

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. The basic ingredients from which cement is made are both cheap and plentiful. Materials as common as limestone and clay will do. Nevertheless, the price of cement is influenced by the price of oil, because turning the basic ingredients into cement in high-temperature kilns uses large amounts of energy.

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

- (A) Oil is one of the basic ingredients that make up cement.
 - (B) Oil is a source of energy for some of the kilns used in the making of cement.
 - (C) The higher the price of cement rises, the higher the price of clay rises.
 - (D) Whenever oil prices rise, cement prices drop.
 - (E) A given amount of cement costs no more than the total cost of its basic ingredients.
2. Many people do not understand themselves, nor do they try to gain self-understanding. These people might try to understand others, but these attempts are sure to fail, because without self-understanding it is impossible to understand others. It is clear from this that anyone who lacks self-understanding will be incapable of understanding others.

The reasoning in the argument is flawed because the argument

- (A) mistakes something that is necessary to bring about a situation for something that in itself is enough to bring about that situation
- (B) fails to take into account the possibility that not everyone wants to gain a thorough understanding of himself or herself
- (C) blames people for something for which they cannot legitimately be held responsible
- (D) makes use of the inherently vague term “self-understanding” without defining that term
- (E) draws a conclusion that simply restates a claim given in support of that conclusion

Questions 3–4

Wife: The work of the artist who painted the portrait of my grandparents 50 years ago has become quite popular lately, so the portrait has recently become valuable. But since these sorts of artistic fads fade rapidly, the practical thing to do would be to sell the portrait while it is still worth something, and thereby enable our daughter to attend the college she has chosen.

Husband: How could you make such a suggestion? That painting is the only thing you own that belonged to your grandparents. I don't think it's a very good painting, but it has great sentimental value. Besides, you owe it to our daughter to keep it in the family as a link to her family's past.

3. Which one of the following principles, if established, does most to justify the husband's reply?
- (A) Gifts offered as sentimental tokens of affection should not be accepted if the recipient intends to sell them later for profit.
 - (B) A beautiful work of art is more valuable than the money it could be sold for, whatever the amount.
 - (C) It is more important for parents to provide their children with tangible links to the family's past than it is to enable them to attend the college of their choice.
 - (D) Children and grandchildren have a duty to preserve family heirlooms only if they have promised their parents or grandparents that they would do so.
 - (E) Providing one's children with an education is more important than providing them with material goods, even if the goods have sentimental value.
4. The husband uses which one of the following argumentative techniques in replying to the wife's suggestion?
- (A) taking issue with the practicality of her suggestion
 - (B) questioning her aesthetic judgment
 - (C) claiming that the reasons she gives are based on emotions rather than on rational considerations
 - (D) asserting that the evidence she cites in support of her suggestion is false
 - (E) invoking a competing obligation that he judges to override her practical considerations

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5. Questions have arisen regarding the accuracy of the reports the university's archaeological museum issues on its sales and acquisitions for the year. To forestall controversy, this year's report is being reviewed by three archaeologists from other universities. Since these archaeologists will be given full access to all documents on which the report is based, they will be able to determine whether it is indeed accurate.

The reasoning in the argument is flawed because the argument

- (A) does not specify whether the reviewers will have access to data about objects that have been in the museum's collection for many years
 - (B) provides no information regarding the size or quality of the archaeological museum's collection
 - (C) omits any mention of whether the museum's collection is on display or is available only to researchers
 - (D) ignores the possibility that there might have been some sales or acquisitions during the past year that were not mentioned in the documents on which the report was based
 - (E) does not describe what will occur if the reviewers discover discrepancies between the report and the documents on which it was based
6. Engineer: Some people argue that the world's energy problems could be solved by mining the Moon for helium-3, which could be used for fuel in fusion reactors. But this is nonsense. Even if it were possible to mine the Moon for helium-3, the technology needed to build viable fusion reactors that could use such fuel is at least 50 years away. If the world's energy problems are not solved before then, it will be too late to solve those problems.

The main point of the argument is that

- (A) mining the Moon for helium-3 is currently not feasible
- (B) fusion reactors that are now being planned are not designed to use helium-3 as fuel
- (C) people who advocate mining the Moon for helium-3 do not realize that fusion reactors could be designed to use fuels other than helium-3
- (D) mining the Moon for helium-3 is not a possible solution to the world's energy problems
- (E) if the world's energy problems are not solved within the next 50 years, it will be too late to solve those problems

Questions 7–8

The fishing industry cannot currently be relied upon to help the government count the seabirds killed by net fishing, since an accurate count might result in restriction of net fishing. The government should therefore institute a program under which tissue samples from the dead birds are examined to determine the amount of toxins in the fish eaten by the birds. The industry would then have a reason to turn in the bird carcasses, since the industry needs to know whether the fish it catches are contaminated with toxins.

7. Which one of the following, if true, most strengthens the argument?
- (A) The seabirds that are killed by net fishing do not eat all of the species of fish caught by the fishing industry.
 - (B) The government has not in the past sought to determine whether fish were contaminated with toxins by examining tissue samples of seabirds.
 - (C) The government cannot gain an accurate count of the number of seabirds killed by net fishing unless the fishing industry cooperates.
 - (D) If the government knew that fish caught by the fishing industry were contaminated by toxins, the government would restrict net fishing.
 - (E) If net fishing were restricted by the government, then the fishing industry would become more inclined to reveal the number of seabirds killed by net fishing.
8. Which one of the following, if true, most strongly indicates that the government program would not by itself provide an accurate count of the seabirds killed by net fishing?
- (A) The seabirds killed by net fishing might be contaminated with several different toxins even if the birds eat only one kind of fish.
 - (B) The fishing industry could learn whether the fish it catches are contaminated with toxins if only a few of the seabirds killed by the nets were examined.
 - (C) The government could gain valuable information about the source of toxins by examining tissue samples of the seabirds caught in the nets.
 - (D) The fish caught in a particular net might be contaminated with the same toxins as those in the seabirds caught in that net.
 - (E) The government would be willing to certify that the fish caught by the industry are not contaminated with toxins if tests done on the seabirds showed no contamination.

9. Some people claim that elected officials must avoid even the appearance of impropriety in office. Yet since actions that give the appearance of impropriety are not necessarily improper, the only reason for an elected official to avoid the appearance of impropriety is to maintain public approval and popularity. No one, however, not even a public official, has an obligation to be popular or to maintain public approval.

The argument is structured so as to lead to which one of the following conclusions?

- (A) No elected official has an obligation to avoid the appearance of impropriety.
 - (B) All elected officials have a vested interest in maintaining a high public approval rating.
 - (C) Elected officials who have been scrupulous in satisfying the obligations of their office should ensure that the public is aware of this fact.
 - (D) The public never approves of an elected official who appears to have behaved improperly in office.
 - (E) Elected officials who abuse the power of their office have an obligation at least to appear to be fulfilling the obligations of their office.
10. Cafeteria patron: The apples sold in this cafeteria are greasy. The cashier told me that the apples are in that condition when they are delivered to the cafeteria and that the cafeteria does not wash the apples it sells. Most fruit is sprayed with dangerous pesticides before it is harvested, and is dangerous until it is washed. Clearly, the cafeteria is selling pesticide-covered fruit, thereby endangering its patrons.

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

- (A) The apples that the cafeteria sells are not thoroughly washed after harvest but before reaching the cafeteria.
- (B) Most pesticides that are sprayed on fruit before harvest leave a greasy residue on the fruit.
- (C) Many of the cafeteria's patrons are unaware that the cafeteria does not wash the apples it sells.
- (D) Only pesticides that leave a greasy residue on fruit can be washed off.
- (E) Fruits other than apples also arrive at the cafeteria in a greasy condition.

11. P: Because an elected official needs the support of a political party to be effective, the independent candidate for the legislature cannot possibly be an effective legislator is she wins.

Q: I disagree. By your reasoning, our current legislator, who has the support of a political party, ought to have been effective, but he has not been.

Which one of the following is the best criticism of Q's statement?

- (A) It simply contradicts P's claim without offering evidence against it.
- (B) It does not consider the possibility that a political party might decide to support an elected legislator even though he or she ran as an independent.
- (C) It fails to prove a precise definition for a key term—the word "effective."
- (D) It presupposes what is to be proved—that a legislator must have the support of a political party in order to be "effective."
- (E) It mistakenly interprets P to be claiming that a factor assures, rather than is necessary for, a legislator's effectiveness.

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Questions 12–13

Public health will improve more quickly in the wake of new medical discoveries if medical researchers abandon their practice of waiting until their findings are published in peer-reviewed journals before informing the press of important research results. This is because the public release of new medical information allows people to use that information in order to improve their health, but the peer-review process is unavoidably very slow.

12. Which one of the following is an assumption on which the argument depends?
- (A) Many medical researchers do not agree to serve as reviewers when their own research is in a critical phase.
 - (B) Reviewers for many medical journals are not themselves medical researchers.
 - (C) People would use new medical information even if it were not first published in peer-reviewed journals.
 - (D) The peer-review process could be speeded up enough to produce a significant improvement in public health.
 - (E) New medical information that is first published in peer-reviewed journals does not usually receive public attention.
13. Which one of the following, if true, most seriously weakens the argument?
- (A) Peer review often prevents the publication of false conclusions drawn on the basis of poorly conducted medical research.
 - (B) People often alter their life-styles on the basis of new medical information made available through the press.
 - (C) Some improvements in public health are due to factors other than the discovery of new medical information.
 - (D) Some newspapers would be willing to publish the results of medical research before those results have appeared in peer-reviewed journals.
 - (E) Most peer-reviewed scientific journals would refuse to give up the practice of peer review.

14. Between 1977 and 1987, the country of Ravonia lost about 12,000 jobs in logging and wood processing, representing a 15 percent decrease in employment in the country's timber industry. Paradoxically, this loss of jobs occurred even as the amount of wood taken from the forests of Ravonia increased by 10 percent.

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

- (A) Not since the 1950's has the timber industry been Ravonia's most important industry economically.
 - (B) Between 1977 and 1987, the total number of acres of timberland in Ravonia fell, while the demand for wood products increased.
 - (C) Since 1977, a growing proportion of the timber that has been cut in Ravonia has been exported as raw, unprocessed wood.
 - (D) Since 1977, domestic sales of wood and wood products have increased by more than export sales have increased.
 - (E) In 1977, overall unemployment in Ravonia was approximately 10 percent; in 1987, Ravonia's unemployment rate was 15 percent.
15. To perform an act that is morally wrong is to offend against humanity, and all offenses against humanity are equally bad. Because murder is morally wrong, it is just as bad to have murdered one person by setting off a bomb as it would have been to have murdered a hundred people by setting off that bomb.
- Which one of the following judgments conforms to the principles invoked above?
- (A) If lying is morally wrong, telling a lie is as bad as murdering someone.
 - (B) Risking one's life to save the lives of a hundred people is morally no better than risking one's life to save one person.
 - (C) If stealing is morally wrong, it is equally important to society to prevent people from stealing as it is to prevent them from committing murder.
 - (D) Accidentally causing the death of a person is just as bad as murdering that person.
 - (E) In a situation in which the life of one person can be saved only by killing another person, killing and not killing are equally bad.

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16. In yesterday's council election a majority of voters supported conservative candidates, and a majority of voters supported candidates who voted in favor of the antipollution act. Therefore, it must be that a majority of voters in yesterday's council election supported conservative candidates who voted in favor of the antipollution act.

Which one of the following is an argument that contains flawed reasoning most similar to the flawed reasoning in the argument above?

- (A) Bill claims that soil can be damaged if it is tilled when it is too wet, and Sue claims that seeds planted in wet soil can rot. Therefore, if both claims are true, gardeners who till and plant their gardens when the soil is wet damage both their soil and their seeds.
- (B) According to Sara, most children like pies. According to Robert, most children like blueberries. So if Sara and Robert are both right, it must be that most children like pies that contain blueberries.
- (C) Mark will go on a picnic today only if it does not rain. Susan will go on a picnic today only if Mark goes too. Since it is not going to rain today, both Mark and Susan will go on a picnic.
- (D) The majority of customers who regularly eat at this restaurant always order both fish and stuffed mushrooms. Thus, fish and stuffed mushrooms must be the restaurant's most frequently ordered dishes.
- (E) Most people living at Gina's house cook well. Since most people at Gina's house enjoy eating well-cooked meals, most meals served at Gina's house are cooked well.

17. Politician: Critics of the wetlands-protection bill are delaying passage of this important legislation merely on the grounds that they disagree with its new, more restrictive definition of the term "wetlands." But this bill will place stricter limits on the development of wetlands than the existing regulations do. Therefore, in quibbling over semantics, critics of this bill show that they care little about what really happens to our wetlands.

The politician's reply to the opponents of the wetlands-protection bill is most vulnerable to which one of the following criticisms?

- (A) It falsely identifies the motives of those who have criticized the wetlands-protection bill with the motives of all those who are opposed to conservation.
- (B) It does not adequately recognize the possibility that the definition of the word "wetlands" determines the impact of the legislation.
- (C) It assumes without justification that those who criticized the wetlands-protection bill stand to profit if the bill is defeated.
- (D) It fails to provide a defense for a less restrictive definition of "wetlands."
- (E) It attempts to defend the credibility of the author of the bill rather than defending the bill itself.

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Questions 18–19

Dillworth: More and more people are deciding not to have children because of the personal and economic sacrifices children require and because so often children are ungrateful for the considerable sacrifices their parents do make for them. However, such considerations have no bearing on the fact that their children provide the best chance most people have of ensuring that their values live on after them. Therefore, for anyone with deeply held values, foregoing parenthood out of reluctance to make sacrifices for which little gratitude can be expected would probably be a mistake.

Travers: Your reasoning ignores another fact that deserves consideration: children's ingratitude for parental sacrifices usually stems from a wholesale rejection of parental values.

18. Dillworth employs which one of the following argumentative strategies?
- (A) showing that considerations cited as drawbacks to a given course of action are not really drawbacks at all
 - (B) exposing as morally suspect the motives of people who would make the choice that Dillworth rejects
 - (C) indirectly establishing that a given course of action is obligatory by arguing that the alternative course of action is prohibited
 - (D) distinguishing a category of person for whom the reason presented in favor of a given course of action is more telling than the reasons cited against that course of action
 - (E) using evidence that a certain course of action would be appropriate under one set of conditions to arrive at a general conclusion about what would be appropriate in all cases
19. The point of Travers' rejoinder to Dillworth's argument is that
- (A) Dillworth's assumption that children acquire values only from their parents is mistaken
 - (B) it is a mistake to dismiss as irrelevant the personal and economic sacrifices people are called on to make for the sake of their children
 - (C) Dillworth has overlooked the well-known fact that people with deeply held values not infrequently reject opposing values that are deeply held by others
 - (D) the desire to perpetuate their values should not be a factor in people's decision to have children
 - (E) the fact that children are often ungrateful for parental sacrifices is not irrelevant to deciding whether to have children in order to perpetuate one's values

20. Until about 400 million years ago, fishes—the first true swimmers—were jawless. Their feeding methods were limited to either sucking in surface plankton or sucking in food particles from bottom mud. With the development of biting jaws, however, the life of fishes changed dramatically, since jaws allowed them actively to pursue prey, to seize it in their jaws, and to manipulate it between their teeth. The jawed fishes then developed along two main lines: one retained cartilage for its skeletons, for example, sharks and rays; the other adopted bone as its principal skeletal material. From the latter group evolved the most abundant and diverse of all of today's vertebrate groups, the "teleosts," some 21,000 species, which vary from barracudas to sea horses.

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

- (A) Fish are the primary prey of all jawed fishes.
 - (B) The jawless fishes did not prey upon other fish.
 - (C) Teleosts do not feed upon particles found in bottom mud.
 - (D) Jawless fishes did not have cartilage as their skeletal material.
 - (E) Jawless fishes became extinct approximately 400 million years ago.
21. Nuclear reactors are sometimes built in "geologically quiet" regions, so called by geologists because such regions are distant from plate boundaries and contain only minor faults. Since no minor fault in a geologically quiet region produces an earthquake more often than once in any given 100,000-year period, it follows that of all potential nuclear reactor sites in such a region, those that are least likely to be struck by an earthquake are ones located near a fault that has produced an earthquake within living memory.

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

- (A) Geologically quiet regions are the least dangerous regions in which to build nuclear reactors.
- (B) For any potential nuclear reactor site, the likelihood of being struck by an earthquake is the primary determinant of site safety.
- (C) In a geologically quiet region, every potential nuclear reactor site is near at least one minor fault.
- (D) Nuclear reactors that are located in geologically quiet regions are built to withstand at least one but not necessarily more than one earthquake of minor to moderate force.
- (E) Earthquake faults in geologically quiet regions produce earthquakes at least once in 100,000 years.

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Questions 22–23

Magazine editor: I know that some of our regular advertisers have been pressuring us to give favorable mention to their products in our articles, but they should realize that for us to yield to their wishes would actually be against their interests. To remain an effective advertising vehicle we must have loyal readership, and we would soon lose that readership if our readers suspect that our editorial integrity has been compromised by pandering to advertisers.

Advertising-sales director: You underestimate the sophistication of our readers. They recognize that the advertisements we carry are not articles, so their response to the advertisements has never depended on their opinion of the editorial integrity of the magazine as a whole.

22. Which one of the following is the most accurate assessment of the advertising-sales director's argument as a response to the magazine editor's argument?
- (A) It succeeds because it shows that the editor's argument depends on an unwarranted assumption about factors affecting an advertisement's effectiveness.
 - (B) It succeeds because it exposes as mistaken the editor's estimation of the sophistication of the magazine's readers.
 - (C) It succeeds because it undermines the editor's claim about how the magazine's editorial integrity would be affected by allowing advertisers to influence articles.
 - (D) It fails because the editor's argument does not depend on any assumption about readers' response to the advertisements they see in the magazine.
 - (E) It fails because it is based on a misunderstanding of the editor's view about how readers respond to advertisements they see in the magazine.
23. The magazine editor's argument assumes which one of the following?
- (A) A magazine editor should never be influenced in the performance of his or her professional duties by the wishes of the companies that regularly advertise in the magazine.
 - (B) The magazine cannot give any favorable mention in its articles to its regular advertisers without compromising its reputation for editorial integrity.
 - (C) Favorable mention of their products in the magazine's articles is of less value to the advertisers than is the continued effectiveness of the magazine as an advertising vehicle.
 - (D) Giving favorable mention to a product in a magazine article is a more effective form of advertisement than is an explicit advertisement for the product in the same magazine.
 - (E) Carrying paid advertisements can never pose any threat to the magazine's reputation for editorial integrity nor to the loyalty of its readership.

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24. Public policy dictates the health risks the public routinely takes. Statistical arguments about health risks are used primarily to deflect public fears, while contributing little to policy debate. For example, statistics are cited to imply that wearing a seat belt reduces one's risk of death in an automobile accident, deflecting attention from the fact that a transportation policy that promotes increasing use of automobiles inherently increases any individual's risk of death in an automobile accident.

The way the example functions above is most closely paralleled in which one of the following?

- (A) Statistics indicate that an individual's risk of contracting cancer from radiation emitted by a nuclear power plant is less than that of contracting cancer from sunshine. These statistics draw attention away from the fact that a policy of energy conservation is safer for human health than a policy based on nuclear energy.
- (B) Statistics indicate that an urban resident's risk of accidental death from any cause is no greater than that of an individual who lives in a suburban or rural area. These statistics counter the widely held public belief that urban areas are more dangerous than suburban or rural areas.
- (C) Statistics indicate that the average life expectancy of males is shorter than that of females. This alone should not influence policies regarding eligibility for life insurance because it is also true that any individual's expectancy can be calculated on the basis of personal characteristics and health practices.
- (D) Statistics indicate that the average life expectancy of males is shorter than that of females. When one accounts for the fact that females smoke less and are less likely to work in jobs in the chemical and manufacturing industries, the difference in life expectancy is narrowed.
- (E) Statistics indicate that the number of people dependent on alcohol far exceeds the number dependent on illegal addictive drugs; thus, any policy for the control and treatment of substance abuse should provide for treatment of alcoholism.

25. S: It would be premature to act to halt the threatened "global warming trend," since that alleged trend might not be real. After all, scientists disagree about it, some predicting over twice as much warming as others, so clearly their predictions cannot be based on firm evidence.
- W: Most scientists consider discussions of accepted ideas boring, and prefer to argue about what is not known. According to the International Science Council, there is a consensus among reputable investigators that average global warming in the next century will be from 1.5° to 4.5°C.

W's rejoinder proceeds by

- (A) denying the existence of the disagreements cited by S
- (B) accepting S's conclusion while disputing the reasons offered for it
- (C) relying on authorities whose views conflict with the views of the authorities cited by S
- (D) putting disagreements cited by S in perspective by emphasizing similarities
- (E) reasoning in a circle by accepting evidence only if it agrees with a desired conclusion

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.