

SECTION III

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.

- The prevailing trend in agriculture toward massive and highly mechanized production, with its heavy dependence on debt and credit as a means of raising capital, has been linked to the growing problem of bankruptcy among small farms. African American horticulturalist Booker T. Whatley has proposed a comprehensive approach to small farming that runs counter to this trend. Whatley maintains that small farms can operate profitably despite these economic obstacles, and he provides guidelines that he believes will bring about such profitability when combined with smart management and hard work.

- Whatley emphasizes that small farms must generate year-round cash flow. To this end, he recommends growing at least ten different crops, which would alleviate financial problems should one crop fail completely. To minimize the need to seek hard-to-obtain loans, the market for the farm products should be developed via a “clientele membership club” (CMC), whereby clients pay in advance for the right to go to the farm and harvest what they require. To help guarantee small farmers a market for all of their crops, Whatley encourages them to grow only crops that clients ask for, and to comply with client requests regarding the use of chemicals.

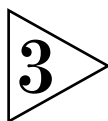
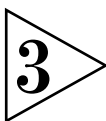
- Whatley stresses that this “pick-your-own” farming is crucial for profitability because 50 percent of a farmer’s production cost is tied up with harvesting, and using clients as harvesters allows the farmer to charge 60 percent of what supermarkets charge and still operate the farm at a profit. Whatley’s plan also affords farmers the advantage of selling directly to consumers, thus eliminating distribution costs. To realize profits on a 25-acre farm, for example, Whatley suggests that a CMC of about 1,000 people is needed. The CMC would consist primarily of people from metropolitan areas who value fresh produce.

- The success of this plan, Whatley cautions, depends in large part on a farm’s location: the farm should be situated on a hard-surfaced road within 40 miles of a population center of at least 50,000 people, as studies suggest that people are less inclined to travel any greater distances for food. In this way, Whatley reverses the traditional view of hard-surfaced roads as farm-to-market roads, calling them instead “city-to-farm” roads. The farm should also have well-drained soil and a ready water source for irrigation, since inevitably certain preferred crops will not be drought resistant. Lastly, Whatley recommends carrying liability insurance upwards of \$1 million to

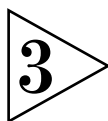
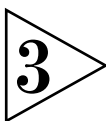
- cover anyone injured on the farm. Adhering to this plan, Whatley contends, will allow small farms to exist as a viable alternative to sprawling corporate farms while providing top-quality agricultural goods to consumers in most urban areas.

1. Which one of the following most accurately states the main point of the passage?
 - (A) In reaction to dominant trends in agriculture, Booker T. Whatley has advanced a set of recommendations he claims will enable small farms to thrive.
 - (B) Booker T. Whatley’s approach to farming is sensitive to the demands of the consumer, unlike the dominant approach to farming that focuses on massive and efficient production and depends on debt and credit.
 - (C) As part of a general critique of the trend in agriculture toward massive production, Booker T. Whatley assesses the ability of small farms to compete against large corporate farms.
 - (D) While CMCs are not the only key to successful small farming, Booker T. Whatley shows that without them small farms risk failure even with a diversity of crops and a good location.
 - (E) The adoption of Booker T. Whatley’s methods of small farming will eventually threaten the dominance of large-scale production and reliance on debt and credit that mark corporate farming.

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2. Based on the information in the passage, which one of the following would Whatley be most likely to view as facilitating adherence to an aspect of his plan for operating a small farm?
- (A) a farmer's planting a relatively unknown crop to test the market for that crop
 - (B) a farmer's leaving large lanes between plots of each crop to allow people easy access at harvest time
 - (C) a farmer's traveling into the city two afternoons a week to sell fresh produce at a farmer's market
 - (D) a farmer's using an honor system whereby produce is displayed on tables in view of the road and passersby can buy produce and leave their money in a box
 - (E) a farmer's deciding that for environmental reasons chemicals will no longer be used on the farm to increase yields
3. According to the passage, "pick-your-own" farming is seen by Whatley as necessary to the operation of small farms for which one of the following reasons?
- (A) Customers are given the chance to experience firsthand where their produce comes from.
 - (B) It guarantees a substantial year-round cash flow for the farm.
 - (C) It allows farmers to maintain profits while charging less for produce than what supermarkets charge.
 - (D) Only those varieties of crops that have been specifically selected by clients within the CMC will be grown by the farmer.
 - (E) Consumers who are willing to drive to farms to harvest their own food comprise a strong potential market for farmers.
4. The author of the passage is primarily concerned with
- (A) summarizing the main points of an innovative solution to a serious problem
 - (B) examining contemporary trends and isolating their strengths and weaknesses
 - (C) criticizing widely accepted practices within a key sector of the economy
 - (D) demonstrating the advantages and disadvantages of a new strategy within an industry
 - (E) analyzing the impact of a new idea on a tradition-driven industry
5. The passage provides the most support for inferring which one of the following statements?
- (A) A corporate farm is more likely to need a loan than a small farm is.
 - (B) If small farms charged what supermarkets charge for produce that is fresher than that sold by supermarkets, then small farms would see higher profits in the long term.
 - (C) Consumers who live in rural areas are generally less inclined than those who live in metropolitan areas to join a CMC.
 - (D) If a CMC requests fewer than ten different crops to be grown, then at least one of Whatley's recommendations will not be followed.
 - (E) Distribution costs are accounted for in the budget of a small farm with a CMC and are paid directly by customers.
6. According to the passage, Whatley advocates which one of the following actions because it would help to guarantee that small farms have buyers for all of their produce?
- (A) growing at least ten different crops
 - (B) charging 60 percent of what supermarkets charge for the same produce
 - (C) recruiting only clients who value fresh produce
 - (D) honoring the crop requests and chemical-use preferences of clients
 - (E) irrigating crops that are susceptible to drought
7. Which one of the following inferences is most supported by the information in the passage?
- (A) The advance payment to the farmer by CMC members guarantees that members will get the produce they want.
 - (B) Hard-surfaced roads are traditionally the means by which some farmers transport their produce to their customers in cities.
 - (C) A typical population center of 50,000 should be able to support CMCs on at least fifty 25-acre farms.
 - (D) Consumers prefer hard-surfaced roads to other roads because the former cause less wear and tear on their vehicles.
 - (E) Most roads with hard surfaces were originally given these surfaces primarily for the sake of farmers.



When Jayne Hinds Bidaut saw her first tintype, she was so struck by its rich creamy tones that she could hardly believe this photographic process had been abandoned. She set out to revive it. Bidaut had been searching for a way to photograph insects from her entomological collection, but paper prints simply seemed too flat to her. The tintype, an image captured on a thin, coated piece of iron (there is no tin in it), provided the detail and dimensionality she wanted.

(5) The image-containing emulsion can often create a raised surface on the plate.

For the photographer Dan Estabrook, old albumen prints and tintypes inspired a fantasy. He imagines planting the ones he makes in flea markets and antique shops, to be discovered as “originals” from a bygone time that never existed.

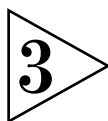
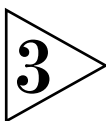
On the verge of a filmless, digital revolution, photography is moving forward into its past. In addition to reviving the tintype process, photographers are polishing daguerreotype plates, coating paper with egg whites, making pinhole cameras, and mixing emulsions from nineteenth-century recipes in order to coax new expressive effects from old photographic techniques. So diverse are the artists returning to photography’s roots that the movement is more like a groundswell.

The old techniques are heavily hands-on and idiosyncratic. That is the source of their appeal. It is also the prime reason for their eclipse. Most became obsolete in a few decades, replaced by others that were simpler, cheaper, faster, and more consistent in their results. Only the tintype lasted as a curiosity into the twentieth century. Today’s artists quickly discover that to exploit the past is to court the very uncertainty that early innovators sought to banish. Such unpredictability attracted Estabrook to old processes. His work embraces accident and idiosyncrasy in order to foster the illusion of antiquity. In his view, time leaches meaning from every photograph and renders it a lost object, enabling us to project onto it our sentiments and associations. So while the stains and imperfections of prints made from gum bichromate or albumen coatings would probably have been cropped out by a nineteenth-century photographer, Estabrook retains them to heighten the sense of nostalgia.

This preoccupation with contingency offers a clue to the deeper motivations of many of the antiquarian avant-gardists. The widely variable outcome of old techniques virtually guarantees that each production is one of a kind and bears, on some level, the indelible mark of the artist’s encounter with a particular set of circumstances. At the same time, old methods offer the possibility of recovering an intimacy with photographic communication that mass media have all but overwhelmed.

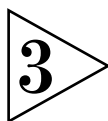
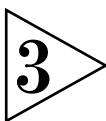
8. In the context of the third paragraph, the function of the phrase “on the verge of a filmless, digital revolution” (line 17) is to
- (A) highlight the circumstances that make the renewed interest in early photographic processes ironic
 - (B) indicate that most photographers are wary of advanced photographic techniques
 - (C) reveal the author’s skeptical views regarding the trend toward the use of old photographic techniques
 - (D) suggest that most photographers who are artists see little merit in the newest digital technology
 - (E) imply that the groundswell of interest by photographers in old processes will probably turn out to be a passing fad
9. Based on the passage, which one of the following most accurately describes an attitude displayed by the author toward artists’ uses of old photographic techniques?
- (A) doubtful hesitation about the artistic value of using old techniques
 - (B) appreciative understanding of the artists’ aesthetic goals
 - (C) ironic amusement at the continued use of techniques that are obsolete
 - (D) enthusiastic endorsement of their implicit critique of modern photographic technology
 - (E) whimsical curiosity about the ways in which the processes work
10. Information in the passage most helps to answer which one of the following questions?
- (A) What are some nineteenth-century photographic techniques that have not been revived?
 - (B) What is the chemical makeup of the emulsion applied to the iron plate in the tintype process?
 - (C) What are the names of some contemporary photographers who are using pinhole cameras?
 - (D) What effect is produced when photographic paper is coated with egg whites?
 - (E) What were the perceived advantages of the innovations that led to the obsolescence of many early photographic techniques and processes?

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11. Which one of the following most accurately describes the primary purpose of the passage?
- (A) to make a case for the aesthetic value of certain old photographic processes
 - (B) to provide details of how certain old methods of photographic processing are used in producing artistic photographs
 - (C) to give an account of a surprising recent development in the photographic arts
 - (D) to explain the acclaim that photographers using old photographic techniques have received
 - (E) to contrast the approaches used by two contemporary photographers
12. Which one of the following is most analogous to the use of old photographic techniques for artistic purposes by late-twentieth-century artists, as described in the passage?
- (A) A biomedical researcher in a pharmaceutical firm researches the potential of certain traditional herbal remedies for curing various skin conditions.
 - (B) An architect investigates ancient accounts of classical building styles in order to get inspiration for designing a high-rise office building.
 - (C) An engineer uses an early-twentieth-century design for a highly efficient turbocharger in preference to a new computer-aided design.
 - (D) A clothing designer uses fabrics woven on old-fashioned looms in order to produce the irregular texture of handwoven garments.
 - (E) An artist uses a computer graphics program to reproduce stylized figures from ancient paintings and insert them into a depiction of a modern city landscape.
13. Based on the information in the passage, it can be inferred that Estabrook believes that
- (A) photography in the nineteenth century tended to focus on subjects that are especially striking and aesthetically interesting
 - (B) artists can relinquish control over significant aspects of the process of creating their work and still produce the aesthetic effects they desire
 - (C) photographs produced in the nineteenth and early twentieth centuries were generally intended to exploit artistically the unpredictability of photographic processing
 - (D) it is ethically questionable to produce works of art intended to deceive the viewer into believing that the works are older than they really are
 - (E) the aesthetic significance of a photograph depends primarily on factors that can be manipulated after the photograph has been taken
14. The reasoning by which, according to the passage, Estabrook justifies his choice of certain strategies in photographic processing would be most strengthened if which one of the following were true?
- (A) When advanced modern photographic techniques are used to intentionally produce prints with imperfections resembling those in nineteenth-century prints, the resulting prints invariably betray the artifice involved.
 - (B) The various feelings evoked by a work of art are independent of the techniques used to produce the work and irrelevant to its artistic value.
 - (C) Most people who use photographs as a way of remembering or learning about the past value them almost exclusively for their ability to record their subjects accurately.
 - (D) People who are interested in artistic photography seldom see much artistic value in photographs that appear antique but are not really so.
 - (E) The latest photographic techniques can produce photographs that are almost completely free of blemishes and highly resistant to deterioration over time.

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Passage A is from a 2007 article on the United States patent system; passage B is from a corporate statement.

Passage A

Theoretically, the patent office is only supposed to award patents for “nonobvious” inventions, and the concept of translating between an Internet address and a telephone number certainly seems obvious. Still, (5) a court recently held that a technology company had infringed on patents covering computer servers that perform these translations.

- In an ideal world, patents would be narrow enough that companies could “invent around” others’ (10) patents if licensing agreements cannot be reached. Unfortunately, the patent system has departed from this ideal. In recent decades, the courts have dramatically lowered the bar for obviousness. As a result, some patents being granted are so broad that (15) inventing around them is practically impossible.

- Large technology companies have responded to this proliferation of bad patents with the patent equivalent of nuclear stockpiling. By obtaining hundreds or even thousands of patents, a company (20) can develop a credible deterrent against patent lawsuits: if someone sues it for patent infringement, it can find a patent the other company has infringed and countersue. Often, however, a fundamental mistake is made: not joining this arms race. As a result, a (25) company can find itself defenseless against lawsuits.

- Software patents are particularly ripe for abuse because software is assembled from modular components. If the patent system allows those components to be patented, it becomes almost (30) impossible to develop a software product without infringing numerous patents. Moreover, because of the complexity of software, it is often prohibitively expensive to even find all the patents a given software product might in principle be infringing. So even a (35) software maker that wanted to find and license all of the patents relevant to its products is unlikely to be able to do so.

Passage B

- Software makers like ours have consistently taken the position that patents generally impede innovation (40) in software development and are inconsistent with open-source/free software. We will continue to work to promote this position and are pleased to join our colleagues in the open-source/free software community, as well as those proprietary vendors who have publicly (45) stated their opposition to software patents.

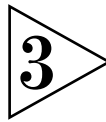
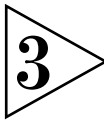
- At the same time, we are forced to live in the world as it is, and that world currently permits software patents. A small number of very large companies have amassed large numbers of software (50) patents. We believe such massive software patent portfolios are ripe for misuse because of the questionable nature of many software patents generally and because of the high cost of patent litigation.

- One defense against such misuse is to develop a (55) corresponding portfolio of software patents for defensive purposes. Many software makers, both

open-source and proprietary, pursue this strategy. In the interests of our company and in an attempt to protect and promote the open-source community, (60) we have elected to adopt this same stance. We do so reluctantly because of the perceived inconsistency with our stance against software patents; however, prudence dictates this position.

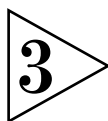
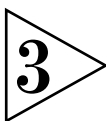
15. Which one of the following pairs would be most appropriate as titles for passage A and passage B, respectively?
- (A) “The Use and Abuse of Patents” “The Necessary Elimination of Software Patents”
 (B) “Reforming Patent Laws” “In Defense of Software Patents”
 (C) “Patenting the Obvious” “Patents: A Defensive Policy”
 (D) “A Misunderstanding of Patent Policies” “Keeping Software Free but Safe”
 (E) “Developing a Credible Deterrent Against Patent Lawsuits” “An Apology to Our Customers”
16. Which one of the following is mentioned in passage A but not in passage B?
- (A) the amassing of patents by software companies
 (B) the cost of finding all the patents a product may infringe
 (C) the negative effect of patents on software development
 (D) the high cost of patent litigation in general
 (E) the dubious nature of many software patents
17. Which one of the following comes closest to capturing the meaning of the phrase “invent around” (line 9)?
- (A) invent a product whose use is so obvious that no one can have a patent on it
 (B) conceal the fact that a product infringes a patent
 (C) implement a previously patented idea in a way other than that intended by the patent holder
 (D) develop new products based on principles that are entirely different from those for products affected by competitors’ patents
 (E) devise something that serves the same function as the patented invention without violating the patent

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18. Which one of the following most accurately describes the relationship between the two passages?
- (A) Passage A objectively reports a set of events; passage B subjectively takes issue with aspects of the reported events.
 - (B) Passage A discusses a problem in an industry; passage B states the position of a party dealing with that problem.
 - (C) Passage A is highly critical of a defensive strategy used by an industry; passage B is a clarification of that strategy.
 - (D) Passage A describes an impasse within an industry; passage B suggests a way out of this impasse.
 - (E) Passage A lays out both sides of a dispute; passage B focuses on one of those sides.
19. The authors of the passages would be most likely to agree that software companies would be well advised to
- (A) amass their own portfolios of software patents
 - (B) attempt to license software patented by other companies
 - (C) exploit patents already owned by competitors
 - (D) refrain from infringing on any patents held by other companies
 - (E) research the patents relevant to their products more thoroughly
20. In terms of what it alludes to, “this same stance” (line 60) is most closely related to which one of the following phrases in passage A?
- (A) nonobvious (line 2)
 - (B) invent around (line 9)
 - (C) lowered the bar (line 13)
 - (D) credible deterrent (line 20)
 - (E) modular components (lines 27–28)
21. Which one of the following, if true, would cast doubt on the position concerning innovation in software development taken in the first paragraph of passage B?
- (A) Most patents for software innovations have a duration of only 20 years or less.
 - (B) Software companies that do not patent software generally offer products that are more reliable than those that do.
 - (C) Some proprietary vendors oppose software patents for self-interested reasons.
 - (D) Software innovation would be less profitable if software could not be patented.
 - (E) The main beneficiaries of software innovations are large corporations rather than individual innovators.

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- Calvaria major* is a rare but once-abundant tree found on the island of Mauritius, which was also home to the dodo, a large flightless bird that became extinct about three centuries ago. In 1977 Stanley Temple, an ecologist whose investigation of *Calvaria major* was a sidelight to his research on endangered birds of Mauritius, proposed that the population decline of *Calvaria major* was linked to the demise of the dodo, a hypothesis that subsequently gained considerable currency. Temple had found only thirteen *Calvaria major* trees on Mauritius, all overmature and dying, and all estimated by foresters at over 300 years old. These trees produced fruits that appeared fertile but that Temple assumed could no longer germinate, given his failure to find younger trees.

- The temporal coincidence between the extinction of the dodo and what Temple considered the last evidence of natural germination of *Calvaria major* seeds led him to posit a causal connection. Specifically, he hypothesized that the fruit of *Calvaria major* had developed its extremely thick-walled pit as an evolutionary response to the dodo's habitual consumption of those fruits, a trait enabling the pits to withstand the abrasive forces exerted on them in the birds' digestive tracts. This defensive thickness, though, ultimately prevented the seeds within the pits from germinating without the thinning caused by abrasion in the dodo's gizzard. What had once been adaptive, Temple maintained, became a lethal imprisonment for the seeds after the dodo vanished.

- Although direct proof was unattainable, Temple did offer some additional findings in support of his hypothesis, which lent his argument a semblance of rigor. From studies of other birds, he estimated the abrasive force generated within a dodo's gizzard. Based on this estimate and on test results determining the crush-resistant strength of *Calvaria major* pits, he concluded that the pits could probably have withstood a cycle through a dodo's gizzard. He also fed *Calvaria major* pits to turkeys, and though many of the pits were destroyed, ten emerged, abraded yet intact. Three of these sprouted when planted, which he saw as vindicating his hypothesis.

- Though many scientists found this dramatic and intriguing hypothesis plausible, Temple's proposals have been strongly challenged by leading specialists in the field. Where Temple had found only thirteen specimens of *Calvaria major*, Wendy Strahm, the foremost expert on the plant ecology of Mauritius, has identified hundreds, many far younger than three centuries. So *Calvaria major* seeds have in fact germinated, and the tree's reproductive cycle has thus continued, since the dodo's disappearance. Additional counterevidence comes from horticultural research by Anthony Speke, which shows that while only a minority of unabraded *Calvaria major* seeds germinate, the number is still probably sufficient to keep this species from becoming extinct. The population decline, while clearly acute, could easily be due to other factors, including disease and damage done by certain nonindigenous animals introduced onto Mauritius in the past few centuries.

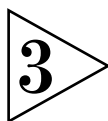
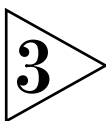
22. Which one of the following most accurately expresses the main point of the passage?

- (A) *Calvaria major* germination, though rare, is probably adequate to avoid extinction of the species.
- (B) The appeal of Temple's hypothesis notwithstanding, the scarcity of *Calvaria major* is probably not due to the extinction of the dodo.
- (C) Temple's experimentation with *Calvaria major* pits, though methodologically unsound, nevertheless led to a probable solution to the mystery of the tree's decline.
- (D) Temple's dramatic but speculative hypothesis, though presented without sufficient supporting research, may nevertheless be correct.
- (E) *Calvaria major* would probably still be scarce today even if the dodo had not become extinct.

23. The author indicates that Temple's research on birds of the island of Mauritius

- (A) was largely concerned with species facing the threat of extinction
- (B) furnished him with the basis for his highly accurate estimates of the crush-resistant strength of *Calvaria major* pits
- (C) provided experimental evidence that some modern birds' gizzards exert roughly the same amount of abrasive force on their contents as did dodo gizzards
- (D) was comprehensive in scope and conducted with methodological precision
- (E) was originally inspired by his observation that apparently fertile *Calvaria major* pits were nevertheless no longer able to germinate

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24. In saying that Temple's supporting evidence lent his argument a "semblance of rigor" (lines 33–34), the author most likely intends to indicate that
- (A) despite his attempts to use strict scientific methodology, Temple's experimental findings regarding *Calvaria major* pits were not carefully derived and thus merely appeared to support his hypothesis
 - (B) direct proof of a hypothesis of the sort Temple was investigating is virtually impossible to obtain, even with the most exact measurements and observations
 - (C) in contrast to Temple's secondhand information concerning the age of the thirteen overmature *Calvaria major* trees he found, his experiments with turkeys and other birds represented careful and accurate firsthand research
 - (D) in his experimentation on *Calvaria major* pits, Temple produced quantitative experimental results that superficially appeared to bolster the scientific credibility of his hypothesis
 - (E) although the consensus among experts is that Temple's overall conclusion is mistaken, the scientific precision and the creativity of Temple's experimentation remain admirable
25. The passage indicates which one of the following about the abrasion of *Calvaria major* pit walls?
- (A) Thinning through abrasion is not necessary for germination of *Calvaria major* seeds.
 - (B) In Temple's experiment, the abrasion caused by the digestive tracts of turkeys always released *Calvaria major* seeds, undamaged, from their hard coverings.
 - (C) Temple was mistaken in believing that the abrasion caused by dodos would have been sufficient to thin the pit walls to any significant degree.
 - (D) Abrasion of *Calvaria major* pit walls by the digestive tracts of animals occurred commonly in past centuries but rarely occurs in nature today.
 - (E) Temple overlooked the fact that other natural environmental forces have been abrading *Calvaria major* pit walls since the dodo ceased to fulfill this role.
26. It can be most logically inferred from the passage that the author regards Temple's hypothesis that the extinction of the dodo was the cause of *Calvaria major*'s seeming loss of the ability to reproduce as which one of the following?
- (A) essentially correct, but containing some inaccurate details
 - (B) initially implausible, but vindicated by his empirical findings
 - (C) an example of a valuable scientific achievement outside a researcher's primary area of expertise
 - (D) laudable for its precise formulation and its attention to historical detail
 - (E) an attempt to explain a state of affairs that did not in fact exist
27. Based on the passage, it can be inferred that the author would be likely to agree with each of the following statements about *Calvaria major* EXCEPT:
- (A) The causes of the evolution of the tree's particularly durable pit wall have not been definitively identified by Temple's critics.
 - (B) The notion that the thickness of the pit wall in the tree's fruit has been a factor contributing to the decline of the tree has not been definitively discredited.
 - (C) In light of the current rate of germination of seeds of the species, it is surprising that the tree has not been abundant since the dodo's disappearance.
 - (D) There is good reason to believe that the tree is not threatened with imminent extinction.
 - (E) *Calvaria major* seeds can germinate even if they do not first pass through a bird's digestive system.

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.