

SECTION II

Time—35 minutes

23 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 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. A law that is not consistently enforced does not serve its purpose. Law without enforcement is not law; it is merely statute—a promise of law. To institute real law is not merely to declare that such and such behavior is forbidden; it is also to punish those who violate that edict. Furthermore, those who enforce law must punish without favor for their friends or malice for their enemies. To punish only those one dislikes while forgiving others is not to enforce law but to engage in the arbitrary and unjust exercise of power.

The main point of the passage is that instituting real law consists in

- (A) the exercise of power
 - (B) authorizing the enforcement of punishments
 - (C) the unbiased punishment of prohibited behavior
 - (D) understanding the purpose of law
 - (E) clearly defining unacceptable behavior
2. Physiological research has uncovered disturbing evidence linking a number of structural disorders to jogging. Among the ailments seemingly connected with this now-popular sport are spinal disk displacements, stress fractures of the feet and ankles, knee and hip joint deterioration, and tendonitis. Furthermore, these injuries do not occur exclusively among beginning runners—veteran joggers suffer an equal percentage of injuries. What the accumulating data suggest is that the human anatomy is not able to withstand the stresses of jogging.

Which one of the following is an assumption of the argument?

- (A) The link between jogging and certain structural disorders appears to be a causal one.
- (B) Jogging causes more serious disorders than other sports.
- (C) The jogger's level of experience is a factor determining the likelihood of a jogging injury.
- (D) Some sports are safer for the human body than jogging.
- (E) The human species is not very durable.

3. All students at Pitcombe College were asked to label themselves conservative, liberal, or middle-of-the-road politically. Of the students, 25 percent labeled themselves conservative, 24 percent labeled themselves liberal, and 51 percent labeled themselves middle-of-the-road. When asked about a particular set of issues, however, 77 percent of the students endorsed what is generally regarded as a liberal position.

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

- (A) All students who labeled themselves liberal endorsed what is generally regarded as a liberal position on that set of issues.
- (B) More students who labeled themselves middle-of-the-road than students who labeled themselves liberal opposed what is generally regarded as a liberal position on that set of issues.
- (C) The majority of students who labeled themselves middle-of-the-road opposed what is generally regarded as a liberal position on that set of issues.
- (D) Some students who labeled themselves conservative endorsed what is generally regarded as a liberal position on that set of issues.
- (E) Some students who labeled themselves liberal endorsed what is generally regarded as a conservative position on that set of issues.

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4. Lenore: It is naive to think that historical explanations can be objective. In evaluating evidence, historians are always influenced by their national, political, and class loyalties.

Victor: Still, the very fact that cases of biased thinking have been detected and sources of bias identified shows that there are people who can maintain objectivity.

Victor's response does not succeed as a rebuttal of Lenore's argument because his response

- (A) displays the same kind of biased thinking as that against which Lenore's argument is directed
- (B) does not address the special case of historians who purposely distort evidence in order to promote their own political objectives
- (C) fails to provide examples of cases in which biased thinking has been detected and the source of that bias identified
- (D) does not consider sources of bias in historical explanation other than those that are due to national, political, and class loyalties.
- (E) overlooks the possibility that those who detect and identify bias are themselves biased in some way

5. The museum's night security guard maintains that the thieves who stole the portrait did not enter the museum at any point at or above ground level. Therefore, the thieves must have gained access to the museum from below ground level.

The flawed pattern of reasoning in the argument above is most similar to that in which one of the following?

- (A) The rules stipulate the participants in the contest be judged on both form and accuracy. The eventual winner was judged highest in neither category, so there must be a third criterion that judges were free to invoke.
- (B) The store's competitors claim that the store, in selling off the shirts at those prices, neither made any profit nor broke even. Consequently, the store's customers must have been able to buy shirts there at less than the store's cost.
- (C) If the census is to be believed, the percentage of men who are married is higher than the percentage of women who are married. Thus, the census must show a higher number of men than of women overall.
- (D) The product label establishes that this insecticide is safe for both humans and pets. Therefore, the insecticide must also be safe for such wild mammals as deer and rabbits.
- (E) As had generally been expected, not all questionnaires were sent in by the official deadline. It follows that plans must have been made for the processing of questionnaires received late.

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Questions 6–7

High-technology medicine is driving up the nation's health care costs. Recent advances in cataract surgery illustrate why this is occurring. Cataracts are a major cause of blindness, especially in elderly people. Ten years ago, cataract surgery was painful and not always effective. Thanks to the new technology used in cataract surgery, the operation now restores vision dramatically and is less expensive. These two factors have caused the number of cataract operations performed to increase greatly, which has, in turn, driven up the total amount spent on cataract surgery.

6. Which one of the following can be inferred from the passage?
- (A) Ten years ago, few people had successful cataract surgery.
 - (B) In the long run, the advantages of advanced medical technology are likely to be outweighed by the disadvantages.
 - (C) The total amount spent on cataract surgery has increased because the increased number of people electing to have the surgery more than offsets the decrease in cost per operation.
 - (D) Huge increases in the nation's health care costs are due primarily to increased demand for surgery for older people.
 - (E) Ten years ago, cataract surgery was affordable for more people than it was last year.
7. Each of the following, if true, would support a challenge to the author's explanation of the increase in the number of cataract operations EXCEPT:
- (A) The overall population of the nation has increased from what it was ten years ago.
 - (B) Any one individual's chance of developing cataracts is greater than it was ten years ago.
 - (C) The number of older people has increased during the last ten years.
 - (D) Today, health insurance covers cataract surgery for more people than it did ten years ago.
 - (E) People who have had unsuccessful cataract surgery are left with more seriously impaired vision than they had before the surgery.

8. Some companies in fields where skilled employees are hard to find make signing an "agreement not to compete" a condition of employment. In such an agreement the employee promises not to go to work for a competing firm for a set period after leaving his or her current employer. Courts are increasingly ruling that these agreements are not binding. Yet paradoxically, for people who signed such agreements when working for competing firms, many firms are unwilling to consider hiring them during the period covered by the agreement.

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

- (A) Many companies will not risk having to become involved in lawsuits, even suits that they expect to have a favorable outcome, because of the associated costs and publicity.
 - (B) In some industries, for example the broadcast media, companies' main source of new employees tends to be people who are already employed by competing firms.
 - (C) Most companies that require their employees to sign agreements not to compete are aware that these documents are not legally binding.
 - (D) Many people who have signed agreements not to compete are unwilling to renege on a promise by going to work for a competing firm.
 - (E) Many companies consider their employees' established relationships with clients and other people outside the company to be valuable company assets.
9. Mary Ann: Our country should, above all, be strong. Strength gains the respect of other countries and makes a country admirable.
- Inez: There are many examples in history of countries that were strong but used their strength to commit atrocities. We should judge a country by the morality of its actions, not by its strength. If the actions are morally good, the country is admirable.

Which one of the following is a presupposition that underlies Inez' argument?

- (A) At least one country is admirable.
- (B) Countries cannot be both strong and moral.
- (C) It is possible to assign moral weight to the actions of countries.
- (D) The citizens of any country believe that whatever their country does is good.
- (E) Countries should impose their standards of morality on other countries by whatever means necessary.

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10. All of John's friends say they know someone who has smoked 40 cigarettes a day for the past 40 years and yet who is really fit and well. John does not know anyone like that and it is quite certain that he is not unique among his friends in this respect.

If the statements in the passage are true, then which one of the following must also be true?

- (A) Smokers often lie about how much they smoke.
- (B) People often knowingly exaggerate without intending to lie.
- (C) All John's friends know the same lifelong heavy smoker.
- (D) Most of John's friends are not telling the truth.
- (E) Some of John's friends are not telling the truth.

11. For democracy to survive, it is imperative that the average citizen be able to develop informed opinions about important policy issues. In today's society, this means that citizens must be able to develop informed opinions on many scientific subjects, from ecosystems to defense systems. Yet, as scientific knowledge advances, the average citizen is increasingly unable to absorb enough information to develop informed opinions on many important issues.

Of the following, which one follows logically from the passage?

- (A) Scientists have a duty to educate the public.
- (B) The survival of democracy is threatened by the advance of scientific knowledge.
- (C) Every citizen has a duty to and can become scientifically literate.
- (D) The most effective democracy is one that is the most scientifically unsophisticated.
- (E) Democracy will survive if there are at least some citizens who are capable of developing informed opinions on important scientific issues.

12. By dating fossils of pollen and beetles, which returned after an Ice Age glacier left an area, it is possible to establish an approximate date when a warmer climate developed. In one glacial area, it appears from the insect record that a warm climate developed immediately after the melting of the glacier. From the pollen record, however, it appears that the warm climate did not develop until long after the glacier disappeared.

Each one of the following, if true, helps to explain the apparent discrepancy EXCEPT:

- (A) Cold-weather beetle fossils can be mistaken for those of beetles that live in warm climates.
- (B) Warm-weather plants cannot establish themselves as quickly as can beetles in a new environment.
- (C) Beetles can survive in a relatively barren postglacial area by scavenging.
- (D) Since plants spread unevenly in a new climate, researchers can mistake gaps in the pollen record as evidence of no new overall growth.
- (E) Beetles are among the oldest insect species and are much older than many warm-weather plants.

13. Using clean-coal technologies to "repower" existing factories promises ultimately a substantial reduction of polluting emissions, and will affect the full range of pollutants implicated in acid rain. The strategy of using these technologies could cut sulfur dioxide emissions by more than 80 percent and nitrogen oxide emissions by more than 50 percent. The emission of a smaller quantity of nitrogen pollutants would in turn reduce the formation of noxious ozone in the troposphere.

Which one of the following statements is an inference that can be drawn from the information given in the passage?

- (A) Sulfur dioxide emissions are the most dangerous pollutants implicated in acid rain.
- (B) Noxious ozone is formed in factories by chemical reactions involving sulfur dioxide.
- (C) Twenty percent of the present level of sulfur dioxide emissions in the atmosphere is not considered a harmful level.
- (D) A substantial reduction of polluting emissions will be achieved by the careful design of new factories.
- (E) The choice of technologies in factories could reduce the formation of noxious ozone in the troposphere.

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14. Joshua Smith's new novel was criticized by the book editor for *The Daily Standard* as implausible. That criticism, like so many other criticisms from the same source in the past, is completely unwarranted. As anyone who has actually read the novel would agree, each one of the incidents in which Smith's hero gets involved is the kind of incident that could very well have happened to someone or other.

Which one of the following is the most serious error of reasoning in the argument?

- (A) It relies on the assumption that a criticism can legitimately be dismissed as unwarranted if it is offered by someone who had previously displayed questionable judgment.
 - (B) It ignores the fact that people can agree about something even though what they agree about is not the case.
 - (C) It calls into question the intellectual integrity of the critic in order to avoid having to address the grounds on which the criticism is based.
 - (D) It takes for granted that a whole story will have a given characteristic if each of its parts has that characteristic.
 - (E) It attempts to justify its conclusion by citing reasons that most people would find plausible only if they were already convinced that the conclusion was true.
15. J. J. Thomson, the discoverer of the electron and a recipient of the Nobel Prize in physics, trained many physicists, among them seven Nobel Prize winners, 32 fellows of the Royal Society of London, and 83 professors of physics. This shows that the skills needed for creative research can be taught and learned.

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

- (A) J. J. Thomson was an internationally known physicist, and scientists came from all over the world to work with him.
- (B) All the scientists trained by J. J. Thomson were renowned for their creative scientific research.
- (C) At least one of the eminent scientists trained by J. J. Thomson was not a creative researcher before coming to study with him.
- (D) Creative research in physics requires research habits not necessary for creative research in other fields.
- (E) Scientists who go on to be the most successful researchers often receive their scientific education in classes taught by renowned research scientists.

16. The ancient Romans understood the principles of water power very well, and in some outlying parts of their empire they made extensive and excellent use of water as an energy source. This makes it all the more striking that the Romans made do without water power in regions dominated by large cities.

Which one of the following, if true, contributes most to an explanation of the difference described above in the Romans' use of water power?

- (A) The ancient Romans were adept at constructing and maintaining aqueducts that could carry quantities of water sufficient to supply large cities over considerable distances.
- (B) In the areas in which water power was not used, water flow in rivers and streams was substantial throughout the year but nevertheless exhibited some seasonal variation.
- (C) Water power was relatively vulnerable to sabotage, but any damage could be quickly and inexpensively repaired.
- (D) In most areas to which the use of water power was not extended, other, more traditional sources of energy continued to be used.
- (E) In heavily populated areas the introduction of water power would have been certain to cause social unrest by depriving large numbers of people of their livelihood.

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17. From a book review: The authors blithely claim that there are “three basic ways to store energy: as heat, as electricity, or as kinetic energy.” However, I cannot call to mind any effective ways to store energy as electricity, whereas any capable student of physics could readily suggest a few more ways to store energy: chemical, gravitational, nuclear.

The reviewer makes which one of the following criticisms of a claim that appears in the book under review?

- (A) There is no reason to consider any particular way to store energy any more basic than any other.
 - (B) The list given of ways to store energy is possibly inaccurate and certainly not exhaustive.
 - (C) It is overly limiting to treat basic ways to store energy as a question unrelated to the question of effective ways to use energy.
 - (D) What needs to be considered is not whether various ways to store energy are basic but whether they are effective.
 - (E) Except possibly for electricity, all ways to store energy are equally effective and therefore equally basic.
18. There is no mystery as to why figurative painting revived in the late 1970s. People want to look at recognizable images. Sorting out art theories reflected in abstract paintings is no substitute for the sense of empathy that comes from looking at a realistic painting of a figure in a landscape. Perhaps members of the art-viewing public resented abstract art because they felt that its lack of realistic subject matter was a rejection of the viewers and their world.

Which one of the following most accurately expresses the main point of the passage?

- (A) Abstract paintings often include shapes or forms that are suggestive of real objects or emotions.
- (B) The art-viewing public wished to see traditional subjects treated in a nontraditional manner.
- (C) Paintings that depict a recognizable physical world rather than the emotional world of the artist’s life require more artistic talent to create.
- (D) The general public is unable to understand the theories on which abstract painting is based.
- (E) The artistic preferences of the art-viewing public stimulated the revival.

19. Valitania’s long-standing practice of paying high salaries to its elected politicians has had a disastrous effect on the level of integrity among politicians in that country. This is because the prospect of earning a high salary is always attractive to anyone whose primary aim in life is to make money, so that inevitably the wrong people must have been attracted into Valitanian politics: people who are more interested in making money than in serving the needs of the nation.

Which one of the following, if true, would weaken the argument?

- (A) Many Valitanian candidates for elected office spend some of their own money to finance their campaigns.
- (B) Most Valitanian elective offices have four-year terms.
- (C) No more people compete for elected office when officeholders are paid well than when they are paid poorly.
- (D) Only politicians who rely on their offices for income tend to support policies that advance their own selfish interests.
- (E) Most of those who are currently Valitanian politicians could have obtained better-paid work outside politics.

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Questions 20–21

Policy Adviser: Freedom of speech is not only a basic human right; it is also the only rational policy for this government to adopt. When ideas are openly aired, good ideas flourish, silly proposals are easily recognized as such, and dangerous ideas can be responded to by rational argument. Nothing is ever gained by forcing citizens to disseminate their thoughts in secret.

20. The policy adviser's method of persuasion, in recommending a policy of free speech to the government, is best described by which one of the following?
- (A) a circular justification of the idea of free speech as an idea that flourishes when free speech is allowed
 - (B) advocating respect for basic rights of citizens for its own sake
 - (C) a coupling of moral ideals with self-interest
 - (D) a warning about the difficulty of suppressing the truth
 - (E) a description of an ideal situation that cannot realistically be achieved
21. Which one of the following, if true, would most strengthen the argument?
- (A) Most citizens would tolerate some limits on freedom of speech.
 - (B) With or without a policy of freedom of speech, governments respond to dangerous ideas irrationally.
 - (C) Freedom of religion and freedom of assembly are also basic human rights that governments must recognize.
 - (D) Governments are less likely to be overthrown if they openly adopt a policy allowing freedom of speech.
 - (E) Great ideas have flourished in societies that repress free speech as often as in those that permit it.

22. The trustees of the Avonbridge summer drama workshop have decided to offer scholarships to the top 10 percent of local applicants and the top 10 percent of nonlocal applicants as judged on the basis of a qualifying audition. They are doing this to ensure that only the applicants with the most highly evaluated auditions are offered scholarships to the program.

Which one of the following points out why the trustees' plan might not be effective in achieving its goal?

- (A) The best actors can also apply for admission to another program and then not enroll in the Avonbridge program.
- (B) Audition materials that produce good results for one actor may disadvantage another, resulting in inaccurate assessment.
- (C) The top 10 percent of local and nonlocal applicants might not need scholarships to the Avonbridge program.
- (D) Some of the applicants who are offered scholarships could have less highly evaluated auditions than some of the applicants who are not offered scholarships.
- (E) Dividing applicants into local and nonlocal groups is unfair because it favors nonlocal applicants.

23. Book Review: When I read a novel set in a city I know well, I must see that the writer knows the city at least as well as I do if I am to take that writer seriously. If the writer is faking, I know immediately and do not trust that writer. When a novelist demonstrates the required knowledge, I trust the storyteller, so I trust the tale. This trust increases my enjoyment of a good novel. Peter Lee's second novel is set in San Francisco. In this novel, as in his first, Lee passes my test with flying colors.

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

- (A) The book reviewer enjoys virtually any novel written by a novelist whom she trusts.
- (B) If the book reviewer trusts the novelist as a storyteller, the novel in question must be set in a city the book reviewer knows well.
- (C) Peter Lee's first novel was set in San Francisco.
- (D) The book reviewer does not trust any novel set in a city that she does not know well.
- (E) The book reviewer does not believe that she knows San Francisco better than Peter Lee does.

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24. Someone's benefiting from having done harm to another person is morally justifiable only if the person who was harmed knew that what was done could cause that harm but consented to its being done anyway.

Which one of the following judgments most closely conforms to the principle above?

- (A) Attempting to avoid being kept after school as punishment for breaking a window, Sonia falsely claimed that her brother had broken it; Sonia's action was morally unjustifiable since it resulted in both children being kept after school for something only Sonia had done.
- (B) Since Ned would not have won the prize for best model airplane if Penny's brother had not inadvertently damaged her entry while playing with it, Ned is morally unjustified in accepting his prize.
- (C) Wesley, a doctor, persuaded Max to take part in a medical experiment in which a new drug was being tested; since Wesley failed to warn Max about the serious side effects of the drug and the drug proved to have no other effects, Wesley was morally unjustified in using the results obtained from Max in his report.
- (D) Because Roger's mother suffered severe complications as a result of donating a kidney to him for a lifesaving kidney transplant, it was morally unjustifiable for Roger to receive the transplant, even though his mother, herself a doctor, had been eager for the transplant to be performed.
- (E) For James, who was convicted of having defrauded a large number of people out of their savings and wrote a book about his scheme while in prison, to be denied the profits from his book would be morally unjustifiable since he has already been punished for his crime.

25. Certain governments subsidize certain basic agricultural products in order to guarantee an adequate domestic production of them. But subsidies encourage more intensive farming, which eventually leads to soil exhaustion and drastically reduced yields.

The situation above is most nearly similar to which one of the following situations with respect to the relationship between the declared intent of a governmental practice and a circumstance relevant to it?

- (A) Certain governments subsidize theaters in order to attract foreign tourists. But tourists rarely choose a destination for the theatrical performances it has to offer.
- (B) Certain governments restrict imports in order to keep domestic producers in business. But, since domestic producers do not have to face the full force of foreign competition, some domestic producers are able to earn inordinately high profits.
- (C) Certain governments build strong armed forces in order to forestall armed conflict. But in order to maintain the sort of discipline and morale that keeps armed forces strong, those forces must be used in actual combat periodically.
- (D) Certain governments reduce taxes on businesses in order to stimulate private investment. But any investment is to some extent a gamble, and new business ventures are not always as successful as their owners hoped.
- (E) Certain governments pass traffic laws in order to make travel safer. But the population-driven growth in volumes of traffic often has the effect of making travel less safe despite the passage of new traffic laws.

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.