available, would sell to customers who would otherwise be buying the company's present model.
- (C) The company could dominate the low-cost market in the same way it has dominated the high-cost market.
- (D) The company would no longer dominate the high-cost market if it began selling a low-cost model.
- (E) Decreased sales of the high-cost model would result in poor sales for the proposed low-cost model.

10. The symptoms of hepatitis A appear no earlier than 60 days after a person has been infected. In a test of a hepatitis A vaccine, 50 people received the vaccine and 50 people received a harmless placebo. Although some people from each group eventually exhibited symptoms of hepatitis A, the vaccine as used in the test is completely effective in preventing infection with the hepatitis A virus.

Which one of the following, if true, most helps resolve the apparent discrepancy in the information above?

- (A) The placebo did not produce any side effects that resembled any of the symptoms of hepatitis A.
- (B) More members of the group that had received the placebo recognized their symptoms as symptoms of hepatitis A than did members of the group that had received the vaccine.
- (C) The people who received the placebo were in better overall physical condition than were the people who received the vaccine.
- (D) The vaccinated people who exhibited symptoms of hepatitis A were infected with the hepatitis A virus before being vaccinated.
- (E) Of the people who developed symptoms of hepatitis A, those who received the vaccine recovered more quickly, on average, than those who did not.

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Questions 11–12

It is well known that many species adapt to their environment, but it is usually assumed that only the most highly evolved species alter their environment in ways that aid their own survival. However, this characteristic is actually quite common. Certain species of plankton, for example, generate a gas that is converted in the atmosphere into particles of sulfate. These particles cause water vapor to condense, thus forming clouds. Indeed, the formation of clouds over the ocean largely depends on the presence of these particles. More cloud cover means more sunlight is reflected, and so the Earth absorbs less heat. Thus plankton cause the surface of the Earth to be cooler and this benefits the plankton.

11. Of the following, which one most accurately expresses the main point of the argument?
- (A) The Earth would be far warmer than it is now if certain species of plankton became extinct.
  - (B) By altering their environment in ways that improve their chances of survival, certain species of plankton benefit the Earth as a whole.
  - (C) Improving their own chances of survival by altering the environment is not limited to the most highly evolved species.
  - (D) The extent of the cloud cover over the oceans is largely determined by the quantity of plankton in those oceans.
  - (E) Species such as plankton alter the environment in ways that are less detrimental to the well-being of other species than are the alterations to the environment made by more highly evolved species.
12. Which one of the following accurately describes the argumentative strategy employed?
- (A) A general principle is used to justify a claim made about a particular case to which that principle has been shown to apply.
  - (B) An explanation of how a controversial phenomenon could have come about is given in order to support the claim that this phenomenon did in fact come about.
  - (C) A generalization about the conditions under which a certain process can occur is advanced on the basis of an examination of certain cases in which that process did occur.
  - (D) A counterexample to a position being challenged is presented in order to show that this position is incorrect.
  - (E) A detailed example is used to illustrate the advantage of one strategy over another.
13. The top priority of the school administration should be student attendance. No matter how good the teachers, texts, and facilities are, none of these does any good if few students come to school.
- The pattern of reasoning in the argument above is LEAST similar to that in which one of the following?
- (A) The top priority of a salesperson should be not to alienate customers. Honesty and a good knowledge of the product line are useful to a salesperson only if the customer feels at ease.
  - (B) The top priority of a person lost in the wilderness should be food-gathering. Knowing how to find one's way back or how to build a comfortable shelter does one no good if one does not have enough food to survive.
  - (C) The top priority of a detective should be to gather physical evidence. High-tech crime lab equipment and the most sophisticated criminological analysis are of no use if crucial clues are not gathered.
  - (D) The top priority of a library should be to maintain its collection of books. A knowledgeable staff and beautiful facilities are of no value if there is an inadequate supply of books to lend.
  - (E) The top priority of a criminal defense lawyer should be to ensure that innocent clients are found not guilty. Such clients can justly be released from jail and resume their normal lives if they are found not guilty.

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14. Prosecutor: Dr. Yuge has testified that, had the robbery occurred after 1:50 A.M., then, the moon having set at 1:45 A.M., it would have been too dark for Klein to recognize the perpetrator. But Yuge acknowledged that the moon was full enough to provide considerable light before it set. And we have conclusively shown that the robbery occurred between 1:15 and 1:30 A.M. So there was enough light for Klein to make a reliable identification.

The prosecutor's reasoning is most vulnerable to criticism because it overlooks which one of the following possibilities?

- (A) Klein may be mistaken about the time of the robbery and so it may have taken place after the moon had set.
  - (B) The perpetrator may closely resemble someone who was not involved in the robbery.
  - (C) Klein may have been too upset to make a reliable identification even in good light.
  - (D) Without having been there, Dr. Yuge has no way of knowing whether the light was sufficient.
  - (E) During the robbery the moon's light may have been interfered with by conditions such as cloud cover.
15. Ordinary mountain sickness, a common condition among mountain climbers, and one from which most people can recover, is caused by the characteristic shortage of oxygen in the atmosphere at high altitudes. Cerebral edema, a rarer disruption of blood circulation in the brain that quickly becomes life-threatening if not correctly treated from its onset, can also be caused by a shortage of oxygen. Since the symptoms of cerebral edema resemble those of ordinary mountain sickness, cerebral edema is especially dangerous at high altitudes.

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

- (A) The treatment for ordinary mountain sickness differs from the treatment for cerebral edema.
- (B) Cerebral edema can cause those who suffer from it to slip into a coma within a few hours.
- (C) Unlike cerebral edema, ordinary mountain sickness involves no disruption of blood circulation in the brain.
- (D) Shortage of oxygen at extremely high altitudes is likely to affect thinking processes and cause errors of judgment.
- (E) Most people who suffer from ordinary mountain sickness recover without any special treatment.

16. We can learn about the living conditions of a vanished culture by examining its language. Thus, it is likely that the people who spoke Proto-Indo-European, the language from which all Indo-European languages descended, lived in a cold climate, isolated from ocean or sea, because Proto-Indo-European lacks a word for "sea," yet contains words for "winter," "snow," and "wolf."

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

- (A) A word meaning "fish" was used by the people who spoke Proto-Indo-European.
  - (B) Some languages lack words for prominent elements of the environments of their speakers.
  - (C) There are no known languages today that lack a word for "sea."
  - (D) Proto-Indo-European possesses words for "heat."
  - (E) The people who spoke Proto-Indo-European were nomadic.
17. Columnist: It is impossible for there to be real evidence that lax radiation standards that were once in effect at nuclear reactors actually contributed to the increase in cancer rates near such sites. The point is a familiar one: who can say if a particular case of cancer is due to radiation, exposure to environmental toxins, smoking, poor diet, or genetic factors.

The argument's reasoning is most vulnerable to criticism on which one of the following grounds?

- (A) The argument fails to recognize that there may be convincing statistical evidence even if individual causes cannot be known.
- (B) The argument inappropriately presupposes that what follows a certain phenomenon was caused by that phenomenon.
- (C) The argument inappropriately draws a conclusion about causes of cancer in general from evidence drawn from a particular case of cancer.
- (D) The argument ignores other possible causes of the increase in cancer rates near the nuclear reactor complexes.
- (E) The argument concludes that a claim about a causal connection is false on the basis of a lack of evidence for the claim.

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18. Some planning committee members—those representing the construction industry—have significant financial interests in the committee’s decisions. No one who is on the planning committee lives in the suburbs, although many of them work there.

If the statements above are true, which one of the following must also be true?

- (A) No persons with significant financial interests in the planning committee’s decisions are not in the construction industry.
  - (B) No person who has significant financial interest in the planning committee’s decisions lives in the suburbs.
  - (C) Some persons with significant financial interests in the planning committee’s decisions work in the suburbs.
  - (D) Some planning committee members who represent the construction industry do not work in the suburbs.
  - (E) Some persons with significant financial interests in the planning committee’s decisions do not live in the suburbs.
19. Arbitrator: The shipping manager admits that he decided to close the old facility on October 14 and to schedule the new facility’s opening for October 17, the following Monday. But he also claims that he is not responsible for the business that was lost due to the new facility’s failing to open as scheduled. He blames the contractor for not finishing on time, but he too, is to blame, for he was aware of the contractor’s typical delays and should have planned for this contingency.

Which one of the following principles underlies the arbitrator’s argument?

- (A) A manager should take foreseeable problems into account when making decisions.
- (B) A manager should be able to depend on contractors to do their jobs promptly.
- (C) A manager should see to it that contractors do their jobs promptly.
- (D) A manager should be held responsible for mistakes made by those whom the manager directly supervises.
- (E) A manager, and only a manager, should be held responsible for a project’s failure.

20. The price of a full-fare coach ticket from Toronto to Dallas on Breezeway Airlines is the same today as it was a year ago, if inflation is taken into account by calculating prices in constant dollars. However, today 90 percent of the Toronto-to-Dallas coach tickets that Breezeway sells are discount tickets and only 10 percent are full-fare tickets, whereas a year ago half were discount tickets and half were full-fare tickets. Therefore, on average, people pay less today in constant dollars for a Breezeway Toronto-to-Dallas coach ticket than they did a year ago.

Which one of the following, if assumed, would allow the conclusion above to be properly drawn?

- (A) A Toronto-to-Dallas full-fare coach ticket on Breezeway Airlines provides ticket-holders with a lower level of service today than such a ticket provided a year ago.
- (B) A Toronto-to-Dallas discount coach ticket on Breezeway Airlines costs about the same amount in constant dollars today as it did a year ago.
- (C) All full-fare coach tickets on Breezeway Airlines cost the same in constant dollars as they did a year ago.
- (D) The average number of coach passengers per flight that Breezeway Airlines carries from Toronto to Dallas today is higher than the average number per flight a year ago.
- (E) The criteria that Breezeway Airlines uses for permitting passengers to buy discount coach tickets on the Toronto-to-Dallas route are different today than they were a year ago.

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Questions 21–22

**Editorial:** The government claims that the country's nuclear power plants are entirely safe and hence that the public's fear of nuclear accidents at these plants is groundless. The government also contends that its recent action to limit the nuclear industry's financial liability in the case of nuclear accidents at power plants is justified by the need to protect the nuclear industry from the threat of bankruptcy. But even the government says that unlimited liability poses such a threat only if injury claims can be sustained against the industry; and the government admits that for such claims to be sustained, injury must result from a nuclear accident. The public's fear, therefore, is well founded.

21. If all of the statements offered in support of the editorial's conclusion correctly describe the government's position, which one of the following must also be true on the basis of those statements?
- (A) The government's claim about the safety of the country's nuclear power plants is false.
  - (B) The government's position on nuclear power plants is inconsistent.
  - (C) The government misrepresented its reasons for acting to limit the nuclear industry's liability.
  - (D) Unlimited financial liability in the case of nuclear accidents poses no threat to the financial security of the country's nuclear industry.
  - (E) The only serious threat posed by a nuclear accident would be to the financial security of the nuclear industry.
22. Which one of the following principles, if valid, most helps to justify the editorial's argumentation?
- (A) If the government claims that something is unsafe then, in the absence of overwhelming evidence to the contrary, that thing should be assumed to be unsafe.
  - (B) Fear that a certain kind of event will occur is well founded if those who have control over the occurrence of events of that kind stand to benefit financially from such an occurrence.
  - (C) If a potentially dangerous thing is safe only because the financial security of those responsible for its operation depends on its being safe, then eliminating that dependence is not in the best interests of the public.
  - (D) The government sometimes makes unsupported claims about what situations will arise, but it does not act to prevent a certain kind of situation from arising unless there is a real danger that such a situation will arise.
  - (E) If a real financial threat to a major industry exists, then government action to limit that threat is justified.
23. Linda says that, as a scientist, she knows that no scientist appreciates poetry. And, since most scientists are logical, at least some of the people who appreciate poetry are illogical.
- Which one of the following is most parallel in its reasoning to the flawed reasoning above?
- (A) Ralph says that, as an expert in biology, he knows that no marsupial lays eggs. And, since most marsupials are native to Australia, at least some of the animals native to Australia do not lay eggs.
  - (B) Franz says that, as a father of four children, he knows that no father wants children to eat candy at bedtime. And, since most fathers are adults, at least some of the people who want children to eat candy at bedtime are children.
  - (C) Yuri says that, as a wine connoisseur, he knows that no wine aged in metal containers is equal in quality to the best wine aged in oak. And, since most California wine is aged in metal containers, California wine is inferior to at least the best French wine aged in oak.
  - (D) Xi says that, as an experienced photographer, she knows that no color film produces images as sharp as the best black-and-white film. And, since most instant film is color film, at least some instant film produces images less sharp than the best black-and-white film.
  - (E) Betty says that, as a corporate executive, she knows that no corporate executives like to pay taxes. And, since most corporate executives are honest people, at least some people who like to pay taxes are honest people.

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24. Automobile-emission standards are enforced through annual inspection. At those inspections cars are tested while idling; that is, standing still with their engines running. Testing devices measure the levels of various pollutants as exhaust gases leave the tail pipe.

Which one of the following, if true, most strongly indicates that current enforcement of automobile-emission standards might be ineffective in controlling overall pollutant levels?

- (A) As an emission-control technology approaches its limits, any additional gains in effectiveness become progressively more expensive.
- (B) The testing devices used must be recalibrated frequently to measure pollutant levels with acceptable accuracy.
- (C) The adjustments needed to make a car idle cleanly make it likely that the car will emit high levels of pollutants when moving at highway speeds.
- (D) Most car owners ask their mechanics to make sure that their cars are in compliance with emission standards.
- (E) When emission standards are set, no allowances are made for older cars.

25. The indigenous people of Tasmania are clearly related to the indigenous people of Australia, but were separated from them when the land bridge between Australia and Tasmania disappeared approximately 10,000 years ago. Two thousand years after the disappearance of the land bridge, however, there were major differences between the culture and technology of the indigenous Tasmanians and those of the indigenous Australians. The indigenous Tasmanians, unlike their Australian relatives, had no domesticated dogs, fishing nets, polished stone tools, or hunting implements like the boomerang and the spear-thrower.

Each of the following, if true, would contribute to an explanation of differences described above EXCEPT:

- (A) After the disappearance of the land bridge the indigenous Tasmanians simply abandoned certain practices and technologies that they had originally shared with their Australian relatives.
- (B) Devices such as the spear-thrower and the boomerang were developed by the indigenous Tasmanians more than 10,000 years ago.
- (C) Technological innovations such as fishing nets, polished stone tools, and so on, were imported to Australia by Polynesian explorers more recently than 10,000 years ago.
- (D) Indigenous people of Australia developed hunting implements like the boomerang and the spear-thrower after the disappearance of the land bridge.
- (E) Although the technological and cultural innovations were developed in Australia more than 10,000 years ago, they were developed by groups in northern Australia with whom the indigenous Tasmanians had no contact prior to the disappearance of the land bridge.

## 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.