

SECTION I

Time—35 minutes

25 Questions

Directions: The questions in this section are based on the reasoning contained in brief statements or passages. For some questions, more than one of the choices could conceivably answer the question. However, you are to choose the best answer; that is, the response that most accurately and completely answers the question. You should not make assumptions that are by commonsense standards implausible, superfluous, or incompatible with the passage. After you have chosen the best answer, blacken the corresponding space on your answer sheet.

1. Marmosets are the only primates other than humans known to display a preference for using one hand rather than the other. Significantly more marmosets are left-handed than are right-handed. Since infant marmosets engage in much imitative behavior, researchers hypothesize that it is by imitation that infant marmosets learn which hand to use, so that offspring reared by left-handed parents generally share their parents' handedness.

Which one of the following, if true, most supports the researchers' hypothesis?

- (A) A study conducted on adult marmosets revealed that many were right-handed.
- (B) Right-handed marmosets virtually all have at least one sibling who is left-handed.
- (C) According to the study, 33 percent of marmosets are ambidextrous, showing equal facility using either their left hand or their right hand.
- (D) Ninety percent of humans are right-handed, but those who are left-handed are likely to have at least one left-handed parent.
- (E) Marmosets raised in captivity with right-handed adult marmosets to whom they are not related are more likely to be right-handed than left-handed.

2. Sheila: It has been argued that using computer technology to add color to a movie originally filmed in black and white damages the integrity of the original film. But no one argues that we should not base a movie on a novel or a short story because doing so would erode the value of the book or story. The film adaptation of the written work is a new work that stands on its own. Judgments of it do not reflect on the original. Similarly, the colorized film is a new work distinct from the original and should be judged on its own merit. It does not damage the integrity of the original black-and-white film.

Sheila's argument uses which one of the following techniques of argumentation?

- (A) It appeals to an analogy between similar cases.
- (B) It offers a counterexample to a general principle.
- (C) It appeals to popular opinion on the matter at issue.
- (D) It distinguishes facts from value judgments.
- (E) It draws an inference from a general principle and a set of facts.

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Questions 3–4

Juan: Unlike the ancient Olympic games on which they are based, the modern Olympics include professional as well as amateur athletes. But since amateurs rarely have the financial or material resources available to professionals, it is unlikely that the amateurs will ever offer a serious challenge to professionals in those Olympic events in which amateurs compete against professionals. Hence, the presence of professional athletes violates the spirit of fairness essential to the games.

Michiko: But the idea of the modern Olympics is to showcase the world's finest athletes, regardless of their backgrounds or resources. Hence, professionals should be allowed to compete.

3. Which one of the following most accurately expresses the point at issue between Juan and Michiko?
 - (A) whether the participation of both amateur and professional athletes is in accord with the ideals of the modern Olympics
 - (B) whether both amateur and professional athletes competed in the ancient Olympic games upon which the modern Olympics are based
 - (C) whether the athletes who compete in the modern Olympics are the world's finest
 - (D) whether any amateur athletes have the financial or material resources that are available to professional athletes
 - (E) whether governments sponsor professional as well as amateur athletes in the modern Olympics
4. Which one of the following, if true, most seriously undermines Juan's argument?
 - (A) In general, amateur athletes tend to outnumber professional athletes in the modern Olympics.
 - (B) In certain events in the modern Olympics the best few competitors are amateurs; in certain other events the best few competitors are professionals.
 - (C) The concept of "amateur" and "professional" athletics would have been unfamiliar to the ancient Greeks on whose games the modern Olympics are based.
 - (D) In the modern Olympics there has been no noticeable correlation between the financial or material resources expended on the training of individual athletes and the eventual performance of those athletes.
 - (E) Many amateur athletes who take part in international competitions receive no financial or material support from the governments of the countries that the amateurs represent.

Questions 5–6

A recent national study of the trash discarded in several representative areas confirmed that plastics constitute a smaller proportion of all trash than paper products do, whether the trash is measured by weight or by volume. The damage that a given weight or volume of trash does to the environment is roughly the same whether the trash consists of plastics or paper products. Contrary to popular opinion, therefore, the current use of plastics actually does less harm to the environment nationwide than that of paper products.

5. The main conclusion of the argument is that
 - (A) plastics constitute a smaller proportion of the nation's total trash than do paper products
 - (B) the ratio of weight to volume is the same for plastic trash as it is for paper trash
 - (C) popular opinion regards the use of paper products as less harmful to the environment than the use of products made from plastic
 - (D) contrary to popular opinion, a shift away from the use of paper products to the use of plastics would benefit the environment nationwide
 - (E) at this time more harm is being done to the environment nationwide by the use of paper than by the use of plastics
6. Which one of the following, if true, most strengthens the argument?
 - (A) A given weight of paper product may increase in volume after manufacture and before being discarded as trash.
 - (B) According to popular opinion, volume is a more important consideration than weight in predicting the impact of a given quantity of trash on the environment.
 - (C) The sum of damage caused to the environment by paper trash and by plastic trash is greater than that caused by any other sort of trash that was studied.
 - (D) The production of any paper product is more harmful to the environment than is the production of an equal weight or volume of any plastic.
 - (E) The proportion of plastic trash to paper trash varies from one part of the country to another.

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7. Consultant: Most workers do not have every item they produce judged for quality, but each piece a freelance writer authors is evaluated. That is why freelance writers produce such high-quality work.

The consultant's statements, if true, most strongly support which one of the following?

- (A) A piece authored by a freelance writer is generally evaluated more strictly than the majority of items most workers produce.
 - (B) By having every piece of their work evaluated, some workers are caused to produce high-quality work.
 - (C) No other workers produce higher quality work than do freelance writers.
 - (D) Only freelance writers have every item they produce evaluated for quality.
 - (E) Some workers produce high-quality work in spite of the fact that not every item they produce is judged for quality.
8. Few animals brave the midday heat of the Sahara desert. An exception is the silver ant, which chooses this time of day to leave its nest and scout for food, typically the corpses of heat-stricken animals. Even the silver ant, however, must be careful: at such times they can become victims of the heat themselves.

Which one of the following, if true, LEAST helps to explain the silver ant's choice of scavenging times?

- (A) The chief predators of the silver ant must take cover from the sun during midday.
- (B) The cues that silver ants use to navigate become less reliable as the afternoon progresses.
- (C) Other scavengers remove any remaining corpses as soon as the temperature begins to drop in the afternoon.
- (D) The temperature inside the silver ants' nests often exceeds the surface temperature during the hottest times of the day.
- (E) Silver ants cool themselves by climbing onto small pieces of dried vegetation to take advantage of random light breezes.

9. The same task triggers different levels of awareness of one's surroundings, called environmental awareness, in different individuals. Mathematical puzzles, for example, cause most people to increase such an awareness. Some people—those who formulate the answer visually, imagining the numbers in their mind's eye—will, in an attempt to freeze the picture, experience a decrease in environmental awareness while solving the puzzle. Other people's environmental awareness may rise during the exercise, because their brains are signaling a rest at the end of every stage of problem solving.

Which one of the following is most strongly supported by the information above?

- (A) There are some people for whom mathematical puzzles do not cause an increase in their level of environmental awareness.
 - (B) People who visually formulate answers differ from other problem solvers in that the former are aware of their surroundings.
 - (C) People tend to be more aware of their surroundings when solving mathematical problems than when solving nonmathematical problems.
 - (D) Mathematical problem solvers who rely on visual techniques become aware of their surroundings only during periods of rest.
 - (E) Mathematical problem solving requires frequent periods of rest in the form of increased awareness of the problem solver's surroundings.
10. Art historian: Great works of art have often elicited outrage when first presented; in Europe, Stravinsky's *Rite of Spring* prompted a riot, and Manet's *Déjeuner sur l'herbe* elicited outrage and derision. So, since it is clear that art is often shocking, we should not hesitate to use public funds to support works of art that many people find shocking.

Which one of the following is an assumption that the art historian's argument requires in order for its conclusion to be properly drawn?

- (A) Most art is shocking.
- (B) Stravinsky and Manet received public funding for their art.
- (C) Art used to be more shocking than it currently is.
- (D) Public funds should support art.
- (E) Anything that shocks is art.

11. Researchers have discovered that caffeine can be as physically addictive as other psychoactive substances. Some people find that they become unusually depressed, drowsy, or even irritable if they do not have their customary dose of caffeine. This is significant because as many people consume caffeine as consume any one of the other addictive psychoactive substances.

Which one of the following can be logically concluded from the information above?

- (A) There is no psychoactive substance to which more people are physically addicted than are addicted to caffeine.
 - (B) A physical addiction to a particular psychoactive substance will typically give rise to diverse psychological symptoms.
 - (C) Not all substances to which people can become physically addicted are psychoactive.
 - (D) If one is physically addicted to a psychoactive substance, one will become unusually depressed when one is no longer ingesting that substance.
 - (E) If alcohol is a physically addictive psychoactive substance, there are not more people who consume alcohol than consume caffeine.
12. A nationwide poll of students, parents, and teachers showed that over 90 percent believe that an appropriate percentage of their school's budget is being spent on student counseling programs. It seems, then, that any significant increase in a school's budget should be spent on something other than student counseling programs.

Which one of the following describes a flaw in the reasoning of the argument above?

- (A) The argument confuses a mere coincidence with a causal relationship.
- (B) The argument confuses the percentage of the budget spent on a program with the overall amount spent on that program.
- (C) The argument fails to justify its presumption that what is true of a part of the budget is also true of the total budget.
- (D) The argument fails to consider the possibility that money could be saved by training students as peer counselors.
- (E) The argument fails to consider that if more money is spent on a program, then more money cannot also be used for other purposes.

13. Ethicist: Studies have documented the capacity of placebos to reduce pain in patients who believe that they are receiving beneficial drugs. Some doctors say that they administer placebos because medically effective treatment reinforced by the placebo effect sometimes helps patients recover faster than good treatment alone. But administering placebos is nonetheless ethically questionable, for even if a placebo benefits a patient, a doctor might, for example, have prescribed it just to give the patient satisfaction that something was being done.

The ethicist's argument depends on which one of the following assumptions?

- (A) A patient's psychological satisfaction is not a consideration in administering medical treatment.
- (B) The motivation for administering a placebo can be relevant to the ethical justification for doing so.
- (C) Medical treatment that relies on the placebo effect alone is ethically indefensible.
- (D) The pain relief produced by the placebo effect justifies the deception involved in administering a placebo.
- (E) Administering a placebo is not ethically justified if that treatment is not prescribed by a doctor.

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14. After the United Nations Security Council authorized military intervention by a coalition of armed forces intended to halt civil strife in a certain country, the parliament of one UN member nation passed a resolution condemning its own prime minister for promising to commit military personnel to the action. A parliamentary leader insisted that the overwhelming vote for the resolution did not imply the parliament's opposition to the anticipated intervention; on the contrary, most members of parliament supported the UN plan.

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

- (A) The UN Security Council cannot legally commit the military of a member nation to armed intervention in other countries.
 - (B) In the parliamentary leader's nation, it is the constitutional prerogative of the parliament, not of the prime minister, to initiate foreign military action.
 - (C) The parliament would be responsible for providing the funding necessary in order to contribute military personnel to the UN intervention.
 - (D) The public would not support the military action unless it was known that the parliament supported the action.
 - (E) Members of the parliament traditionally are more closely attuned to public sentiment, especially with regard to military action, than are prime ministers.
15. People who are good at playing the game Drackedary are invariably skilled with their hands. Mary is a very competent watchmaker. Therefore, Mary would make a good Drackedary player.

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

- (A) People with long legs make good runners. Everyone in Daryl's family has long legs. Therefore, Daryl would make a good runner.
- (B) People who write for a living invariably enjoy reading. Julie has been a published novelist for many years. Therefore, Julie enjoys reading.
- (C) All race car drivers have good reflexes. Chris is a champion table tennis player. Therefore, Chris would make a good race car driver.
- (D) The role of Santa Claus in a shopping mall is often played by an experienced actor. Erwin has played Santa Claus in shopping malls for years. Therefore, Erwin must be an experienced actor.
- (E) Any good skier can learn to ice-skate eventually. Erica is a world-class skier. Therefore, Erica could learn to ice-skate in a day or two.

16. Notice to subscribers: In order for us to provide you with efficient and reliable newspaper service, please note the following policies. You will be billed for home delivery every four weeks, in advance. If you do not receive delivery, call us promptly to receive a replacement copy. Credit can be given only if the missed copy is reported to us within twenty-four hours and only if a replacement copy is unavailable. Request for temporary nondelivery must be made at least three days prior to the first day on which delivery is to stop. No subscription will be canceled unless the subscriber explicitly requests the cancellation beforehand and in writing.

The Daily Gazette

If *The Daily Gazette* denies each of the following subscriber's requests, each of the denials could be justified solely on the basis of the policy stated above EXCEPT:

- (A) Mr. Rathanan did not send in his advance payment two weeks ago; he states that his inaction was intended as cancellation and requests that he not be charged for the past two weeks of delivery of *The Daily Gazette*.
- (B) Dr. Broder called *The Daily Gazette* Monday morning to report that her Sunday edition had not been delivered; she requests credit instead of the offered replacement copy.
- (C) *The Daily Gazette* was delivered to Ms. Herrera during her one-week vacation even though she called on a Wednesday to stop delivery the following Monday for the entire week; she requests credit for the full week's delivery.
- (D) Although Ms. Jackson telephoned *The Daily Gazette* at the beginning of June requesting that her subscription be canceled on June 30, delivery was continued until July 3 when she called to complain; she requests that she not be charged for the papers delivered in July.
- (E) Ms. Silverman was out of town on Sunday and Monday and when she returned on Tuesday she found that her Sunday edition had not been delivered; she called *The Daily Gazette* on Tuesday afternoon requesting credit for the undelivered copy.

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17. Expert witness: Ten times, and in controlled circumstances, a single drop of the defendant's blood was allowed to fall onto the fabric. And in all ten cases, the stained area was much less than the expected 9.5 cm^2 . In fact, the stained area was always between 4.5 and 4.8 cm^2 . I conclude that a single drop of the defendant's blood stains much less than 9.5 cm^2 of the fabric.

Which one of the following, if true, most undermines the value of the evidence for the expert witness's conclusion?

- (A) If similar results had been found after 100 test drops of the defendant's blood, the evidence would be even stronger.
 - (B) Expert witnesses have sometimes been known to fudge their data to accord with the prosecution's case.
 - (C) In an eleventh test drop of the defendant's blood, the area stained was also less than 9.5 cm^2 —this time staining 9.3 cm^2 .
 - (D) Another person's blood was substituted, and in otherwise identical circumstances, stained between 9.8 and 10.6 cm^2 of the fabric.
 - (E) Not all expert witnesses are the authorities in their fields that they claim to be.
18. The use of space-based satellites to study environmental conditions on Earth is an important development in the conservation movement's history. Environmental problems may now be observed long before they otherwise would be noticed, allowing for intervention before they reach the crisis stage. It is no wonder that environmentalists fail to consider both that spacecraft may damage the ozone layer and that this damage could be serious enough to warrant discontinuing spaceflight.

The reasoning above most closely conforms to which one of the following principles?

- (A) People tend to ignore possible objectionable consequences of actions that support their activities.
- (B) A negative consequence of an activity may be outweighed by its great positive consequences.
- (C) Technology usually has at least some negative impact on the environment, even if it is largely beneficial.
- (D) Even well-intentioned attempts to solve problems sometimes make them worse.
- (E) Attempts to employ technology often have unforeseen consequences that may be negative.

19. Historian: The spread of literacy informs more people of injustices and, in the right circumstances, leads to increased capacity to distinguish true reformers from mere opportunists. However, widespread literacy invariably emerges before any comprehensive system of general education; thus, in the interim, the populace is vulnerable to clever demagogues calling for change. Consequently, some relatively benign regimes may ironically be toppled by their own "enlightened" move to increase literacy.

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

- (A) A demagogue can never enlist the public support necessary to topple an existing regime unless a comprehensive system of general education is in place.
 - (B) Without literacy there can be no general awareness of the injustice in a society.
 - (C) Any comprehensive system of general education will tend to preserve the authority of benign regimes.
 - (D) A lack of general education affects the ability to differentiate between legitimate and illegitimate calls for reform.
 - (E) Any benign regime that fails to provide comprehensive general education will be toppled by a clever demagogue.
20. Recently discovered prehistoric rock paintings on small islands off the northern coast of Norway have archaeologists puzzled. The predominant theory about northern cave paintings was that they were largely a description of the current diets of the painters. This theory cannot be right, because the painters must have needed to eat the sea animals populating the waters north of Norway if they were to make the long journey to and from the islands, and there are no paintings that unambiguously depict such creatures.
- Each of the following, if true, weakens the argument against the predominant theory about northern cave paintings EXCEPT:
- (A) Once on these islands, the cave painters hunted and ate land animals.
 - (B) Parts of the cave paintings on the islands did not survive the centuries.
 - (C) The cave paintings that were discovered on the islands depicted many land animals.
 - (D) Those who did the cave paintings that were discovered on the islands had unusually advanced techniques of preserving meats.
 - (E) The cave paintings on the islands were done by the original inhabitants of the islands who ate the meat of land animals.

21. Attacks on an opponent's character should be avoided in political debates. Such attacks do not confront the opponent's argument; instead they attempt to cast doubt on the opponent's moral right to be in the debate at all.

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

- (A) Attacks on an opponent's character result from an inability to confront the opponent's argument properly.
 - (B) Attacks on an opponent's character should not impress those watching a political debate.
 - (C) Debating techniques that do not confront every argument should be avoided.
 - (D) Attacking the character of one's opponent does nothing to preserve one's moral right to enter into further political debates.
 - (E) Questions of character should be raised in political debate if they are relevant to the opponent's argument.
22. Lawyer: Did Congleton assign the best available graphic artist to the project?
Witness: Yes.
Lawyer: And the best writer?
Witness: Yes.
Lawyer: In fact everyone she assigned to work on the project was top notch?
Witness: That's true.
Lawyer: So, you lied to the court when you said, earlier, that Congleton wanted the project to fail?
- Each of the following accurately describes a flaw in the lawyer's reasoning displayed above EXCEPT:
- (A) It takes for granted that Congleton was not forced to assign the people she did to the project.
 - (B) It takes for granted that the project could fail only if Congleton wanted it to fail.
 - (C) It ignores the possibility that Congleton knew that the people assigned to the project would not work well together.
 - (D) It ignores the possibility that the witness failed to infer from known facts what should have been inferred and therefore was not lying.
 - (E) It ignores the possibility that Congleton failed to allot enough time or resources to the project team.

23. An air traveler in Beijing cannot fly to Lhasa without first flying to Chengdu. Unfortunately, an air traveler in Beijing must fly to Xian before flying to Chengdu. Any air traveler who flies from Beijing to Lhasa, therefore, cannot avoid flying to Xian.

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

- (A) A doctor cannot prescribe porozine for a patient without first prescribing anthroxine for that patient. Unfortunately, anthroxine makes most patients who take it feel either extremely drowsy or else extremely nervous. It is likely, therefore, that a patient who has taken porozine has felt extremely nervous.
- (B) An ice-sculpture artist cannot reach the yellow level of achievement without first achieving the green level. The green level is impossible to achieve unless the white level has already been achieved. Therefore, an ice-sculpture artist who has reached the yellow level must have previously achieved the white level.
- (C) One cannot properly identify a mushroom without first examining its spores. A powerful microscope can be used to examine the spores of a mushroom. A powerful microscope, therefore, is necessary for anyone wishing to identify mushrooms properly.
- (D) It is impossible to be fluent in a language without knowing its grammatical rules. A person who knows the grammatical rules of a language has learned them by means of exhaustive and difficult study or else by growing up in an environment in which the language is spoken. There are two major ways, therefore, for a person to become fluent in a language.
- (E) In the City Ballet Company any dancer who has danced in *Giselle* has also danced in *Sleeping Beauty*, and some dancers who have danced in *Sleeping Beauty* have also danced in *Swan Lake*. Therefore, some dancers in the City Ballet Company who have danced in *Giselle* have also danced in *Swan Lake*.

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24. Supervisor: Our next budget proposal will probably be approved, because normally about half of all budget proposals that the vice president considers are approved, and our last five budget proposals have all been turned down.

The supervisor's reasoning is flawed because it presumes, without giving warrant, that

- (A) the last five budget proposals' having been turned down guarantees that the next five budget proposals will be approved
- (B) the vice president is required to approve at least half of all budget proposals submitted
- (C) having the last five budget proposals turned down affects the likelihood that the next budget proposal will be turned down
- (D) the majority of the last five budget proposals deserved to be turned down
- (E) the likelihood that a budget proposal will be approved is influenced by the amount of money that budget proposal requests

25. The number of airplanes equipped with a new anticollision device has increased steadily during the past two years. During the same period, it has become increasingly common for key information about an airplane's altitude and speed to disappear suddenly from air traffic controllers' screens. The new anticollision device, which operates at the same frequency as air traffic radar, is therefore responsible for the sudden disappearance of key information.

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

- (A) The new anticollision device has already prevented a considerable number of mid-air collisions.
- (B) It was not until the new anticollision device was introduced that key information first began disappearing suddenly from controllers' screens.
- (C) The new anticollision device is scheduled to be moved to a different frequency within the next two to three months.
- (D) Key information began disappearing from controllers' screens three months before the new anticollision device was first tested.
- (E) The sudden disappearance of key information from controllers' screens has occurred only at relatively large airports.

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.