



ESSAY

Time — 25 minutes

Turn to page 2 of your answer sheet to write your ESSAY.

The essay gives you an opportunity to show how effectively you can develop and express ideas. You should, therefore, take care to develop your point of view, present your ideas logically and clearly, and use language precisely.

Your essay must be written on the lines provided on your answer sheet—you will receive no other paper on which to write. You will have enough space if you write on every line, avoid wide margins, and keep your handwriting to a reasonable size. Remember that people who are not familiar with your handwriting will read what you write. Try to write or print so that what you are writing is legible to those readers.

Important Reminders:

- **A pencil is required for the essay.** An essay written in ink will receive a score of zero.
- **Do not write your essay in your test book.** You will receive credit only for what you write on your answer sheet.
- **An off-topic essay will receive a score of zero.**
- **If your essay does not reflect your original and individual work, your test scores may be canceled.**

You have twenty-five minutes to write an essay on the topic assigned below.

Think carefully about the issue presented in the following excerpt and the assignment below.

A colleague of the great scientist James Watson remarked that Watson was always “lounging around, arguing about problems instead of doing experiments.” He concluded that “There is more than one way of doing good science.” It was Watson’s form of idleness, the scientist went on to say, that allowed him to solve “the greatest of all biological problems: the discovery of the structure of DNA.” It is a point worth remembering in a society overly concerned with efficiency.

Adapted from John C. Polanyi, “Understanding Discovery”

Assignment: Do people accomplish more when they are allowed to do things in their own way? Plan and write an essay in which you develop your point of view on this issue. Support your position with reasoning and examples taken from your reading, studies, experience, or observations.

BEGIN WRITING YOUR ESSAY ON PAGE 2 OF THE ANSWER SHEET.

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.**



SECTION 2

Time — 25 minutes

20 Questions

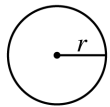
Turn to Section 2 (page 4) of your answer sheet to answer the questions in this section.

Directions: For this section, solve each problem and decide which is the best of the choices given. Fill in the corresponding circle on the answer sheet. You may use any available space for scratchwork.

Notes

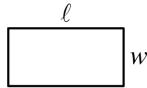
- The use of a calculator is permitted.
- All numbers used are real numbers.
- Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is not drawn to scale. All figures lie in a plane unless otherwise indicated.
- Unless otherwise specified, the domain of any function f is assumed to be the set of all real numbers x for which $f(x)$ is a real number.

Reference Information

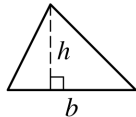


$$A = \pi r^2$$

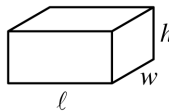
$$C = 2\pi r$$



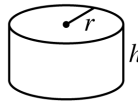
$$A = \ell w$$



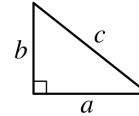
$$A = \frac{1}{2}bh$$



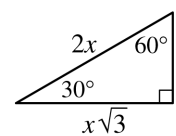
$$V = \ell wh$$



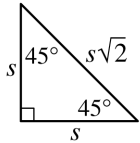
$$V = \pi r^2 h$$



$$c^2 = a^2 + b^2$$



Special Right Triangles



The number of degrees of arc in a circle is 360.

The sum of the measures in degrees of the angles of a triangle is 180.

- When 70,000 is written as 7.0×10^n , what is the value of n ?
 - 1
 - 2
 - 3
 - 4
 - 5
- On a car trip Sam drove m miles, Kara drove twice as many miles as Sam, and Darin drove 20 fewer miles than Kara. In terms of m , how many miles did Darin drive?
 - $2m + 20$
 - $2m - 20$
 - $\frac{m}{2} + 20$
 - $\frac{m + 20}{2}$
 - $\frac{m}{2} - 20$



3. If x and y are positive integers, what are all the solutions (x, y) of the equation $3x + 2y = 11$?

(A) (1,4) only
 (B) (3,1) only
 (C) (1,4) and (2,2)
 (D) (1,4) and (3,1)
 (E) (2,2) and (3,1)

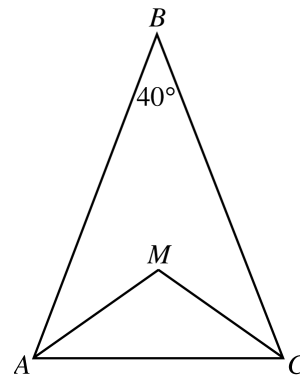
4. A company's profit, P , in dollars, for producing x machines in one day is given by $P = 500x - 20x^2$. If the company produces 10 machines in one day, then, according to this formula, what is the profit for that day?

(A) \$5,000
 (B) \$4,000
 (C) \$3,000
 (D) \$2,000
 (E) \$1,000

$$12 - n, 12, 12 + n$$

5. What is the average (arithmetic mean) of the 3 quantities in the list above?

(A) 4
 (B) 12
 (C) 18
 (D) $4 + \frac{n}{3}$
 (E) $12 + \frac{n}{3}$



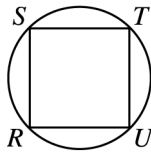
6. In isosceles triangle ABC above, \overline{AM} and \overline{CM} are the angle bisectors of angle BAC and angle BCA . What is the measure of angle AMC ?

(A) 110°
 (B) 115°
 (C) 120°
 (D) 125°
 (E) 130°



7. A fruit salad is made from pineapples, pears, and peaches mixed in the ratio of 2 to 3 to 5, respectively, by weight. What fraction of the mixture by weight is pineapple?

- (A) $\frac{1}{5}$
 (B) $\frac{3}{10}$
 (C) $\frac{2}{5}$
 (D) $\frac{1}{2}$
 (E) $\frac{2}{3}$



8. In the figure above, square $RSTU$ is inscribed in the circle. What is the degree measure of arc \widehat{ST} ?

- (A) 45°
 (B) 60°
 (C) 90°
 (D) 120°
 (E) 180°

9. If P and Q are two sets of numbers, and if every number in P is also in Q , which of the following CANNOT be true?

- (A) 4 is in both P and Q .
 (B) 5 is in neither P nor Q .
 (C) 6 is in P , but not in Q .
 (D) 7 is in Q , but not in P .
 (E) If 8 is not in Q , then 8 is not in P .

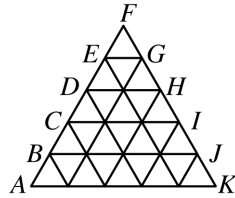
10. What is the maximum number of rectangular blocks measuring 3 inches by 2 inches by 1 inch that can be packed into a cube-shaped box whose interior measures 6 inches on an edge?

- (A) 24
 (B) 28
 (C) 30
 (D) 36
 (E) 40



11. If $a \neq 0$ and $\frac{5}{x} = \frac{5+a}{x+a}$, what is the value of x ?

- (A) -5
- (B) -1
- (C) 1
- (D) 2
- (E) 5



12. The figure above is composed of 25 small triangles that are congruent and equilateral. If the area of $\triangle DFH$ is 10, what is the area of $\triangle AFK$?

- (A) 40
- (B) 42.5
- (C) 50
- (D) 52.5
- (E) 62.5

$$3x + 2y + 2z = 19$$

$$3x + y + z = 14$$

13. If the equations above are true, which of the following is the value of $y + z$?

- (A) -5
- (B) -4
- (C) 0
- (D) 4
- (E) 5

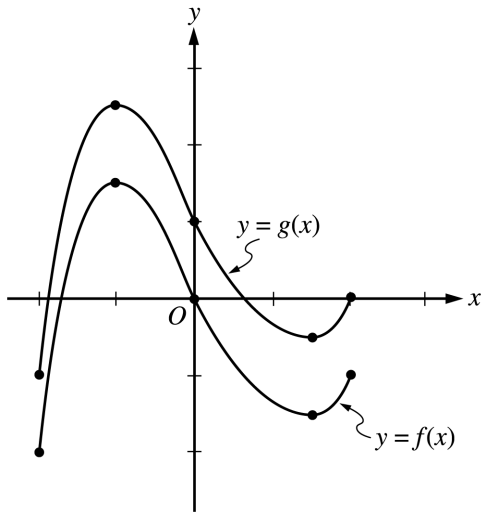
14. A boat costs x dollars, and this cost is to be shared equally by a group of people. In terms of x , how many dollars less will each person contribute if there are 4 people in the group instead of 3?

- (A) $\frac{x}{12}$
- (B) $\frac{x}{4}$
- (C) $\frac{x}{3}$
- (D) $\frac{7x}{12}$
- (E) $7x$



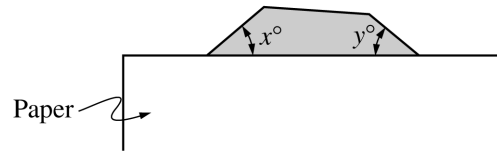
15. If $y = 2x + 3$ and $x < 2$, which of the following represents all the possible values for y ?

- (A) $y < 7$
 (B) $y > 7$
 (C) $y < 5$
 (D) $y > 5$
 (E) $5 < y < 7$



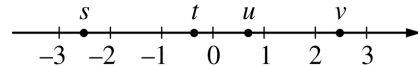
16. The graphs of the functions f and g in the interval from $x = -2$ to $x = 2$ are shown above. Which of the following could express g in terms of f ?

- (A) $g(x) = f(x + 1)$
 (B) $g(x) = f(x) + 1$
 (C) $g(x) = f(x + 1) + 1$
 (D) $g(x) = f(x - 1)$
 (E) $g(x) = f(x) - 1$



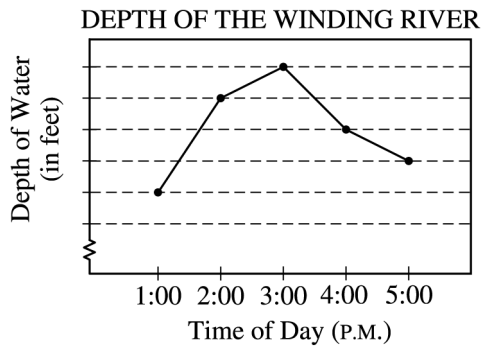
17. In the figure above, a shaded polygon which has equal sides and equal angles is partially covered with a sheet of blank paper. If $x + y = 80$, how many sides does the polygon have?

- (A) Ten
 (B) Nine
 (C) Eight
 (D) Seven
 (E) Six



18. If s , t , u , and v are the coordinates of the indicated points on the number line above, which of the following is greatest?

- (A) $|s + t|$
 (B) $|s + v|$
 (C) $|s - t|$
 (D) $|s - v|$
 (E) $|s + u|$



19. On the day of a rainstorm, the depth of the water at a certain location along the Winding River was recorded hourly, and the results are indicated in the line graph above. Each unit on the vertical axis represents 1 foot. If the depth of the water decreased 10 percent from 3:00 P.M. to 4:00 P.M., what was the depth of the water at 4:00 P.M.?
- (A) 3 feet
 (B) 15 feet
 (C) 18 feet
 (D) 20 feet
 (E) 30 feet

20. For all numbers a and b , let $a \odot b$ be defined by $a \odot b = ab + a + b$. For all numbers x , y , and z , which of the following must be true?

- I. $x \odot y = y \odot x$
 II. $(x - 1) \odot (x + 1) = (x \odot x) - 1$
 III. $x \odot (y + z) = (x \odot y) + (x \odot z)$
- (A) I only
 (B) II only
 (C) III only
 (D) I and II only
 (E) I, II, and III

STOP

If you finish before time is called, you may check your work on this section only.
 Do not turn to any other section in the test.

**SECTION 4**

Time — 25 minutes

24 Questions

Turn to Section 4 (page 5) of your answer sheet to answer the questions in this section.**Directions:** For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

Each sentence below has one or two blanks, each blank indicating that something has been omitted. Beneath the sentence are five words or sets of words labeled A through E. Choose the word or set of words that, when inserted in the sentence, best fits the meaning of the sentence as a whole.

Example:

Hoping to ----- the dispute, negotiators proposed a compromise that they felt would be ----- to both labor and management.

- (A) enforce . . useful
(B) end . . divisive
(C) overcome . . unattractive
(D) extend . . satisfactory
(E) resolve . . acceptable

(A) (B) (C) (D) ●

- Some fans feel that sports events are ----- only when the competitors are of equal ability, making the outcome of the game -----.
(A) successful . . assured
(B) boring . . questionable
(C) dull . . foreseen
(D) interesting . . predictable
(E) exciting . . uncertain
- Alfred Schnittke's musical compositions are -----: phrases are clipped, broken into sections, and split apart by long rests.
(A) garnished (B) improvisational
(C) fragmented (D) cautious (E) uniform
- The consumer advocate claimed that while drug manufacturers ----- the supposed advantages of their proprietary brands, generic versions of the same medications are often equally -----.
(A) tout . . efficacious
(B) research . . innocuous
(C) market . . prohibitive
(D) laud . . counterproductive
(E) extract . . prescriptive
- Latoya's ----- is shown by her ability to be -----: she can see her own faults more clearly than anyone else can.
(A) perceptiveness . . self-centered
(B) objectivity . . restrictive
(C) cynicism . . self-destructive
(D) open-mindedness . . complacent
(E) insightfulness . . self-critical
- The bearded dragon lizard is a voracious eater, so ----- that it will consume as many insects as possible.
(A) abstemious (B) cannibalistic (C) slovenly
(D) insatiable (E) unpalatable
- Because drummer Tony Williams paved the way for later jazz-fusion musicians, he is considered a ----- of that style.
(A) connoisseur (B) revivalist (C) beneficiary
(D) disparager (E) progenitor
- The politician's speech to the crowd was composed of nothing but -----, a bitter railing against the party's opponents.
(A) digressions (B) diatribes (C) platitudes
(D) machinations (E) acclamations
- Favoring economy of expression in writing, the professor urged students toward a ----- rather than an ----- prose style.
(A) spare . . ornate
(B) terse . . opinionated
(C) personal . . academic
(D) baroque . . embellished
(E) repetitive . . intricate



The passages below are followed by questions based on their content; questions following a pair of related passages may also be based on the relationship between the paired passages. Answer the questions on the basis of what is stated or implied in the passages and in any introductory material that may be provided.

Questions 9-12 are based on the following passages.

Passage 1

Food has always been considered one of the most salient markers of cultural traditions. When I was a small child, food was the only thing that helped identify my family as Filipino American. We ate *pansit lug-lug* (a noodle dish) and my father put *patis* (salty fish sauce) on everything. However, even this connection lessened as I grew older. As my parents became more acculturated, we ate less typically Filipino food. When I was twelve, my mother took cooking classes and learned to make French and Italian dishes. When I was in high school, we ate chicken marsala and shrimp fra diablo more often than Filipino dishes like *pansit lug-lug*.

Passage 2

Jean Anthelme Brillat-Savarin—who in 1825 confidently announced, “Tell me what you eat, and I will tell you who you are”—would have no trouble describing cultural identities of the United States. Our food reveals us as tolerant adventurers who do not feel constrained by tradition. We “play with our food” far more readily than we preserve the culinary rules of our varied ancestors. Americans have no single national cuisine. What unites American eaters culturally is how we eat, not what we eat. As eaters, Americans mingle the culinary traditions of many regions and cultures. We are multiethnic eaters.

9. Which of the following statements best captures the relationship between the two passages?
- (A) Passage 1 notes problems for which Passage 2 proposes solutions.
 - (B) Passage 1 presents claims that are debunked by Passage 2.
 - (C) Passage 2 furnishes a larger context for the experiences described in Passage 1.
 - (D) Passage 2 provides an update of the situation depicted in Passage 1.
 - (E) Passage 2 uses material presented in Passage 1 to correct a popular misconception.
10. The author of Passage 2 would most likely regard the mother’s willingness to “make French and Italian dishes” (lines 9-10, Passage 1) as
- (A) laughably pretentious
 - (B) understandably conservative
 - (C) typically American
 - (D) a regrettable compromise
 - (E) a surprising attitude
11. The two passages differ in their discussions of food primarily in that Passage 1
- (A) considers specific dishes eaten by particular people, whereas Passage 2 comments on a culture’s general attitude toward eating
 - (B) contrasts the cuisines of different cultures, whereas Passage 2 emphasizes culinary practices common to all cultures
 - (C) presents an abstract theory of food, whereas Passage 2 offers a historical analysis of consumption
 - (D) emphasizes the role of nostalgia in food preferences, whereas Passage 2 rejects that approach as overly sentimental
 - (E) outlines some popular choices in cuisine, whereas Passage 2 underscores those that are more unusual
12. Unlike the author of Passage 2, the author of Passage 1 makes significant use of
- (A) direct quotation
 - (B) sociological analysis
 - (C) hypothetical assumptions
 - (D) historical sources
 - (E) personal experience



Questions 13-24 are based on the following passages.

The passages below discuss the possibility of locating intelligent life on other planets. Passage 1 has been adapted from a 1999 book on the history of the universe. Passage 2 was excerpted from a 2000 book on the scientific quest for extraterrestrial life.

Passage 1

Line Generations of science-fiction movies have conditioned
5 the reality, however, is that finding any kind of life at all, even something as simple as bacteria, would be one of the most exciting discoveries ever made.

The consensus within the scientific community seems to be that we eventually will find not only life in other parts of the galaxy but also intelligent and technologically advanced life. I have to say that I disagree. While I believe we will find other forms of life in other solar systems (if not in our own), I also feel it is extremely unlikely that a large number of advanced technological civilizations are out there, waiting to be discovered. The most succinct support for my view comes from Nobel laureate physicist Enrico Fermi, the man who ran the first nuclear reaction ever controlled by human beings. Confronted at a 1950 luncheon with scientific arguments for the ubiquity of technologically advanced civilizations, he supposedly said, "So where is everybody?"

This so-called Fermi Paradox embodies a simple logic. Human beings have had modern science only a few hundred years, and already we have moved into space. It is not hard to imagine that in a few hundred more years we will be a starfaring people, colonizing other systems. Fermi's argument maintains that it is extremely unlikely that many other civilizations discovered science at exactly the same time we did. Had they acquired science even a thousand years earlier than we, they now could be so much more advanced that they would already be colonizing our solar system.

If, on the other hand, they are a thousand years behind us, we will likely arrive at their home planet before they even begin sending us radio signals. Technological advances build upon each other, increasing technological abilities faster than most people anticipate. Imagine, for example, how astounded even a great seventeenth-century scientist like Isaac Newton would be by our current global communication system, were he alive today. Where are those highly developed extraterrestrial civilizations so dear to the hearts of science-fiction writers? Their existence is far from a foregone conclusion.

Passage 2

Although posed in the most casual of circumstances, the Fermi Paradox has reverberated through the decades and has at times threatened to destroy the credibility of those scientists seriously engaged in the Search for Extraterrestrial Intelligence (SETI) research program.

One possible answer to Fermi's question ("If there are extraterrestrials, where are they?") is that extraterrestrials have in fact often visited Earth, and continue to do so. This is the answer of those who believe in the existence of unidentified flying objects, or UFO's. But few scientists, even those engaged in SETI, take the UFO claims seriously. "You won't find anyone around here who believes in UFO's," says Frank Drake, a well-known SETI scientist. If one discounts the UFO claims, yet still believes that there are many technological civilizations in the galaxy, why have they not visited us? Drake's answer is straightforward: "High-speed interstellar travel is so demanding of resources and so hazardous that intelligent civilizations don't attempt it." And why should they attempt it, when radio communication can supply all the information they might want?

At first glance, Drake's argument seems very persuasive. The distances between stars are truly immense. To get from Earth to the nearest star and back, traveling at 99 percent of the speed of light, would take 8 years. And SETI researchers have shown that, to accelerate a spacecraft to such a speed, to bring it to a stop, and to repeat the process in the reverse direction, would take almost unimaginable amounts of energy.

Astronomer Ben Zuckerman challenges Drake's notion that technological beings would be satisfied with radio communication. "Drake's implicit assumption is that the only thing we're going to care about is intelligent life. But what if we have an interest in simpler life-forms? If you turn the picture around and you have some advanced extraterrestrials looking at the Earth, until the last hundred years there was no evidence of intelligent life but for billions of years before that they could have deduced that this was a very unusual world and that there were probably living creatures on it. They would have had billions of years to come investigate." Zuckerman contends that the reason extraterrestrials haven't visited us is that so few exist.



13. Which statement about the Fermi Paradox is supported by both passages?
- (A) It articulates a crucial question for those interested in the existence of extraterrestrials.
 (B) It clarifies the astronomical conditions required to sustain life on other planets.
 (C) It reveals the limitations of traditional ideas about the pace of technological change.
 (D) It demonstrates the scientific community's fascination with the concept of interstellar travel.
 (E) It suggests that advanced extraterrestrial civilizations may be uninterested in our culture.
14. Which statement best describes a significant difference between the two passages?
- (A) Passage 1 analyzes a literary form, while Passage 2 argues that literature has little bearing on science.
 (B) Passage 1 presents an argument, while Passage 2 surveys current opinion in a debate.
 (C) Passage 1 concludes by rejecting the Fermi Paradox, while Passage 2 opens by embracing it.
 (D) Passage 1 describes a phenomenon, while Passage 2 details a belief system that would reject such a phenomenon.
 (E) Passage 1 defends a viewpoint, while Passage 2 questions that viewpoint's place in scientific research.
15. The author of Passage 1 mentions "monsters," "humanoids," and "creatures" (lines 2-4) primarily to
- (A) question the literary value of science fiction
 (B) contrast fictional notions with a scientific perspective
 (C) offer examples of the human fear of the unknown
 (D) criticize science fiction for being unduly alarmist
 (E) suggest that scientific research has been influenced by science fiction
16. In line 17, "ran" most nearly means
- (A) fled
 (B) accumulated
 (C) traversed
 (D) managed
 (E) incurred
17. Passage 1 suggests that the Fermi Paradox depends most directly on which assumption?
- (A) Extraterrestrial civilizations may not wish to be discovered by human beings.
 (B) Extraterrestrial civilizations would most likely have discovered technology at about the same time human beings discovered it.
 (C) Extraterrestrial technology would develop at roughly the same rate as human technology.
 (D) Extraterrestrial civilizations would inevitably use technology for aggressive ends.
 (E) Science is a more powerful form of human knowledge than are art and literature.
18. The claim made in Passage 1 that a "consensus" exists (lines 8-11) would most likely be interpreted by the author of Passage 2 as
- (A) evidence of compromise in the scientific community
 (B) an attack on SETI researchers
 (C) support for Fermi's analysis
 (D) a revelation of an unexpected truth
 (E) an oversimplification of a complex debate
19. The author of Passage 1 mentions Isaac Newton (lines 37-40) in order to
- (A) emphasize the rapid rate of technological innovation
 (B) acknowledge the impact of a profound thinker
 (C) criticize the inflexibility of Newton's contemporaries
 (D) speculate about Newton's influence on current research
 (E) highlight the value of scientific curiosity
20. In lines 44-48, the author of Passage 2 indicates that the Fermi Paradox has been
- (A) thoroughly misunderstood
 (B) surprisingly influential
 (C) overwhelmingly perplexing
 (D) intermittently popular
 (E) frequently misquoted

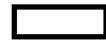


21. How would Frank Drake (line 56, Passage 2) most likely respond to the statement by the author of Passage 1 about humans “colonizing other systems” (line 26) ?
- (A) The means to accomplish such a project may be beyond our reach.
- (B) Interstellar colonization is as morally problematic as was colonization on Earth.
- (C) We would do better to study indigenous life-forms rather than search for extraterrestrial creatures.
- (D) Humans would be wise to consider that they themselves are subject to colonization.
- (E) Funding for such an undertaking would pose a thorny political issue for any government.
22. In line 57, “claims” most nearly means
- (A) demands
- (B) assertions
- (C) rights
- (D) territories
- (E) compensations
23. In line 63, “radio communication” is cited as a
- (A) complex interaction
- (B) technological relic
- (C) common occurrence
- (D) practical alternative
- (E) dramatic advance
24. Both the author of Passage 1 and Ben Zuckerman (line 73, Passage 2) imply that researchers seeking life on another planet should focus on which of the following?
- (A) Seasonal variations in color due to plant life
- (B) Evidence of the most basic forms of life
- (C) Signs of artificially created structures
- (D) Signals that might be radio communications
- (E) Changes in geological surface features

STOP

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.**

NO TEST MATERIAL ON THIS PAGE

**SECTION 5**

Time — 25 minutes

35 Questions

Turn to Section 5 (page 5) of your answer sheet to answer the questions in this section.**Directions:** For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

The following sentences test correctness and effectiveness of expression. Part of each sentence or the entire sentence is underlined; beneath each sentence are five ways of phrasing the underlined material. Choice A repeats the original phrasing; the other four choices are different. If you think the original phrasing produces a better sentence than any of the alternatives, select choice A; if not, select one of the other choices.

In making your selection, follow the requirements of standard written English; that is, pay attention to grammar, choice of words, sentence construction, and punctuation. Your selection should result in the most effective sentence—clear and precise, without awkwardness or ambiguity.

EXAMPLE:

Laura Ingalls Wilder published her first book and she was sixty-five years old then.

- (A) and she was sixty-five years old then
- (B) when she was sixty-five
- (C) at age sixty-five years old
- (D) upon the reaching of sixty-five years
- (E) at the time when she was sixty-five

(A) (B) (C) (D) (E)

1. The library is older than it but still just as beautiful as the courthouse.
- (A) older than it but still just as beautiful as the courthouse
 - (B) older and it is just as beautiful as the courthouse
 - (C) older than the courthouse; it is just as beautiful as it
 - (D) older than the courthouse but just as beautiful
 - (E) just as beautiful as the courthouse and it is older than it

2. Winslow Homer, one of America's foremost artists, spent his last 27 years and painted on the scenic Maine coast.

- (A) spent his last 27 years and painted
- (B) spent his last 27 years having painted
- (C) spent his last 27 years painting
- (D) having spent his last 27 years doing his painting
- (E) spending his last 27 years painting

3. Researchers are experimenting with various techniques for preventing the accumulation in water of high levels of nitrogen, which can kill plants and animals.

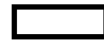
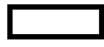
- (A) nitrogen, which can kill plants and animals
- (B) nitrogen; plants and animals can be killed
- (C) nitrogen, that is what can kill plants and animals
- (D) nitrogen, they could kill plants and animals
- (E) nitrogen, and they can kill plants and animals

4. When the news spread how new goldfields were discovered in Nome, Alaska, thousands abandoned Dawson, the site of the previous gold rush.

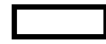
- (A) how new goldfields were discovered
- (B) how there was discovery of new goldfields
- (C) about new goldfields, which they discovered
- (D) about new goldfields, and they were discovered
- (E) about new goldfields that had been discovered

5. When the Berlin Wall, long a symbol of the Cold War, began to be torn down in 1989, five million people went to Berlin to celebrate that.

- (A) to celebrate that
- (B) for its celebration
- (C) to celebrate
- (D) in celebration of that
- (E) in celebrating



6. To complete the music program, a student must present one vocal performance, one instrumental performance, and composing one original work.
- (A) and composing one original work
(B) and one original composition
(C) with one original composition
(D) and to compose one original work
(E) as well as the student's original composition
7. Zookeepers have expanded one's definition of care to include concern for the animal's mental state as well as for its physical well-being.
- (A) have expanded one's definition of care to include
(B) have expanded one's definition of care, including
(C) expand their definition of care, they include
(D) expanding the definition of care to include
(E) have expanded their definition of care to include
8. The time and the place for such a large event is subject to approving from the mayor's office.
- (A) The time and the place for such a large event is subject to approving from the mayor's office.
(B) For such a large event, the time and the place are subject to the mayor's office's approving them.
(C) The time and the place for such a large event are subject to the approval of the mayor's office.
(D) The time and place for such a large event are subject to be approved by the office of the mayor.
(E) Subject to the approval of the mayor's office are the time and place for such a large event taking place.
9. New Zealand's Kaikoura Peninsula, a ruggedly beautiful spit of land, borders an undersea canyon that is home to the sperm whale and the giant squid.
- (A) borders an undersea canyon that is
(B) bordering an undersea canyon,
(C) and it borders an undersea canyon, which is
(D) which borders an undersea canyon,
(E) is the border of an undersea canyon, being
10. In similarity with some other great works, the enduring horror tale *Frankenstein* was first published anonymously; its author, Mary Shelley, wrote the novel when she was not quite nineteen years old.
- (A) In similarity with
(B) As
(C) Like what happened with
(D) Like the case with
(E) Like
11. The book is useful because it offers not just philosophy and theory but also tells you what and how to live every day.
- (A) but also tells you what and how to live every day
(B) but also it gives ways of everyday living
(C) but also advice for everyday living
(D) but also it gives practical advice for everyday life
(E) and also tells you what to do and how to live every day



The following sentences test your ability to recognize grammar and usage errors. Each sentence contains either a single error or no error at all. No sentence contains more than one error. The error, if there is one, is underlined and lettered. If the sentence contains an error, select the one underlined part that must be changed to make the sentence correct. If the sentence is correct, select choice E. In choosing answers, follow the requirements of standard written English.

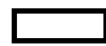
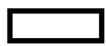
EXAMPLE:

The other delegates and him immediately
 A B C
 accepted the resolution drafted by the
 D
 neutral states. No error
 E

(A) ● (C) (D) (E)

12. The country found that its economy was growing
 A
more stronger, with an improved outlook and more
 B C
 opportunities for training and employment. No error
 D E
13. The iris, the colored part of the eye, contains delicate
 A
 patterns that are unique to each person, offering a
 B C
 powerful means of identification. No error
 D E

14. The newly elected Prime Minister, to the dismay
 A B
 of opponents from other parties, have argued for
 C
the strict regulation of campaign financing. No error
 D E
15. Studies have suggested that eating nuts—almonds
 A
 in particular—might help to lower blood cholesterol
 B
 levels in humans and reducing the risk of heart disease
 C
by protecting the blood vessels. No error
 D E
16. In English literature James Boswell is the prime
 A
 example of a biographer who, by ensuring the
 B
 immortality of another author, has achieved
 C
 immortality for himself. No error
 D E
17. Because the garden was untended, the windows
 A
had no shutters, and the lawn overrun by weeds,
 B C
 people passing by the old house assumed that
 D
 it was unoccupied. No error
 E



26. Ongoing research by several scientists suggest that
 A B
 regular periods of meditation reduce blood pressure
 C
 and are likely to contribute to other improvements
 D
 in health. No error
 E

27. Because the American Indian rodeo includes games
 and exhibitions developed as early as the seventeenth
 A
 century, they predate by a few hundred years
 B C
the form of rodeo now seen on television. No error
 D E

28. Five years in the writing, her new book is
 A
both a response to her critics' mistrust with
 B C
 her earlier findings and an elaboration of her
 D
 original thesis. No error
 E

29. Despite its cultural importance, the *Daily Gazette*
 A
lost 70 percent of its subscribers since 1920 and,
 B
 by 1955, was losing as much as \$200,000 a year.
 C D
No error
 E

Directions: The following passage is an early draft of an essay. Some parts of the passage need to be rewritten.

Read the passage and select the best answers for the questions that follow. Some questions are about particular sentences or parts of sentences and ask you to improve sentence structure or word choice. Other questions ask you to consider organization and development. In choosing answers, follow the requirements of standard written English.

Questions 30-35 are based on the following passage.

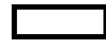
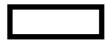
(1) No one owns Antarctica. (2) The nations of the world agreed—some of them reluctantly—that all countries would share the continent for the purposes of scientific research. (3) Governed by the Antarctic Treaty, written in 1959 and adopted in 1961, which has been signed by 27 countries. (4) Another 17 countries have agreed to abide by the treaty in order to participate in research being done in Antarctica.

(5) In Antarctica, relations among the researchers and their countries are both simpler and more complicated than in the rest of the world. (6) Relations are simpler because each country has only a few scientists on this isolated continent. (7) Treaty clauses assure that the research there is nonmilitary. (8) On the other hand, when conflicts do arise, there is no clear process for dealing with them. (9) Decisions that can make or break the preservation of Antarctica's unique environment and its scientific opportunities depend on a political system designed to have nobody in command.

(10) Clear decision making has become a more urgent challenge as more tourists are attracted to Antarctica. (11) Scientists living on Antarctica were not always as careful to preserve the pristine environment as they are now. (12) Tour operators are working with treaty members to devise regulations, and there are plans to assess the environmental impacts of tours. (13) But regulations and assessment plans may prove difficult to settle on and enforce in a place where jurisdiction is unclear.

30. What must be done to sentence 3 ?

- (A) Combine it with sentence 2, putting a comma after "research".
 (B) Begin it with the words "Antarctica is".
 (C) Replace the comma after "1961" with a semicolon.
 (D) Place the words "it was" before "written".
 (E) Change "1961, which" to "1961. It".



31. What should be done with sentence 7 ?
- (A) Change “assure” to “make sure”.
 - (B) Change “Treaty clauses” to “The clauses agreed to by the diverse countries represented there”.
 - (C) Place sentence 7 before sentence 6.
 - (D) Combine sentence 7 with sentence 6 by changing the period after “continent” to a comma.
 - (E) Combine sentence 7 with sentence 6 by changing “continent. Treaty” to “continent and also because treaty”.
32. In context, which is the best revision of the underlined portion of sentence 9 (reproduced below) ?
- Decisions that can make or break the preservation of Antarctica’s unique environment and its scientific opportunities depend on a political system designed to have nobody in command.*
- (A) create or destroy
 - (B) support or dispute
 - (C) be determined by
 - (D) be critical to
 - (E) be an adjustment to
33. The purpose of the second paragraph is to
- (A) present a situation that has contradictory elements
 - (B) offer a solution to a problem discussed in the first paragraph
 - (C) present an argument and its final resolution
 - (D) examine a theory in light of new discoveries
 - (E) discuss a theory that will be refuted in the third paragraph
34. Which sentence should be deleted?
- (A) 1
 - (B) 2
 - (C) 11
 - (D) 12
 - (E) 13
35. The third paragraph would be improved if which of the following sentences were added?
- (A) Scientists collect ice cores by driving a hollow tube deep into the miles-thick ice sheets.
 - (B) If the West Antarctic ice sheet melted, global seas would rise by 15 to 20 feet.
 - (C) It is the driest place in the world, yet it contains 70 percent of Earth’s freshwater.
 - (D) One cruise ship encountered 30-foot waves all the way across the Drake Passage.
 - (E) Last year, more than 10,000 tourists visited Antarctica, bringing soiled boots, climbing gear, and trash to many locations.

S T O P

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.**