

SECTION II

Time—35 minutes

24 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. Walter: Although cigarette smoking is legal, it should be banned on all airline flights. Cigarette smoking in the confines of an aircraft exposes nonsmokers to harmful secondhand smoke that they cannot avoid.

Which one of the following principles, if established, would justify the proposal put forth by Walter?

- (A) People should be prohibited from engaging in an otherwise legal activity in those situations in which that activity would unavoidably expose others to harm.
- (B) An activity should be banned only if most situations in which a person engages in that activity would inevitably expose others to harm.
- (C) A legal activity that has the potential for causing harm to others in certain situations should be modified in those situations to render it harmless.
- (D) People who regularly engage in an activity that has the potential for harming others when that activity takes place in certain situations should be excluded from those situations.
- (E) If an activity is legal in some situations in which a person's engaging in that activity could harm others, then that activity should be legal in all situations.

2. Physicist: The claim that low-temperature nuclear fusion can be achieved entirely by chemical means is based on chemical experiments in which the measurements and calculations are inaccurate.

Chemist: But your challenge is ineffectual, since you are simply jealous at the thought that chemists might have solved a problem that physicists have been unable to solve.

Which one of the following is the strongest criticism of the chemist's response to the physicist's challenge?

- (A) It restates a claim in different words instead of offering evidence for this claim.
- (B) It fails to establish that perfect accuracy of measurements and calculations is possible.
- (C) It confuses two different meanings of the word "solve."
- (D) It is directed against the proponent of a claim rather than against the claim itself.
- (E) It rests on a contradiction.

3. A certain strain of bacteria was found in the stomachs of ulcer patients. A medical researcher with no history of ulcers inadvertently ingested some of the bacteria and within weeks developed an ulcer. Therefore, it is highly likely that the bacteria strain induces ulcers.

Which one of the following, if true, most supports the argument above?

- (A) People who have the bacteria strain in their stomachs have been found to have no greater incidence of kidney disease than do people who lack the bacteria strain.
- (B) The researcher did not develop any other serious health problems within a year after ingesting the bacteria strain.
- (C) There is no evidence that the bacteria strain induces ulcers in laboratory animals.
- (D) The researcher is a recognized expert in the treatment of diseases of the stomach.
- (E) A study of 2,000 people who do not have ulcers found that none of these people had the bacteria strain in their stomachs.

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4. A recent study monitored the blood pressure of people petting domestic animals in the laboratory. The blood pressure of some of these people lowered while petting the animals. Therefore, for any one of the people so affected, owning a pet would result in that person having a lower average blood pressure.

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

- (A) Because a single dose of a drug acts as a remedy for a particular ailment, a healthy person can ward off that ailment by taking single doses regularly.
- (B) Because buying an automobile is very expensive, people should hold on to an automobile, once bought, for as long as it can be maintained in running condition.
- (C) Since pruning houseplants is enjoyable for some people, those people should get rid of houseplants that do not require frequent pruning.
- (D) Since riding in a boat for a few minutes is relaxing for some people, those people would be more relaxed generally if those people owned boats.
- (E) Since giving a fence one coat of white paint makes the fence white, giving it two coats of white paint would make it even whiter.

5. Of the five bill collectors at Apex Collection Agency, Mr. Young has the highest rate of unsuccessful collections. Yet Mr. Young is the best bill collector on the agency's staff.

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

- (A) Mr. Young is assigned the majority of the most difficult cases at the agency.
- (B) The other four bill collectors at the agency all consider Mr. Young to be a very capable bill collector.
- (C) Mr. Young's rate of collections per year has remained fairly steady in the last few years.
- (D) Before joining the agency, Mr. Young was affiliated with the credit department of a large department store.
- (E) None of the bill collectors at the agency has been on the agency's staff longer than Mr. Young has.

6. A primate jawbone found in Namibia in southern Africa has been identified by anthropologists as that of an ape that lived between 10 million and 15 million years ago. Researchers generally agree that such ancient primates lived only in dense forests. Consequently, the dry, treeless expanses now dominating the landscape in and around Namibia must have replaced an earlier, heavily forested terrain.

The argument assumes which one of the following?

- (A) Modern apes also tend to live only in heavily forested terrain.
- (B) The ape whose jawbone was found lived in or near the area that is now Namibia.
- (C) There were no apes living in the area that is now Namibia prior to 15 million years ago.
- (D) The ape whose jawbone was found was adapted to a diet that was significantly different from that of any modern ape.
- (E) The ancient primates were numerous enough to have caused severe damage to the ecology of the forests in which they lived.

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7. Workers may complain about many things at work, but stress is not high on the list. In fact, in a recent survey a majority placed boredom at the top of their list of complaints. The assumption that job-related stress is the most serious problem for workers in the corporate world is thus simply not warranted.

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

- (A) Those workers who are responsible for the planning and supervision of long-term projects are less likely to complain of either boredom or stress.
 - (B) Workers who complain of boredom exhibit more stress-related symptoms than do those who claim their work is interesting.
 - (C) Workers responding to opinion surveys tend to emphasize those experiences that have happened most recently.
 - (D) Workers who feel that their salaries are commensurate with the amount of work they do are less likely to complain of boredom.
 - (E) Workers are less likely to complain about work if they feel that their jobs are secure.
8. Would it be right for the government to abandon efforts to determine at what levels to allow toxic substances in our food supply? Only if it can reasonably be argued that the only acceptable level of toxic substances in food is zero. However, virtually all foods contain perfectly natural substances that are toxic but cause no harm because they do not occur in food in toxic concentrations. Furthermore, we can never be certain of having reduced the concentration of any substance to zero; all we can ever know is that it has been reduced to below the threshold of detection of current analytical methods.

The main conclusion of the argument is that

- (A) the government should continue trying to determine acceptable levels for toxic substances in our food supply
- (B) the only acceptable level of toxic substances in food is zero
- (C) naturally occurring toxic substances in food present little danger because they rarely occur in toxic concentrations
- (D) the government will never be able to determine with certainty that a food contains no toxic substances
- (E) the government needs to refine its methods of detecting toxic substances in our food supply

9. Over the past twenty-five years the introduction of laborsaving technologies has greatly reduced the average amount of time a worker needs to produce a given output, potentially both reducing the number of hours each worker works each week and increasing workers' leisure time correspondingly. The average amount of leisure time per worker, however, has increased at only half the rate at which the average hourly output per worker has grown.

If the statements above are true, which one of the following is most strongly supported by them?

- (A) Workers, on average, spend more money on leisure activities today than they did twenty-five years ago.
- (B) Labor-saving technologies have created fewer jobs than they have eliminated.
- (C) The percentage of the population that is in the work force has grown over the past twenty-five years.
- (D) The average hourly output per worker has not risen as much as had been anticipated when modern labor-saving technologies were first introduced.
- (E) Twenty-five years ago the average weekly output per worker was less than it is today.

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10. Ten thousand years ago many communities in western Asia stopped procuring food by hunting and gathering and began instead to cultivate food. Archaeological evidence reveals that compared to their hunter-gatherer forebears, the early agricultural peoples ate a poorly balanced diet and had diet-related health problems, yet these peoples never returned to hunting and gathering.

Which one of the following, if true, most helps to explain why the agricultural peoples of western Asia never returned to hunting and gathering?

- (A) The plants and animals that the agricultural peoples began to cultivate continued to exist in the wild.
- (B) Both hunter-gatherers and agriculturalists sometimes depended on stored and preserved foods instead of fresh foods.
- (C) An increase in population density at the time required a higher food production rate than hunting and gathering could provide.
- (D) Thousands of years ago similar shifts from hunting and gathering to agriculture occurred in many other parts of the world.
- (E) The physical labor involved in agriculture burns more calories than does that needed for hunting and gathering.

11. Should a journalist's story begin with the set phrase "in a surprise development," as routinely happens? Well, not if the surprise was merely the journalist's, since journalists should not intrude themselves into their stories, and not if the surprise was someone else's, because if some person's surprise was worth mentioning at all, it should have been specifically attributed. The one possibility remaining is that lots of people were surprised; in that case, however, there is no point in belaboring the obvious.

Which one of the following most accurately states the conclusion of the argument above?

- (A) Journalists should reserve use of the phrase "in a surprise development" for major developments that are truly unexpected.
- (B) The phrase "in a surprise development" is appropriately used only where someone's being surprised is itself interesting.
- (C) The phrase "in a surprise development" is used in three distinct sorts of circumstances.
- (D) Journalists should make the point that a development comes as a surprise when summing up, not when introducing, a story.
- (E) Introducing stories with the phrase "in a surprise development" is not good journalistic practice.

12. Individual pyrrole molecules readily join together into larger molecules called polypyrroles. If polypyrroles form from pyrrole in the presence of zeolites, they do so by attaching to the zeolite either in lumps on the outer surface of the zeolite or in delicate chains within the zeolite's inner channels. When zeolite changes color from yellow to black, it means that on or in that zeolite polypyrroles have formed from pyrrole. Yellow zeolite free of any pyrrole was submerged in dissolved pyrrole. The zeolite turned black even though no polypyrroles formed on its outer surface.

If the statements above are true, which one of the following must on the basis of them be true?

- (A) Polypyrroles had already formed on or in the zeolite before it was submerged.
- (B) Lumps of polypyrrole attached to the zeolite were responsible for its color change.
- (C) At least some of the pyrrole in which the zeolite was submerged formed polypyrrole chains.
- (D) None of the pyrrole in which the zeolite was submerged attached itself to the zeolite.
- (E) Little, if any, of the pyrrole in which the zeolite was submerged reached the zeolite's inner channels.

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Questions 13-14

Pedigreed dogs, including those officially classified as working dogs, must conform to standards set by organizations that issue pedigrees. Those standards generally specify the physical appearance necessary for a dog to be recognized as belonging to a breed but stipulate nothing about other genetic traits, such as those that enable breeds originally developed as working dogs to perform the work for which they were developed. Since dog breeders try to maintain only those traits specified by pedigree organizations, and traits that breeders do not try to maintain risk being lost, certain traits like herding ability risk being lost among pedigreed dogs. Therefore, pedigree organizations should set standards requiring working ability in pedigreed dogs classified as working dogs.

13. Which one of the following principles, if valid, justifies the argument's conclusion that pedigree organizations should set standards for working ability in dogs?
- (A) Organizations that set standards for products or activities should not set standards calling for a particular characteristic if such standards increase the risk of some other characteristic being lost.
 - (B) Any standard currently in effect for a product or an activity should be rigorously enforced regardless of when the standard was first set.
 - (C) Organizations that set standards for products or activities should be responsible for seeing to it that those products or activities conform to all the specifications called for by those standards.
 - (D) Any standard that is set for a product or an activity should reflect the uses to which that product or activity will eventually be put.
 - (E) Organizations that set standards for products or activities should attempt to ensure that those products or activities can serve the purposes for which they were originally developed.
14. The phrase "certain traits like herding ability risk being lost among pedigreed dogs" serves which one of the following functions in the argument?
- (A) It is a claim on which the argument depends but for which no support is given.
 - (B) It is a subsidiary conclusion used in support of the main conclusion.
 - (C) It acknowledges a possible objection to the proposal put forth in the argument.
 - (D) It summarizes the position that the argument as a whole is directed toward discrediting.
 - (E) It provides evidence necessary to support a claim stated earlier in the argument.

15. In rheumatoid arthritis, the body's immune system misfunctions by attacking healthy cells in the joints causing the release of a hormone that in turn causes pain and swelling. This hormone is normally activated only in reaction to injury or infection. A new arthritis medication will contain a protein that inhibits the functioning of the hormone that causes pain and swelling in the joints.

The statements above, if true, most strongly support which one of the following conclusions?

- (A) Unlike aspirin and other medications that reduce pain and swelling and that are currently available, the new medication would repair existing cell damage that had been caused by rheumatoid arthritis.
 - (B) The benefits to rheumatoid arthritis sufferers of the new medication would outweigh the medication's possible harmful side effects.
 - (C) A patient treated with the new medication for rheumatoid arthritis could sustain a joint injury without becoming aware of it.
 - (D) The new medication could be adapted for use against a variety of immune system disorders such as diabetes and lupus.
 - (E) Joint diseases other than rheumatoid arthritis would not be affected by the new medication.
16. In their native habitat, amaryllis plants go dormant when the soil in which they are growing dries out during the dry season. Therefore, if amaryllis plants kept as houseplants are to thrive, water should be withheld from them during part of the year so that the plants go dormant.

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

- (A) Most kinds of plants go dormant at some time or other during the year.
- (B) Amaryllis are more difficult to keep as houseplants than other kinds of plants are.
- (C) Water should be withheld from amaryllis plants kept as houseplants during the exact time of year that corresponds to the dry season in their native habitat.
- (D) Any amaryllis plant that fails to thrive is likely to have been dormant for too short a time.
- (E) Going dormant benefits amaryllis plants in their native habitat in some way other than simply preventing death during overly dry periods.

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17. Most people believe that yawning is most powerfully triggered by seeing someone else yawn. This belief about yawning is widespread not only today, but also has been commonplace in many parts of the world in the past, if we are to believe historians of popular culture. Thus, seeing someone else yawn must be the most irresistible cause of yawning.

The argument is most vulnerable to which one of the following criticisms?

- (A) It attempts to support its conclusion solely by restating that conclusion in other words.
 - (B) It cites the evidence of historians of popular culture in direct support of a claim that lies outside their area of expertise.
 - (C) It makes a sweeping generalization about yawning based on evidence drawn from a limited number of atypical cases.
 - (D) It supports its conclusion by appealing solely to opinion in a matter that is largely factual.
 - (E) It takes for granted that yawns have no cause other than the one it cites.
18. Everyone who is a gourmet cook enjoys a wide variety of foods and spices. Since no one who enjoys a wide variety of foods and spices prefers bland foods to all other foods, it follows that anyone who prefers bland foods to all other foods is not a gourmet cook.

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

- (A) All of the paintings in the Huang Collection will be put up for auction next week. Since the paintings to be auctioned next week are by a wide variety of artists, it follows that the paintings in the Huang Collection are by a wide variety of artists.
- (B) All of the paintings in the Huang Collection are abstract. Since no abstract painting will be included in next week's art auction, nothing to be included in next week's art auction is a painting in the Huang Collection.
- (C) All of the paintings in the Huang Collection are superb works of art. Since none of the paintings in the Huang Collection is by Roue, it stands to reason that no painting by Roue is a superb work of art.
- (D) Every postimpressionist painting from the Huang Collection will be auctioned off next week. No pop art paintings from the Huang Collection will be auctioned off next week. Hence none of the pop art paintings to be auctioned off next week will be from the Huang Collection.
- (E) Every painting from the Huang Collection that is to be auctioned off next week is a major work of art. No price can adequately reflect the true value of a major work of art. Hence the prices that will be paid at next week's auction will not adequately reflect the true value of the paintings sold.

19. Without information that could only have come from someone present at the secret meeting between the finance minister and the leader of the opposition party, the newspaper story that forced the finance minister to resign could not have been written. No one witnessed the meeting, however, except the minister's aide. It is clear, therefore, that the finance minister was ultimately brought down, not by any of his powerful political enemies, but by his own trusted aide.

The argument commits which one of the following errors of reasoning?

- (A) drawing a conclusion on the basis of evidence that provides equally strong support for a competing conclusion
- (B) assuming without warrant that if one thing cannot occur without another thing's already having occurred, then the earlier thing cannot occur without bringing about the later thing
- (C) confusing evidence that a given outcome on one occasion was brought about in a certain way with evidence that the same outcome on a different occasion was brought about in that way
- (D) basing its conclusion on evidence that is almost entirely irrelevant to the point at issue
- (E) treating evidence that a given action contributed to bringing about a certain effect as though that evidence established that the given action by itself was sufficient to bring about that effect

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20. S. R. Evans: A few critics have dismissed my poems as not being poems and have dismissed me as not being a poet. But one principle of criticism has it that only true poets can recognize poetic creativity or function as critics of poetry—and that the only true poets are those whose work conveys genuine poetic creativity. But I have read the work of these critics; none of it demonstrated poetic creativity. These critics' judgments should be rejected, since these critics are not true poets.

The argument above is vulnerable to criticism on the grounds that it

- (A) presupposes what it sets out to conclude, since the principle requires that only true poets can determine whether the critics' work demonstrates poetic creativity
 - (B) uses the distinction between poets and critics as though everyone fell into one category or the other
 - (C) gives no justification for the implicit claim that the standing of a poet can be judged independently of his or her poetry
 - (D) makes an unjustifiable distinction, since it is possible that some critics are also poets
 - (E) inevitably leads to the conclusion that poets can never learn to improve their poetry, since no poet is in a position to criticize his or her own work
21. Claim: Country X's government lowered tariff barriers because doing so served the interests of powerful foreign companies.

Principle: In order for a change to be explained by the advantage some person or group gained from it, it must be shown how the interests of the person or group played a role in bringing about the change.

Which one of the following, if true, can most logically serve as a premise for an argument that uses the principle to counter the claim?

- (A) Foreign companies did benefit when Country X lowered tariff barriers, but consumers in Country X benefited just as much.
- (B) In the period since tariff barriers were lowered, price competition among importers has severely limited importers' profits from selling foreign companies' products in Country X.
- (C) It was impossible to predict how Country X's economic reforms, which included lowering tariff barriers, would affect the economy in the short term.
- (D) Many of the foreign companies that benefited from Country X's lowering tariff barriers compete fiercely among themselves both in Country X and in other markets.
- (E) Although foreign companies benefited when Country X lowered tariff barriers, there is no other evidence that these foreign companies induced the change.

22. A scientist made three observations: (1) in the world's temperate zones, food is more plentiful in the ocean than it is in fresh water; (2) migratory fish in temperate zones generally mature in the ocean and spawn in fresh water; and (3) migratory fish need much nourishment as they mature but little or none during the part of their lives when they spawn. On the basis of those observations, the scientist formulated the hypothesis that food availability is a determining factor in the migration of migratory fish. Subsequently the scientist learned that in the tropics migratory fish generally mature in fresh water and spawn in the ocean.

Which one of the following would it be most helpful to know in order to judge whether what the scientist subsequently learned calls into question the hypothesis?

- (A) whether in the world's temperate zones, the temperatures of bodies of fresh water tend to be lower than those of the regions of the oceans into which they flow
- (B) whether the types of foods that migratory fish eat while they inhabit the ocean are similar to those that they eat while they inhabit bodies of fresh water
- (C) whether any species of fish with populations in temperate zones also have populations that live in the tropics
- (D) whether there are more species of migratory fish in the tropics than there are in temperate zones
- (E) whether in the tropics food is less plentiful in the ocean than in fresh water

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23. No computer will ever be able to do everything that some human minds can do, for there are some problems that cannot be solved by following any set of mechanically applicable rules. Yet computers can only solve problems by following some set of mechanically applicable rules.

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

- (A) At least one problem solvable by following some set of mechanically applicable rules is not solvable by any human mind.
- (B) At least one problem not solvable by following any set of mechanically applicable rules is solvable by at least one human mind.
- (C) At least one problem solvable by following some set of mechanically applicable rules is solvable by every human mind.
- (D) Every problem that is solvable by following more than one set of mechanically applicable rules is solvable by almost every human mind.
- (E) Every problem that is solvable by following at least one set of mechanically applicable rules is solvable by at least one human mind.

24. People were asked in a survey how old they felt. They replied, almost unanimously despite a great diversity of ages, with a number that was 75 percent of their real age. There is, however, a problem in understanding this sort of response. For example, suppose it meant that a 48-year-old man was claiming to feel as he felt at 36. But at age 36 he would have said he felt like a man of 27, and at 27 he would have said he felt just over 20 and so on into childhood. And surely, that 48-year-old man did not mean to suggest that he felt like a child!

Which one of the following techniques of reasoning is employed in the argument?

- (A) projecting from responses collected at one time from many individuals of widely different ages to hypothetical earlier responses of a single individual at some of those ages
- (B) reinterpreting what certain people actually said in the light of what would, in the circumstances, have been the most reasonable thing for them to say
- (C) qualifying an overly sweeping generalization in light of a single, well chosen counterexample
- (D) deriving a contradiction from a pair of statements in order to prove that at least one of those statements is false
- (E) analyzing an unexpected unanimity among respondents as evidence, not of a great uniformity of opinion among those respondents, but of their successful manipulation by their questioners

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.