

**Questions 11-21 are based on the following passage and supplementary material.**

This passage is adapted from Francis J. Flynn and Gabrielle S. Adams, "Money Can't Buy Love: Asymmetric Beliefs about Gift Price and Feelings of Appreciation." ©2008 by Elsevier Inc.

Every day, millions of shoppers hit the stores in full force—both online and on foot—searching frantically for the perfect gift. Last year, Americans  
 Line spent over \$30 billion at retail stores in the month of  
 5 December alone. Aside from purchasing holiday gifts, most people regularly buy presents for other occasions throughout the year, including weddings, birthdays, anniversaries, graduations, and baby showers. This frequent experience of gift-giving can  
 10 engender ambivalent feelings in gift-givers. Many relish the opportunity to buy presents because gift-giving offers a powerful means to build stronger bonds with one's closest peers. At the same time, many dread the thought of buying gifts; they worry  
 15 that their purchases will disappoint rather than delight the intended recipients.

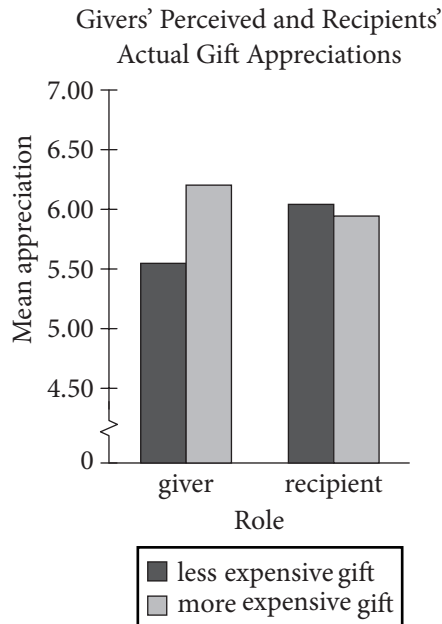
Anthropologists describe gift-giving as a positive social process, serving various political, religious, and psychological functions. Economists, however, offer  
 20 a less favorable view. According to Waldfogel (1993), gift-giving represents an objective waste of resources. People buy gifts that recipients would not choose to buy on their own, or at least not spend as much money to purchase (a phenomenon referred to as  
 25 "the deadweight loss of Christmas"). To wit, givers are likely to spend \$100 to purchase a gift that receivers would spend only \$80 to buy themselves. This "deadweight loss" suggests that gift-givers are not very good at predicting what gifts others will  
 30 appreciate. That in itself is not surprising to social psychologists. Research has found that people often struggle to take account of others' perspectives—their insights are subject to egocentrism, social projection, and multiple attribution errors.

35 What is surprising is that gift-givers have considerable experience acting as both gift-givers and gift-recipients, but nevertheless tend to overspend each time they set out to purchase a meaningful gift. In the present research, we propose a unique  
 40 psychological explanation for this overspending problem—i.e., that gift-givers equate how much they

spend with how much recipients will appreciate the gift (the more expensive the gift, the stronger a gift-recipient's feelings of appreciation). Although a  
 45 link between gift price and feelings of appreciation might seem intuitive to gift-givers, such an assumption may be unfounded. Indeed, we propose that gift-recipients will be less inclined to base their feelings of appreciation on the magnitude of a gift  
 50 than givers assume.

Why do gift-givers assume that gift price is closely linked to gift-recipients' feelings of appreciation? Perhaps givers believe that bigger (i.e., more expensive) gifts convey stronger signals of  
 55 thoughtfulness and consideration. According to Camerer (1988) and others, gift-giving represents a symbolic ritual, whereby gift-givers attempt to signal their positive attitudes toward the intended recipient and their willingness to invest resources in a future  
 60 relationship. In this sense, gift-givers may be motivated to spend more money on a gift in order to send a "stronger signal" to their intended recipient. As for gift-recipients, they may not construe smaller and larger gifts as representing smaller and larger  
 65 signals of thoughtfulness and consideration.

The notion of gift-givers and gift-recipients being unable to account for the other party's perspective seems puzzling because people slip in and out of these roles every day, and, in some cases, multiple  
 70 times in the course of the same day. Yet, despite the extensive experience that people have as both givers and receivers, they often struggle to transfer information gained from one role (e.g., as a giver) and apply it in another, complementary role (e.g., as  
 75 a receiver). In theoretical terms, people fail to utilize information about their own preferences and experiences in order to produce more efficient outcomes in their exchange relations. In practical terms, people spend hundreds of dollars each year on  
 80 gifts, but somehow never learn to calibrate their gift expenditures according to personal insight.



11

- The authors most likely use the examples in lines 1-9 of the passage (“Every . . . showers”) to highlight the
- A) regularity with which people shop for gifts.
  - B) recent increase in the amount of money spent on gifts.
  - C) anxiety gift shopping causes for consumers.
  - D) number of special occasions involving gift-giving.

12

- In line 10, the word “ambivalent” most nearly means
- A) unrealistic.
  - B) conflicted.
  - C) apprehensive.
  - D) supportive.

13

- The authors indicate that people value gift-giving because they feel it
- A) functions as a form of self-expression.
  - B) is an inexpensive way to show appreciation.
  - C) requires the gift-recipient to reciprocate.
  - D) can serve to strengthen a relationship.

14

- Which choice provides the best evidence for the answer to the previous question?
- A) Lines 10-13 (“Many . . . peers”)
  - B) Lines 22-23 (“People . . . own”)
  - C) Lines 31-32 (“Research . . . perspectives”)
  - D) Lines 44-47 (“Although . . . unfounded”)

15

- The “social psychologists” mentioned in paragraph 2 (lines 17-34) would likely describe the “deadweight loss” phenomenon as
- A) predictable.
  - B) questionable.
  - C) disturbing.
  - D) unprecedented.

16

- The passage indicates that the assumption made by gift-givers in lines 41-44 may be
- A) insincere.
  - B) unreasonable.
  - C) incorrect.
  - D) substantiated.

17

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 53-55 (“Perhaps . . . consideration”)
- B) Lines 55-60 (“According . . . relationship”)
- C) Lines 63-65 (“As . . . consideration”)
- D) Lines 75-78 (“In . . . relations”)

18

As it is used in line 54, “convey” most nearly means

- A) transport.
- B) counteract.
- C) exchange.
- D) communicate.

19

The authors refer to work by Camerer and others (line 56) in order to

- A) offer an explanation.
- B) introduce an argument.
- C) question a motive.
- D) support a conclusion.

20

The graph following the passage offers evidence that gift-givers base their predictions of how much a gift will be appreciated on

- A) the appreciation level of the gift-recipients.
- B) the monetary value of the gift.
- C) their own desires for the gifts they purchase.
- D) their relationship with the gift-recipients.

21

The authors would likely attribute the differences in gift-giver and recipient mean appreciation as represented in the graph to

- A) an inability to shift perspective.
- B) an increasingly materialistic culture.
- C) a growing opposition to gift-giving.
- D) a misunderstanding of intentions.

**Questions 42-52 are based on the following passages.**

Passage 1 is adapted from Michael Slezak, "Space Mining: the Next Gold Rush?" ©2013 by New Scientist. Passage 2 is from the editors of *New Scientist*, "Taming the Final Frontier." ©2013 by New Scientist.

**Passage 1**

Follow the money and you will end up in space. That's the message from a first-of-its-kind forum on mining beyond Earth.

Line Convened in Sydney by the Australian Centre for  
5 Space Engineering Research, the event brought together mining companies, robotics experts, lunar scientists, and government agencies that are all working to make space mining a reality.

The forum comes hot on the heels of the  
10 2012 unveiling of two private asteroid-mining firms. Planetary Resources of Washington says it will launch its first prospecting telescopes in two years, while Deep Space Industries of Virginia hopes to be harvesting metals from asteroids by 2020. Another  
15 commercial venture that sprung up in 2012, Golden Spike of Colorado, will be offering trips to the moon, including to potential lunar miners.

Within a few decades, these firms may be meeting earthly demands for precious metals, such as  
20 platinum and gold, and the rare earth elements vital for personal electronics, such as yttrium and lanthanum. But like the gold rush pioneers who transformed the western United States, the first space miners won't just enrich themselves. They also hope  
25 to build an off-planet economy free of any bonds with Earth, in which the materials extracted and processed from the moon and asteroids are delivered for space-based projects.

In this scenario, water mined from other  
30 worlds could become the most desired commodity. "In the desert, what's worth more: a kilogram of gold or a kilogram of water?" asks Kris Zacny of HoneyBee Robotics in New York. "Gold is useless. Water will let you live."

35 Water ice from the moon's poles could be sent to astronauts on the International Space Station for drinking or as a radiation shield. Splitting water into oxygen and hydrogen makes spacecraft fuel, so ice-rich asteroids could become interplanetary  
40 refuelling stations.

Companies are eyeing the iron, silicon, and aluminium in lunar soil and asteroids, which could be used in 3D printers to make spare parts or machinery. Others want to turn space dirt into  
45 concrete for landing pads, shelters, and roads.

**Passage 2**

The motivation for deep-space travel is shifting from discovery to economics. The past year has seen a flurry of proposals aimed at bringing celestial riches down to Earth. No doubt this will make a few  
50 billionaires even wealthier, but we all stand to gain: the mineral bounty and spin-off technologies could enrich us all.

But before the miners start firing up their rockets, we should pause for thought. At first glance, space  
55 mining seems to sidestep most environmental concerns: there is (probably!) no life on asteroids, and thus no habitats to trash. But its consequences—both here on Earth and in space—merit careful consideration.

60 Part of this is about principles. Some will argue that space's "magnificent desolation" is not ours to despoil, just as they argue that our own planet's poles should remain pristine. Others will suggest that glutting ourselves on space's riches is not an  
65 acceptable alternative to developing more sustainable ways of earthly life.

History suggests that those will be hard lines to hold, and it may be difficult to persuade the public that such barren environments are worth preserving.  
70 After all, they exist in vast abundance, and even fewer people will experience them than have walked through Antarctica's icy landscapes.

There's also the emerging off-world economy to consider. The resources that are valuable in orbit and  
75 beyond may be very different to those we prize on Earth. Questions of their stewardship have barely been broached—and the relevant legal and regulatory framework is fragmentary, to put it mildly.

Space miners, like their earthly counterparts, are  
80 often reluctant to engage with such questions. One speaker at last week's space-mining forum in Sydney, Australia, concluded with a plea that regulation should be avoided. But miners have much to gain from a broad agreement on the for-profit  
85 exploitation of space. Without consensus, claims will be disputed, investments risky, and the gains made insecure. It is in all of our long-term interests to seek one out.

42

In lines 9-17, the author of Passage 1 mentions several companies primarily to

- A) note the technological advances that make space mining possible.
- B) provide evidence of the growing interest in space mining.
- C) emphasize the large profits to be made from space mining.
- D) highlight the diverse ways to carry out space mining operations.

43

The author of Passage 1 indicates that space mining could have which positive effect?

- A) It could yield materials important to Earth's economy.
- B) It could raise the value of some precious metals on Earth.
- C) It could create unanticipated technological innovations.
- D) It could change scientists' understanding of space resources.

44

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 18-22 ("Within . . . lanthanum")
- B) Lines 24-28 ("They . . . projects")
- C) Lines 29-30 ("In this . . . commodity")
- D) Lines 41-44 ("Companies . . . machinery")

45

As used in line 19, "demands" most nearly means

- A) offers.
- B) claims.
- C) inquiries.
- D) desires.

46

What function does the discussion of water in lines 35-40 serve in Passage 1?

- A) It continues an extended comparison that begins in the previous paragraph.
- B) It provides an unexpected answer to a question raised in the previous paragraph.
- C) It offers hypothetical examples supporting a claim made in the previous paragraph.
- D) It examines possible outcomes of a proposal put forth in the previous paragraph.

47

The central claim of Passage 2 is that space mining has positive potential but

- A) it will end up encouraging humanity's reckless treatment of the environment.
- B) its effects should be thoughtfully considered before it becomes a reality.
- C) such potential may not include replenishing key resources that are disappearing on Earth.
- D) experts disagree about the commercial viability of the discoveries it could yield.

48

As used in line 68, "hold" most nearly means

- A) maintain.
- B) grip.
- C) restrain.
- D) withstand.

49

Which statement best describes the relationship between the passages?

- A) Passage 2 refutes the central claim advanced in Passage 1.
- B) Passage 2 illustrates the phenomenon described in more general terms in Passage 1.
- C) Passage 2 argues against the practicality of the proposals put forth in Passage 1.
- D) Passage 2 expresses reservations about developments discussed in Passage 1.

50

The author of Passage 2 would most likely respond to the discussion of the future of space mining in lines 18-28, Passage 1, by claiming that such a future

- A) is inconsistent with the sustainable use of space resources.
- B) will be difficult to bring about in the absence of regulations.
- C) cannot be attained without technologies that do not yet exist.
- D) seems certain to affect Earth's economy in a negative way.

51

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 60-63 ("Some . . . pristine")
- B) Lines 74-76 ("The resources . . . Earth")
- C) Lines 81-83 ("One . . . avoided")
- D) Lines 85-87 ("Without . . . insecure")

52

Which point about the resources that will be highly valued in space is implicit in Passage 1 and explicit in Passage 2?

- A) They may be different resources from those that are valuable on Earth.
- B) They will be valuable only if they can be harvested cheaply.
- C) They are likely to be primarily precious metals and rare earth elements.
- D) They may increase in value as those same resources become rare on Earth.

**STOP**

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

## Writing & Language Tip Sheet

Master the following grammar point tips to ensure a better score. You can expect to see at least one question from each of the grammar points noted below.

Grammar Points	Example
<p><b>Removing Words/Punctuation</b></p> <ul style="list-style-type: none"> <li>Assume the shortest answer is the best answer, then compare it to the other options. This reveals whether the longer options are longer because they are more specific, or whether they are redundant or have unnecessary punctuation.</li> </ul>	<ul style="list-style-type: none"> <li>“The sign was supposed to stop trespassers, <del>who would be illegally walking on private property.</del>”</li> <li>“The sign was supposed to stop trespassers, <b>but fresh footprints through the snow suggested the sign was not working.</b>”</li> </ul>
<p><b>Verb Agreement</b></p> <ul style="list-style-type: none"> <li>Look for other verbs and time indicators in the sentence to help with correct verb tense. Be on the lookout for a verb that is near an “and” or an “or,” or one that is part of a list: sometimes this occurs much further away from the question than many students read.</li> </ul>	<ul style="list-style-type: none"> <li>“He <u>ran</u> past the post office, but not before he <u>crossed</u> the bridge.”</li> <li>“Jeremy could always be found near the pond after school, <u>skipping</u> stones and <u>fishing</u> by himself.”</li> </ul>
<p><b>Nonessential Clauses:</b></p> <ul style="list-style-type: none"> <li>Think about what parts of the sentence could be removed and then make sure commas (or em dashes, like below) surround that part of the sentence.</li> <li>You can use the same principle to figure out what <i>does</i> need to be in the text. Occupations, for example, do not need commas if expressed like the examples to the right because the occupation is part of the proper name in the sentence.</li> <li>Even though em dashes are interchangeable with commas, make sure both sides of the clause use the same symbol.</li> </ul>	<ul style="list-style-type: none"> <li>“The head coach, Larry Denton, was caught cheating.”</li> <li>“The head coach...was caught cheating.”</li> <li>“Head coach Larry Denton was caught cheating.”</li> <li>“Architect Buddy Gaston developed the blueprints for the stadium.”</li> <li>“The head coach—Larry Denton—was caught cheating.”</li> <li>“<del>The head coach—Larry Denton, was caught cheating.</del>”</li> </ul>
<p><b>Clauses</b></p> <ul style="list-style-type: none"> <li>An <i>independent</i> clause can stand on its own as a sentence, while a <i>dependent</i> clause cannot. Make sure you know and can spot the difference, because they are necessary to perform well on the grammar questions.</li> </ul>	<p>(independent)</p> <ul style="list-style-type: none"> <li>“I reached for my spatula,</li> </ul> <p>which had fallen behind the stove.”</p> <p>(dependent)</p>



<p style="text-align: center;"><b>Semicolons</b></p> <ul style="list-style-type: none"> <li>You should use semicolons to separate two independent clauses. Semicolons are usually incorrect, so be absolutely sure if you choose one.</li> </ul>	<ul style="list-style-type: none"> <li>“The boy climbed up to the tree house; he wanted to be by himself for a while.”</li> </ul>
<p style="text-align: center;"><b>Colons</b></p> <ul style="list-style-type: none"> <li>An independent clause must come before the colon. To the right is always elaboration, which often takes the form of a list (but does not have to).</li> <li>Note that what follows a colon does not need to be dependent (like a list). In the example to the right, a colon correctly separates two independent clauses.</li> </ul>	<ul style="list-style-type: none"> <li>“I went to the store and bought a bunch of things: peanut butter, jelly, and bread.”</li> <li>“Before them was a surreal and unmistakable painting: David Hockney’s work featured a house that was upside down.”</li> </ul>
<p style="text-align: center;"><b>Logical Sequence</b></p> <ul style="list-style-type: none"> <li>You will know it is coming because the first sentence in the paragraph will have a bracketed one [1]. You may also see a bracketed one over the first paragraph of a passage, indicating the paragraphs might need to be reordered. From there,             <ul style="list-style-type: none"> <li>read the sentence you are moving/adding and consider what has to come before it. If two sentences transition nicely between one another, a new sentence shouldn’t be added between them.</li> <li>look for transitions between sentences that do not make sense. Think of the beginning and ends of sentences as puzzle pieces that must fit together.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>“He threw on his pants, grabbed orange juice, and sprinted towards the bus. Stumbling out of bed, he dashed to the bedroom and splashed his face with water.”</li> </ul>
<p style="text-align: center;"><b>Transition Words</b></p> <ul style="list-style-type: none"> <li>When looking for a transition word, recognize how the part before the transition word relates to the content after it, then choose the transition that supports the relationship. Common relationships are <i>contrast</i>, <i>causal</i>, <i>illustrative</i>, or <i>additional</i>. Also be sure what “<i>nevertheless</i>” means.</li> </ul>	<ul style="list-style-type: none"> <li>“Lucas’ cat spent the night in the field behind his house hunting mice. <u>Therefore</u>, it was no surprise that the cat slept most of the day.”</li> </ul>
<p style="text-align: center;"><b>Synonyms as Answer Choices</b></p> <ul style="list-style-type: none"> <li>Two options that mean the same thing are both incorrect. The test will often use synonyms on transition questions or questions that contain a semicolon and a period. Note that synonyms can appear on all kinds of questions, and some even contain <b>three</b> synonyms.</li> </ul>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>A. NO CHANGE  <del>B. However,</del>  C. In addition,  <del>D. By contrast,</del></p> </div> <div style="width: 45%;"> <p>A. NO CHANGE  <del>B. to the store; he</del>  C. to the store—he  <del>D. to the store. He</del></p> </div> </div>



<p style="text-align: center;"><b>Faulty Comparison</b></p> <ul style="list-style-type: none"> <li>Think of comparisons like the equation below:  <math display="block">[Feature\ X]\ of\ Z &lt; [Feature\ X]\ of\ Y</math> Both sides are discussing “Feature X” of a different object. If the feature part is removed from one side, the comparison is not correct. Singular features are referred to by “that,” while plural are “those.”</li> </ul>	<ul style="list-style-type: none"> <li>“The strings of a guitar are shorter than the strings of a cello.”</li> <li>“The strings of a guitar are shorter than <i>those</i> of a cello.”</li> <li><del>“The strings of a guitar are shorter than a cello.”</del></li> </ul>
<p style="text-align: center;"><b>Misplaced Modification</b></p> <ul style="list-style-type: none"> <li>What follows a comma should correctly modify what comes before it. The most common setup for this question will involve an “-ing” verb before the comma, followed by the underlined portion. The underlined portion should begin with the person or thing performing the “-ing” verb before the comma.</li> </ul>	<ul style="list-style-type: none"> <li><del>“Flying high above the dock,</del> I wondered where the seagull was headed.”</li> <li><del>“While waiting for the coffee,</del> the coffee shop’s hushed banter relaxed the man.”</li> </ul>
<p style="text-align: center;"><b>Common Confusions</b></p> <ul style="list-style-type: none"> <li><i>Who</i> vs. <i>whom</i>: <i>Whom</i> is rarely the correct answer on this test. <i>Whom</i> is often followed by a pronoun. When you encounter <i>who</i> vs. <i>whom</i>, replace the word in question with “he,” “she,” or “they,” or “him,” “her,” or “them.” If one of the first three sounds better, use <i>who</i>. Otherwise, use <i>whom</i>.</li> <li><i>It’s</i> vs. <i>its</i> vs <i>its’</i>: <i>it’s</i> means “it is,” <i>its</i> means “the thing that belongs to it,” <i>its’</i> is not a word and is always wrong.</li> <li><i>They’re</i> vs <i>their</i> vs <i>there</i>: “they’re” is always “they are,” “<i>their</i>” means “the thing that belongs to them,” and “<i>there</i>” often refers to a place or the existence of something.</li> <li><i>Then</i> vs. <i>than</i>: <i>then</i> refers to sequence and time, <i>than</i> refers to comparison.</li> <li><i>Affect</i> vs <i>Effect</i>: “affect” is always a verb, while “effect” is always a noun.</li> </ul>	<ul style="list-style-type: none"> <li>“The boy wondered <u>who</u> would stop at his lemonade stand.”   “...[<i>She</i> vs. <i>Her</i>] would stop at his lemonade stand.”</li> <li>“I think it’s [<i>it is</i>] going to rain tomorrow.”</li> <li>“He noticed the phone had its cord cut.”</li> <li>“They’re going to the pool to swim.”</li> <li>“Did you see their dog?”</li> <li>“I think you left the remote over there.”</li> <li>“First this, then that.”</li> <li>“She hoped Florida was warmer than Connecticut.”</li> <li>“I didn’t think the movie would affect me like that.”</li> <li>“The new legislation has had a positive effect on the community.”</li> </ul>

Questions 12-22 are based on the following passage and supplementary material.

### Dark Snow

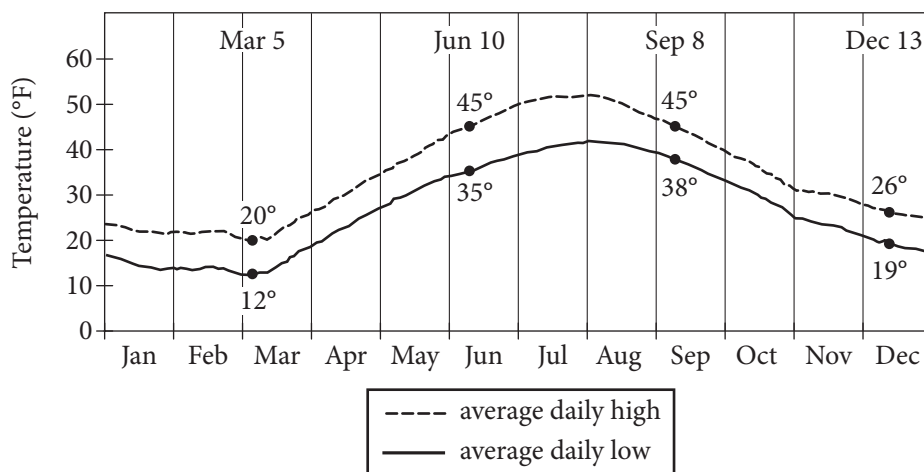
Most of Greenland's interior is covered by a thick layer of ice and compressed snow known as the Greenland Ice Sheet. The size of the ice sheet fluctuates seasonally: in summer, average daily high temperatures in Greenland can rise to slightly above 50 degrees Fahrenheit, partially melting the ice; in the winter, the sheet thickens as additional snow falls, and average daily low temperatures can drop **12** to as low as 20 degrees.

12

Which choice most accurately and effectively represents the information in the graph?

- A) NO CHANGE
- B) to 12 degrees Fahrenheit.
- C) to their lowest point on December 13.
- D) to 10 degrees Fahrenheit and stay there for months.

Average Daily High and Low Temperatures Recorded at Nuuk Weather Station, Greenland (1961—1990)



Adapted from WMO. ©2014 by World Meteorological Organization.

Typically, the ice sheet begins to show evidence of thawing in late **13** summer. This follows several weeks of higher temperatures. **14** For example, in the summer of 2012, virtually the entire Greenland Ice Sheet underwent thawing at or near its surface by mid-July, the earliest date on record. Most scientists looking for the causes of the Great Melt of 2012 have focused exclusively on rising temperatures. The summer of 2012 was the warmest in 170 years, records show. But Jason **15** Box, an associate professor of geology at Ohio State believes that another factor added to the early **16** thaw; the “dark snow” problem.

13

Which choice most effectively combines the two sentences at the underlined portion?

- A) summer, following
- B) summer, and this thawing follows
- C) summer, and such thawing follows
- D) summer and this evidence follows

14

- A) NO CHANGE
- B) However,
- C) As such,
- D) Moreover,

15

- A) NO CHANGE
- B) Box an associate professor of geology at Ohio State,
- C) Box, an associate professor of geology at Ohio State,
- D) Box, an associate professor of geology, at Ohio State

16

- A) NO CHANGE
- B) thaw; and it was
- C) thaw:
- D) thaw: being

According to Box, a leading Greenland expert, tundra fires in 2012 from as far away as North America produced great amounts of soot, some **17** of it drifted over Greenland in giant plumes of smoke and then **18** fell as particles onto the ice sheet. Scientists have long known that soot particles facilitate melting by darkening snow and ice, limiting **19** it's ability to reflect the Sun's rays. As Box explains, "Soot is an extremely powerful light absorber. It settles over the ice and captures the Sun's heat." The result is a self-reinforcing cycle. As the ice melts, the land and water under the ice become exposed, and since land and water are darker than snow, the surface absorbs even more heat, which **20** is related to the rising temperatures.

17

- A) NO CHANGE
- B) soot
- C) of which
- D) DELETE the underlined portion.

18

- A) NO CHANGE
- B) falls
- C) will fall
- D) had fallen

19

- A) NO CHANGE
- B) its
- C) there
- D) their

20

Which choice best completes the description of a self-reinforcing cycle?

- A) NO CHANGE
- B) raises the surface temperature.
- C) begins to cool at a certain point.
- D) leads to additional melting.

[1] Box's research is important because the fires of 2012 may not be a one-time phenomenon. [2] According to scientists, rising Arctic temperatures are making northern latitudes greener and thus more fire prone. [3] The pattern Box observed in 2012 may repeat [21] itself again, with harmful effects on the Arctic ecosystem. [4] Box is currently organizing an expedition to gather this crucial information. [5] The next step for Box and his team is to travel to Greenland to perform direct sampling of the ice in order to determine just how much the soot is contributing to the melting of the ice sheet. [6] Members of the public will be able to track his team's progress—and even help fund the expedition—through a website Box has created. [22]

21

- A) NO CHANGE
- B) itself,
- C) itself, with damage and
- D) itself possibly,

22

To make this paragraph most logical, sentence 4 should be placed

- A) where it is now.
- B) after sentence 1.
- C) after sentence 2.
- D) after sentence 5.

Questions 34-44 are based on the following passage.

### The Consolations of Philosophy

Long viewed by many as the stereotypical useless major, philosophy is now being seen by many students and prospective employers as in fact a very useful and practical major, offering students a host of transferable skills with relevance to the modern workplace. **34** In broad terms, philosophy is the study of meaning and the values underlying thought and behavior. But **35** more pragmatically, the discipline encourages students to analyze complex material, question conventional beliefs, and express thoughts in a concise manner.

Because philosophy **36** teaching students not what to think but how to think, the age-old discipline offers consistently useful tools for academic and professional achievement. **37** A 1994 survey concluded that only 18 percent of American colleges required at least one philosophy course. **38** Therefore, between 1992 and 1996, more than 400 independent philosophy departments were eliminated from institutions.

34

- A) NO CHANGE
- B) For example,
- C) In contrast,
- D) Nevertheless,

35

- A) NO CHANGE
- B) speaking in a more pragmatic way,
- C) speaking in a way more pragmatically,
- D) in a more pragmatic-speaking way,

36

- A) NO CHANGE
- B) teaches
- C) to teach
- D) and teaching

37

Which choice most effectively sets up the information that follows?

- A) Consequently, philosophy students have been receiving an increasing number of job offers.
- B) Therefore, because of the evidence, colleges increased their offerings in philosophy.
- C) Notwithstanding the attractiveness of this course of study, students have resisted majoring in philosophy.
- D) However, despite its many utilitarian benefits, colleges have not always supported the study of philosophy.

38

- A) NO CHANGE
- B) Thus,
- C) Moreover,
- D) However,

More recently, colleges have recognized the practicality and increasing popularity of studying philosophy and have markedly increased the number of philosophy programs offered. By 2008 there were 817 programs, up from 765 a decade before. In addition, the number of four-year graduates in philosophy has grown 46 percent in a decade. Also, studies have found that those students who major in philosophy often do better than students from other majors in both verbal reasoning and analytical **39** writing. These results can be measured by standardized test scores. On the Graduate Record Examination (GRE), for example, students intending to study philosophy in graduate school **40** has scored higher than students in all but four other majors.

These days, many **41** student's majoring in philosophy have no intention of becoming philosophers; instead they plan to apply those skills to other disciplines. Law and business specifically benefit from the complicated theoretical issues raised in the study of philosophy, but philosophy can be just as useful in engineering or any field requiring complex analytic skills.

**42** That these skills are transferable across professions

39

Which choice most effectively combines the sentences at the underlined portion?

- A) writing as
- B) writing, and these results can be
- C) writing, which can also be
- D) writing when the results are

40

- A) NO CHANGE
- B) have scored
- C) scores
- D) scoring

41

- A) NO CHANGE
- B) students majoring
- C) students major
- D) student's majors

42

At this point, the writer is considering adding the following sentence.

The ancient Greek philosopher Plato, for example, wrote many of his works in the form of dialogues.

Should the writer make this addition here?

- A) Yes, because it reinforces the passage's main point about the employability of philosophy majors.
- B) Yes, because it acknowledges a common counterargument to the passage's central claim.
- C) No, because it blurs the paragraph's focus by introducing a new idea that goes unexplained.
- D) No, because it undermines the passage's claim about the employability of philosophy majors.



43 which makes them especially beneficial to twenty-first-century students. Because today's students can expect to hold multiple jobs—some of which may not even exist yet—during 44 our lifetime, studying philosophy allows them to be flexible and adaptable. High demand, advanced exam scores, and varied professional skills all argue for maintaining and enhancing philosophy courses and majors within academic institutions.

43

- A) NO CHANGE
- B) that
- C) and
- D) DELETE the underlined portion.

44

- A) NO CHANGE
- B) one's
- C) his or her
- D) their

**STOP**

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

# Reading Test

65 MINUTES, 52 QUESTIONS

Turn to Section 1 of your answer sheet to answer the questions in this section.

## DIRECTIONS

Each passage or pair of passages below is followed by a number of questions. After reading each passage or pair, choose the best answer to each question based on what is stated or implied in the passage or passages and in any accompanying graphics (such as a table or graph).

### Questions 1-10 are based on the following passage.

This passage is adapted from Mary Helen Stefaniak, *The Cailiffs of Baghdad, Georgia: A Novel*. ©2010 by Mary Helen Stefaniak.

Miss Grace Spivey arrived in Threestep, Georgia, in August 1938. She stepped off the train wearing a pair of thick-soled boots suitable for hiking, a navy blue dress, and a little white tam that rode the waves  
 5 of her red hair at a gravity-defying angle. August was a hellish month to step off the train in Georgia, although it was nothing, she said, compared to the 119 degrees that greeted her when she arrived one time in Timbuktu, which, she assured us, was a real  
 10 place in Africa. I believe her remark irritated some of the people gathered to welcome her on the burned grass alongside the tracks. When folks are sweating through their shorts, they don't like to hear that this is *nothing* compared to someplace else. Irritated or  
 15 not, the majority of those present were inclined to see the arrival of the new schoolteacher in a positive light. Hard times were still upon us in 1938, but, like my momma said, "We weren't no poorer than we'd ever been," and the citizens of Threestep were in the  
 20 mood for a little excitement.

Miss Spivey looked like just the right person to give it to them. She was, by almost anyone's standards, a woman of the world. She'd gone to boarding schools since she was six years old; she'd  
 25 studied French in Paris and drama in London; and during what she called a "fruitful intermission" in her formal education, she had traveled extensively in the

Near East and Africa with a friend of her grandmother's, one Janet Miller, who was a medical  
 30 doctor from Nashville, Tennessee. After her travels with Dr. Miller, Miss Spivey continued her education by attending Barnard College in New York City. She told us all that at school the first day. When my little brother Ralphord asked what did she study at  
 35 Barnyard College, Miss Spivey explained that *Barnard*, which she wrote on the blackboard, was the sister school of Columbia University, of which, she expected, we all had heard.

It was there, she told us, in the midst of trying to  
 40 find her true mission in life, that she wandered one afternoon into a lecture by the famous John Dewey, who was talking about his famous book, *Democracy and Education*. Professor Dewey was in his seventies by then, Miss Spivey said, but he still liked to chat  
 45 with students after a lecture—especially female students, she added—sometimes over coffee, and see in their eyes the fire his words could kindle. It was after this lecture and subsequent coffee that Miss Spivey had marched to the Teacher's College and  
 50 signed up, all aflame. Two years later, she told a cheery blue-suited woman from the WPA<sup>1</sup> that she wanted to bring democracy and education to the poorest, darkest, most remote and forgotten corner of America.

55 They sent her to Threestep, Georgia.  
 Miss Spivey paused there for questions, avoiding my brother Ralphord's eye.

What we really wanted to know about—all  
 twenty-six of us across seven grade levels in the one  
 60 room—was the pearly white button hanging on a

string in front of the blackboard behind the teacher's desk up front. That button on a string was something new. When Mavis Davis (the only bona fide seventh grader, at age thirteen) asked what it was for, Miss Spivey gave the string a tug, and to our astonishment, the whole world—or at least a wrinkled map of it—unfolded before our eyes. Her predecessor, Miss Chandler, had never once made use of that map, which was older than our fathers, and until that moment, not a one of us knew it was there.

Miss Spivey showed us on the map how she and Dr. Janet Miller had sailed across the Atlantic Ocean and past the Rock of Gibraltar into the Mediterranean Sea. Using the end of a ruler, she gently tapped such places as Morocco and Tunis and Algiers to mark their route along the top of Africa. They spent twenty hours on the train to Baghdad, she said, swathed in veils against the sand that crept in every crack and crevice.

“And can you guess what we saw from the train?” Miss Spivey asked. We could not. “Camels!” she said. “We saw a whole caravan of *camels*.” She looked around the room, waiting for us to be amazed and delighted at the thought.

We all hung there for a minute, thinking hard, until Mavis Davis spoke up.

“She means like the three kings rode to Bethlehem,” Mavis said, and she folded her hands smugly on her seventh-grade desk in the back of the room.

Miss Spivey made a mistake right then. Instead of beaming upon Mavis the kind of congratulatory smile that old Miss Chandler would have bestowed on her for having enlightened the rest of us, Miss Spivey simply said, “That’s right.”

<sup>1</sup> The Works Progress Administration (WPA) was a government agency that hired people for public and cultural development projects and services.

1

The narrator of the passage can best be described as

- A) one of Miss Spivey’s former students.
- B) Miss Spivey’s predecessor.
- C) an anonymous member of the community.
- D) Miss Spivey herself.

2

In the passage, Threestep is mainly presented as a

- A) summer retreat for vacationers.
- B) small rural town.
- C) town that is home to a prominent university.
- D) comfortable suburb.

3

It can reasonably be inferred from the passage that some of the people at the train station regard Miss Spivey’s comment about the Georgia heat with

- A) sympathy, because they assume that she is experiencing intense heat for the first time.
- B) disappointment, because they doubt that she will stay in Threestep for very long.
- C) embarrassment, because they imagine that she is superior to them.
- D) resentment, because they feel that she is minimizing their discomfort.

4

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 2-5 (“She stepped . . . angle”)
- B) Lines 10-14 (“I believe . . . else”)
- C) Lines 14-20 (“Irritated . . . excitement”)
- D) Lines 23-25 (“She’d gone . . . London”)

5

Miss Spivey most likely uses the phrase “fruitful intermission” (line 26) to indicate that

- A) she benefited from taking time off from her studies in order to travel.
- B) her travels with Janet Miller encouraged her to start medical school.
- C) her early years at boarding school resulted in unanticipated rewards.
- D) what she thought would be a short break from school lasted several years.

6

The interaction between Miss Spivey and Ralphord serves mainly to

- A) suggest that Miss Spivey has an exaggerated view of what information should be considered common knowledge.
- B) establish a friendly dynamic between the charming schoolchildren and their indulgent and doting new instructor.
- C) introduce Ralphord as a precocious young student and Miss Spivey as a dismissive and disinterested teacher.
- D) demonstrate that the children want to amuse Miss Spivey with their questions.

7

In the third paragraph, what is the narrator most likely suggesting by describing Miss Spivey as having “wandered” (line 40) in one situation and “marched” (line 49) in another situation?

- A) Dewey, knowing Miss Spivey wasn’t very confident in her ability to teach, instilled in her a sense of determination.
- B) Talking with Dewey over coffee made Miss Spivey realize how excited she was to teach in the poorest, most remote corner of America.
- C) After two years spent studying, Miss Spivey was anxious to start teaching and be in charge of her own classroom.
- D) Miss Spivey’s initial encounter with Dewey’s ideas was somewhat accidental but ultimately motivated her to decisive action.

8

According to the passage, Miss Spivey ended up in Threestep as a direct result of

- A) her friendship with Janet Miller.
- B) attending college in New York City.
- C) talking with a woman at the WPA.
- D) Miss Chandler’s retirement from teaching.

9

In the passage, when Miss Spivey announces that she had seen camels, the students’ reaction suggests that they are

- A) delighted.
- B) fascinated.
- C) baffled.
- D) worried.

10

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 82-84 (“She looked . . . thought”)
- B) Lines 85-86 (“We all . . . up”)
- C) Lines 87-90 (“She means . . . room”)
- D) Lines 91-95 (“Instead . . . right”)

**Questions 11-21 are based on the following passage and supplementary material.**

This passage is adapted from David Owen, *The Conundrum: How Scientific Innovation, Increased Efficiency, and Good Intentions Can Make Our Energy and Climate Problems Worse*. ©2011 by David Owen.

Building good transit isn't a bad idea, but it can actually backfire if the new trains and buses merely clear space on highway lanes for those who would  
 Line prefer to drive—a group that, historically, has  
 5 included almost everyone with access to a car. To have environmental value, new transit has to replace and eliminate driving on a scale sufficient to cut energy consumption overall. That means that a new transit system has to be backed up by something that  
 10 impels complementary reductions in car use—say, the physical elimination of traffic lanes or the conversion of existing roadways into bike or bus lanes, ideally in combination with higher fuel taxes, parking fees, and tolls. Needless to say, those ideas  
 15 are not popular. But they're necessary, because you can't make people drive less, in the long run, by taking steps that make driving more pleasant, economical, and productive.

One of the few forces with a proven ability to slow  
 20 the growth of suburban sprawl has been the ultimately finite tolerance of commuters for long, annoying commutes. That tolerance has grown in recent decades, and not just in the United States, but it isn't unlimited, and even people who don't seem to  
 25 mind spending half their day in a car eventually reach a point where, finally, enough is enough. That means that traffic congestion can have environmental value, since it lengthens commuting times and, by doing so, discourages the proliferation  
 30 of still more energy-hungry subdivisions—unless we made the congestion go away. If, in a misguided effort to do something of environmental value, municipalities take steps that make long-distance car commuting faster or more convenient—by adding  
 35 lanes, building bypasses, employing traffic-control

measures that make it possible for existing roads to accommodate more cars with fewer delays, replacing tollbooths with radio-based systems that don't require drivers even to slow down—we actually make  
 40 the sprawl problem worse, by indirectly encouraging people to live still farther from their jobs, stores, schools, and doctors' offices, and by forcing municipalities to further extend road networks, power grids, water lines, and other civic  
 45 infrastructure. If you cut commuting time by 10 percent, people who now drive fifty miles each way to work can justify moving five miles farther out, because their travel time won't change. This is how metropolitan areas metastasize. It's the history of  
 50 suburban expansion.

Traffic congestion isn't an environmental problem; traffic is. Relieving congestion without doing anything to reduce the total volume of cars can only make the real problem worse. Highway  
 55 engineers have known for a long time that building new car lanes reduces congestion only temporarily, because the new lanes foster additional driving—a phenomenon called induced traffic. Widening roads makes traffic move faster in the short term, but the  
 60 improved conditions eventually attract additional drivers and entice current drivers to drive more, and congestion reappears, but with more cars—and that gets people thinking about widening roads again. Moving drivers out of cars and into other forms of  
 65 transportation can have the same effect, if existing traffic lanes are kept in service: road space begets road use.

One of the arguments that cities inevitably make in promoting transit plans is that the new system, by  
 70 relieving automobile congestion, will improve the lives of those who continue to drive. No one ever promotes a transit scheme by arguing that it would make traveling less convenient—even though, from an environmental perspective, inconvenient travel is  
 75 a worthy goal.

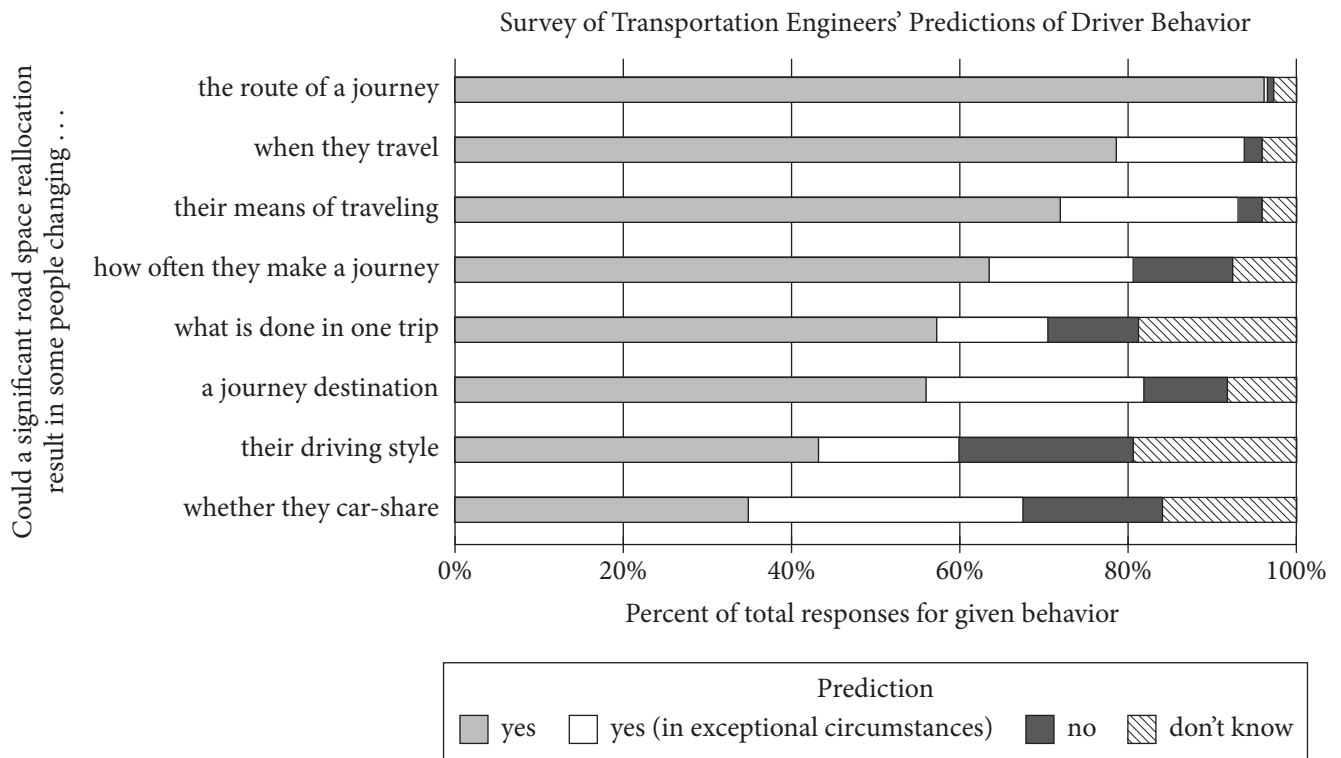
**Figure 1**

## Effect of Route Capacity Reduction in Selected Regions

Region	Vehicles per day on altered road		Vehicles per day on surrounding roads		Change in traffic*
	Before alteration	After alteration	Before alteration	After alteration	
Rathausplatz, Nürnberg	24,584	0	67,284	55,824	-146.6%
Southampton city center	5,316	3,081	26,522	24,101	-87.5%
Tower Bridge, London	44,242	0	103,262	111,999	-80.3%
New York highway	110,000	50,000	540,000	560,000	-36.4%
Kinnaird Bridge, Edmonton	1,300	0	2,130	2,885	-41.9%

\*Change in regional traffic in proportion to traffic previously using the altered road

Figure 2



Figures adapted from S. Cairns et al., "Disappearing Traffic? The Story So Far." ©2002 by UCL.

11

The main purpose of the passage is to

- A) provide support for the claim that efforts to reduce traffic actually increase traffic.
- B) dispute the widely held belief that building and improving mass transit systems is good for the environment.
- C) discuss the negative environmental consequences of car-focused development and suburban sprawl.
- D) argue that one way to reduce the negative environmental effects of traffic is to make driving less agreeable.

12

Which choice best supports the idea that the author assumes that, all things being equal, people would rather drive than take mass transit?

- A) Lines 1-5 ("Building . . . car")
- B) Lines 5-8 ("To have . . . overall")
- C) Lines 15-18 ("But they're . . . productive")
- D) Lines 19-22 ("One . . . commutes")



13

As used in line 9, “backed up” most nearly means

- A) supported.
- B) copied.
- C) substituted.
- D) jammed.

14

In the first paragraph, the author concedes that his recommendations are

- A) costly to implement.
- B) not widely supported.
- C) strongly opposed by experts.
- D) environmentally harmful in the short term.

15

Based on the passage, how would the author most likely characterize many attempts to improve traffic?

- A) They are doomed to fail because most people like driving too much to change their habits.
- B) They overestimate how tolerant people are of long commutes.
- C) They are well intentioned but ultimately lead to environmental harm.
- D) They will only work if they make driving more economical and productive.

16

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 8-14 (“That . . . tolls”)
- B) Lines 22-26 (“That . . . enough”)
- C) Lines 31-40 (“If, in . . . worse”)
- D) Lines 64-67 (“Moving . . . use”)

17

According to the passage, reducing commuting time for drivers can have which of the following effects?

- A) Drivers become more productive employees than they previously were.
- B) Mass transit gets extended farther into suburban areas than it previously was.
- C) Mass transit carries fewer passengers and receives less government funding than it previously did.
- D) Drivers become more willing to live farther from their places of employment than they previously were.

18

As used in line 72, “promotes” most nearly means

- A) upgrades.
- B) serves.
- C) advocates.
- D) develops.

19

According to figure 1, how many vehicles traveled on the altered road through the Southampton city center per day before the route was altered?

- A) 3,081
- B) 5,316
- C) 24,101
- D) 26,522

20

Do the data in figure 1 support or weaken the argument of the author of the passage, and why?

- A) Support, because the data show that merely moving drivers out of cars can induce traffic.
- B) Support, because the data show that reducing road capacity can lead to a net reduction in traffic.
- C) Weaken, because the data show that in some cases road alterations lead to greater traffic on surrounding roads.
- D) Weaken, because the data show that traffic reductions due to road alterations tend to be brief.

21

Based on figure 2, the engineers surveyed were most skeptical of the idea that in the event of a reallocation of road space, drivers would change

- A) when they travel.
- B) their means of traveling.
- C) how often they make a journey.
- D) their driving style.

**Questions 22-32 are based on the following passage.**

This passage is adapted from Sabrina Richards, “Pleasant to the Touch.” ©2012 by The Scientist.

In the early 1990s, textbooks acknowledged that humans had slow-conducting nerves, but asserted that those nerves only responded to two types of stimuli: pain and temperature. Sensations of pressure and vibration were believed to travel only along myelinated, fast-signaling nerve fibers, which also give information about location. Experiments blocking nerve fibers supported this notion. Preventing fast fibers from firing (either by clamping the relevant nerve or by injecting the local anesthetic lidocaine) seemed to eliminate the sensation of pressure altogether, but blocking slow fibers only seemed to reduce sensitivity to warmth or a small painful shock.

Håkan Olausson and his Gothenburg University colleagues Åke Vallbo and Johan Wessberg wondered if slow fibers responsive to gentle pressure might be active in humans as well as in other mammals. In 1993, they corralled 28 young volunteers and recorded nerve signals while gently brushing the subjects’ arms with their fingertips. Using a technique called microneurography, in which a fine filament is inserted into a single nerve to capture its electrical impulses, the scientists were able to measure how quickly—or slowly—the nerves fired. They showed that soft stroking prompted two different signals, one immediate and one delayed. The delay, Olausson explains, means that the signal from a gentle touch on the forearm will reach the brain about a half second later. This delay identified nerve impulses traveling at speeds characteristic of slow, unmyelinated fibers—about 1 meter/second—confirming the presence of these fibers in human hairy skin. (In contrast, fast-conducting fibers, already known to respond to touch, signal at a rate between 35 and 75 m/s.)

Then, in 1999, the group looked more closely at the characteristics of the slow fibers. They named these “low-threshold” nerves “C-tactile,” or CT, fibers, said Olausson, because of their “exquisite sensitivity” to slow, gentle tactile stimulation, but unresponsiveness to noxious stimuli like pinpricks.

But why exactly humans might have such fibers, which respond only to a narrow range of rather subtle stimuli, was initially mystifying. Unlike other types of sensory nerves, CT fibers could be found

only in hairy human skin—such as the forearm and thigh. No amount of gentle stroking of hairless skin, such as the palms and soles of the feet, prompted similar activity signatures. Olausson and his colleagues decided that these fibers must be conveying a different dimension of sensory information than fast-conducting fibers.

Although microneurography can give information about how a single nerve responds to gentle brushing and pressure, it cannot tease out what aspect of sensation that fiber relays, says Olausson. He wanted to know if that same slow nerve can distinguish *where* the brush touches the arm, and whether it can discern the difference between a goat-hair brush and a feather. Most importantly, could that same fiber convey a pleasant sensation?

To address the question, Olausson’s group sought out a patient known as G.L. who had an unusual nerve defect. More than 2 decades earlier, she had developed numbness across many parts of her body after taking penicillin to treat a cough and fever. Testing showed that she had lost responsiveness to pressure, and a nerve biopsy confirmed that G.L.’s quick-conducting fibers were gone, resulting in an inability to sense any pokes, prods, or pinpricks below her nose. But she could still sense warmth, suggesting that her slow-conducting unmyelinated fibers were intact.

Upon recruiting G.L., Olausson tested her by brushing her arm gently at the speed of between 2–10 centimeters per second. She had more trouble distinguishing the direction or pressure of the brush strokes than most subjects, but reported feeling a pleasant sensation. When the researchers tried brushing her palm, where CT fibers are not found, she felt nothing.

Olausson used functional MRI studies to examine which areas of the brain lit up when G.L.’s arm was gently brushed to activate CT fibers. In normal subjects, both the somatosensory and insular cortices were activated, but only the insular cortex [which processes emotion] was active when researchers brushed G.L.’s arm. This solidified the notion that CT fibers convey a more emotional quality of touch, rather than the conscious aspect that helps us describe what we are sensing. CT fibers, it seemed, specifically provide pleasurable sensations.

22

Based on the passage, textbook authors in the early 1990s would most likely have expected which condition to result from the blocking of fast fibers?

- A) The rate at which other nerve fibers fired would increase.
- B) The test subject would perceive gentle stimuli as painful.
- C) The body would compensate by using slow fibers to sense pressure.
- D) The ability to perceive vibrations would be impaired.

23

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 1-4 (“In the . . . temperature”)
- B) Lines 4-7 (“Sensations . . . location”)
- C) Lines 12-14 (“blocking . . . shock”)
- D) Lines 34-36 (“In contrast . . . 75 m/s”)

24

As used in line 18, “active” most nearly means

- A) present.
- B) attentive.
- C) movable.
- D) restless.

25

As used in line 24, “capture” most nearly means

- A) occupy.
- B) seize.
- C) record.
- D) influence.

26

Which conclusion is best supported by the findings of Olausson’s 1993 experiment?

- A) Stimulation at bodily extremities can be sensed as rapidly as stimulation closer to the brain.
- B) The presence of hairs in human skin lessens the speed with which nerves conduct signals.
- C) Gentle pressure is sensed not only by fast fibers but also by slow fibers.
- D) The speed at which a nerve fires is dependent on the strength of pressure applied to the nerve.

27

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 22-26 (“Using . . . fired”)
- B) Lines 26-28 (“They . . . delayed”)
- C) Lines 28-30 (“The delay . . . later”)
- D) Lines 37-38 (“Then . . . fibers”)

28

The sentence in lines 43-45 (“But . . . mystifying”) serves mainly to

- A) identify factors that Olausson had previously failed to consider.
- B) propose a solution to a dilemma encountered by Olausson.
- C) anticipate a potential criticism of Olausson by the reader.
- D) show a problem from the perspective of Olausson’s team.

29

It can reasonably be inferred that one of the intended goals of the 1999 experiment was to determine the

- A) precise nature of sensations that CT fibers can convey.
- B) relationship between body hair and CT fiber function.
- C) role played by CT fibers in the perception of pain.
- D) effect of microneurography on CT fiber signaling.

30

The main purpose of the sixth paragraph (lines 64-75) is to

- A) identify those of G.L.'s neurological conditions that might be relieved by the experiment.
- B) contextualize the nerve function of G.L. by comparing it with that of other adults.
- C) detail procedures that G.L. had experienced during previous experiments.
- D) indicate why G.L.'s medical condition was of value to Olausson's experiment.

31

According to the passage, G.L. differed from Olausson's other test subjects in terms of the

- A) number of cortices activated in the brain during gentle brushing.
- B) physical dimensions of the somatosensory cortex.
- C) intensity of nerve signals required to activate the insular cortex.
- D) effect of MRI scanning on the basic function of brain cortices.

32

According to the passage, humans experience an emotional aspect of touch when

- A) brain cortices are shielded from nerve signals.
- B) CT fibers are exposed to a stimulus.
- C) nerve fibers that sense pain are suppressed.
- D) conscious aspects of sensation are ignored.

**Questions 33-42 are based on the following passages.**

Passage 1 is adapted from a speech delivered in 1898 by Albert J. Beveridge, "March of the Flag." Passage 2 is adapted from a speech delivered in 1900 by William Jennings Bryan, "Imperialism."

**Passage 1**

Fellow-Citizens: It is a noble land that God has given us; a land that can feed and clothe the world; a land whose coast lines would enclose half the  
 Line countries of Europe; a land set like a sentinel between  
 5 the two imperial oceans of the globe; a greater England with a nobler destiny. It is a mighty people that He has planted on this soil; a people sprung from the most masterful blood of history; a people perpetually revitalized by the virile . . . working-folk  
 10 of all the earth; a people imperial by virtue of their power, by right of their institutions, by authority of their heaven-directed purposes—the propagandists and not the misers of liberty. It is a glorious history our God has bestowed upon His chosen people; a  
 15 history whose keynote was struck by Liberty Bell; a history heroic with faith in our mission and our future; a history of statesmen, who flung the boundaries of the Republic out into unexplored lands . . . a history of soldiers, who carried the flag  
 20 across blazing deserts and through the ranks of hostile mountains, even to the gates of sunset; a history of a multiplying people, who overran a continent in half a century . . . a history divinely logical, in the process of whose tremendous  
 25 reasoning we find ourselves to-day. . . .

Think of the thousands of Americans who will pour into Hawaii and Porto Rico when the Republic's laws cover those islands with justice and safety! Think of the tens of thousands of Americans  
 30 who will invade . . . the Philippines when a liberal government . . . shall establish order and equity there! Think of the hundreds of thousands of Americans who will build a . . . civilization of energy and industry in Cuba, when a government of law  
 35 replaces the double reign of anarchy and tyranny!—think of the prosperous millions that Empress of Islands will support when, obedient to the law of political gravitation, her people ask for the highest honor liberty can bestow, the sacred Order of the  
 40 Stars and Stripes, the citizenship of the Great Republic!

**Passage 2**

If it is right for the United States to hold the Philippine Islands permanently and imitate European empires in the government of colonies, the  
 45 Republican party ought to state its position and defend it, but it must expect the subject races to protest against such a policy and to resist to the extent of their ability.

The Filipinos do not need any encouragement  
 50 from Americans now living. Our whole history has been an encouragement not only to the Filipinos, but to all who are denied a voice in their own government. If the Republicans are prepared to censure all who have used language calculated to  
 55 make the Filipinos hate foreign domination, let them condemn the speech of Patrick Henry. When he uttered that passionate appeal, "Give me liberty or give me death," he expressed a sentiment which still echoes in the hearts of men.

Let them censure Jefferson; of all the statesmen of  
 60 history none have used words so offensive to those who would hold their fellows in political bondage. Let them censure Washington, who declared that the colonists must choose between liberty and slavery.  
 65 Or, if the statute of limitations has run against the sins of Henry and Jefferson and Washington, let them censure Lincoln, whose Gettysburg speech will be quoted in defense of popular government when the present advocates of force and conquest are  
 70 forgotten.

Some one has said that a truth once spoken can never be recalled. It goes on and on, and no one can set a limit to its ever-widening influence. But if it  
 75 were possible to obliterate every word written or spoken in defense of the principles set forth in the Declaration of Independence, a war of conquest would still leave its legacy of perpetual hatred, for it was God himself who placed in every human heart the love of liberty. He never made a race of people so  
 80 low in the scale of civilization or intelligence that it would welcome a foreign master.

Those who would have this Nation enter upon a career of empire must consider, not only the effect of imperialism on the Filipinos, but they must also  
 85 calculate its effects upon our own nation. We cannot repudiate the principle of self-government in the Philippines without weakening that principle here.

33

In Passage 1, Beveridge asserts that the resources and immensity of the United States constitute a

- A) safeguard against foreign invasion.
- B) replication of conditions in Europe.
- C) divine gift to the American people.
- D) source of envy for people in other countries.

34

In the second paragraph of Passage 1 (lines 26-41), the commands given by Beveridge mainly serve to

- A) remind the audience of its civic responsibilities.
- B) anticipate the benefits of a proposed policy.
- C) emphasize the urgency of a national problem.
- D) refute arguments that opponents have advanced.

35

As used in line 72, “recalled” most nearly means

- A) repeated.
- B) retracted.
- C) rejected.
- D) remembered.

36

It can reasonably be inferred from Passage 2 that Bryan considers the preference for national sovereignty over foreign rule to be a

- A) reaction to the excesses of imperial governments in the modern era.
- B) sign that the belief in human equality is widespread.
- C) testament to the effects of the foreign policy of the United States.
- D) manifestation of an innate drive in humans toward self-rule.

37

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 53-56 (“If the . . . Henry”)
- B) Lines 72-73 (“It goes . . . influence”)
- C) Lines 79-81 (“He never . . . master”)
- D) Lines 82-85 (“Those . . . nation”)

38

As used in line 85, “calculate” most nearly means

- A) evaluate.
- B) design.
- C) assume.
- D) multiply.

39

In developing their respective arguments, Beveridge (Passage 1) and Bryan (Passage 2) both express admiration for the

- A) founding and history of the United States.
- B) vibrancy and diversity of American culture.
- C) worldwide history of struggles for independence.
- D) idealism that permeates many aspects of American society.



40

Which choice best describes a central difference between how Beveridge (Passage 1) and Bryan (Passage 2) view the concept of liberty as it is realized in the United States?

- A) Beveridge presents it as the direct inheritance of European colonization, whereas Bryan presents it as a sharp break from earlier governments in Europe.
- B) Beveridge considers it so exemplary as to justify conquest of other regions, whereas Bryan warns that its exemplary quality would be undermined by imperial expansion.
- C) Beveridge argues that it arose organically as the United States matured, whereas Bryan argues that it was present from the country's beginnings.
- D) Beveridge regards it as a model that should be shared with other countries, whereas Bryan believes that it is unique to the United States and could not work elsewhere.

41

It can most reasonably be inferred from Passage 2 that Bryan would criticize the vision of American governance of island territories that Beveridge presents in Passage 1 for being

- A) unrealistic, since most Americans would be unwilling to relocate to distant islands.
- B) deceptive, since economic domination would be the true goal of the American government.
- C) impractical, since the islanders would insist upon an equal distribution of resources.
- D) naive, since the islanders would object to being governed by Americans.

42

Which choice from Passage 2 provides the best evidence for the answer to the previous question?

- A) Lines 42-48 (“If it . . . ability”)
- B) Lines 49-50 (“The Filipinos . . . living”)
- C) Lines 50-53 (“Our . . . government”)
- D) Lines 56-59 (“When . . . men”)

**Questions 43-52 are based on the following passage and supplementary material.**

This passage is adapted from Peter A. Ensminger, *Life Under the Sun*. ©2001 by Peter A. Ensminger.

Many millennia before the invention of herbicides, farmers simply plowed their fields to control weeds. Even today, plowing can constitute a valuable part of an integrated weed-management program. Although plowing kills standing weeds, farmers have long known that it often leads to the emergence of new weed seedlings in a few weeks.

Ecologists have shown that a farmer's field can have 50,000 or more weed seeds per square meter buried beneath the soil surface. Plant physiologists have shown that seeds buried more than about one centimeter below the soil surface do not receive enough light to germinate. Do the blades of a plow, which can reach more than a foot beneath the soil surface, bring some of these buried seeds to the surface where their germination is induced by exposure to sunlight?

Two ecologists, Jonathan Sauer and Gwendolyn Struik, began to study this question in the 1960s. In a relatively simple experiment, they went to ten different habitats in Wisconsin during the night and collected pairs of soil samples. They stirred up the soil in one sample of each pair in the light and stirred up the other sample of each pair in the dark. They then exposed all ten pairs to natural sunlight in a greenhouse. For nine of the ten pairs of soil samples, weed growth was greater in the samples stirred up in light. They concluded that soil disturbance gives weed seeds a "light break," and this stimulates their germination.

More recently, Karl Hartmann of Erlangen University in Germany reasoned that when farmers plowed their fields during the day, the buried weed seeds are briefly exposed to sunlight as the soil is turned over, and that this stimulates their germination. Although the light exposures from plowing may be less than one millisecond, that can be enough to induce seed germination. Thus the germination of weed seeds would be minimized if farmers simply plowed their fields during the night, when the photon fluence rate [the rate at which photons hit the surface] is below  $10^{15}$  photons per square meter per second. Although even under these

conditions hundreds of millions of photons strike each square millimeter of ground each second, this illumination is below the threshold needed to stimulate the germination of most seeds.

Hartmann says that he was very skeptical when he first came up with this idea because he assumed that such a simple method of weed control as plowing at nighttime must be ineffective or it would have been discovered long ago. But the subsequent experiments, first presented at a 1989 scientific meeting in Freiburg, Germany, clearly demonstrated that the method can be effective.

Hartmann tested his idea by plowing two agricultural strips near Altershausen, Germany. The farmer Karl Seydel cultivated one strip, repeated threefold, at around midday and the other strip at night. No crops were planted in these pilot experiments, to avoid possible competition with the emerging weeds. The results were dramatic. More than 80 percent of the surface of the field plowed in daylight was covered by weeds, whereas only about 2 percent of the field plowed at night was covered by weeds.

This method of weed control is currently being used by several farmers in Germany. Because many of the same weed species that invade farmers' fields in Germany also invade fields elsewhere in the world, this method should be successful elsewhere. In fact, recent studies at universities in Nebraska, Oregon, Minnesota, Denmark, Sweden, and Argentina support this idea.

Number of Emerged Seedlings in Soil Samples  
One Month after Soil Was Disturbed

Sample	Source of soil	Number of emerged seedlings in soil disturbed in	
		light	darkness
A	deciduous woods	4	0
B	deciduous woods	2	1
C	deciduous woods	6	2
D	conifer plantation	8	3
E	conifer plantation	2	1
F	tall-grass prairie	5	1
G	old pasture	0	2
H	old pasture	2	1
I	muck field	14	2
J	muck field	5	3

Adapted from Jonathan Sauer and Gwendolyn Struik, "A Possible Ecological Relation between Soil Disturbance, Light-Flash, and Seed Germination." ©1964 by Jonathan Sauer and Gwendolyn Struik.

43

According to the passage, exposure to light allows seeds to

- A) begin to develop.
- B) absorb necessary nutrients.
- C) withstand extreme temperatures.
- D) achieve maximum growth.

44

The question in the second paragraph (lines 13-17) primarily serves to

- A) emphasize the provisional nature of the findings discussed in the passage.
- B) introduce the specific research topic addressed in the passage.
- C) suggest the hypothetical impact of the studies analyzed in the passage.
- D) indicate the level of disagreement about the methods explored in the passage.

45

As used in line 16, "induced" most nearly means

- A) lured.
- B) established.
- C) convinced.
- D) stimulated.

46

Which choice best supports the idea that seeds present in fields plowed at night are exposed to some amount of light?

- A) Lines 31-36 ("More . . . germination")
- B) Lines 36-38 ("Although . . . germination")
- C) Lines 43-47 ("Although . . . seeds")
- D) Lines 48-52 ("Hartmann . . . ago")

47

The passage suggests that if Seydel had planted wheat or corn on the two agricultural strips in Hartmann's experiment, the percentage of the surface of each strip covered with weeds would likely have been

- A) lower than the percentage that Hartmann found.
- B) higher than the percentage that Hartmann had predicted.
- C) nearly impossible for Hartmann to determine.
- D) comparable to Hartmann's original projection.

48

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 56-60 ("Hartmann . . . night")
- B) Lines 60-62 ("No crops . . . weeds")
- C) Line 62 ("The results . . . dramatic")
- D) Lines 63-66 ("More . . . weeds")

49

As used in line 62, “dramatic” most nearly means

- A) theatrical.
- B) sudden.
- C) impressive.
- D) emotional.

50

According to the table, in which soil sample disturbed in darkness did the fewest number of seedlings emerge?

- A) Sample A
- B) Sample B
- C) Sample C
- D) Sample D

51

As presented in the table, which sample produced the most seedlings when the soil was disturbed in light?

- A) Sample G
- B) Sample H
- C) Sample I
- D) Sample J

52

The data presented in the table most directly support which claim from the passage?

- A) Lines 1-3 (“Many . . . weeds”)
- B) Lines 8-10 (“Ecologists . . . surface”)
- C) Lines 10-13 (“Plant . . . germinate”)
- D) Lines 38-43 (“Thus . . . second”)

**STOP**

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

# Writing and Language Test

35 MINUTES, 44 QUESTIONS

Turn to Section 2 of your answer sheet to answer the questions in this section.

## DIRECTIONS

Each passage below is accompanied by a number of questions. For some questions, you will consider how the passage might be revised to improve the expression of ideas. For other questions, you will consider how the passage might be edited to correct errors in sentence structure, usage, or punctuation. A passage or a question may be accompanied by one or more graphics (such as a table or graph) that you will consider as you make revising and editing decisions.

Some questions will direct you to an underlined portion of a passage. Other questions will direct you to a location in a passage or ask you to think about the passage as a whole.

After reading each passage, choose the answer to each question that most effectively improves the quality of writing in the passage or that makes the passage conform to the conventions of standard written English. Many questions include a “NO CHANGE” option. Choose that option if you think the best choice is to leave the relevant portion of the passage as it is.

Questions 1-11 are based on the following passage.

### How a Cat in a Hat Changed Children’s Education

In a 1954 *Life* magazine article, author John Hersey expressed concern that children in the United States were disengaged from learning how to read. Among other problems, Hersey noted, the reading material available to grade-schoolers had a hard time competing with television, radio, **1** and other media for children’s attention. One solution he proposed was to make

1

- A) NO CHANGE
- B) and with
- C) and also
- D) and competing with

children’s books more **2** interesting, since “an individual’s sense of wholeness . . . follows, and cannot precede, a sense of accomplishment.”

The story of *The Cat in the Hat*’s publication began when William **3** Spaulding, the director of the education division at the publishing company Houghton Mifflin, read Hersey’s article and had an idea. Spaulding agreed that there was a need for appealing books for beginning **4** readers. He thought he knew who should write one. He arranged to have dinner with Theodor Geisel, who wrote and illustrated children’s books under the name “Dr. Seuss,” and issued him a challenge: “Write me a story that first graders can’t put down!”

2

The writer wants to include a quotation by Hersey that supports the topic of the passage. Which choice best accomplishes this goal?

- A) NO CHANGE
- B) interesting, since “learning starts with failure; the first failure is the beginning of education.”
- C) interesting because “journalism allows its readers to witness history; fiction gives its readers an opportunity to live it.”
- D) interesting with “drawings like those of the wonderfully imaginative geniuses among children’s illustrators.”

3

- A) NO CHANGE
- B) Spaulding the director
- C) Spaulding, the director,
- D) Spaulding—the director

4

Which choice most effectively combines the sentences at the underlined portion?

- A) readers, and he
- B) readers—namely, he
- C) readers; and Spaulding
- D) readers, and meanwhile he

Having **5** known Spaulding for many years and having maintained a professional relationship with him,

Geisel was an experienced writer and illustrator.

**6** However, this new project presented him with an obstacle. Spaulding told Geisel to write his entire book using a restricted vocabulary from an elementary school list of 348 words. Geisel started two stories, only to abandon them when he found that he needed to use words that were not on the list. On the verge of giving up,

**7** Geisel's story finally hit upon an image that became its basis: a cat wearing a battered stovepipe hat. His main character established, Geisel commenced the difficult task of writing a book with a limited vocabulary. **8** At the end of a duration nine months long, *The Cat in the Hat* was complete.

5

Which choice best supports the information that follows in the sentence?

- A) NO CHANGE
- B) acquired a reputation for perfectionism and for setting high standards for his work,
- C) been interested in politics before breaking into the genre of children's literature,
- D) published nine children's books and having received three nominations for the prestigious Caldecott Medal,

6

- A) NO CHANGE
- B) For example,
- C) Furthermore,
- D) At any rate,

7

- A) NO CHANGE
- B) an image that Geisel finally hit upon became the basis of his story:
- C) Geisel finally hit upon the image that became the basis for his story:
- D) the story was finally based on an image that Geisel hit upon:

8

- A) NO CHANGE
- B) After thirty-six weeks—or nine months—had passed,
- C) After a length of nine months had elapsed,
- D) Nine months later,



The book was a hit. Children were entertained by its plot about the antics of a mischievous cat and **9** is captivated by its eye-catching illustrations and memorable rhythms and rhymes. Its sales inspired another publishing company, Random House, to establish a series for early readers called Beginner Books, which featured works by Geisel and other writers, and other publishers quickly followed suit. In the years that **10** followed. Many talented writers and illustrators of children's books imitated Geisel's formula of restricted vocabulary and whimsical artwork. But perhaps the best proof of *The Cat in the Hat's* success is not its influence on other books but its **11** limited vocabulary and appealing word choices.

9

- A) NO CHANGE
- B) was
- C) has been
- D) DELETE the underlined portion.

10

- A) NO CHANGE
- B) followed; many
- C) followed, many
- D) followed—many

11

The writer wants a conclusion that restates the main themes of the passage. Which choice best accomplishes this goal?

- A) NO CHANGE
- B) impressive worldwide sales that continue to remain high to this day.
- C) enduring ability to delight children and engage them in learning how to read.
- D) important role in the history of illustration in the twentieth century.

Questions 12-22 are based on the following passage.

### Keep Student Volunteering Voluntary

A growing number of public schools in the United States require students to complete community service hours to graduate. Such volunteering, be it helping at a local animal shelter, **12** when they pick up litter, or working at a health-care facility, has obvious benefits for the community it serves and teaches students important life skills. But critics say that making volunteerism compulsory misses the point of the act.

**13** By its very definition, volunteer work is done willingly. By requiring students to do community service in order to graduate, school **14** officials' are taking away students' choice to give up their time for nonprofit activities, making volunteerism less meaningful and pleasurable. According to a psychological concept called the reactance theory, the loss of freedom in choosing an activity can cause a negative reaction. For instance, instead of focusing on the good they are doing, students may become resentful of the demands that compulsory volunteering places on their schedules.

12

- A) NO CHANGE
- B) to pick up litter,
- C) litter collection,
- D) picking up litter,

13

The writer wants a transition from the previous paragraph that highlights the criticism of compulsory volunteering mentioned in the previous paragraph. Which choice best accomplishes this goal?

- A) NO CHANGE
- B) Whatever the work may be,
- C) For many students,
- D) Fortunately for communities in need,

14

- A) NO CHANGE
- B) officials are taking away students
- C) officials are taking away student's
- D) officials are taking away students'

Proponents of compulsory **15** volunteering who are in favor of it point out that it allows young people to garner the benefits that volunteering offers. Students who volunteer report increased self-esteem, better relationship-building skills, and **16** increasingly busy schedules. Some studies have also found that students who do community service are more likely to volunteer as adults, and thus **17** effect society positively over the course of many years.

15

- A) NO CHANGE
- B) volunteering, advocating it,
- C) volunteering
- D) volunteering and its advocates

16

Which choice provides a supporting example that is most similar to the examples already in the sentence?

- A) NO CHANGE
- B) a closer connection with their community.
- C) less time spent engaging in social activities.
- D) little increase in academic achievement.

17

- A) NO CHANGE
- B) affect
- C) effecting
- D) affects

However, most research looks at students who volunteer in general, not making a distinction between students who are required to volunteer by their schools and those who volunteer willingly. One recent study by Sara E. Helms, assistant professor of economics at Samford University in Birmingham, Alabama, did focus specifically on **18** mandatory volunteering. She found that students who were required to volunteer rushed to complete their service hours in early high **19** school, they then did significantly less regular volunteer work in the twelfth grade **20** than the service hours of those not required to volunteer. Helms concluded that compulsory volunteering does not necessarily create lifelong volunteers.

18

- A) NO CHANGE
- B) coercive
- C) forcible
- D) imperative

19

- A) NO CHANGE
- B) school; they then,
- C) school. They, then
- D) school; they then

20

- A) NO CHANGE
- B) than did students who were
- C) than hours worked by students
- D) compared with students

Instead of requiring students to volunteer, schools

**21** have to recognize that not all students are equally well suited to the same activities. Many studies show that when schools simply tell students about opportunities for community service and connect them with organizations that need help, more students volunteer of their own free will. **22**

21

Which choice most effectively sets up the point made in the next sentence?

- A) NO CHANGE
- B) should allow students to spend their time participating in athletics and other extracurricular activities.
- C) should focus on offering arrangements that make volunteering an easy and attractive choice.
- D) are advised to recognize the limits of their ability to influence their students.

22

The writer wants a conclusion that states the main claim of the passage. Which choice best accomplishes this goal?

- A) It is imperative that schools do their part to find volunteers for the many worthwhile organizations in the United States.
- B) Schools that do this will produce more engaged, enthusiastic volunteers than schools that require volunteer work.
- C) Studies in the fields of psychology and economics have revolutionized researchers' understanding of volunteerism.
- D) It is important that students choose charitable work that suits their interests and values.

Questions 23-33 are based on the following passage and supplementary material.

### Marsupials Lend a Hand to Science

Marsupials (mammals that carry their young in a pouch) are a curiosity among biologists because they lack a corpus callosum, the collection of nerve fibers connecting the two hemispheres of the brain. In most other mammals, the left hemisphere of the brain controls the right side of the body, the right hemisphere controls the left, and the corpus callosum allows communication between the hemispheres. Scientists **23** are long believing that this structure enables complex tasks by sequestering skilled movement to a single hemisphere without sacrificing coordination between both sides of the body; this sequestration would explain handedness, the tendency to consistently prefer **24** one hand over the other, in humans. However, a recent finding of handedness in marsupials suggests that a **25** trait other than the presence of a corpus callosum **26** links as handedness: bipedalism.

23

- A) NO CHANGE
- B) will long be believing
- C) have long believed
- D) long believe

24

- A) NO CHANGE
- B) and favor the use of one hand over the other,
- C) one hand over the other that could be chosen,
- D) one hand on a regular basis,

25

- A) NO CHANGE
- B) trait,
- C) trait;
- D) trait:

26

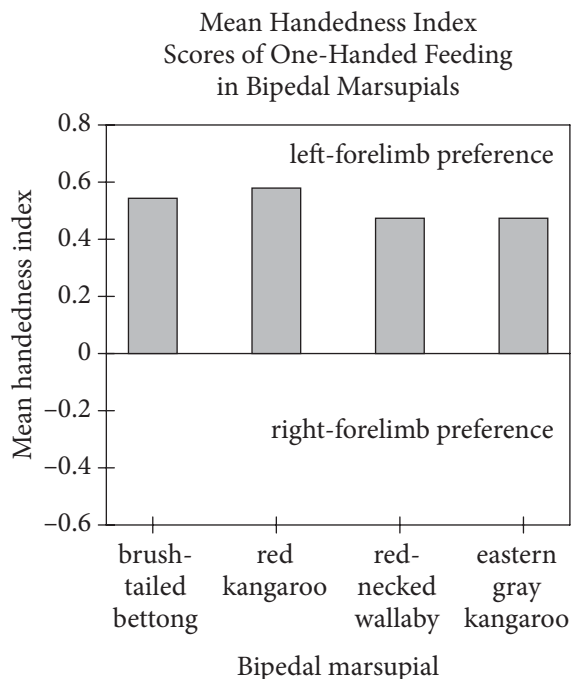
- A) NO CHANGE
- B) correlates with
- C) correlates from
- D) links on

Researchers at Saint Petersburg State University and the University of Tasmania observed marsupials walking on either two legs (bipeds) or four (quadrupeds) and performing tasks such as bringing food to their mouths.

The scientists employed a mean handedness index;

**27** negative scores indicated a left-forelimb preference and positive scores indicated a right-forelimb preference.

While eating, the eastern gray kangaroo, red-necked wallaby, red **28** kangaroo and, brush-tailed bettong, all bipedal marsupials, preferred using their left forelimb, as revealed by **29** positive mean handedness index values less than 0.2 for all four species. These results suggest handedness among these animals.



Adapted from Andrey Giljov et al., "Parallel Emergence of True Handedness in the Evolution of Marsupials and Placentals." ©2015 by Elsevier Ltd.

27

Which choice accurately reflects the information in the graph?

- A) NO CHANGE
- B) scores of 0 or less indicated a left-forelimb preference and positive scores indicated a lack of forelimb preference.
- C) positive scores indicated a lack of forelimb preference and negative scores indicated a right-forelimb preference.
- D) positive scores indicated a left-forelimb preference and negative scores indicated a right-forelimb preference.

28

- A) NO CHANGE
- B) kangaroo, and
- C) kangaroo; and
- D) kangaroo—and,

29

Which choice most accurately reflects the data in the graph?

- A) NO CHANGE
- B) positive mean handedness index values greater than 0.6
- C) positive mean handedness index values between 0.4 and 0.6
- D) mean handedness index values of 0

30 Having four feet, quadrupedal marsupials in the study did not show a strong preference for the use of one forelimb. For instance, gray short-tailed opossums and sugar gliders were assigned mean handedness values very close to zero—they used their right and left forelimbs nearly equally. In effect, the study provided no evidence of handedness among quadrupedal marsupials.

30

Which choice provides the best transition from the previous paragraph?

- A) NO CHANGE
- B) Like most other mammals,
- C) In contrast to their bipedal counterparts,
- D) While using their forelimbs for eating,



31 Kangaroos, though, still do not exhibit handedness to the extent that humans do. As the researchers noted, the quadrupeds typically live in trees and employ all four limbs in climbing. The bipeds, on the other hand, are far less arboreal, leaving their forelimbs relatively free for tasks in 32 whom handedness may confer an evolutionary advantage. Why the majority of marsupials studied preferred their left forelimbs while the majority of humans prefer their right remains a mystery, however, 33 as does the mechanism by which, in the absence of a corpus callosum, the hemispheres of the marsupial brain communicate.

31

Which choice presents a main claim of the passage?

- A) NO CHANGE
- B) For the marsupials in the study, then, handedness seems to be associated with bipedalism.
- C) There are many things scientists do not understand about the marsupial brain.
- D) Additional studies on this phenomenon will need to be performed with other mammals.

32

- A) NO CHANGE
- B) which
- C) what
- D) whose

33

The writer wants to conclude the passage by recalling a topic from the first paragraph that requires additional research. Which choice best accomplishes this goal?

- A) NO CHANGE
- B) though researchers should not neglect the sizable minority of humans who are left handed.
- C) and scientists believe that studies like this one may someday yield insights into the causes of certain neurological disorders.
- D) and an additional study is planned to study handedness in other animals that stand upright only some of the time.

Questions 34-44 are based on the following passage.

### An Employee Benefit That Benefits Employers

— 1 —

According to a 2014 report from the Society for Human Resource Management, 54 percent of surveyed companies provide tuition assistance to employees pursuing an undergraduate degree, and 50 percent do so for employees working toward a graduate degree.

**34** Despite these findings, more companies should consider helping employees pay for education because doing so helps **35** increase customer satisfaction and improve the quality of the companies' business.

**34**

Which choice provides the most effective transition from the previous sentence to the information that immediately follows in this sentence?

- A) NO CHANGE
- B) In addition to the 2014 report,
- C) Although these levels are impressive,
- D) Whether they want to or not,

**35**

Which choice most effectively establishes the main idea of the passage?

- A) NO CHANGE
- B) solve the problem of rising tuition costs
- C) strengthen the US economy
- D) attract and retain employees

— 2 —

Tuition-reimbursement programs signal that employers offer their **36** workers' opportunities for personal and professional development. According to professor of management Peter Cappelli, such opportunities are appealing to highly motivated and disciplined individuals and may attract applicants with these desirable qualities. Many in the business community concur. Explaining his company's decision to expand its tuition-assistance program, John Fox, the director of dealer training at Fiat Chrysler Automobiles in the United States, **37** who stressed the importance of drawing skilled employees to Fiat Chrysler's car dealerships: "This is a benefit that can surely bring top talent to our dealers," he said.

36

- A) NO CHANGE
- B) workers opportunities'
- C) workers opportunities
- D) worker's opportunity's

37

- A) NO CHANGE
- B) stressed
- C) stressing
- D) and he stressed

— 3 —

Paying for tuition also helps businesses retain **38** employees. Retaining employees is important not only because it ensures a skilled and experienced workforce but also because it mitigates the considerable costs of finding, hiring, and training new workers. Employees whose tuition is reimbursed often stay with their employer even after they complete their **39** degrees. Because their new qualifications give them opportunities for advancement within the company. The career of Valerie Lincoln, an employee at the aerospace company United Technologies Corporation **40** (UTC) is a significant success story for her company's tuition-reimbursement program. In eight years at UTC, Lincoln earned associate and bachelor's degrees in business and advanced from an administrative assistant position to an accounting associate position. This allowed UTC to retain an employee with a **41** deep knowledge of her industry and years of valuable experience.

38

Which choice most effectively combines the sentences at the underlined portion?

- A) employees, and this retention
- B) employees, the retaining of whom
- C) employees, which
- D) employees; that

39

- A) NO CHANGE
- B) degrees: because
- C) degrees because
- D) degrees; because

40

- A) NO CHANGE
- B) (UTC)—
- C) (UTC):
- D) (UTC),

41

- A) NO CHANGE
- B) hidden
- C) large
- D) spacious

— 4 —

Tuition reimbursement can be expensive, and many companies would find it impractical to pay for multiple degrees for all employees. Businesses have succeeded in **42** minimizing and keeping down costs and ensuring the relevance of employees' coursework by offering fixed amounts of reimbursement each year and stipulating which subjects workers can study. Even with these methods, tuition reimbursement may not be appropriate in all cases, especially if classes are likely **43** to divert employees' time and energy from their jobs.

**Question 44** asks about the previous passage as a whole.

**42**

- A) NO CHANGE
- B) minimizing costs associated with employees' coursework
- C) being effective at keeping down costs
- D) keeping down costs

**43**

- A) NO CHANGE
- B) diverted
- C) in diverting
- D) diversions for

**Think about the previous passage as a whole as you answer question 44.**

**44**

The writer wants to insert the following sentence.

Still, since securing an excellent workforce is crucial to a business's success, employers should give serious thought to investing in reimbursement programs.

To make the passage most logical, the sentence should be placed immediately after the last sentence in paragraph

- A) 1.
- B) 2.
- C) 3.
- D) 4.

**STOP**

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

# SAT Practice Test

## Worksheet: Answer Key

### Reading Test Answers

QUESTION #	CORRECT	MARK YOUR CORRECT ANSWERS	QUESTION #	CORRECT	MARK YOUR CORRECT ANSWERS
1	A		27	B	
2	B		28	D	
3	D		29	A	
4	B		30	D	
5	A		31	A	
6	A		32	B	
7	D		33	C	
8	C		34	B	
9	C		35	B	
10	B		36	D	
11	D		37	C	
12	A		38	A	
13	A		39	A	
14	B		40	B	
15	C		41	D	
16	C		42	A	
17	D		43	A	
18	C		44	B	
19	B		45	D	
20	B		46	C	
21	D		47	A	
22	D		48	B	
23	B		49	C	
24	A		50	A	
25	C		51	C	
26	C		52	D	

**READING TEST  
RAW SCORE**

(Total # of Correct Answers)

### Writing and Language Test Answers

QUESTION #	CORRECT	MARK YOUR CORRECT ANSWERS	QUESTION #	CORRECT	MARK YOUR CORRECT ANSWERS
1	A		23	C	
2	D		24	A	
3	A		25	A	
4	A		26	B	
5	D		27	D	
6	A		28	B	
7	C		29	C	
8	D		30	C	
9	D		31	B	
10	C		32	B	
11	C		33	A	
12	D		34	C	
13	A		35	D	
14	D		36	C	
15	C		37	B	
16	B		38	C	
17	B		39	C	
18	A		40	D	
19	D		41	A	
20	B		42	D	
21	C		43	A	
22	B		44	D	

**WRITING AND LANGUAGE TEST  
RAW SCORE**

(Total # of Correct Answers)

### Math Test – No Calculator Answers

QUESTION #	CORRECT	MARK YOUR CORRECT ANSWERS
1	B	
2	C	
3	B	
4	C	
5	A	
6	A	
7	D	
8	C	
9	C	
10	D	
11	A	
12	B	
13	C	
14	B	
15	A	
16	2200	
17	5	
18	1.21	
19	2500	
20	20	

**MATH TEST –  
NO CALCULATOR  
RAW SCORE**

(Total # of  
Correct Answers)

### Math Test – Calculator Answers

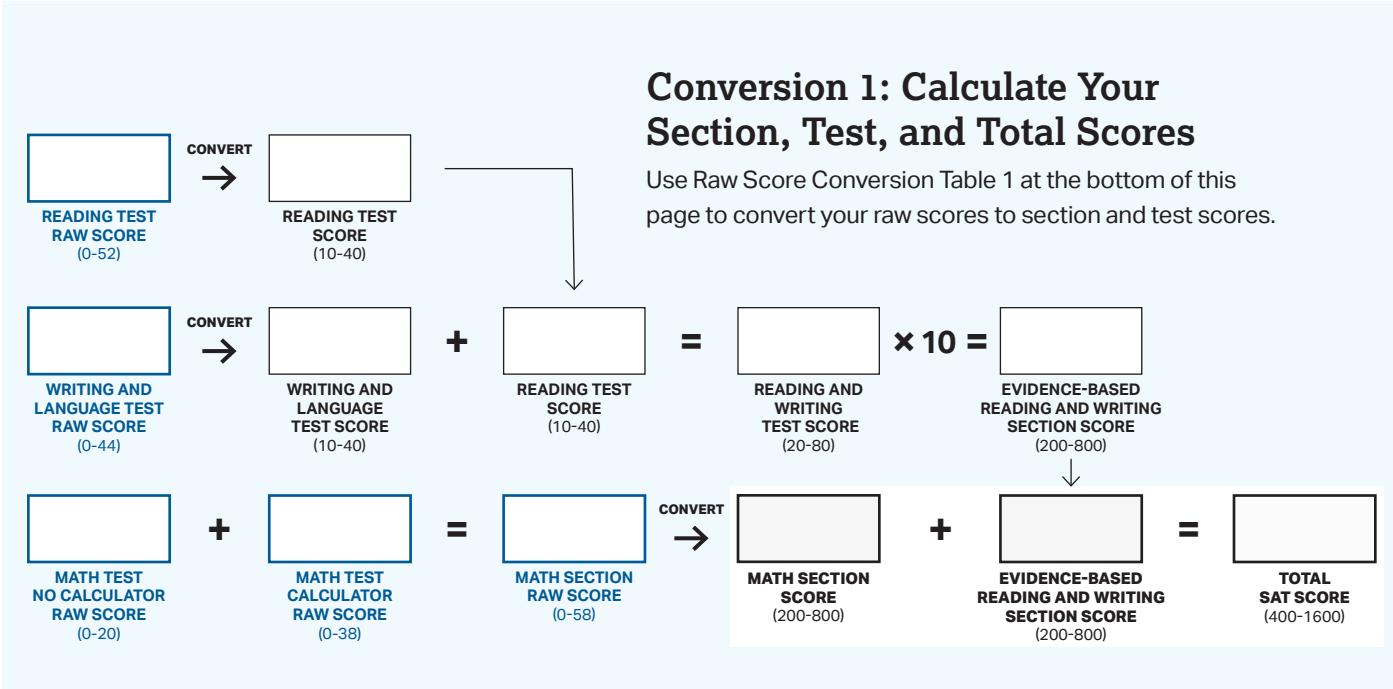
QUESTION #	CORRECT	MARK YOUR CORRECT ANSWERS
1	B	
2	A	
3	B	
4	C	
5	C	
6	D	
7	B	
8	C	
9	C	
10	D	
11	A	
12	C	
13	C	
14	A	
15	B	
16	C	
17	D	
18	C	
19	D	
20	C	
21	B	
22	D	
23	A	
24	B	
25	A	
26	D	
27	A	
28	D	
29	D	
30	A	
31	6	
32	146	
33	2500	
34	34	
35	5/2 or 2.5	
36	25/4 or 6.25	
37	293	
38	9	

**MATH TEST –  
CALCULATOR  
RAW SCORE**

(Total # of  
Correct Answers)

# SAT Practice Test Worksheet:

## Section, Test, and Total Scores



Raw Score Conversion Table 1: Section and Test Scores

RAW SCORE (# OF CORRECT ANSWERS)	Reading Test Score	Writing and Language Test Score	Math Section Score
0	10	10	200
1	10	10	200
2	10	10	210
3	10	11	220
4	11	11	230
5	12	12	250
6	13	13	270
7	13	14	280
8	14	14	300
9	15	15	310
10	16	16	320
11	16	16	340
12	17	17	350
13	17	17	360
14	18	18	370
15	18	18	380
16	19	18	390
17	19	19	400
18	20	19	410
19	20	20	420
20	21	20	430
21	21	21	440
22	22	21	450
23	22	22	460
24	23	23	470
25	23	23	480
26	24	24	490
27	24	24	500
28	25	25	500
29	25	25	510

RAW SCORE (# OF CORRECT ANSWERS)	Reading Test Score	Writing and Language Test Score	Math Section Score
30	26	26	520
31	26	27	520
32	27	27	530
33	28	28	540
34	28	29	540
35	29	29	550
36	29	30	560
37	30	31	570
38	30	31	580
39	31	32	580
40	31	33	590
41	31	34	600
42	32	36	610
43	32	38	610
44	33	40	620
45	33		630
46	34		640
47	35		650
48	36		660
49	36		670
50	37		680
51	39		690
52	40		700
53			710
54			730
55			750
56			770
57			790
58			800