

SECTION I

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.

- In the last half-century, firefighters in North America have developed a powerful system for fighting wildfires using modern technology. But at the same time, foresters and ecologists are increasingly aware that too much firefighting can be worse than none at all. Over the millennia, many forest ecosystems have evolved in such a way that they are dependent on periodic fires for renewal and for limiting damage when fires do occur. Ancient ponderosa forests, for example, were stable in part because low-intensity fires maintained open forests with low levels of fuel for future fires. These fires burned lightly around the bases of mature trees, leaving these trees alive and clearing the understory of brush and young trees. Scientists can easily count the regular recurrence of fires in these forests over the centuries by examining the scars left on trunks; the typical interval between fires could be as short as 5 years and rarely extended beyond 25 years.
- If fires are kept out of forests, however, deadwood and other fuels build up; then, when fire is sparked by lightning or some other cause, what results is a fire so large that it leaves total devastation. Such fires often kill off wildlife that might escape low-intensity fires, and they also reach the crowns of centuries-old trees, destroying them and ultimately enabling rains to erode the unprotected topsoil. Because of the relative success of fire-suppression efforts, many forests, including ponderosa forests, have now been free of fire for 50 years or longer, leaving them vulnerable to these devastating crown fires. It is therefore increasingly necessary for land managers in North America to strive to manage rather than eliminate fires; land management policies should recognize the essential role that fire plays in many ecosystems.

- Fire behavior depends on the complex interaction of three factors—topography, weather, and fuel—and since topography is fixed and weather is unpredictable, fuel is the only element that land managers can control. Land managers should therefore focus their efforts on fuel. A new kind of wildfire management that is designed to simulate the natural role of fire through a combination of selective harvesting and prescribed fires is the most promising method for controlling fuel. Selective timber harvesting focuses on smaller trees—markets for this smaller material do exist—leaving the larger, fire-tolerant trees on the land and thinning the forest, thereby re-creating the conditions that allow for low-intensity burns. Prescribed fire management includes both the intentional lighting of controlled burns and the policy

- of allowing fires set by lightning to burn when the weather is damp enough to reduce the risk of extensive damage. Once fuels are reduced by these fires, maintenance burns at 15- to 20-year intervals will be needed. When wildfires inevitably occur, they will be more easily controlled and do much less damage.

1. The primary purpose of the passage is to
 - (A) claim that ideological dogma may be impeding the enactment of a fundamental and necessary policy change
 - (B) compare the actual effects that have resulted from two different policies designed to have the same effect
 - (C) contend that a recently implemented policy requires a substantial increase in funding
 - (D) recommend a fundamental policy change in light of evidence that current policy has created undesirable conditions
 - (E) argue that two seemingly contradictory goals of a policy are actually compatible in a fundamental way
2. By “maintenance burns” (line 55) the author most clearly refers to
 - (A) the low-intensity fires that regularly occurred in ancient forests
 - (B) fires that reduce the population density of mature trees
 - (C) the types of fires that are likely to occur in North American forest ecosystems today
 - (D) a type of fire that used to occur at intervals greater than 50 years
 - (E) naturally or intentionally set fires that are allowed to burn to eliminate fuel

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3. Which one of the following sentences would most logically complete the last paragraph of the passage?
- (A) However, if homes were not built in such close proximity to forests, the damage to developed property would be limited substantially.
 - (B) Unfortunately, until foresters recognize the dangers posed by excess fuel in forests, these proposals are likely to meet with resistance in the forestry community.
 - (C) But even with these policies, which require some years to achieve their intended effects, large, devastating fires will remain a threat in the near term.
 - (D) Yet, because smaller trees will likely yield less profit for timber companies, the ecological benefits of the new plans must be weighed carefully against their economic impact.
 - (E) But given the large financial resources needed to operate a prescribed fire management system, the chances of such policies being implemented are quite small.
4. The author cites the factors of topography, weather, and fuel in the last paragraph primarily as part of
- (A) the support provided for the contention that land managers must focus on fuel to reduce the risk of crown fires
 - (B) an argument that, given the interaction among these factors, land managers' efforts to control wildfires will always be somewhat ineffective
 - (C) an attempt to provide a clearer understanding of why forest fires have become unnaturally devastating
 - (D) an argument that specific fuel types and forest densities are dependent on topographic and weather conditions
 - (E) the suggestion that fires started by lightning will continue to be a factor in wildfire suppression efforts
5. The passage provides the most support for inferring that which one of the following is true of ancient ponderosa forests?
- (A) Ponderosas that thrived in these forests probably differed genetically from modern ponderosas in subtle, though significant, ways.
 - (B) The population density of trees in these forests was generally lower than it is in many ponderosa forests today.
 - (C) Weather patterns in these forests were substantially different from weather patterns in ponderosa forests today.
 - (D) The diversity of plant species was greater in these forests than it is in ponderosa forests today.
 - (E) In addition to clearing out excess fuel, periodic low-intensity fires helped to control wildlife populations in these forests.
6. It can be inferred from the passage that the author would be most likely to regard a policy in which all forest fires that were started by lightning were allowed to burn until they died out naturally as
- (A) a viable means of restoring forests currently vulnerable to catastrophic fires to a cycle of periodic low-intensity fires
 - (B) an essential component of a new wildfire management plan that would also involve the regulation of timber harvests
 - (C) beneficial to forests that have centuries-old trees, though harmful to younger forests
 - (D) currently too extreme and likely to cause the destruction land managers are seeking to avoid
 - (E) politically infeasible given the public perception of the consequences of such fires

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The government of Mali passed a law against excavating and exporting the wonderful terra-cotta sculptures from the old city of Djenné-jenô, but it could not enforce it. And it certainly could not afford to fund thousands of archaeological excavations. The result was that many fine Djenné-jenô terra-cotta sculptures were illicitly excavated in the 1980s and sold to foreign collectors who rightly admired them. Because these sites were looted, much of what we would most like to know about this culture—much that we could have learned had the sites been preserved by careful archaeology—may now never be known.

It has been natural to condemn such pillaging. And, through a number of declarations from UNESCO and other international bodies, a protective doctrine has evolved concerning the ownership of many forms of cultural property (the “UNESCO doctrine”). Essentially the doctrine provides that cultural artifacts should be regarded as the property of the culture. For an individual belonging to that culture, such works are, using UNESCO’s terminology, part of an “artistic and cultural patrimony.” Further, a number of countries have strengthened the UNESCO doctrine by declaring all antiquities that originate within their borders to be state property that cannot be freely exported.

Accordingly, it seems reasonable that the government of Mali, within whose borders the Djenné-jenô antiquities are buried, be the one to regulate excavating Djenné-jenô and to decide where the statues should go. Regrettably, and this is a painful irony, regulations prohibiting export and requiring repatriation can discourage recording and preserving information about cultural antiquities, one of the key reasons for the UNESCO regulations. For example, if someone in London sells a figure from Djenné-jenô with documentation that it came out of the ground there after the regulations were implemented, then the authorities committed to the restitution of objects taken illegally out of Mali have the very evidence they need to seize the figure.

Suppose that from the beginning, Mali had been helped by UNESCO to exercise its trusteeship of the Djenné-jenô terra-cotta sculptures by licensing excavations and educating people to recognize that such artifacts have greater value when they are removed carefully from the earth with accurate records of location. Suppose Mali had required that objects be recorded and registered before leaving the excavation site, and had imposed a tax on exported objects to fund acquisitions of important pieces for the national museum. The excavations encouraged by such a system may have been less well conducted and less informative than proper, professionally administered excavations by accredited archaeologists. Some people would still have avoided the rules. But would this not have been better than what actually happened?

7. Which one of the following most accurately expresses the main point of the passage?
 - (A) Declarations from UNESCO and other international bodies concerning the ownership of cultural artifacts gave rise to a doctrine based on the notion of artistic and cultural patrimony.
 - (B) Preserving cultural knowledge at sites like Djenné-jenô requires solutions that are more flexible than simply passing laws prohibiting the excavation and export of antiquities.
 - (C) Rather than acceding to the dictates of international bodies, countries like Mali must find their own unique solutions to problems concerning the preservation of cultural heritage.
 - (D) The government of Mali should have exercised its trusteeship of the Djenné-jenô terra-cotta sculptures by licensing only accredited archaeologists for the excavations.
 - (E) The idea that a culture’s artistic and cultural patrimony is the property of the state does more harm than good in countries like Mali.
8. The passage indicates that some countries have made use of the UNESCO doctrine in which one of the following ways?
 - (A) requiring the origins of all antiquities sold to collectors to be fully documented
 - (B) restricting the export of antiquities and declaring all antiquities originating within the country’s borders to be state property
 - (C) adopting plans to teach people to recognize that antiquities have greater value when they are removed carefully from the earth with accurate records of location
 - (D) encouraging trade in a particular ancient culture’s artifacts among countries each of which contains within its boundaries a portion of that ancient culture’s territory
 - (E) committing substantial resources to the restoration of antiquities taken illegally out of countries like Mali
9. The author asks the reader to suppose that Mali had imposed a tax on exported objects (lines 49–51) primarily in order to
 - (A) draw attention to the role of museums in preserving cultural patrimonies
 - (B) praise one of the Malian government’s past policies concerning cultural antiquities
 - (C) present one part of a more pragmatic approach to regulating the trade in cultural antiquities
 - (D) suggest a means of giving people who excavate cultural antiquities incentive to keep careful records
 - (E) highlight a flaw in the UNESCO doctrine

10. The author of the passage would be most likely to agree with which one of the following statements about UNESCO?
- (A) It can play an important role in stemming abuses that arise from the international trade in cultural artifacts.
 - (B) Its stance on cultural artifacts emerged for the most part in response to Mali's loss of terra-cotta sculptures from Djenné-jenné.
 - (C) It is more effective with initiatives that involve individual states than initiatives that involve several states.
 - (D) It pays too little attention to the concerns of countries like Mali.
 - (E) Its effectiveness in limiting the loss of cultural knowledge has been hampered by inadequate funding.
11. The author of the passage would be most likely to agree with which one of the following statements about regulations governing the trade in cultural antiquities in countries like Mali?
- (A) Such regulations must be approved by archaeologists before being enacted.
 - (B) Such regulations must have as their goal maximizing the number of cultural antiquities that ultimately remain in these countries.
 - (C) Such regulations can be beneficial even if not all people strictly comply with them.
 - (D) Such regulations must be accompanied by very strict punishments for violators.
 - (E) Such regulations are most effective when they are very simple and easily understood.
12. The author of the passage would be most likely to agree with which one of the following statements about cultural antiquities?
- (A) They must be owned and protected by a country's national museum.
 - (B) They must remain within the boundaries of the country in which they were found.
 - (C) They are too valuable to be owned exclusively by the state.
 - (D) They should be excavated by professional archaeologists when possible.
 - (E) They belong to whoever finds them and registers them with the state.
13. Which one of the following is an element of the author's attitude toward foreign collectors of terra-cotta sculptures from Djenné-jenné?
- (A) appreciation of their efforts to preserve cultural artifacts
 - (B) approval of their aesthetic judgment
 - (C) dismay at their failure to take action against illegal exportation of cultural artifacts
 - (D) frustration with their lack of concern for the people of Mali
 - (E) sympathy with their motives

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The following passage is based on an article published in 1987.

Medical practitioners are ethically required to prescribe the best available treatments. In ordinary patient-physician interactions, this obligation is unproblematic, but when physicians are clinical

- (5) researchers in comparative studies of medical treatments, special issues arise. Comparative clinical trials involve withholding one or more of the treatments from at least one group of patients. Traditionally, most physicians and ethicists have agreed that in testing a
- (10) new treatment on a patient population for which there exists a currently accepted treatment, the participating physicians should have no opinion as to which treatment is clinically superior—a state of mind usually termed “equipoise.”

- (15) Unfortunately, the conception of equipoise that is typically employed—which I will term “theoretical equipoise”—may be too strict. Theoretical equipoise exists only when the overall evidence for each of two treatment regimens is judged by each clinical
- (20) researcher to be exactly balanced—an ideal hardly attainable in practice. Clinical researchers commonly have some preference for one of the treatments being tested, an intuitive preference perhaps, or one based on their interpretation and balancing of various sources
- (25) of evidence. Even if researchers judged the evidence to be balanced at the start of a comparative clinical trial, such a balance would be extremely fragile, liable to be “tipped” by small accretions of evidence as the study progresses. Consequently, if the standard of
- (30) theoretical equipoise is adhered to, few comparative clinical trials could commence and even fewer could proceed to completion.

These difficulties associated with theoretical equipoise suggest that a different notion of equipoise should be developed, one that I will label “clinical

(35) equipoise.” Clinical equipoise would impose rigorous ethical standards on comparative clinical trials without unreasonably constricting them. One reason for conducting comparative clinical trials is to resolve a

(40) current or imminent conflict in the expert clinical community over what treatment is to be preferred for patients with a given illness. It could be that the standard treatment is A but new evidence suggests that B will be superior. Medical experts may be

(45) divided as to which treatment is better, with each side recognizing that opposing experts can differ honestly in their interpretation of the evidence.

The very absence of consensus within the expert clinical community is what makes clinical equipoise

(50) possible. One or more of a comparative clinical trial’s researchers may have a decided treatment preference based on their assessments of the evidence. But that is no ethical bar to participation in the trial. The clinical researchers must simply each recognize that their less-

(55) favored treatment is preferred by a sizable constituency within the medical profession as a whole.

14. The author’s primary purpose in the passage is to
- (A) explain the difference between two conceptions of an ethical standard together with how these conceptions would affect comparative clinical trials
 - (B) argue for a more reasonable, less restrictive interpretation of an ethical requirement than the one traditionally given by ethicists and physicians
 - (C) demonstrate that a change in the standards governing comparative clinical trials will endanger the ability of researchers to derive valuable information from such trials
 - (D) demonstrate the need for clinical researchers to more closely examine the conceptions embodied in the ethical standards to which these researchers adhere
 - (E) argue for a change in the scientific methods used for gathering evidence in comparative clinical trials
15. The primary purpose of the second paragraph of the passage is to
- (A) provide a view that contrasts with arguments in favor of clinical equipoise
 - (B) explore the factors underlying physicians’ preferences regarding competing treatments
 - (C) undermine the moral principle that underlies the theory of theoretical equipoise
 - (D) state the main difficulty with adhering to the standards of theoretical equipoise
 - (E) illustrate the conflicts inherent in the general notion of equipoise
16. According to the passage, which one of the following is true?
- (A) Comparative clinical trials that meet the standard of theoretical equipoise generally present no ethical problems.
 - (B) Clinical researchers are often forced to suspend comparative clinical trials prematurely because initial data from the trials strongly favors one treatment over another.
 - (C) A clinical trial comparing treatments is not rendered unethical merely because one of the participating physicians has come to favor one of the treatments over the other.
 - (D) A comparative clinical trial that meets the standard of clinical equipoise would therefore also meet the standard of theoretical equipoise.
 - (E) Medical researchers generally try to conduct comparative clinical trials in accordance with the standard of clinical equipoise.

17. Suppose two medical treatments are being compared in a clinical trial for their effectiveness in treating a condition. Based on the passage, which one of the following scenarios would be significantly more likely to jeopardize theoretical equipoise than clinical equipoise?
- (A) The initial results of the trial so strikingly favored one treatment that they were published and widely disseminated before the study was even half over; as a result, most physicians who specialize in treating the condition came to favor the more effective treatment before the trial had ended.
 - (B) Preliminary results in the trial suggest that the two treatments are equally effective in treating the condition; but these results are not reported while the trial is underway and thus few in the expert clinical community are aware of them.
 - (C) Several of the physicians participating in the trial think that one treatment is more effective at treating the condition than the other; in this they agree with the consensus view within the expert clinical community.
 - (D) Initial results from the trial convince several of the participating physicians that one treatment more effectively treats the condition than the other does; this does not affect their recognition of the lack of consensus among experts in treating the disease.
 - (E) There is consensus among physicians participating in the trial that both treatments are equally effective at treating the condition; however, there is no consensus within the expert medical community as to the relative effectiveness of the treatments.
18. Which one of the following most accurately expresses the main point of the passage?
- (A) The ethical requirement that physicians prescribe the best available treatment to their patients is jeopardized by an overly strict conception of equipoise.
 - (B) Medical research conducted through comparative clinical trials is able to achieve more if the ethical requirements it is bound by are not overly restrictive.
 - (C) It is sometimes ethically acceptable for a physician to participate in a clinical trial in which the physician has a decided treatment preference in favor of one of the treatments being tested.
 - (D) Clinical equipoise should be adopted because it is less likely to unreasonably constrict the conducting of comparative clinical trials than is theoretical equipoise.
 - (E) Even though comparative clinical trials often fail to meet the standard of theoretical equipoise, they should not, for that reason, be considered unethical.
19. As used in line 41 of the passage, the term “community” most nearly refers to a group of people
- (A) who focus on a common set of problems using a shared body of knowledge
 - (B) who live and work in the same geographical area as one another
 - (C) who share opinions that differ significantly from those of other groups
 - (D) whose association with one another is based on their similar ethical values
 - (E) whose similar research methods are employed in unrelated disciplines
20. According to the passage, which one of the following is true?
- (A) Most clinical trials that are conducted meet the appropriate ethical standards.
 - (B) Clinical trials would be conducted more often if there were a more reasonable ethical standard in place.
 - (C) Theoretical equipoise imposes an ethical standard on clinical trials that is rarely if ever met.
 - (D) Most physicians and ethicists believe that the currently accepted ethical requirements for comparative clinical trials are adequate.
 - (E) Most comparative clinical trials are undertaken to help resolve a conflict of opinion in the expert clinical community concerning the best available treatment.
21. The author’s argument in the third and fourth paragraphs would be most weakened if which one of the following were true?
- (A) In most comparative clinical trials, the main purpose is to prove definitively that a treatment considered best by a consensus of relevant experts is in fact superior to the alternative being tested.
 - (B) Physicians participating in comparative clinical trials rarely ask to leave the trials because early data favors one of the treatments being tested over another.
 - (C) The number of comparative clinical trials that are conducted annually is increasing rapidly, but the level of ethical oversight of these trials is decreasing.
 - (D) Medical ethicists are more inclined than are clinical researchers to favor an ethical requirement based on theoretical equipoise over one based on clinical equipoise.
 - (E) In clinical trials comparing two treatments, it rarely occurs that researchers who begin the trial with no preference for either of the treatments later develop a strong preference on the basis of data obtained early in the study.

Passage A

In 1994, Estonia became the first country to introduce a “flat tax” on personal and corporate income. Income is taxed at a single uniform rate of 26 percent: no schedule of rates, no deductions. So far eight

- (5) countries have followed Estonia’s example. An old idea that for decades elicited the response, “Fine in theory, just not practical in the real world,” seems to be working as well in practice as it does on the blackboard.

- Practical types who said that flat taxes cannot work offer a further instant objection, once they are shown such taxes working, namely, that they are unfair. Enlightened countries, it is argued, have “progressive” tax systems, requiring high-income earners to forfeit a bigger share of their incomes in tax than low-income earners have to pay. A flat tax seems to rule this out in principle.

- Not so. A flat tax on personal incomes combines a threshold (that is, an exempt amount) with a single rate of tax on all income above it. The extent to which such a system is progressive can be varied within wide limits using just these two variables. Under the systems operating in most developed countries, the incentives for high-income earners to avoid tax (legally or otherwise) are enormous; and the opportunities to do so, which arise from the very complexity of the codes, are commensurately large. So it is unsurprising that high-income earners usually pay about as much tax under new flat-tax regimes as they would have paid under the previous codes.

Passage B

- (30) A lot of people don’t understand graduated, as opposed to “flat,” taxes. They think that if you make more money you pay a higher rate on your entire earnings, which seems unfair. Actually, graduated progressive taxes treat all taxpayers equally.
- (35) Every taxpayer pays the same rate on equivalent layers of income. People in higher brackets don’t pay the higher rate on their entire income, only on the portion of income over a specified amount. People, not dollars, are treated equally.

- (40) All people are created equal, but not all dollars are created equal. Earnings of the working poor go almost entirely for survival expenses such as food, shelter, and clothing. At that level, every dollar is critical; even a small difference causes tremendous changes in quality of life. Middle-income earners are still very conscious of expenses, but have much greater flexibility in absorbing small fluctuations in income.

- Even some of the flat tax proposals recognize this, and want to exempt a primary layer from the tax system. So, since they recognize that survival dollars are different from discretionary dollars, why go suddenly from one extreme (paying no taxes) to the other (paying the top rate)? Since flat tax proposals are supposed to bring in the same total amount of tax revenue, if the working poor are going to pay less and the high-income earners are going to pay less, it is naturally going to fall on the middle class to make up the difference.

22. Both passages are concerned with answering which one of the following questions?
- (A) Can a flat tax be implemented?
 (B) Do graduated progressive taxes treat all taxpayers equally?
 (C) Can a flat tax be fair to all taxpayers?
 (D) What are some objections to progressive taxes?
 (E) Do flat tax regimes reduce illegal tax avoidance?
23. Both passages seek to advance their arguments by means of which one of the following?
- (A) accusing opponents of shifting their ground
 (B) citing specific historical developments as evidence
 (C) arguing on the basis of an analogy
 (D) employing rhetorical questions
 (E) correcting alleged misunderstandings
24. Which one of the following, if true of countries that have gone from a graduated progressive tax system to a flat tax, would most support the position of passage B over that of passage A?
- (A) Revenues from taxation have remained the same as before.
 (B) The tax codes in these countries have been greatly simplified.
 (C) Most high-income taxpayers believe that they remain overtaxed.
 (D) Middle-income taxpayers tend to pay higher taxes than before.
 (E) Some legislators favor a return to a graduated progressive system.
25. Which one of the following is a conclusion for which passage A argues but that passage B does not address?
- (A) that exempting a threshold amount enables a flat tax to avoid unfairness
 (B) that flat tax proposals are not practical in the real world
 (C) that higher taxes on high-income earners inhibit investment and economic growth
 (D) that a flat tax decreases opportunities and incentives for high-income earners to avoid tax
 (E) that a progressive tax is unfair to taxpayers who end up paying more

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26. The authors of the two passages would be most likely to disagree over whether
- (A) a flat tax system can be progressive
 - (B) high-income earners would pay less under a flat tax system than under a graduated progressive system
 - (C) flat tax systems are fine in theory but cannot be put into practice
 - (D) graduated progressive systems make higher-income taxpayers pay a higher rate on their entire earnings
 - (E) all of an individual's income should be subject to taxation

27. Which one of the following, if true, would be the most reasonable response for the author of passage B to make to the final argument of passage A?
- (A) Even under a flat-tax regime, it will be possible for some with high incomes to avoid taxes by underreporting their incomes.
 - (B) Existing tax codes allow tax avoidance by those with high incomes mainly because they contain loopholes and special deductions, not because they are graduated.
 - (C) It is unfair to those with high incomes to single them out as tax avoiders, since people at all income levels have been known to try to avoid taxes, sometimes illegally.
 - (D) Most taxpayers prefer a system that affords them opportunities for avoiding taxes over one that does not afford such opportunities.
 - (E) The goal of reducing tax avoidance would be advanced by eliminating income taxes altogether in favor of taxes on consumption of goods and services.

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.