

SECTION II

Time—35 minutes

27 Questions

Directions: Each set of questions in this section is based on a single passage or a pair of passages. The questions are to be answered on the basis of what is stated or implied in the passage or pair of passages. For some of the 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, and blacken the corresponding space on your answer sheet.

- An organism is considered to have an infection when a disease-causing agent, called a pathogen, establishes a viable presence in the organism. This can occur only if the pathogenic agent is able to reproduce itself in the host organism. The only agents believed until recently to be responsible for infections—viruses, bacteria, fungi, and parasites—reproduce and regulate their other life processes by means of genetic material, composed of nucleic acid (DNA or RNA). It was thus widely assumed that all pathogens contain such genetic material in their cellular structure.

- This assumption has been challenged, however, by scientists seeking to identify the pathogen that causes Creutzfeldt-Jakob disease (CJD), a degenerative form of dementia in humans. CJD causes the brain to become riddled with tiny holes, like a sponge (evidence of extensive nerve cell death). Its symptoms include impaired muscle control, loss of mental acuity, memory loss, and chronic insomnia. Extensive experiments aimed at identifying the pathogen responsible for CJD have led surprisingly to the isolation of a disease agent lacking nucleic acid and consisting mainly, if not exclusively, of protein. Researchers coined the term “prion” for this new type of protein pathogen.

- Upon further study, scientists discovered that prions normally exist as harmless cellular proteins in many of the body’s tissues, including white blood cells and nerve cells in the brain; however, they possess the capability of converting their structures into a dangerous abnormal shape. Prions exhibiting this abnormal conformation were found to have infectious properties and the ability to reproduce themselves in an unexpected way, by initiating a chain reaction that induces normally shaped prions to transform themselves on contact, one after another, into the abnormal, pathogenic conformation. This cascade of transformations produces a plaque, consisting of thread-like structures, that collects in the brain and ultimately destroys nerve cells. Because prions, unlike other pathogens, occur naturally in the body as proteins, the body does not produce an immune response when they are present. And in the absence of any effective therapy for preventing the cascade process by which affected prions reproduce themselves, CJD is inevitably fatal, though there are wide variations in pre-symptomatic incubation times and in how aggressively the disease progresses.

- Although the discovery of the link between prions and CJD was initially received with great skepticism in the scientific community, subsequent research has supported the conclusion that prions are an entirely new class of infectious pathogens. Furthermore, it is

- now believed that a similar process of protein malformation may be involved in other, more common degenerative neurological conditions such as Alzheimer’s disease and Parkinson’s disease. This possibility has yet to be fully explored, however, and the exact mechanisms by which prions reproduce themselves and cause cellular destruction have yet to be completely understood.

1. Which one of the following most accurately expresses the main point of the passage?
 - (A) Although most organisms are known to produce several kinds of proteins, the mechanism by which isolated protein molecules such as prions reproduce themselves is not yet known in detail.
 - (B) Research into the cause of CJD has uncovered a deadly class of protein pathogens uniquely capable of reproducing themselves without genetic material.
 - (C) Recent research suggests that prions may be responsible not only for CJD, but for most other degenerative neurological conditions as well.
 - (D) The assertion that prions cause CJD has been received with great skepticism in the scientific community because it undermines a firmly entrenched view about the nature of pathogens.
 - (E) Even though prions contain no genetic material, it has become clear that they are somehow capable of reproducing themselves.

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2. Which one of the following is most strongly supported by the passage?
- (A) Understanding the cause of CJD has required scientists to reconsider their traditional beliefs about the causes of infection.
 - (B) CJD is contagious, though not highly so.
 - (C) The prevention of CJD would be most efficiently achieved by the prevention of certain genetic abnormalities.
 - (D) Although patients with CJD exhibit different incubation times, the disease progresses at about the same rate in all patients once symptoms are manifested.
 - (E) The prion theory of infection has weak support within the scientific community.
3. If the hypothesis that CJD is caused by prions is correct, finding the answer to which one of the following questions would tend most to help a physician in deciding whether a patient has CJD?
- (A) Has the patient suffered a severe blow to the skull recently?
 - (B) Does the patient experience occasional bouts of insomnia?
 - (C) Has the patient been exposed to any forms of radiation that have a known tendency to cause certain kinds of genetic damage?
 - (D) Has any member of the patient's immediate family ever had a brain disease?
 - (E) Does the patient's brain tissue exhibit the presence of any abnormal thread-like structures?
4. Which one of the following is most strongly supported by the passage?
- (A) The only way in which CJD can be transmitted is through the injection of abnormally shaped prions from an infected individual into an uninfected individual.
 - (B) Most infectious diseases previously thought to be caused by other pathogens are now thought to be caused by prions.
 - (C) If they were unable to reproduce themselves, abnormally shaped prions would not cause CJD.
 - (D) Alzheimer's disease and Parkinson's disease are caused by different conformations of the same prion pathogen that causes CJD.
 - (E) Prion diseases generally progress more aggressively than diseases caused by other known pathogens.

5. It can be inferred from the passage that the author would be LEAST likely to agree with which one of the following?
- (A) The presence of certain abnormally shaped prions in brain tissue is a sign of neurological disease.
 - (B) Some patients currently infected with CJD will recover from the disease.
 - (C) Prions do not require nucleic acid for their reproduction.
 - (D) The body has no natural defense against CJD.
 - (E) Scientists have only a partial understanding of the mechanism by which prions reproduce.
6. Given the manner in which the term "pathogen" is used in the passage, and assuming that the prion theory of infection is correct, which one of the following statements must be false?
- (A) Nothing that lacks nucleic acid is a pathogen.
 - (B) Prions are a relatively newly discovered type of pathogen.
 - (C) All pathogens can cause infection.
 - (D) Pathogens contribute in some manner to the occurrence of CJD.
 - (E) There are other pathogens besides viruses, bacteria, fungi, and parasites.
7. Which one of the following, if true, would most undermine the claim that prions cause CJD?
- (A) Several symptoms closely resembling those of CJD have been experienced by patients known to have a specific viral infection.
 - (B) None of the therapies currently available for treating neurological diseases is designed to block the chain reaction by which abnormal prions are believed to reproduce.
 - (C) Research undertaken subsequent to the studies on CJD has linked prions to degenerative conditions not affecting the brain or the central nervous system.
 - (D) Epidemiological studies carried out on a large population have failed to show any hereditary predisposition to CJD.
 - (E) A newly developed antibacterial drug currently undergoing clinical trials is proving to be effective in reversing the onset of CJD.

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One of the more striking developments in modern North American dance was African American choreographer Katherine Dunham's introduction of a technique known as dance-isolation, in which one part of the body moves in one rhythm while other parts are kept stationary or are moved in different rhythms. The incorporation of this technique into North American and European choreography is relatively recent, although various forms of the technique have long been essential to traditional dances of certain African, Caribbean, and Pacific-island cultures. Dunham's success in bringing dance-isolation and other traditional techniques from those cultures into the mainstream of modern North American dance is due in no small part to her training in both anthropological research and choreography.

As an anthropologist in the 1930s, Dunham was one of the pioneers in the field of dance ethnology. Previously, dance had been neglected as an area of social research, primarily because most social scientists gravitated toward areas likely to be recognized by their peers as befitting scientifically rigorous, and therefore legitimate, modes of inquiry. Moreover, no other social scientist at that time was sufficiently trained in dance to be able to understand dance techniques, while experts in dance were not trained in the methods of social research.

Starting in 1935, Dunham conducted a series of research projects into traditional Caribbean dance forms, with special interest in their origins in African culture. Especially critical to her success was her approach to research, which diverged radically from the methodology that prevailed at the time. Colleagues in anthropology advised her not to become too closely involved in the dances she was observing, both because of the extreme physical demands of the dances, and because they subscribed to the long-standing view, now fortunately recognized as unrealistic, that effective data gathering can and must be conducted from a position of complete detachment. But because of her interest and her skill as a performer, she generally eschewed such caution and participated in the dances herself. Through prolonged immersion of this kind, Dunham was able not only to comprehend various dances as complex cultural practices, but also to learn the techniques well enough to teach them to others and incorporate them into new forms of ballet.

Between 1937 and 1945, Dunham developed a research-to-performance method that she used to adapt Caribbean dance forms for use in theatrical performance, combining them with modern dance styles she learned in Chicago. The ballets she created in this fashion were among the first North American dances to rectify the exclusion of African American themes from the medium of modern dance. Her work was thus crucial in establishing African American dance as an art form in its own right, making possible future companies such as Arthur Mitchell's Dance Theater of Harlem.

8. Which one of the following most accurately expresses the main point of the passage?
- (A) Katherine Dunham transformed the field of anthropology by developing innovative research methodologies for studying Caribbean and other traditional dance styles and connecting them with African American dance.
 - (B) Katherine Dunham's ballets were distinct from others produced in North America in that they incorporated authentic dance techniques from traditional cultures.
 - (C) Katherine Dunham's expertise as an anthropologist allowed her to use Caribbean and African dance traditions to express the aesthetic and political concerns of African American dancers and choreographers.
 - (D) The innovative research methods of Katherine Dunham made possible her discovery that the dance traditions of the Caribbean were derived from earlier African dance traditions.
 - (E) Katherine Dunham's anthropological and choreographic expertise enabled her to make contributions that altered the landscape of modern dance in North America.
9. According to the passage, Dunham's work in anthropology differed from that of most other anthropologists in the 1930s in that Dunham
- (A) performed fieldwork for a very extended time period
 - (B) related the traditions she studied to those of her own culture
 - (C) employed a participative approach in performing research
 - (D) attached a high degree of political significance to her research
 - (E) had prior familiarity with the cultural practices of the peoples she set out to study

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10. The passage suggests that the “peers” mentioned in line 22 would have been most likely to agree with which one of the following statements about the study of dance?
- (A) Most social scientists who have attempted to study dance as a cultural phenomenon have misinterpreted it.
 - (B) Social scientists need not be well versed in dance traditions in order to obtain reliable data about them.
 - (C) Research into dance as a cultural form cannot be conducted with a high degree of scientific precision.
 - (D) Most experts in the field of dance are too preoccupied to conduct studies in the field of dance ethnology.
 - (E) Dance forms are too variable across cultures to permit rigorous means of data collection.
11. In the last sentence of the second paragraph, the author mentions “experts in dance” primarily in order to
- (A) suggest why a group of social scientists did not embrace the study of a particular cultural form
 - (B) suggest that a certain group was more qualified to study a particular cultural form than was another group
 - (C) identify an additional factor that motivated a particular social scientist to pursue a specific new line of research
 - (D) contribute to an explanation of why a particular field of research was not previously pursued
 - (E) indicate an additional possible reason for the tension between the members of two distinct fields of research
12. According to the passage, which one of the following was true of the dance forms that Dunham began studying in 1935?
- (A) They were more similar to dance forms used in Pacific-island cultures than to any other known dance forms.
 - (B) They represented the first use of the technique of dance-isolation within a culture outside of Africa.
 - (C) They shared certain rhythmic characteristics with the dance forms employed in North American ballets.
 - (D) They had already influenced certain popular dances in North America.
 - (E) They were influenced by the traditions of non-Caribbean cultures.
13. Which one of the following is most analogous to Dunham’s work in anthropology and choreography as that work is described in the passage?
- (A) A French archaeologist with training in musicology researches instruments used in seventeenth century France, and her findings become the basis for a Korean engineer’s designs for devices to simulate the sounds those instruments most likely made.
 - (B) An Australian medical researcher with training in botany analyzes the chemical composition of plants that other researchers have collected in the Philippines, and then an Australian pharmaceutical company uses her findings to develop successful new medicines.
 - (C) A Canadian surgeon uses her skill in drawing to collaborate with a Vietnamese surgeon to develop a manual containing detailed illustrations of the proper techniques for certain types of reconstructive surgery performed in both countries.
 - (D) A Brazilian teacher with training in social psychology conducts a detailed study of teaching procedures while working with teachers in several Asian countries, then introduces the most effective of those procedures to teachers in his own country.
 - (E) An Italian fashion designer researches the social significance of clothing design in several cultures and then presents his research in a highly acclaimed book directed toward his colleagues in fashion design.
14. The passage suggests that the author would be most likely to agree with which one of the following statements about the colleagues mentioned in line 33?
- (A) They were partly correct in recommending that Dunham change her methods of data collection, since injury sustained during fieldwork might have compromised her research.
 - (B) They were partly correct in advising Dunham to exercise initial caution in participating in the Caribbean dances, since her skill in performing them improved with experience.
 - (C) They were incorrect in advising Dunham to increase the degree of her detachment, since extensive personal investment in fieldwork generally enhances scientific rigor.
 - (D) They were incorrect in assuming that researchers in the social sciences are able to gather data in an entirely objective manner.
 - (E) They were incorrect in assuming that dance could be studied with the same degree of scientific rigor possible in other areas of ethnology.

Passage A

Research concerning happiness and wealth reveals a paradox: at any one time richer people report higher levels of happiness than poorer people in the same society report, and yet over time advanced societies

(5) have not grown happier as they have grown richer. Apparently, people are comparing their income with some norm, and that norm must be rising along with actual income. Two phenomena—habituation and rivalry—push up the norm.

- (10) When our living standards increase, we love it initially but then we adjust and it makes little difference. For example, if we ask people with different incomes what income they consider sufficient, the “required income” correlates strongly with their actual income:
- (15) a rise in actual income causes a roughly equivalent rise in required income. We can also look at reported happiness over time. Job satisfaction depends little on the absolute level of wages but rises if wages rapidly increase.

- (20) We do not have the same experience with other aspects of our lives. We do not foresee how we adjust to material possessions, so we overinvest in acquiring them, at the expense of leisure.

- (25) Now consider the phenomenon of rivalry. In a study conducted by Solnick and Hemenway, people were asked to choose between two options, with all prices held constant:

A. You earn \$50,000 a year while everyone else earns \$25,000;

- (30) B. You earn \$100,000 a year while others make \$200,000.

The majority chose the first. They were happy to be poorer, provided their relative position improved.

- (35) And indeed, how people compare to their “reference group”—those most like them—is crucial for happiness. In East Germany, for example, living standards have soared since 1990, but the level of happiness has plummeted because people now compare themselves with West Germans, rather than with people in other
- (40) Soviet bloc countries.

Passage B

Does the Solnick and Hemenway study mean that we care most about one-upmanship? Perhaps out of our primeval past comes the urge to demonstrate our superiority in order to help ensure mating prospects,

(45) keeping our genetic lines going. Still programmed like this, we get unexplainable pleasure from having a bigger house than our neighbors.

- (50) This theory may sound good and is commonly heard, but it is not the explanation best supported by the evidence. Rather, the data show that earning more makes people happier because relative prosperity makes them feel that they are successful, that they have created value.

- (55) If two people feel equally successful, they will be equally happy even if their incomes differ greatly. Of course, people who earn more generally view themselves as successful. But it is the success—not the money per se—that provides the happiness. We use

- (60) material wealth to show not just that we are prosperous, but that we are prosperous because we create value.

- (65) What scholars often portray as an ignoble tendency—wanting to have more than others—is really evidence of a desire to create value. Wanting to create value benefits society. It is a bonus that it also brings happiness.

15. Both passages are primarily concerned with explaining which one of the following?

- (A) the human desire to create value
(B) the relationship between income and happiness
(C) the biological basis of people’s attitudes toward wealth
(D) the human propensity to become habituated to wealth
(E) the concept of “required income”

16. The author of passage B would be most likely to agree with which one of the following statements?

- (A) The desire to demonstrate that one is wealthier than others is a remnant of human beings’ primeval past.
(B) Very few people would be willing to accept a lower standard of living in return for greater relative wealth.
(C) Being wealthier than other people would not make one happier if one believed that one’s wealth was due merely to luck.
(D) Gradual increases in employees’ wages do not increase their job satisfaction.
(E) The overall level of happiness in a society usually increases as the society becomes wealthier.

17. The author of passage B would be most likely to regard the conclusion that the Solnick and Hemenway study points to the existence of a “phenomenon of rivalry” (line 24) as

- (A) ungenerous in its view of human nature and mistaken in its interpretation of the evidence
(B) flattering in its implications about human nature but only weakly supported by the available evidence
(C) plausible in its account of human nature but based largely upon ambiguous evidence
(D) unflattering in its implications about human nature but more or less valid in the conclusions drawn from the evidence
(E) accurate concerning human nature and strongly supported by the evidence

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18. Which one of the following pairs most accurately describes why the authors of passage A and passage B, respectively, mention the study by Solnick and Hemenway?
- (A) to present a view that will be argued against
to present a view for which additional evidence will be provided
 - (B) to present a view that will be argued against
to provide evidence for one explanation of a phenomenon
 - (C) to provide evidence for one explanation of a phenomenon
to present a view for which additional evidence will be provided
 - (D) to provide evidence for one explanation of a phenomenon
to introduce the main topic to be discussed
 - (E) to introduce the main topic to be discussed
to present a view that will be argued against

19. Which one of the following pairs of terms would most likely be used by the authors of passage A and passage B, respectively, to describe a person who wants to make more money than his or her neighbors?
- (A) insular, cosmopolitan
 - (B) altruistic, egocentric
 - (C) happy, miserable
 - (D) misguided, admirable
 - (E) lucky, primitive
20. In arguing for their respective positions, the author of passage A and the author of passage B both do which one of the following?
- (A) explain a phenomenon by pointing to its biological origins
 - (B) endorse a claim simply because it is widely believed
 - (C) accept a claim for the sake of argument
 - (D) attempt to resolve an apparent paradox
 - (E) assert that their positions are supported by data

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It is generally believed that while in some cases government should intervene to protect people from risk—by imposing air safety standards, for example—in other cases, such as mountain climbing, the onus

- (5) should be on the individual to protect himself or herself. In the eyes of the public at large, the demarcation between the two kinds of cases has mainly to do with whether the risk in question is incurred voluntarily. This distinction between voluntary and involuntary risk may in fact be the chief difference between lay and expert judgments about risk. Policy experts tend to focus on aggregate lives at stake; laypeople care a great deal whether a risk is undertaken voluntarily. However, judgments about whether a risk is
- (10) “involuntary” often stem from confusion and selective attention, and the real reason for such judgments frequently lies in an antecedent judgment of some other kind. They are thus of little utility in guiding policy decisions.
- (15) First, it is not easy to determine when a risk is voluntarily incurred. Although voluntariness may be entirely absent in the case of an unforeseeable collision with an asteroid, with most environmental, occupational, and other social risks, it is not an all-or-nothing matter, but rather one of degree. Risks incurred by airline passengers are typically thought to be involuntary, since passengers have no control over whether a plane is going to crash. But they can choose airlines on the basis of safety records or choose not to
- (20) fly. In characterizing the risks as involuntary, people focus on a small part of a complex interaction, not the decision to fly, but the accident when it occurs.

Second, people often characterize risks as “voluntary” when they do not approve of the purpose for which people run the risks. It is unlikely that people would want to pour enormous taxpayer resources into lowering the risks associated with skydiving, even if the ratio of dollars spent to lives saved were quite good. By contrast, people would probably not object to spending enormous resources on improving the safety of firefighters, even though the decision to become a firefighter is voluntary. In short, there is no special magic in notions like “voluntary” and “involuntary.” Therefore, regulatory

(35) policy should be guided by a better understanding of the factors that underlie judgments about voluntariness.

In general, the government should attempt to save as many lives as it can, subject to the limited public and private resources devoted to risk reduction.

- (40) Departures from this principle should be justified not by invoking the allegedly voluntary or involuntary nature of a particular risk, but rather by identifying the more specific considerations for which notions of voluntariness serve as proxies.
- (45)

21. Which one of the following most accurately expresses the main point of the passage?
- (A) In general, whether people characterize a risk as voluntary or involuntary depends on whether they approve of the purpose for which the risk is taken.
- (B) Decisions about government intervention to protect people from risks should be based primarily on how many lives can be saved rather than on whether the risks are considered voluntary.
- (C) Though laypeople may object, experts should be the ones to determine whether the risk incurred in a particular action is voluntary or involuntary.
- (D) Public-policy decisions related to the protection of society against risk are difficult to make because of the difficulty of distinguishing risks incurred voluntarily from those incurred involuntarily.
- (E) People who make judgments about the voluntary or involuntary character of a risk are usually unaware of the complicated motivations that lead people to take risks.
22. The passage indicates that which one of the following is usually a significant factor in laypeople’s willingness to support public funding for specific risk-reduction measures?
- (A) an expectation about the ratio of dollars spent to lives saved
- (B) deference to expert judgments concerning whether the government should intervene
- (C) a belief as to whether the risk is incurred voluntarily or involuntarily
- (D) a judgment as to whether the risk puts a great number of lives at stake
- (E) a consideration of the total resources available for risk reduction
23. According to the passage, which one of the following do laypeople generally consider to involve risk that is not freely assumed?
- (A) traveling in outer space
- (B) participating in skydiving
- (C) serving as a firefighter
- (D) traveling in airplanes
- (E) climbing mountains

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24. It can be inferred from the passage that the author would be most likely to agree with which one of the following statements?
- (A) People should generally not be protected against the risks incurred through activities, such as skydiving, that are dangerous and serve no socially useful purpose.
 - (B) The fact that plane crash victims chose to fly would usually be deemed by policy experts to be largely irrelevant to decisions about the government's role in regulating air safety.
 - (C) Both the probability of occurrence and the probability of resulting death or injury are higher for plane crashes than for any other kind of risk incurred by airline passengers.
 - (D) For public-policy purposes, a risk should be deemed voluntarily incurred if people are not subject to that risk unless they make a particular choice.
 - (E) The main category of risk that is usually incurred completely involuntarily is the risk of natural disaster.
25. The author's use of the phrase "no special magic" (line 43) is most likely meant primarily to convey that notions like "voluntary" and "involuntary"
- (A) do not exhaustively characterize the risks that people commonly face
 - (B) have been used to intentionally conceal the factors motivating government efforts to protect people from risks
 - (C) have no meaning beyond their literal, dictionary definitions
 - (D) are mistakenly believed to be characteristics that inform people's understanding of the consequences of risk
 - (E) provide a flawed mechanism for making public policy decisions relating to risk reduction
26. The passage most strongly supports the inference that the author believes which one of the following?
- (A) Whenever an activity involves the risk of loss of human life, the government should intervene to reduce the degree of risk incurred.
 - (B) Some environmental risks are voluntary to a greater degree than others are.
 - (C) Policy experts are more likely than laypeople to form an accurate judgment about the voluntariness or involuntariness of an activity.
 - (D) The government should increase the quantity of resources devoted to protecting people from risk.
 - (E) Government policies intended to reduce risk are not justified unless they comport with most people's beliefs.
27. Which one of the following most accurately describes the author's attitude in the passage?
- (A) chagrin at the rampant misunderstanding of the relative risks associated with various activities
 - (B) concern that policy guided mainly by laypeople's emphasis on the voluntariness of risk would lead to excessive government regulation
 - (C) skepticism about the reliability of laypeople's intuitions as a general guide to deciding government risk-management policy
 - (D) conviction that the sole criterion that can justify government intervention to reduce risk is the saving of human lives
 - (E) eagerness to persuade the reader that policy experts' analysis of risk is distorted by subtle biases

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.