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ENGLISH TEST

45 Minutes—75 Questions

DIRECTIONS: In the five passages that follow, certain words and phrases are underlined and numbered. In the right-hand column, you will find alternatives for the underlined part. In most cases, you are to choose the one that best expresses the idea, makes the statement appropriate for standard written English, or is worded most consistently with the style and tone of the passage as a whole. If you think the original version is best, choose "NO CHANGE." In some cases, you will find in the right-hand column a question about the underlined part. You are to choose the best answer to the question.

You will also find questions about a section of the passage, or about the passage as a whole. These questions do not refer to an underlined portion of the passage, but rather are identified by a number or numbers in a box.

For each question, choose the alternative you consider best and fill in the corresponding oval on your answer document. Read each passage through once before you begin to answer the questions that accompany it. For many of the questions, you must read several sentences beyond the question to determine the answer. Be sure that you have read far enough ahead each time you choose an alternative.

PASSAGE I

Sliding Stones to the Forbidden City

[1]

The Forbidden City, built in the fifteenth and sixteenth centuries in Beijing, China, is a complex consisting of the imperial palace and 980 surrounding buildings. A large number of massive stones were used in its construction, some of them featured elaborate carvings. Because China had developed sophisticated wheeled vehicles two thousand years before construction on the city began, scholars assumed that workers had used carts to transport the stones to the site. However, a document translated by researchers Jiang Li, Haosheng Chen, and Howard Stone, in 2013 revealed that workers used a surprising means of transportation; a sledge pulled on ice. [A]

1. A. NO CHANGE
B. China, which is
C. China—
D. China,
2. E. NO CHANGE
G. were engraved with
H. of these had
J. with
3. A. NO CHANGE
B. researchers Jiang Li, Haosheng Chen, and Howard Stone in 2013
C. researchers Jiang Li, Haosheng Chen, and Howard Stone in 2013,
D. researchers, Jiang Li, Haosheng Chen, and Howard Stone, in 2013
4. F. NO CHANGE
G. transportation: being
H. transportation:
J. transportation

[2]

The document that was later translated by Jiang, Haosheng, and Stone stated that in January 1557 a team of men hauled a 123-ton stone to the Forbidden City on a sledge (a platform with wooden runners).

[B] The men pulled the sledge forty-five miles in twenty-eight days, moving about twenty feet per minute. Jiang, Haosheng, and Stone wondered why the workers chose to slide the stones on sledges instead of using carts. [C] They calculated that the city's largest stones—some weighing up to 300 tons—were too heavy for sixteenth-century carts to carry. In addition, the rough, bumpy roads of the time made maneuvering the carts difficult. Sledges were easier, smoother, and more reliable.

[3]

But how could a team of men only drag a heavy sledge forty-five miles in a few weeks? [D] The

researchers discovered that to confront friction,

the workers created artificial ice paths that poured water on the ground. They let the winter air freeze

the water and then pulling the sledge over the ice

5. A. NO CHANGE
B. that was the same one that described the use of a sledge
C. (it was translated in 2013)
D. DELETE the underlined portion.
6. F. NO CHANGE
G. Stone themselves wondered about the reason for why
H. Stone, who were researchers, wondered why
J. Stone asked why and for what reason
7. A. NO CHANGE
B. to 300 tons—
C. to 300 tons,
D. to 300 tons
8. The writer wants to emphasize that a few weeks was a short period of time in which to move a sledge forty-five miles. Which placement of the underlined portion best accomplishes that goal?
F. Where it is now
G. After the word *could*
H. After the word *sledge*
J. After the word *in*
9. A. NO CHANGE
B. counter
C. dispute
D. debate
10. F. NO CHANGE
G. capable of pouring
H. by pouring
J. pouring
11. A. NO CHANGE
B. water then they pulled
C. water and then pulled
D. water, then pulling

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The workers also dug wells along the route so
they could pour fresh water over the ice,

thereby further reducing friction. The
combination of the hard, icy surface and

water lubrication were to mean that a small
team of workers could move the massive stones
quickly and safely. These artificial ice paths made
possible the construction of the Forbidden City,
one of China's most enduring landmarks.

12. F. NO CHANGE
G. route this was so
H. route, thus,
J. route,

13. If the writer were to delete the underlined portion (adjusting the punctuation as needed), the essay would primarily lose information that:
- A. adds more detail about the method workers used to dig wells along the route.
 - B. illustrates why carts were ineffective at transporting the stones.
 - C. helps clarify the reason workers poured water over the ice.
 - D. reveals the methods workers used to pour water over the ice.

14. F. NO CHANGE
G. were used so
H. have meant
J. meant

Question 15 asks about the preceding passage as a whole.

15. The writer wants to add the following true sentence to the essay:
- The secret was ice.
- The sentence would most logically be placed at:
- A. Point A in Paragraph 1.
 - B. Point B in Paragraph 2.
 - C. Point C in Paragraph 2.
 - D. Point D in Paragraph 3.

PASSAGE II

Cecilia Payne-Gaposchkin and Star Composition

In 1923, when Cecilia Payne-Gaposchkin arrived in the United States to study astronomy, however, a widely held belief in her chosen field was that the stars, including the Sun, varied widely in its composition. Her PhD thesis, published in 1925, asserting that, unlike the planets, all stars are largely composed of hydrogen and helium. The idea instantly met with vehement opposition from her colleagues.

16. F. NO CHANGE
G. furthermore,
H. instead,
J. DELETE the underlined portion.
17. A. NO CHANGE
B. their
C. one
D. a
18. F. NO CHANGE
G. asserted that,
H. an assertion,
J. asserted

1 [1] Within a few years, however, studies by other astronomers. Otto Struve in particular went on to prove that Payne-Gaposchkin's assertion was correct.

[2] Payne-Gaposchkin eventually published more than 150 papers and monographs and rose to be the first woman to chair a department at Harvard University. [3] Struve, in fact, said that her

work was "the most brilliant thesis ever

written in astronomy." [22]

To accomplish the groundbreaking work of her thesis, published in 1925, Payne-Gaposchkin had applied astrophysicist Meghnad Saha's newly developed theory of ionization to the study of stellar atmospheres. [A] She labored by what was at the time

the world's largest collection of stellar spectra on photographic plates in the world. To the untrained eye, stellar spectra look like random smears on a sheet of paper. The images that were created with a spectroscope, an instrument that, when attached to a telescope, captures the various wavelengths of starlight on a color spectrum. [B] Payne-Gaposchkin turned most of her attention to the "absorption lines," the dark gaps where light at certain wavelengths was missing. [C]

19. A. NO CHANGE
B. particular when he proved
C. particular, proved
D. particular proved

20. Which choice best emphasizes that Struve felt strongly about his opinion of Payne-Gaposchkin's thesis?
F. NO CHANGE
G. mentioned
H. declared
J. noted

21. A. NO CHANGE
B. considered to be
C. being
D. to be

22. Which sequence of sentences makes this paragraph most logical?
F. NO CHANGE
G. 1, 3, 2
H. 3, 1, 2
J. 2, 1, 3

23. A. NO CHANGE
B. with a publication year of 1925.
C. a 1925 publication.
D. DELETE the underlined portion.

24. F. NO CHANGE
G. upon
H. over
J. to

25. A. NO CHANGE
B. largest stellar spectra
C. largest (globally)
D. largest

26. F. NO CHANGE
G. having been
H. were
J. being

27. A. NO CHANGE
B. showed her that
C. indicated where
D. let her know

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She concluded, ultimately that the variations among stellar spectra were not, as previously thought, an indication of different stellar composition. [D] Instead, she took the position that the gaps could be attributed to the different temperatures of stars but that the stars' elemental makeup was largely uniform. The discovery is, to this day, considered one of the greatest in the field of astronomy. [30]

28. F. NO CHANGE
G. ultimately that.
H. ultimately, that
J. ultimately, that,
29. A. NO CHANGE
B. had her say in the matter
C. put pen to paper, saying
D. went ahead and told everyone

30. The writer wants to add the following true statement to the preceding paragraph:

The gaps represent the chemical elements in a star's atmosphere that absorb the light.

The sentence would most logically be placed at:

- F. Point A.
G. Point B.
H. Point C.
J. Point D.

PASSAGE III

Theater in the Small

For a brief trip in 2011, *Theatre for One* was situated in New York City's Times Square, just a few steps from Broadway's mainstream theaters. This four-by-eight-foot black booth, trimmed in steel and lined in red velvet, it served as the locale for five plays. Each play had a single actor and a single audience member. [33]

And intriguingly, each demanded the spectator's involvement.

31. A. NO CHANGE
B. airing
C. stint
D. shift
32. F. NO CHANGE
G. velvet, which
H. velvet and
J. velvet,
33. If the writer were to delete the preceding sentence, the essay would primarily lose:
- A. a note about the main similarities between *Theatre for One* and the mainstream theaters of Broadway.
B. a detail that helps convey the small scale of the five *Theatre for One* plays.
C. a description of how the audience became involved in the play.
D. an explanation of the inspiration for intimate theater.
34. F. NO CHANGE
G. intriguingly; each
H. intriguingly; each
J. intriguingly each,

In making the audience a part of the play, *Theatre for One* epitomizes "intimate theater," a movement that has seen a recent rise in popularity. Meanwhile, intimate³⁵ theater collapses the "wall" separating the audience from the actors. It creates an immersive experience in which the audience participates in creating the play.

35. A. NO CHANGE
B. In contrast, intimate
C. As a result, intimate
D. Intimate

Audience involvement can be physical or verbal.³⁶ In a London production of Edgar Allan Poe's *Masque of the Red Death*, audiences silently wandered the

36. F. NO CHANGE
G. take the form of either physical involvement or of being verbal instead.
H. fall into the two categories of being considered physical or verbal.
J. be by either a physical or verbal method of involvement.

halls of the 1893 Battersea Arts Centre while scenes from the story played out in various rooms.³⁷ People

37. The writer is considering revising the underlined portion to the following:

Centre, built by E. W. Mountford,
Should the writer make this revision?

- A. Yes, because it offers a detail suggesting that the building had been constructed specifically for the production of *Masque of the Red Death*.
B. Yes, because it provides a detail that helps describe the plot of *Masque of the Red Death*.
C. No, because it is an irrelevant detail that does not contribute to the description of the *Masque of the Red Death* production.
D. No, because it adds a detail that could cause confusion over who wrote *Masque of the Red Death*.

could walk in on a scene already in progress or leave before a scene finished. Actors drew the spectators in by making eye contact, touching someone's arm, or beckoning someone to follow them to a new location.

38. F. NO CHANGE
G. that was already in the process of being performed for anyone who might enter
H. from the story that the actors were already in the process of performing
J. from Poe's story that had already started but not yet finished

A person's show, specifically, quite literally depended on your own particular movements.³⁹

39. A. NO CHANGE
B. similarly,
C. therefore,
D. however,

40. F. NO CHANGE
G. his or her
H. its
J. DELETE the underlined portion.

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Some productions rely almost completely on actor-audience dialogue. An Edinburgh festival ⁴¹featured *Live Art Speed Dating*, for which each theatergoer met with each of the twelve actors individually for a series of "mini-dates." For *Internal*, audience members first paired off with actors to talk for twenty-five minutes and then sat in a circle for something seemingly more akin to group therapy than theater. Such experiences could be both exhilarating and unsettling.

Intimate theater breaks in the rules of traditional theater. Relying on the audience's ⁴²personal involvement in the creation of the performance, it sometimes blurs the line ⁴³among illusion and reality. Whether it's in Times Square

or Edinburgh, intimate theater is definitely not Broadway. ⁴⁴

41. A. NO CHANGE
B. festival, which featured
C. festival that featured
D. festival, featuring

42. F. NO CHANGE
G. out
H. off
J. DELETE the underlined portion.

43. A. NO CHANGE
B. between allusion
C. between illusion
D. among allusion

44. Which choice best concludes the essay by linking back to an idea presented in the first sentence of the essay?
F. NO CHANGE
G. with many actors or just a few, theatrical performances are always fun.
H. intimate theater appeals to a wide range of people.
J. a play can help you see things from a new angle.

Question 45 asks about the preceding passage as a whole.

45. Suppose the writer's primary purpose had been to offer an overview of a particular movement in theater. Would this essay accomplish that purpose?
- A. Yes, because it defines intimate theater and focuses on the buildings constructed to feature these unconventional performances.
B. Yes, because it discusses the central elements of intimate theater with examples of specific performances.
C. No, because it focuses on historical shifts in theatrical performance in general rather than specifically on intimate theater.
D. No, because it offers several examples of intimate theater but does not identify any specific elements that are common to it.

PASSAGE IV

Lily's Mission: Dyer's Woad

Lily barks as she turns in a circle. Then she sits down, patiently waiting for her handler, conservationist Aimee Hurt. The yellow Labrador retriever's actions tell Hurt that Lily has detected dyer's woad, the invasive

46

weed the two are searching for the wildflower-speckled hillside of Mount Sentinel in Montana. Lily's actions also

47

triggers the GPS unit attached to her harness to record the dog's precise location. Once Hurt catches up to Lily,

48

the retriever gets ready for what's next. Hurt can then find

49

the one-inch-tall plant, pulling it up as she watches, anticipating her reward. In a few weeks, the team will return to the spot to confirm that the weed has not resprouted.

50

Lily is one of several dogs on the crew of Working Dogs for Conservation, a nonprofit organization based in Three Forks, Montana. The group trains dogs and works with humans on a variety of conservation-related initiatives. In 2010, the

51

organization from the state joined one of Montana's longest-running projects to eradicate dyer's woad.

52

46. F. NO CHANGE
G. woad the plant is
H. woad, it's
J. woad it's
47. A. NO CHANGE
B. for on
C. on at
D. on
48. F. NO CHANGE
G. trigger
H. has triggered
J. is important for triggering
49. Which choice provides the best transition from this sentence to the following sentence?
A. NO CHANGE
B. wags her tail, as she always does when Hurt approaches.
C. is no longer permitted to bark incessantly.
D. points her nose directly at the woad.
50. F. NO CHANGE
G. he or she watches,
H. Lily watches,
J. you watch,
51. Which choice most clearly indicates that the dogs are working with humans on conservation tasks?
A. NO CHANGE
B. to work
C. and does work
D. while working
52. Which placement of the underlined portion puts the clearest emphasis on the organization's goal to remove dyer's woad specifically from Montana?
F. Where it is now
G. After the word *joined*
H. After the word *projects*
J. After the word *woad* (and before the period)

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Since the 1950s, the hardy, fast-growing
weed has choked out native plants and overrun
wildlife habitats in several Montana counties. ⁵³

Specially trained dogs can dig out the tiny, young
⁵⁴

specimens of dyer's woad that humans often miss.
⁵⁵
With the dogs' help, conservationists are better able
to locate and remove woad; before it matures and
reproduces, releasing thousands of seeds. ⁵⁶

Hurt thanks Lily by tossing a tennis ball for her
to chase; Lily's long-time favorite reward for identifying
⁵⁷
the scent of dyer's woad. A former shelter dog now living
with one of her handlers, Lily was assigned to the dyer's
woad project for her ability much like a police dog's to
ignore all other scents while she is working. After Lily
returns with her ball, she and Hurt continue on their
search. Lily's nose, like the noses of a small number
of other conservation dogs, has helped humans ⁵⁸
⁵⁹

find a new way to strengthen their bonds with dogs.
⁶⁰

53. In the preceding sentence, the writer is considering revising the phrase "choked out" to the word "harmed" and the word "overrun" to the word "affected." Should the writer make these revisions?
- A. Yes, because the revisions provide clearer reasons for the initiatives to remove dyer's woad from Montana.
 - B. Yes, because the revisions add a level of technical detail to an otherwise casual essay.
 - C. No, because the revisions suggest that the work of the group Lily belongs to has been largely ineffective.
 - D. No, because the revisions downplay how destructive dyer's woad has been in Montana.
54. Which choice best reinforces the way the dogs work to find woad as established in the essay as a whole?
- F. NO CHANGE
 - G. sniff out
 - H. uncover
 - J. pull up
55. A. NO CHANGE
B. specimens, of dyer's woad,
C. specimens, of dyer's woad
D. specimens of dyer's woad,
56. F. NO CHANGE
G. woad, before it matures,
H. woad before it, matures
J. woad before it matures
57. A. NO CHANGE
B. chase; which is
C. chase,
D. chase.
58. F. NO CHANGE
G. ability—much like a police dog's—
H. ability—much like a police dog's
J. ability much like a police dog's,
59. A. NO CHANGE
B. them belonging to
C. that belonging to
D. the nose of
60. Given that all the choices are accurate, which one would most effectively conclude this paragraph and the essay?
- F. NO CHANGE
 - G. locate dyer's woad, find fungi, survey kit foxes, and even track the blunt-nosed leopard lizard.
 - H. almost completely weed out dyer's woad in several areas of Montana.
 - J. make strides with an initiative that has been popular in Montana.

PASSAGE V

Riders on the Storm

[1]

[1] But exactly how these tiny creatures avoid being knocked out of the air during storms were puzzling to⁶¹ entomologists for years. [2] While a typical mosquito measures about three millimeters in length, a raindrop is usually between two and eight millimeters in diameter. [3] More important, a single raindrop can weigh up to fifty times more than the average mosquito. [4] A mosquito might be hit by a drop this size over and over⁶² while flying through a moderate rainstorm. [5] Mosquitoes

don't dodge raindrops. 63

[2]

To study how mosquitoes contend with raindrops, mechanical engineer and biologist Dr. David Hu placed mosquitoes inside a clear acrylic box with mesh over the⁶⁴ top. [A] He then sprayed water through the mesh at varying intensities to simulate rainstorms and used high-speed videography to film the mosquitoes in action. [B]

[3]

When struck in the legs (the most common point of impact), a mosquito simply rolls sideways and then resumes regular flight.⁶⁵

61. A. NO CHANGE
B. have been puzzling
C. have puzzled
D. has puzzled
62. Which choice provides the clearest and most specific information about how often a mosquito is struck during a moderate rainstorm?
F. NO CHANGE
G. approximately every twenty seconds
H. at a strikingly high rate of frequency
J. a number of times every minute
63. For the sake of logic and cohesion, Sentence 5 should be placed:
A. where it is now.
B. before Sentence 1.
C. after Sentence 1.
D. after Sentence 2.
64. F. NO CHANGE
G. clear, acrylic, box with,
H. clear acrylic, box with
J. clear, acrylic box, with
65. If the writer were to delete the underlined portion (ending the sentence with a period), the essay would primarily lose a detail that helps:
A. emphasize that getting hit by a raindrop in the legs does not have a significant impact on mosquitoes.
B. indicate that rolling sideways is a normal part of a mosquito's regular flight pattern.
C. describe what happens each time a droplet strikes a mosquito.
D. clarify how mosquito anatomy influences flight strategies.



But when struck squarely on the body, the insect
joins the droplet, suddenly riding along as the droplet
hurtles downward for up to twenty mosquito body lengths.

66

Then the mosquito, which appears to use its long legs
and wings to twist free from the droplet and smoothly
glide off and away from the droplet. This midair moment

68

of separation occurs so quickly that—the mechanics

69

remain unclear. The entire interaction, therefore, lasts
only a fraction of a second. [C]

70

[4]

Despite the uncertainties, it is clear that the
features that would seem to put the mosquito at risk in
storms—its size and low weight in comparison with the
drops—are precisely what allow it to effectively elude the
force of an impact by riding a raindrop. This investigation
has yielded information that, perhaps surprisingly, could
benefit humans. [D] Mosquitoes have relinquished a new
model for the development of tiny airborne robots that can
be used for search-and-rescue operations as well as for
surveillance. With these robots, as with mosquitoes,
rainstorms play a significant role in nature.

73

66. Which choice best emphasizes the high speed with which the mosquito falls?

- F. NO CHANGE
- G. heads to the ground
- H. loses altitude
- J. descends

67. A. NO CHANGE
B. Then the mosquito appears
C. Then the mosquito, appearing
D. Then, as the mosquito appears

68. F. NO CHANGE
G. off, free of the droplet.
H. off, freely on its own.
J. away.

69. A. NO CHANGE
B. quickly—that
C. quickly, that
D. quickly that

70. F. NO CHANGE
G. for example,
H. after all,
J. however,

71. A. NO CHANGE
B. they're
C. there
D. it's

72. F. NO CHANGE
G. turned over
H. provided
J. recorded

73. Which choice best concludes the paragraph and the essay?

- A. NO CHANGE
- B. the smaller and lighter the body, the more durable it may be in rainstorms.
- C. it is a tough task to figure out how to make something fly.
- D. technology is changing quickly every day, just like nature.

Questions 74 and 75 ask about the preceding passage as a whole.

74. The writer is considering adding the following sentence to the essay:

This controlled environment and documentation were necessary because capturing footage of mosquitoes flying through storms in nature is nearly impossible.

If the writer were to add this sentence, it would most logically be placed at:

- F. Point A in Paragraph 2.
- G. Point B in Paragraph 2.
- H. Point C in Paragraph 3.
- J. Point D in Paragraph 4.

75. Suppose the writer's primary purpose had been to offer an overview of how insects fly. Would this essay accomplish that purpose?

- A. Yes, because it describes the general flight pattern for mosquitoes and how that pattern changes during storms.
- B. Yes, because it explains several strategies mosquitoes use when flying through storms.
- C. No, because it mainly focuses on how Dr. Hu's study of mosquitoes can be applied to other scientific fields.
- D. No, because it mainly focuses on a specific study of how mosquitoes stay aloft in rainstorms.

END OF TEST 1

STOP! DO NOT TURN THE PAGE UNTIL TOLD TO DO SO.