

SECTION II

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. Mary to Jamal: You acknowledge that as the legitimate owner of this business I have the legal right to sell it whenever I wish. But also you claim that because loyal employees will suffer if I sell it, I therefore have no right to do so. Obviously, your statements taken together are absurd.

Mary's reasoning is most vulnerable to the criticism that she

- (A) overlooks the possibility that when Jamal claims that she has no right to sell the business, he simply means she has no right to do so at this time
- (B) overlooks the possibility that her employees also have rights related to the sale of the business
- (C) provides no evidence for the claim that she does have a right to sell the business
- (D) overlooks the possibility that Jamal is referring to two different kinds of right
- (E) attacks Jamal's character rather than his argument

2. Since there is no survival value in an animal's having an organ that is able to function when all its other organs have broken down to such a degree that the animal dies, it is a result of the efficiency of natural selection that no organ is likely to evolve in such a way that it greatly outlasts the body's other organs.

Of the following, which one illustrates a principle that is most similar to the principle illustrated by the passage?

- (A) A store in a lower-income neighborhood finds that it is unable to sell its higher-priced goods and so stocks them only when ordered by a customer.
- (B) The body of an animal with a deficient organ is often able to compensate for that deficiency when other organs perform the task the deficient one normally performs.
- (C) One car model produced by an automobile manufacturer has a life expectancy that is so much longer than its other models that its great popularity requires the manufacturer to stop producing some of the other models.
- (D) Athletes occasionally overdevelop some parts of their bodies to such a great extent that other parts of their bodies are more prone to injury as a result.
- (E) Automotive engineers find that it is not cost-effective to manufacture a given automobile part of such high quality that it outlasts all other parts of the automobile, as doing so would not raise the overall quality of the automobile.

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3. Commentator: If a political administration is both economically successful and successful at protecting individual liberties, then it is an overall success. Even an administration that fails to care for the environment may succeed overall if it protects individual liberties. So far, the present administration has not cared for the environment but has successfully protected individual liberties.

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

- (A) The present administration is economically successful.
 - (B) The present administration is not an overall success.
 - (C) If the present administration is economically successful, then it is an overall success.
 - (D) If the present administration had been economically successful, it would have cared for the environment.
 - (E) If the present administration succeeds at environmental protection, then it will be an overall success.
4. The legislature is considering a proposed bill that would prohibit fishing in Eagle Bay. Despite widespread concern over the economic effect this ban would have on the local fishing industry, the bill should be enacted. The bay has one of the highest water pollution levels in the nation, and a recent study of the bay's fish found that 80 percent of them contained toxin levels that exceed governmental safety standards. Continuing to permit fishing in Eagle Bay could thus have grave effects on public health.

The argument proceeds by presenting evidence that

- (A) the toxic contamination of fish in Eagle Bay has had grave economic effects on the local fishing industry
- (B) the moral principle that an action must be judged on the basis of its foreseeable effects is usually correct
- (C) the opponents of the ban have failed to weigh properly its foreseeable negative effects against its positive ones
- (D) failure to enact the ban would carry with it unacceptable risks for the public welfare
- (E) the ban would reduce the level of toxins in the fish in Eagle Bay

5. Vandenburg: This art museum is not adhering to its purpose. Its founders intended it to devote as much attention to contemporary art as to the art of earlier periods, but its collection of contemporary art is far smaller than its other collections.

Simpson: The relatively small size of the museum's contemporary art collection is appropriate. It's an art museum, not an ethnographic museum designed to collect every style of every period. Its contemporary art collection is small because its curators believe that there is little high-quality contemporary art.

Which one of the following principles, if valid, most helps to justify the reasoning in Simpson's response to Vandenburg?

- (A) An art museum should collect only works that its curators consider to be of high artistic quality.
 - (B) An art museum should not collect any works that violate the purpose defined by the museum's founders.
 - (C) An art museum's purpose need not be to collect every style of every period.
 - (D) An ethnographic museum's purpose should be defined according to its curators' beliefs.
 - (E) The intentions of an art museum's curators should not determine what is collected by that museum.
6. Over the last five years, every new major alternative-energy initiative that initially was promised government funding has since seen that funding severely curtailed. In no such case has the government come even close to providing the level of funds initially earmarked for these projects. Since large corporations have made it a point to discourage alternative-energy projects, it is likely that the corporations' actions influenced the government's funding decisions.

Which one of the following, if true, most strengthens the reasoning above?

- (A) For the past two decades, most alternative-energy initiatives have received little or no government funding.
- (B) The funding initially earmarked for a government project is always subject to change, given the mechanisms by which the political process operates.
- (C) The only research projects whose government funding has been severely curtailed are those that large corporations have made it a point to discourage.
- (D) Some projects encouraged by large corporations have seen their funding severely curtailed over the last five years.
- (E) All large corporations have made it a point to discourage some forms of research.

7. Talbert: Chess is beneficial for school-age children. It is enjoyable, encourages foresight and logical thinking, and discourages carelessness, inattention, and impulsiveness. In short, it promotes mental maturity.

Sklar: My objection to teaching chess to children is that it diverts mental activity from something with societal value, such as science, into something that has no societal value.

Talbert's and Sklar's statements provide the strongest support for holding that they disagree with each other over whether

- (A) chess promotes mental maturity
 - (B) many activities promote mental maturity just as well as chess does
 - (C) chess is socially valuable and science is not
 - (D) children should be taught to play chess
 - (E) children who neither play chess nor study science are mentally immature
8. Marcia: Not all vegetarian diets lead to nutritional deficiencies. Research shows that vegetarians can obtain a full complement of proteins and minerals from nonanimal foods.

Theodora: You are wrong in claiming that vegetarianism cannot lead to nutritional deficiencies. If most people became vegetarians, some of those losing jobs due to the collapse of many meat-based industries would fall into poverty and hence be unable to afford a nutritionally adequate diet.

Theodora's reply to Marcia's argument is most vulnerable to criticism on the grounds that her reply

- (A) is directed toward disproving a claim that Marcia did not make
- (B) ignores the results of the research cited by Marcia
- (C) takes for granted that no meat-based industries will collapse unless most people become vegetarians
- (D) uses the word "diet" in a nontechnical sense whereas Marcia's argument uses this term in a medical sense
- (E) takes for granted that people losing jobs in meat-based industries would become vegetarians

9. Musicologist: Classification of a musical instrument depends on the mechanical action through which it produces music. So the piano is properly called a percussion instrument, not a stringed instrument. Even though the vibration of the piano's strings is what makes its sound, the strings are caused to vibrate by the impact of hammers.

Which one of the following most accurately expresses the main conclusion of the musicologist's argument?

- (A) Musical instruments should be classified according to the mechanical actions through which they produce sound.
 - (B) Musical instruments should not be classified based on the way musicians interact with them.
 - (C) Some people classify the piano as a stringed instrument because of the way the piano produces sound.
 - (D) The piano should be classified as a stringed instrument rather than as a percussion instrument.
 - (E) It is correct to classify the piano as a percussion instrument rather than as a stringed instrument.
10. In a vast ocean region, phosphorus levels have doubled in the past few decades due to agricultural runoff pouring out of a large river nearby. The phosphorus stimulates the growth of plankton near the ocean surface. Decaying plankton fall to the ocean floor, where bacteria devour them, consuming oxygen in the process. Due to the resulting oxygen depletion, few fish can survive in this region.

Which one of the following can be properly inferred from the information above?

- (A) The agricultural runoff pouring out of the river contributes to the growth of plankton near the ocean surface.
- (B) Before phosphorus levels doubled in the ocean region, most fish were able to survive in that region.
- (C) If agricultural runoff ceased pouring out of the river, there would be no bacteria on the ocean floor devouring decaying plankton.
- (D) The quantity of agricultural runoff pouring out of the river has doubled in the past few decades.
- (E) The amount of oxygen in a body of water is in general inversely proportional to the level of phosphorus in that body of water.

11. Psychologists observing a shopping mall parking lot found that, on average, drivers spent 39 seconds leaving a parking space when another car was quietly waiting to enter it, 51 seconds if the driver of the waiting car honked impatiently, but only 32 seconds leaving a space when no one was waiting. This suggests that drivers feel possessive of their parking spaces even when leaving them, and that this possessiveness increases in reaction to indications that another driver wants the space.

Which one of the following, if true, most weakens the reasoning?

- (A) The more pressure most drivers feel because others are waiting for them to perform maneuvers with their cars, the less quickly they are able to perform them.
 - (B) The amount of time drivers spend entering a parking space is not noticeably affected by whether other drivers are waiting for them to do so, nor by whether those other drivers are honking impatiently.
 - (C) It is considerably more difficult and time-consuming for a driver to maneuver a car out of a parking space if another car waiting to enter that space is nearby.
 - (D) Parking spaces in shopping mall parking lots are unrepresentative of parking spaces in general with respect to the likelihood that other cars will be waiting to enter them.
 - (E) Almost any driver leaving a parking space will feel angry at another driver who honks impatiently, and this anger will influence the amount of time spent leaving the space.
12. Shark teeth are among the most common vertebrate fossils; yet fossilized shark skeletons are much less common—indeed, comparatively rare among fossilized vertebrate skeletons.

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

- (A) Unlike the bony skeletons of other vertebrates, shark skeletons are composed of cartilage, and teeth and bone are much more likely to fossilize than cartilage is.
- (B) The rare fossilized skeletons of sharks that are found are often found in areas other than those in which fossils of shark teeth are plentiful.
- (C) Fossils of sharks' teeth are quite difficult to distinguish from fossils of other kinds of teeth.
- (D) Some species of sharks alive today grow and lose many sets of teeth during their lifetimes.
- (E) The physical and chemical processes involved in the fossilization of sharks' teeth are as common as those involved in the fossilization of shark skeletons.

13. Critic: Photographers, by deciding which subjects to depict and how to depict them, express their own worldviews in their photographs, however realistically those photographs may represent reality. Thus, photographs are interpretations of reality.

The argument's conclusion is properly drawn if which one of the following is assumed?

- (A) Even representing a subject realistically can involve interpreting that subject.
- (B) To express a worldview is to interpret reality.
- (C) All visual art expresses the artist's worldview.
- (D) Any interpretation of reality involves the expression of a worldview.
- (E) Nonrealistic photographs, like realistic photographs, express the worldviews of the photographers who take them.

14. Geologists recently discovered marks that closely resemble worm tracks in a piece of sandstone. These marks were made more than half a billion years earlier than the earliest known traces of multicellular animal life. Therefore, the marks are probably the traces of geological processes rather than of worms.

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

- (A) It is sometimes difficult to estimate the precise age of a piece of sandstone.
- (B) Geological processes left a substantial variety of marks in sandstone more than half a billion years before the earliest known multicellular animal life existed.
- (C) There were some early life forms other than worms that are known to have left marks that are hard to distinguish from those found in the piece of sandstone.
- (D) At the place where the sandstone was found, the only geological processes that are likely to mark sandstone in ways that resemble worm tracks could not have occurred at the time the marks were made.
- (E) Most scientists knowledgeable about early animal life believe that worms are likely to have been among the earliest forms of multicellular animal life on Earth, but evidence of their earliest existence is scarce because they are composed solely of soft tissue.

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15. Often a type of organ or body structure is the only physically feasible means of accomplishing a given task, so it should be unsurprising if, like eyes or wings, that type of organ or body structure evolves at different times in a number of completely unrelated species. After all, whatever the difference of heritage and habitat, as organisms animals have fundamentally similar needs and so _____.

Which one of the following most logically completes the last sentence of the passage?

- (A) will often live in the same environment as other species quite different from themselves
 - (B) will in many instances evolve similar adaptations enabling them to satisfy these needs
 - (C) will develop adaptations allowing them to satisfy these needs
 - (D) will resemble other species having different biological needs
 - (E) will all develop eyes or wings as adaptations
16. Engineer: Thermophotovoltaic generators are devices that convert heat into electricity. The process of manufacturing steel produces huge amounts of heat that currently go to waste. So if steel-manufacturing plants could feed the heat they produce into thermophotovoltaic generators, they would greatly reduce their electric bills, thereby saving money.

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

- (A) There is no other means of utilizing the heat produced by the steel-manufacturing process that would be more cost effective than installing thermophotovoltaic generators.
- (B) Using current technology, it would be possible for steel-manufacturing plants to feed the heat they produce into thermophotovoltaic generators in such a way that those generators could convert at least some of that heat into electricity.
- (C) The amount steel-manufacturing plants would save on their electric bills by feeding heat into thermophotovoltaic generators would be sufficient to cover the cost of purchasing and installing those generators.
- (D) At least some steel-manufacturing plants rely on electricity as their primary source of energy in the steel-manufacturing process.
- (E) There are at least some steel-manufacturing plants that could greatly reduce their electricity bills only if they used some method of converting wasted heat or other energy from the steel-manufacturing process into electricity.

17. Herbalist: While standard antibiotics typically have just one active ingredient, herbal antibacterial remedies typically contain several. Thus, such herbal remedies are more likely to retain their effectiveness against new, resistant strains of bacteria than are standard antibiotics. For a strain of bacteria, the difficulty of developing resistance to an herbal antibacterial remedy is like a cook's difficulty in trying to prepare a single meal that will please all of several dozen guests, a task far more difficult than preparing one meal that will please a single guest.

In the analogy drawn in the argument above, which one of the following corresponds to a standard antibiotic?

- (A) a single guest
 - (B) several dozen guests
 - (C) the pleasure experienced by a single guest
 - (D) a cook
 - (E) the ingredients available to a cook
18. To find out how barn owls learn how to determine the direction from which sounds originate, scientists put distorting lenses over the eyes of young barn owls before the owls first opened their eyes. The owls with these lenses behaved as if objects making sounds were farther to the right than they actually were. Once the owls matured, the lenses were removed, yet the owls continued to act as if they misjudged the location of the source of sounds. The scientists consequently hypothesized that once a barn owl has developed an auditory scheme for estimating the point from which sounds originate, it ceases to use vision to locate sounds.
- The scientists' reasoning is vulnerable to which one of the following criticisms?
- (A) It fails to consider whether the owls' vision was permanently impaired by their having worn the lenses while immature.
 - (B) It assumes that the sense of sight is equally good in all owls.
 - (C) It attributes human reasoning processes to a nonhuman organism.
 - (D) It neglects to consider how similar distorting lenses might affect the behavior of other bird species.
 - (E) It uses as evidence experimental results that were irrelevant to the conclusion.

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19. As often now as in the past, newspaper journalists use direct or indirect quotation to report unsupported or false claims made by newsmakers. However, journalists are becoming less likely to openly challenge the veracity of such claims within their articles.

Each of the following, if true, helps to explain the trend in journalism described above EXCEPT:

- (A) Newspaper publishers have found that many readers will cancel a subscription simply because a view they take for granted has been disputed by the publication.
- (B) The areas of knowledge on which journalists report are growing in specialization and diversity, while journalists themselves are not becoming more broadly knowledgeable.
- (C) Persons supporting controversial views more and more frequently choose to speak only to reporters who seem sympathetic to their views.
- (D) A basic principle of journalism holds that debate over controversial issues draws the attention of the public.
- (E) Journalists who challenge the veracity of claims are often criticized for failing their professional obligation to be objective.

20. When people show signs of having a heart attack an electrocardiograph (EKG) is often used to diagnose their condition. In a study, a computer program for EKG diagnosis of heart attacks was pitted against a very experienced, highly skilled cardiologist. The program correctly diagnosed a significantly higher proportion of the cases that were later confirmed to be heart attacks than did the cardiologist. Interpreting EKG data, therefore, should be left to computer programs.

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

- (A) Experts agreed that the cardiologist made few obvious mistakes in reading and interpreting the EKG data.
- (B) The practice of medicine is as much an art as a science, and computer programs are not easily adapted to making subjective judgments.
- (C) The cardiologist correctly diagnosed a significantly higher proportion of the cases in which no heart attack occurred than did the computer program.
- (D) In a considerable percentage of cases, EKG data alone are insufficient to enable either computer programs or cardiologists to make accurate diagnoses.
- (E) The cardiologist in the study was unrepresentative of cardiologists in general with respect to skill and experience.

21. A government study indicates that raising speed limits to reflect the actual average speeds of traffic on level, straight stretches of high-speed roadways reduces the accident rate. Since the actual average speed for level, straight stretches of high-speed roadways tends to be 120 kilometers per hour (75 miles per hour), that should be set as a uniform national speed limit for level, straight stretches of all such roadways.

Which one of the following principles, if valid, most helps to justify the reasoning above?

- (A) Uniform national speed limits should apply only to high-speed roadways.
- (B) Traffic laws applying to high-speed roadways should apply uniformly across the nation.
- (C) A uniform national speed limit for high-speed roadways should be set only if all such roadways have roughly equal average speeds of traffic.
- (D) Long-standing laws that are widely violated are probably not good laws.
- (E) Any measure that reduces the rate of traffic accidents should be implemented.

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22. Psychiatrist: In treating first-year students at this university, I have noticed that those reporting the highest levels of spending on recreation score at about the same level on standard screening instruments for anxiety and depression as those reporting the lowest levels of spending on recreation. This suggests that the first-year students with high levels of spending on recreation could reduce that spending without increasing their anxiety or depression.

Each of the following, if true, strengthens the psychiatrist's argument EXCEPT:

- (A) At other universities, first-year students reporting the highest levels of spending on recreation also show the same degree of anxiety and depression as do those reporting the lowest levels of such spending.
- (B) Screening of first-year students at the university who report moderate levels of spending on recreation reveals that those students are less anxious and depressed than both those with the highest and those with the lowest levels of spending on recreation.
- (C) Among adults between the ages of 40 and 60, increased levels of spending on recreation are strongly correlated with decreased levels of anxiety and depression.
- (D) The screening instruments used by the psychiatrist are extremely accurate in revealing levels of anxiety and depression among university students.
- (E) Several of the psychiatrist's patients who are first-year students at the university have reduced their spending on recreation from very high levels to very low levels without increasing their anxiety or depression.

23. Every brick house on River Street has a front yard. Most of the houses on River Street that have front yards also have two stories. So most of the brick houses on River Street have two stories.

Which one of the following is most appropriate as an analogy demonstrating that the reasoning in the argument above is flawed?

- (A) By that line of reasoning, we could conclude that most politicians have run for office, since all legislators are politicians and most legislators have run for office.
- (B) By that line of reasoning, we could conclude that most public servants are legislators, since most legislators have run for office and most politicians who have run for office are public servants.
- (C) By that line of reasoning, we could conclude that not every public servant has run for office, since every legislator is a public servant but some public servants are not legislators.
- (D) By that line of reasoning, we could conclude that most legislators have never run for office, since most public servants have never run for office and all legislators are public servants.
- (E) By that line of reasoning, we could conclude that most legislators are not public servants, since most public servants have not run for office and most legislators have run for office.

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24. Historian: It is unlikely that someone would see history as the working out of moral themes unless he or she held clear and unambiguous moral beliefs. However, one's inclination to morally judge human behavior decreases as one's knowledge of history increases. Consequently, the more history a person knows, the less likely that person is to view history as the working out of moral themes.

The conclusion of the argument is properly drawn if which one of the following is assumed?

- (A) Historical events that fail to elicit moral disapproval are generally not considered to exemplify a moral theme.
- (B) The less inclined one is to morally judge human behavior, the less likely it is that one holds clear and unambiguous moral beliefs.
- (C) Only those who do not understand human history attribute moral significance to historical events.
- (D) The more clear and unambiguous one's moral beliefs, the more likely one is to view history as the working out of moral themes.
- (E) People tend to be less objective regarding a subject about which they possess extensive knowledge than regarding a subject about which they do not possess extensive knowledge.

25. A recent poll revealed that most students at our university prefer that the university, which is searching for a new president, hire someone who has extensive experience as a university president. However, in the very same poll, the person most students chose from among a list of leading candidates as the one they would most like to see hired was someone who has never served as a university president.

Which one of the following, if true, most helps to account for the apparent discrepancy in the students' preferences?

- (A) Because several of the candidates listed in the poll had extensive experience as university presidents, not all of the candidates could be differentiated on this basis alone.
- (B) Most of the candidates listed in the poll had extensive experience as university presidents.
- (C) Students taking the poll had fewer candidates to choose from than were currently being considered for the position.
- (D) Most of the students taking the poll did not know whether any of the leading candidates listed in the poll had ever served as a university president.
- (E) Often a person can be well suited to a position even though they have relatively little experience in such a position.

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.