

SECTION III

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. Everyone sitting in the waiting room of the school's athletic office this morning at nine o'clock had just registered for a beginners tennis clinic. John, Mary, and Teresa were all sitting in the waiting room this morning at nine o'clock. No accomplished tennis player would register for a beginners tennis clinic.
If the statements above are true, which one of the following must also be true on the basis of them?
 - (A) None of the people sitting in the school's athletic office this morning at nine o'clock had ever played tennis.
 - (B) Everyone sitting in the school's athletic office this morning at nine o'clock registered only for a beginners tennis clinic.
 - (C) John, Mary, and Teresa were the only people who registered for a beginners tennis clinic this morning.
 - (D) John, Mary, and Teresa were the only people sitting in the waiting room of the school's athletic office this morning at nine o'clock.
 - (E) Neither John nor Teresa is an accomplished tennis player.
2. Most people who ride bicycles for pleasure do not ride until the warm weather of spring and summery arrives. Yet it is probably more effective to advertise bicycles earlier in the year. Most bicycles are purchased in the spring, but once shoppers are ready to shop for a bicycle, they usually have already decided which brand and model of bicycle they will purchase. By then it is generally too late to induce them to change their minds.

The main point of the argument is that

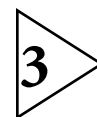
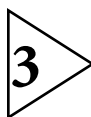
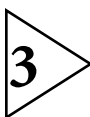
- (A) bicycle advertisements are probably more effective if they appear before the arrival of warm spring weather
- (B) most bicycle purchasers decide on the brand and model of bicycle that they will buy before beginning to shop for a bicycle
- (C) more bicycles are purchased in the spring than at any other time of year
- (D) in general, once a bicycle purchaser has decided which bicycle he or she intends to purchase, it is difficult to bring about a change in that decision
- (E) spring and summer are the time of year in which bicycle riding as a leisure activity is most popular

3. During 1991 the number of people in the town of Bayburg who received municipal food assistance doubled, even though the number of people in Bayburg whose incomes were low enough to qualify for such assistance remained unchanged.

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

- (A) In 1990 the Bayburg Town Council debated whether or not to alter the eligibility requirements for the food assistance program but ultimately decided not to change them.
- (B) In 1990 the Bayburg social service department estimated the number of people in Bayburg who might be eligible for the food assistance program and then informed the Bayburg Town Council of the total amount of assistance likely to be needed.
- (C) During 1991 many residents of a nearby city lost their jobs and moved to Bayburg in search of work.
- (D) During 1991 the number of applicants for food assistance in Bayburg who were rejected on the basis that their incomes were above the maximum allowable limit was approximately the same as it had been in 1990.
- (E) During 1991 Bayburg's program of rent assistance for low-income tenants advertised widely and then informed all applicants about other assistance programs for which they would be qualified.

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4. Campaigning for election to provincial or state office frequently requires that a candidate spend much time and energy catering to the interests of national party officials who can help the candidate to win office. The elected officials who campaign for reelection while they are in office thus often fail to serve the interests of their local constituencies.

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

- (A) Catering to the interests of national party officials sometimes conflicts with serving the interests of a provincial or state official's local constituencies.
- (B) Only by catering to the interests of national party officials can those who hold provincial or state office win reelection.
- (C) The interests of local constituencies are well served only by elected officials who do not cater to the interests of national party officials.
- (D) Officials elected to provincial or state office are obligated to serve only the interests of constituents who belong to the same party as do the officials.
- (E) All elected officials are likely to seek reelection to those offices that are not limited to one term.

5. Since Professor Smythe has been head of the department, the most distinguished member of the faculty has resigned, fewer new courses have been developed, student enrollment has dropped, and the reputation of the department has gone down. These facts provide conclusive evidence that Professor Smythe was appointed to undermine the department.

The reasoning in the argument is flawed because the argument

- (A) overlooks the fact that something can have the reputation for being of poor quality without being of poor quality
- (B) bases a general claim on a few exceptional instances
- (C) assumes that because an action was followed by a change, the action was undertaken to bring about that change
- (D) fails to distinguish between a decline in quantity and a decline in quality
- (E) presupposes what it purports to establish

6. Books about architectural works, unless they are not intended for a general audience, ought to include discussions of both the utility and the aesthetic appeal of each of the buildings they consider. If they do not, they are flawed. Morton's book on Italian Baroque palaces describes these palaces' functional aspects, but fails to mention that the main hall of a palace he discusses at length has a ceiling that is one of the truly breathtaking masterpieces of Western art.

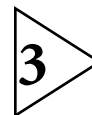
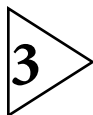
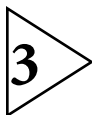
If the statements above are true, it would be necessary to establish which one of the following in order to conclude that Morton's book is flawed?

- (A) Morton's description of the palaces' utility is inaccurate.
- (B) Morton's book does not discuss aspects of the palaces other than utility and aesthetic appeal.
- (C) Morton's book is intended for a general audience.
- (D) The passage discussing the palace plays a very important role in helping to establish the overall argument of Morton's book.
- (E) The palace discussed at length is one of the most aesthetically important of those treated in Morton's book.

7. Of all the photographs taken of him at his wedding, there was one that John and his friends sharply disagreed about. His friends all said that this particular picture did not much resemble him, but John said that on the contrary it was the only photograph that did.

Which one of the following, if true about the photograph, most helps to explain John's disagreement with his friends?

- (A) It, unlike the other photographs of John, showed him in the style of dress he and his friends usually wear rather than the formal clothes he wore at the ceremony.
- (B) It was the only photograph taken of John at his wedding for which the photographer has used a flash.
- (C) It was a black-and-white photograph, whereas the other photographs that showed John were mostly color photographs.
- (D) It was unique in showing John's face reflected in a mirror, the photographer having taken the photograph over John's shoulder.
- (E) It was one of only a few taken at the wedding that showed no one but John.



Questions 8–9

Eva: A “smart highway” system should be installed, one that would monitor areawide traffic patterns and communicate with computers in vehicles or with programmable highway signs to give drivers information about traffic congestion and alternate routes. Such a system, we can infer, would result in improved traffic flow in and around cities that would do more than improve drivers’ tempers; it would decrease the considerable loss of money and productivity that now results from traffic congestion.

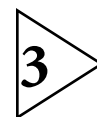
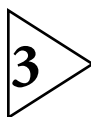
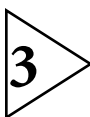
Louis: There are already traffic reports on the radio. Why would a “smart highway” system be any better?

8. Eva’s argument depends on the assumption that
- (A) on “smart highways” there would not be the breakdowns of vehicles that currently cause traffic congestion
 - (B) traffic lights, if coordinated by the system, would assure a free flow of traffic
 - (C) traffic flow in and around cities is not now so congested that significant improvement is impossible
 - (D) the type of equipment used in “smart highway” systems would vary from one city to another
 - (E) older vehicles could not be fitted with equipment to receive signals sent by a “smart highway” system
9. If Eva responded to Luis by saying that the current one-minute radio reports are too short to give a sufficient description of overall patterns of traffic congestion, which one of the following, if true, would most strengthen Luis’s challenge?
- (A) Bad weather, which radio stations report, would cause traffic to slow down whether or not a “smart highway” system was in operation.
 - (B) It would be less costly to have radio stations that give continual, lengthier traffic reports than to install a “smart highway” system.
 - (C) Radio reports can take note of congestion once it occurs, but a “smart highway” system could anticipate and forestall it in many instances.
 - (D) The proposed traffic monitoring would not reduce the privacy of drivers.
 - (E) Toll collection booths, which constitute traffic bottlenecks, would largely be replaced in the “smart highway” system by electronic debiting of commuters’ accounts while traffic proceeded at full speed.

10. The term “sex” and “gender” are often used interchangeably. But “sex” more properly refers to biological differences of male and female, while “gender” refers to society’s construction of a system that identifies what is masculine and feminine. Unlike the set of characteristics defining biological sex, the set of traits that are associated with gender does not sort people into two nonoverlapping groups. The traits characterize people in a complex way, so that a person may have both “masculine” and “feminine” traits.

Which one of the following statements best expresses a main point of the argument?

- (A) Distinctions based on gender are frequently arbitrary.
 - (B) Gender traits are not determined at birth.
 - (C) Masculine gender traits are highly correlated with maleness.
 - (D) The terms “sex” and “gender” are not properly interchangeable.
 - (E) Society rather than the individual decides what is considered proper behavior.
11. Raising the tax rate on essential goods—a traditional means of increasing government revenues—invariably turns low- and middle-income taxpayers against the government. Hence government officials have proposed adding a new tax on purchases of luxury items such as yachts, private planes, jewels, and furs. The officials claim that this tax will result in a substantial increase in government revenues while affecting only the wealthy individuals and corporations who can afford to purchase such items.
- The answer to which one of the following questions would be the most relevant in evaluating the accuracy of the government officials’ prediction?
- (A) Will luxury goods be taxed at a higher rate than that at which essential goods are currently taxed?
 - (B) Will the revenues generated by the proposed tax be comparable to those that are currently being generated by taxes on essential goods?
 - (C) Will sales of the luxury items subject to the proposed tax occur at current rates once the proposed tax on luxury items has been passed?
 - (D) Will the proposed tax on luxury items win support for the government in the eyes of low- and middle-income taxpayers?
 - (E) Will purchases of luxury items by corporations account for more of the revenue generated by the proposed tax than will purchases of luxury items by wealthy individuals?



12. In a study of the relationship between aggression and television viewing in nursery school children, many interesting interactions among family styles, aggression, and television viewing were found. High aggression occurred in both high-viewing and low-viewing children and this seemed to be related to parental lifestyle. High-achieving, competitive, middle-class parents, whose children did not watch much television, had more aggressive children than parents who planned their lives in an organized, child-centered way, which included larger amounts of television viewing.

Which one of the following conclusions is best supported by the passage?

- (A) Low levels of television viewing often lead to high levels of aggression among children.
 - (B) The level of aggression of a child cannot be predicted from levels of television viewing alone.
 - (C) If high-achieving, competitive, parents were more child-centered, their children would be less aggressive.
 - (D) High levels of television viewing can explain high levels of aggression among children only when the parents are not child-centered.
 - (E) Parental lifestyle is less important than the amount of television viewing in determining the aggressiveness of children.
13. One of the effects of lead poisoning is an inflammation of the optic nerve, which causes those who have it to see bright haloes around light sources. In order to produce the striking yellow effects in his "Sunflowers" paintings, Van Gogh used Naples yellow, a pigment containing lead. Since in his later paintings, Van Gogh painted bright haloes around the stars and sun, it is likely that he was suffering from lead poisoning caused by ingesting the pigments he used.

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

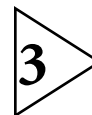
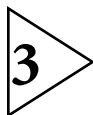
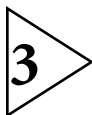
- (A) In Van Gogh's later paintings he painted some things as he saw them.
- (B) Van Gogh continued to use paints containing lead after having painted the "Sunflowers" paintings.
- (C) Van Gogh did not have symptoms of lead poisoning aside from seeing bright haloes around light sources.
- (D) The paints Van Gogh used in the "Sunflowers" paintings had no toxic ingredients other than lead.
- (E) The effects of Naples yellow could not have been achieved using other pigments.

Questions 14–15

Politician: The mandatory jail sentences that became law two years ago for certain crimes have enhanced the integrity of our system of justice, for no longer are there two kinds of justice, the kind dispensed by lenient judges and the kind dispensed by severe ones.

Public advocate: But with judges stripped of discretionary powers, there can be no leniency even where it would be appropriate. So juries now sometimes acquit a given defendant solely because the jurors feel that the mandatory sentence would be too harsh. Those juries, then, do not return an accurate verdict on the defendant's guilt. This is why it is imperative that the legislation instituting mandatory jail sentences be repealed.

14. The public advocate responds to the politician's argument by doing which one of the following?
- (A) trying to show that the politician's conclusion merely paraphrases the politician's evidence
 - (B) claiming that the politician's evidence, properly analyzed, has no bearing on the conclusion the politician derives from it
 - (C) arguing that leniency is not a trait of individuals but that, rather, it is a property of certain kinds of decisions
 - (D) arguing that an analysis of the consequences of certain legislation undermines the politician's conclusion
 - (E) charging that the politician exaggerated the severity of a problem in order to justify a sweeping solution
15. Which one of the following principles, if valid, provides the politician with the strongest basis for countering the public advocates' argument?
- (A) Juries should always consider whether the sum of the evidence leaves any reasonable doubt concerning the defendant's guilt, and in all cases in which it does, they should acquit the defendant.
 - (B) A system of justice should clearly define what the specific actions are that judges are to perform within the system.
 - (C) A system of justice should not require any legal expertise on the part of the people selected to serve on juries.
 - (D) Changes in a system of justice in response to some undesirable feature of the system should be made as soon as possible once that feature has been recognized as undesirable.
 - (E) Changes in a system of justice that produce undesirable consequences should be reversed only if it is not feasible to ameliorate those undesirable consequences through further modification.



16. Researchers studying artificial sweeteners have long claimed that the perception of sweetness is determined by the activation of a single type of receptor on the tongue called a sweetness receptor. They have also claimed that any given individual molecule of substance can activate at most one sweetness receptor and that the fewer molecules that are required to activate a receptor, the sweeter that substance will be perceived to be. Now, the researchers claim to have discovered a substance of which only one molecule is needed to activate any sweetness receptor.

Which one of the following conclusions is most strongly supported by the researchers' claims, if all of those claims are true?

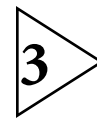
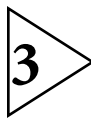
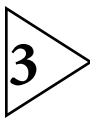
- (A) The more sweetness receptors a person has on his or her tongue, the more likely it is that that person will find sweet sensations pleasurable.
- (B) In sufficient quantity, the molecules of any substance can activate a sweetness receptor.
- (C) No substance will be found that is perceived to be sweeter than the substance the researchers have discovered.
- (D) A substance that does not activate a sweetness receptor will activate a taste receptor of another type.
- (E) The more molecules of a substance that are required to activate a single sweetness receptor, the more bitter that substance will be perceived to be.

17. An editorial in the *Grandburg Daily Herald* claims that Grandburg's voters would generally welcome the defeat of the political party now in control of the Grandburg City Council. The editorial bases its claim on a recent survey that found that 59 percent of Grandburg's registered voters think that the party will definitely be out of power after next year's city council elections.

Which one of the following is a principle that, if established, would provide the strongest justification for the editorial's conclusion?

- (A) The way voters feel about a political party at a given time can reasonably be considered a reliable indicator of the way they will continue to feel about that party, barring unforeseeable political developments.
- (B) The results of surveys that gauge current voter sentiment toward a given political party can legitimately be used as the basis for making claims about the likely future prospects of that political party.
- (C) An increase in ill-feeling toward a political party that is in power can reasonably be expected to result in a corresponding increase in support for rival political parties.
- (D) The proportion of voters who expect a given political possibility to be realized can legitimately be assumed to approximate the proportion of voters who are in favor of that possibility being realized.
- (E) It can reasonably be assumed that registered voters who respond to a survey regarding the outcome of a future election will exercise their right to vote in that election.

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18. Prolonged exposure to nonionizing radiation—electromagnetic radiation at or below the frequency of visible light—increases a person's chances of developing soft-tissue cancer. Electric power lines as well as such electrical appliances as electric blankets and video-display terminals are sources of nonionizing radiation.
- Which one of the following conclusions is best supported by the statements above?
- (A) People will short-term exposure to nonionizing radiation are not at risk of developing soft-tissue cancers.
 - (B) Soft-tissue cancers are more common than other cancers.
 - (C) Soft-tissue cancers are frequently cured spontaneously when sources of nonionizing radiation are removed from the patient's home.
 - (D) Certain electrical devices can pose health risks for their users.
 - (E) Devices producing electromagnetic radiation at frequencies higher than that of visible light do not increase a person's risk of developing soft-tissue cancers.
19. In the first decade following the founding of the British Labour party, the number of people regularly voting for Labour increased fivefold. The number of committed Labour voters increased a further fivefold during the party's second decade. Since the increase was thus the same in the first as in the second decade, the often-made claim that the Labour party gained more voters in the party's second decade than in its first is clearly false.

The reasoning in the argument is flawed because the argument

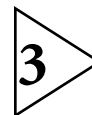
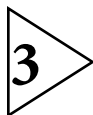
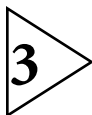
- (A) fails to specify dates necessary to evaluate the truth of the conclusion, even though the argument depends on distinguishing between two time periods
- (B) draws a conclusion that cannot be true if all the data advanced in its support are true
- (C) relies on statistical evidence that, strictly speaking, is irrelevant to establishing the conclusion drawn
- (D) fails to allow for the possibility that the policy positions advocated by the Labour party changed during the period in question
- (E) overlooks the possibility that more elections were held in one of the two decades than were held in the other

Questions 20–21

A number of seriously interested amateur astronomers have tested the new Exodus refractor telescope. With it, they were able to observe in crisp detail planetary features that were seen only as fuzzy images in their 8-inch (approximately 20-centimeter) Newtonian telescopes, even though the 8-inch telescopes, with their wider apertures, gather more light than the 4-inch (approximately 10-centimeter) Exodus. Given these amateur astronomers' observational findings, any serious amateur astronomer ought to choose the Exodus if she or he is buying a telescope for planetary observation.

20. The argument proceeds by
- (A) evaluating the credibility of claims made by a particular group
 - (B) detailing the ways in which a testing situation approximates the conditions of ordinary use
 - (C) placing a phenomenon in a wider context in order to explain it
 - (D) supporting a recommendation to a group on the basis of the experience of a subset of that group
 - (E) distinguishing between the actual reasons why a certain group did a particular thing and the best reasons for doing that thing
21. Which one of the following most seriously weakens the argument?
- (A) Telescopes of certain types will not perform well unless they have been precisely collimated, a delicate adjustment requiring deftness.
 - (B) Image quality is only one of several different factors that, taken together, should determine the choice of a telescope for planetary observation.
 - (C) Many serious amateur astronomers have no intention of buying a telescope for planetary observation.
 - (D) The comparisons made by the amateur astronomers were based on observations made during several different observation sessions.
 - (E) The substance used to make the lenses of Exodus telescopes differs from that used in the lenses of other telescopes.

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22. Anatomical bilateral symmetry is a common trait. It follows, therefore, that it confers survival advantages on organisms. After all, if bilateral symmetry did not confer such advantages, it would not be common.

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

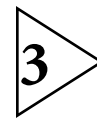
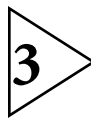
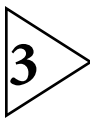
- (A) Since it is Sawyer who is negotiating for the city government, it must be true that the city takes the matter seriously. After all, if Sawyer had not been available, the city would have insisted that the negotiations be deferred.
- (B) Clearly, no candidate is better qualified for the job than Trumbull. In fact, even to suggest that there might be a more highly qualified candidate seems absurd to those who have seen Trumbull at work.
- (C) If Powell lacked superior negotiating skills, she would not have been appointed arbitrator in this case. As everyone knows, she is the appointed arbitrator, so her negotiating skills are, detractors notwithstanding, bound to be superior.
- (D) Since Varga was away on vacation at the time, it must have been Rivers who conducted the secret negotiations. Any other scenario makes little sense, for Rivers never does the negotiating unless Varga is unavailable.
- (E) If Wong is appointed arbitrator, a decision will be reached promptly. Since it would be absurd to appoint anyone other than Wong as arbitrator, a prompt decision can reasonably be expected.

23. Electrical engineers have repeatedly demonstrated that the best solid-state amplifiers are indistinguishable from the best vacuum-tube amplifiers with respect to the characteristics commonly measured in evaluating the quality of an amplifier's musical reproduction. Therefore, those music lovers who insist that recorded music sounds better when played with the best vacuum-tube amplifier than when played with the best solid-state amplifier must be imagining the difference in quality that they claim to hear.

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

- (A) Many people cannot tell from listening to it whether a recording is being played with a very good solid-state amplifier or a very good vacuum-tube amplifier.
- (B) The range of variation with respect to the quality of musical reproduction is greater for vacuum-tube amplifiers than for solid-state amplifiers.
- (C) Some of the characteristics that are important in determining how music sounds to a listener cannot be measured.
- (D) Solid-state amplifiers are more compact, use less power, and generate less heat than vacuum-tube amplifiers that produce a comparable volume of sound.
- (E) Some vacuum-tube amplifiers are clearly superior to some solid-state amplifiers with respect to the characteristics commonly measured in the laboratory to evaluate the quality of an amplifier's musical reproduction.

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24. Explanation must be distinguished from justification. Every human action potentially has an explanation; that is, with sufficient knowledge it would be possible to give an accurate description of the causes of that action. An action is justified only when the person performing the action has sufficient reasons for the action. According to many psychologists, even when there is a justification for an action, that justification often forms no part of the explanation. The general principle, however, is that only an action whose justification, that is, the reasons for the action, forms an essential part of its explanation is rational.

If the statements in the passage are correct, which one of the following can be properly concluded from them?

- (A) When a human action is justified, that action has no explanation.
- (B) If there are any reasons among the causes of an action, then that action is rational.
- (C) Some psychologists believe that the justification for an action never forms an essential part of its explanation.
- (D) There are actions whose causes cannot be discovered.
- (E) If any human actions are rational, then reasons must sometimes be causes of actions.

25. At the company picnic, all of the employees who participated in more than four of the scheduled events, and only those employees, were eligible for the raffle held at the end of the day. Since only a small proportion of the employees were eligible for the raffle, most of the employees must have participated in fewer than four of the scheduled events.

Which one of the following arguments exhibits a flawed pattern of reasoning most like that exhibited by the argument above?

- (A) Only third- and fourth-year students are allowed to keep cars on campus. Since one quarter of the third-year students keep cars on campus and one half of the fourth-year students keep cars on campus, it must be that fewer third-year students than fourth-year students keep cars on campus.
- (B) Only those violin students who attended extra rehearsal sessions were eligible for selection as soloists. Since two of the violin students were selected as soloists, those two must have been the only violin students who attended the extra sessions.
- (C) The only students honored at a special banquet were the band members who made the dean's list last semester. Since most of the band members were honored, most of the band members must have made the dean's list.
- (D) All of the members of the service club who volunteered at the hospital last summer were biology majors. Since ten of the club members are biology majors, those ten members must have volunteered at the hospital last summer.
- (E) All of the swim team members who had decreased their racing times during the season were given awards that no other members were given. Since fewer than half the team members were given such awards, the racing times of more than half the team members must have increased during the season.

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.