

READING TEST

35 Minutes—40 Questions

DIRECTIONS: There are several passages in this test. Each passage is accompanied by several questions. After reading a passage, choose the best answer to each question and fill in the corresponding oval on your answer document. You may refer to the passages as often as necessary.

Passage I

LITERARY NARRATIVE: This passage is adapted from the short story "Pride" by Alice Munro (©2011 by Alice Munro).

Oneida didn't go to school with the rest of us. She went to a girls' school, a private school. Even in the summers she was not around much. I believe the family had a place on Lake Simcoe.

5 Oneida was an unusual name. Her father, I believe, called her Ida. Ida's father ran the bank. Even in those days bankers came and went, I suppose to keep them from ever getting too cozy with the customers. But the Jantzens had been having their way in town for too long
10 for any regulations to matter, or that was how it seemed. Horace Jantzen had certainly the look of a man born to be in power. A heavy white beard and a ponderous expression.

15 In the hard times of the Thirties people were still coming up with ideas. You can be sure, men were nursing a notion bound to make them a million dollars. A million dollars in those days was a million dollars.

20 It wasn't any railway bum, however, who got into the bank to talk to Horace Jantzen. Who knows if it was a single person or a cohort. Maybe a stranger or some friends of friends. Well dressed and plausible looking, you may be sure. Horace set store by appearances. He wasn't a fool, though maybe not as quick as he should have been to smell a rat.

25 The idea was the resurrection of the steam-driven car, such as had been around at the turn of the century. Horace Jantzen may have had one himself and had a fondness for them. This new model would be an improved version, of course, and have the advantages of
30 being economical and not making a racket.

I'm not acquainted with the details, having been in high school at the time. But I can imagine the leak of talk and the scoffing and enthusiasm and the news getting through of some entrepreneurs from Toronto or
35 Windsor or Kitchener getting ready to set up locally. Some hotshots, people would say. And others would ask if they had the backing.

They did indeed, because the bank had put up the loan. It was Jantzen's decision and there was some con-

40 fusion that he had put in his own money. He may have done so, but he had also dipped improperly into bank funds, thinking no doubt that he could pay it back with nobody the wiser. Maybe the laws were not so tight then. There were actually men hired and the old Livery
45 Stable was cleared out to be their place of operations. And here my memory grows shaky, because I graduated from high school, and I had to think about earning a living if that was possible. I settled for bookkeeping, and that meant going out of town to apprentice to an
50 outfit in Goderich. By the time I got back home the steam-car operation was spoken of with scorn by the people who had been against it and not at all by those who had promoted it. The visitors to town who promoted it had disappeared.

55 The bank had lost a lot of money. There was talk not of cheating but of mismanagement. Somebody had to be punished. Any ordinary manager would have been out on his ear, but given that it was Horace Jantzen this was avoided. What happened to him was almost worse.
60 He was switched to the job of bank manager in the little village of Hawksburg, about six miles up the highway. Prior to this there had been no manager there at all, because they didn't need one. There had just been a head cashier and an underling cashier, both women.

65 Surely he could have refused, but pride, as it was thought, chose otherwise. Pride chose that he be driven every morning those six miles to sit behind a partial wall of cheap varnished boards, no proper office at all. There he sat and did nothing until it was time for him to
70 be driven home. The person who drove him was his daughter. Sometime in these years of driving she made the transition from Ida to Oneida. At last she had something to do.

If I picture Oneida and her father on these journeys
75 to and from Hawksburg, I see him riding in the back seat, and her in front, like a chauffeur. It may have been that he was too bulky to ride up beside her. I don't see Oneida looking downtrodden or unhappy at the arrangement, nor her father looking actually unhappy. Dignity was what he had, and plenty of it. She had something different. When she went into a store or even walked on the street there seemed to be a little space cleared around her, made ready for whatever she might want or greetings she might spread. She seemed then a bit flustered but gracious, ready to laugh a little at herself or
85 the situation. Of course she had her good bones and

bright looks, all that fair dazzle of skin and hair. So it might seem strange that I could feel sorry for her, the way she was all on the surface of things, trusting.

1. Based on the passage, it could be assumed that the narrator gained the knowledge to tell this story about Jantzen by:
 - A. piecing the story together out of hearsay and his own recollections.
 - B. learning the details directly from Jantzen.
 - C. fabricating the entire story because it didn't really happen.
 - D. being a participant in the events as they unfolded.
2. In the context of the passage, which of the following statements most strongly foreshadows Jantzen's downfall?
 - F. "Ida's father ran the bank" (line 6).
 - G. "In the hard times of the Thirties people were still coming up with ideas" (lines 14–15).
 - H. "He wasn't a fool, though maybe not as quick as he should have been to smell a rat" (lines 23–24).
 - J. "Horace Jantzen may have had one himself and had a fondness for them" (lines 27–28).
3. The passage suggests that in considering who convinced Jantzen to invest in manufacturing steam-driven cars, most people in town:
 - A. could list everyone who was involved.
 - B. believed some were friends of friends while others were complete strangers.
 - C. figured it had been an old cohort of Jantzen's who had fallen on hard times.
 - D. indulged in speculation, but didn't know for sure who it had been.
4. Which of the following is true of people's behavior when the narrator returned to town after his apprenticeship?
 - I. Visitors who promoted steam cars had left town.
 - II. People in town blamed the loss of money on Jantzen having cheated.
 - III. People in town who had favored the plan to bring back steam cars stopped speaking of the cars.
 - IV. People who had been against the plan to bring back steam cars spoke of the cars scornfully.
 - F. I and II only
 - G. III and IV only
 - H. I, III, and IV only
 - J. II, III, and IV only
5. Which of the following best paraphrases the narrator's comments in lines 14–16?
 - A. People in their thirties had the best ideas for making money.
 - B. Because times were hard, people were trying to find new money-making schemes.
 - C. Men were making as much as a million dollars a year in the 1930s.
 - D. Everyone was sure that they should take their money-making plans to Jantzen.
6. As it is used in line 16, the word *nursing* most nearly means:
 - F. rearing.
 - G. educating.
 - H. healing.
 - J. fostering.
7. The narrator speculates that whoever convinced Jantzen to invest in a steam-driven car must have been:
 - A. well dressed; Jantzen would have been impressed by someone who looked affluent.
 - B. wealthy; otherwise, Jantzen wouldn't have risked loaning the money.
 - C. elderly; Jantzen would have trusted someone who could remember the original steam-driven cars.
 - D. intelligent; it would have taken someone clever to convince Jantzen to invest.
8. Based on the passage, it's most logical to conclude that the original steam-driven cars were:
 - F. expensive and noisy.
 - G. reliable and fast.
 - H. unattractive and impractical.
 - J. luxurious and durable.
9. According to the passage, the majority of the investment money to manufacture a steam-driven car came from:
 - A. some of Jantzen's wealthy friends.
 - B. Jantzen's entire life savings.
 - C. the bank Jantzen was managing.
 - D. entrepreneurs from Toronto, Windsor, or Kitchener.
10. The narrator states that people assumed it was pride that drove Jantzen to:
 - F. invest in steam-driven cars.
 - G. agree to manage the Hawksburg bank.
 - H. look miserable while Oneida drove him to work.
 - J. create a makeshift office out of varnished boards.

Passage II

SOCIAL SCIENCE: Passage A is adapted from *Plastic: A Toxic Love Story* by Susan Freinkel (©2011 by Susan Freinkel). Passage B is adapted from *American Plastic: A Cultural History* by Jeffrey L. Meikle (©1995 by Jeffrey L. Meikle).

Passage A by Susan Freinkel

Designers were enthralled by the universe of possibility from plastics' earliest days. They loved the design freedom that synthetics offered and the spirit of modernity the materials embodied. To furniture designer Paul T. Frankl, a material like Bakelite, the world's first synthetic plastic, spoke "in the vernacular of the twentieth century . . . the language of invention, of synthesis," and he urged his fellow designers to use their full imaginative powers to explore the new materials' frank artificiality. As interpreted by Frankl and other designers working with Bakelite in the '30s and '40s, that was the language of streamlining, a lingo of curves and dashes and teardrop shapes that created a feeling of speed and motion in everyday objects. Streamline a fountain pen and even that stolid item declared: we're hurtling toward the future here!

There was another reason designers embraced plastics. From the mid-twentieth century on, modern design has been guided by an egalitarian gospel, a belief that good design needn't cost a lot of money, that even the most mundane items could be things of beauty. "Get the most of the best to the most for the least" was the way Ray and Charles Eames put it in their famous tongue-twisting credo. Plastics were the ideal medium for that mission: malleable, relatively inexpensive, and made for mass manufacture.

Yet, as in any new relationship, there were risks. It was all too easy to exploit plastics' powers of mimicry to produce the kinds of imitations—pseudo-wood cabinets and faux-leather recliners—that contributed to the growing reputation of plastic as an inferior material. Plastics' adaptability and glibness undermined their capacity to achieve "dignity" as legitimate materials worthy of being taken seriously, one critic wrote.

This impression was exacerbated by people's unfortunate experiences with plastics in the immediate postwar years. There were plastic plates that melted in hot water, plastic toys that cracked on Christmas morning, plastic raincoats that grew clammy and fell apart in the rain. Polymer technology improved during the 1950s as manufacturers figured out how to make better plastics and, even more important, how to match the right polymer with the right application. But the damage to plastic's reputation had been done.

Passage B by Jeffrey L. Meikle

Worrying about the image of plastic made sense in 1945 when unfamiliar new materials confronted wary consumers. By the mid-1950s, however, no one was ignorant of plastic because it surrounded everyone.

Sidney Gross, who joined *Modern Plastics* in 1952 and became editor in 1968, recalled that he had "agitated a lot" over the years to get SPI, the trade association for the plastics industry, to quit trying to convince people "that plastic is not bad." It was a waste of money because plastic's image—good or bad—did not really matter. The key to plastic's success, as he saw it, was always "selling the manufacturer." Once plastic products filled the stores, people had no choice but to consume what they were offered. Most of the time, Gross maintained, after the industry had solved postwar quality problems, plastic objects did work better. Things made of plastic were better designed and lasted longer. People intuitively recognized that fact even if they retained an intellectual notion that plastic was bad or shoddy. In short, nothing succeeded like success.

Often plastic did offer a significant improvement on whatever it replaced. A sleepy householder had to watch only once in disbelief as a polyethylene juice pitcher bounced off the kitchen floor to begin accepting plastic in a practical way no matter how strong the conceptual disdain for it. Even plastic toys, despite the brittle polystyrene items that broke on Christmas morning, proved superior in many ways. A toy soldier of molded polyethylene could not scratch the furniture as readily as an old-fashioned lead soldier. Most people who expressed negative attitudes about plastic used it anyway without thinking about it, either because a particular use had proven itself or because an inexpensive trouble-free alternative no longer existed. As *House Beautiful* observed in 1955, "The news is not that plastics exist, but [that] they have already been so assimilated into our lives." The average person was "conditioned to plastics." They had penetrated so far into the material fabric of everyday life that their presence could not be denied no matter how many people considered them second-rate substitutes or a sad commentary on modern times.

Questions 11–14 ask about Passage A.

11. In the context of Passage A, the author uses the description of a fountain pen (lines 15–16) most nearly to:
- A. lament the way that unique objects began to look identical after the advent of streamlining.
 - B. critique designers for creating items that were beautiful rather than functional.
 - C. illustrate how even everyday items could be designed to appear modern.
 - D. exemplify the kind of item that remained largely unaffected by new design trends.

12. The main idea of the second paragraph (lines 17–26) is that plastics:
- F. appealed to a prevailing philosophy of providing great design to many people for a low cost.
 - G. quickly became popular enough to inspire a number of famous credos and advertising slogans.
 - H. created a challenge for designers, who were not used to working with such a malleable material.
 - J. inspired an artistic movement whose members prized mundane objects rather than beautiful ones.
13. According to Passage A, one reason for designers' early interest in plastics was that:
- A. the materials' ability to be freely shaped encouraged inventiveness.
 - B. consumers' demand for attractively designed items was high.
 - C. a person creating everyday items out of plastics was seen as a bold risk taker.
 - D. older materials like Bakelite were difficult to work with.
14. It can reasonably be inferred from Passage A that before the 1950s, plastics manufacturers had not yet figured out:
- F. how to mold plastics to create the impression of streamlining.
 - G. which plastics were best suited to specific purposes.
 - H. whether consumers would buy everyday items made of plastics.
 - J. whether designers would embrace working with plastics.

Questions 15–17 ask about Passage B.

15. In the context of Passage B, the statement "They had penetrated so far into the material fabric of everyday life" (lines 82–83) most nearly refers to the way that plastics came to be:
- A. considered a symbol of increased consumerism.
 - B. preferred by most consumers to more conventional materials.
 - C. perceived as a threat to traditional ways of life.
 - D. pervasive to the extent that they were integral to people's routines.

16. In Passage B, the primary purpose of the details about the polyethylene juice pitcher (lines 66–70) is to:
- F. describe an advertisement created by the plastic industry in an attempt to improve plastic's image.
 - G. show how people might be persuaded by plastic's durability despite disliking plastic in general.
 - H. demonstrate how dramatically plastic's quality improved between 1945 and the mid-1950s.
 - J. provide an example of the kinds of mishaps that biased people against plastic.
17. Passage B most nearly suggests that compared to toys made of traditional materials, toys made of plastic were often:
- A. more flexible and more detailed.
 - B. less costly and sturdier.
 - C. less durable but also less destructive.
 - D. more popular with kids but less popular with parents.

Questions 18–20 ask about both passages.

18. To support their claims about the public's perception of plastics during the time periods discussed in the passages, both passage authors:
- F. quote people who used or wrote about plastics.
 - G. analyze publications that promoted plastics.
 - H. define key concepts used to market plastics.
 - J. personify artwork or objects made of plastics.
19. Both passages suggest that one bias the public held in the postwar years was that items made of plastic were:
- A. unattractive in design.
 - B. unnervingly artificial.
 - C. expensive novelties.
 - D. inferior substitutes.
20. Which of the following statements best compares the ways the authors of Passage A and Passage B use details about plastic toys on Christmas morning?
- F. Passage A uses the toys as an example of good design, while Passage B uses the toys as proof that plastic items were superior to what they replaced.
 - G. Passage A uses the toys to illustrate plastic's popularity, while Passage B uses the toys to illustrate the lack of practical plastic goods.
 - H. Both passages use the toys to show the variety of plastic items produced during the postwar era.
 - J. Both passages use the toys as an example of early problems with plastic's quality.

Passage III

HUMANITIES: This passage is adapted from the article “The Myth of Gabriel García Márquez: How the Colombian Writer Really Changed Literature” by Michael Wood (©2009 by Washington Post.Newsweek Interactive Co. LLC).

Many years later, and many times over, the writer Gabriel García Márquez was to remember the day he discovered how to set about writing his great novel. He was driving from Mexico City to Acapulco when the illumination hit him. He turned the car around, went home, and locked himself away for 18 months. When he reappeared, he had the manuscript of *One Hundred Years of Solitude* in his hands.

When Gerald Martin, around the middle of his rich and resourceful biography of García Márquez, starts to tell this story, the reader may be a little surprised, even disappointed. “He had not been driving long that day when . . . García Márquez, as if in a trance, turned the Opel around, and drove back in the direction of Mexico City. And then . . .” Up to this point, Martin has not been challenging what he calls his subject’s “mythomania”—how could he, since it’s the basis of the writer’s art and fame—but he has not been retelling the myths, either. He has been grounding them, laying out the pieces of what became the puzzles. And that’s what he’s doing here, too.

After “and then,” Martin writes in mock apology, “It seems a pity to intervene in the story at this point but the biographer feels constrained to point out that there have been many versions of this story . . . and that the one just related cannot be true.” The truth was no doubt less “miraculous,” to use Martin’s word. The writer probably continued to Acapulco. He didn’t live in total seclusion for 18 months. And García Márquez wasn’t starting a new book; he was reviving an old one.

What García Márquez found was a way of telling it. He would combine, as he frequently said, the narrative tone of his grandmother with that of the author Franz Kafka. She told fantastic stories as if they were true, because for her, they were true. Kafka told them that way because he was Kafka. After his moment of illumination García Márquez came more and more to look for (and often to find) the truth in the fantastic, to pursue whatever truth was lurking in the nonliteral reading of literally presented events.

Just because the miracle didn’t happen as the story says it did doesn’t mean there wasn’t a miracle. *One Hundred Years of Solitude* changed García Márquez’s life entirely, and it changed literature. When he got into the car to set out for Acapulco, he was a gifted and hardworking writer, certainly. When he got out of the car, he was on his way to the Nobel Prize, which he won in 1982.

García Márquez made many jokes about his fame over the years. These jokes are witty and complicated acts of gratitude for a destiny the writer was sure could

have been quite different. One of his finest sentences, written in an article in 1983, concerns a dream of the life he might have led if he had stayed in his isolated birthplace of Aracataca, Colombia. “I would not perhaps be the same person I am now but maybe I would have been something better: just a character in one of the novels I would never have written.”

The term “mythomania” certainly covers García Márquez’s stories about his life and plenty of his journalism. But his fiction is different. It takes pieces of already thoroughly mythified reality—there is scarcely an extravagant incident in his novels and stories that doesn’t have some sort of basis in specific, local fact or legend—and finds the perfect, unforgettable literary home for them. But García Márquez neither copies nor further mythifies these facts and legends. He honors them, to borrow a well-placed word from Martin:

[O]ver the dark story of conquest and violence, tragedy and failure, he laid the other side of the continent, the carnival spirit, the music and the art of the Latin American people, the ability to honor life even in its darkest corners.

To honor life, I take Martin as saying, is to celebrate dignity, courage, and style wherever they are found and in whatever forms they take. It is not to deny darkness or even to believe it has its compensations.

Martin’s biography is itself rather a dark affair—appropriately, since he is telling the life of a man whose autobiography is an elaborate historical myth. In García Márquez’s own accounts, his life is both hard and magical. But it’s never sad, and Martin evokes the sorrow that must lurk in such a life. There is perhaps a slight imbalance in Martin’s insistence on the writer’s sadness, an excess of melancholy; but it’s a good corrective to García Márquez’s own joking cheerfulness and elaborate ironies, and we can return to the master if we get too depressed.

21. The primary function of the first paragraph is to:

- A. correct misconceptions about how long it took García Márquez to write *One Hundred Years of Solitude*.
- B. describe García Márquez’s approach to writing novels.
- C. relate a story about García Márquez that Martin discusses in his biography.
- D. provide background information about García Márquez’s childhood.

22. Based on the passage, which of the following best describes the passage author's opinion of García Márquez's writing?
- F. He considers García Márquez to be a gifted writer.
 - G. He prefers García Márquez's journalism to García Márquez's novels.
 - H. He thinks García Márquez's novels borrow too heavily from local facts and legends.
 - J. He believes that García Márquez's writing contains excessive melancholy.
23. The "illumination" mentioned in lines 5 and 37 most nearly refers to:
- A. the realization García Márquez had concerning the approach he should take in writing *One Hundred Years of Solitude*.
 - B. Martin's discovery that García Márquez modeled his writing after Franz Kafka's.
 - C. the passage author's discovery that García Márquez based his stories on local facts and legends.
 - D. the awareness by García Márquez of how miraculous it was that he completed *One Hundred Years of Solitude*.
24. The passage most strongly suggests that a reader might "be a little surprised, even disappointed" (lines 11–12) while reading Martin's book because Martin:
- F. is critical of García Márquez's preference for writing in seclusion.
 - G. focuses on analyzing the novels of García Márquez rather than discussing his development as a writer.
 - H. interrupts a familiar story about García Márquez to claim that it's not true.
 - J. fails to adequately explain why García Márquez drove back to Mexico City.
25. As it is used in line 24, the word *constrained* most nearly means:
- A. restrained.
 - B. compelled.
 - C. coerced.
 - D. limited.
26. According to García Márquez, his grandmother told fantastic stories as if they were true because she:
- F. was imitating Kafka.
 - G. believed they were true.
 - H. hoped to become a successful author.
 - J. had learned the technique from García Márquez.
27. The passage indicates that the comments García Márquez makes about his fame demonstrate his:
- A. hope that his best work has yet to be written.
 - B. concern that his accomplishments are distorted by others.
 - C. gratitude that his life has unfolded the way it has.
 - D. belief that he deserves more credit for his wit and the complexity of his writing.
28. According to García Márquez, he might have become "something better" (line 57) if he had:
- F. written *One Hundred Years of Solitude* sooner.
 - G. completed his journey to Acapulco.
 - H. taken his fame less seriously.
 - J. stayed in Aracataca, Colombia.
29. The passage author indicates that Martin's biography helps balance García Márquez's:
- A. denial that fiction writing is worthy of merit.
 - B. joking cheerfulness and elaborate ironies.
 - C. belief that darkness has its compensations.
 - D. refusal to write about life's tragedies.
30. As it is used in line 87, the word *master* refers to:
- F. the passage author.
 - G. Martin.
 - H. Kafka.
 - J. García Márquez.

Passage IV

NATURAL SCIENCE: This passage is adapted from the essay "Our Place in the Universe" by Alan Lightman (©2012 by Harper's Magazine Foundation).

One measure of the progress of human civilization is the increasing scale of our maps. A clay tablet dating from about the twenty-fifth century B.C. found near what is now the Iraqi city of Kirkuk depicts a river valley with a plot of land labeled as being 354 *iku* (about thirty acres) in size. In the earliest recorded cosmologies, such as the Babylonian *Enuma Elish*, from around 1500 B.C., the oceans, the continents, and the heavens were considered finite, but there were no scientific estimates of their dimensions. The early Greeks, including Homer, viewed Earth as a circular plane with the ocean enveloping it and Greece at the center, but there was no understanding of scale. In the early sixth century B.C., the Greek philosopher Anaximander, whom historians consider the first mapmaker, and his student Anaximenes proposed that the stars were attached to a giant crystalline sphere. But again there was no estimate of its size.

The first large object ever accurately measured was Earth, accomplished in the third century B.C. by Eratosthenes, a geographer who ran the Library of Alexandria. From travelers, Eratosthenes had heard the intriguing report that at noon on the summer solstice, in the town of Syene, due south of Alexandria, the sun casts no shadow at the bottom of a deep well. Evidently the sun is directly overhead at that time and place. (Before the invention of the clock, noon could be defined at each place as the moment when the sun was highest in the sky, whether that was exactly vertical or not.) Eratosthenes knew that the sun was not overhead at noon in Alexandria. In fact, it was tipped 7.2 degrees from the vertical, or about one fiftieth of a circle—a fact he could determine by measuring the length of the shadow cast by a stick planted in the ground. That the sun could be directly overhead in one place and not another was due to the curvature of Earth. Eratosthenes reasoned that if he knew the distance from Alexandria to Syene, the full circumference of the planet must be about fifty times that distance. Traders passing through Alexandria told him that camels could make the trip to Syene in about fifty days, and it was known that a camel could cover one hundred stadia (almost eleven and a half miles) in a day. So the ancient geographer estimated that Syene and Alexandria were about 570 miles apart. Consequently, the complete circumference of Earth he figured to be about 50×570 miles, or 28,500 miles. This number was within 15 percent of the modern measurement, amazingly accurate considering the imprecision of using camels as odometers.

As ingenious as they were, the ancient Greeks were not able to calculate the size of our solar system. That discovery had to wait for the invention of the telescope, nearly two thousand years later. In 1672, the French astronomer Jean Richer determined the distance from Earth to Mars by measuring how much the position of the latter shifted against the background of stars

from two different observation points on Earth. The two points were Paris and Cayenne, French Guiana. Using the distance to Mars, astronomers were also able to compute the distance from Earth to the sun, approximately 100 million miles.

A few years later, Isaac Newton managed to estimate the distance to the nearest stars. (Only someone as accomplished as Newton could have been the first to perform such a calculation and have it go almost unnoticed among his other achievements.) If one assumes that the stars are similar objects to our sun, equal in intrinsic luminosity, Newton asked, how far away would our sun have to be in order to appear as faint as nearby stars? Writing his computations in a spidery script, with a quill dipped in the ink of oak galls, Newton correctly concluded that the nearest stars are about 100,000 times the distance from Earth to the sun, about 10 trillion miles away. Newton's calculation is contained in a short section of his *Principia* titled simply "On the distance of the stars."

Newton's estimate of the distance to nearby stars was larger than any distance imagined before in human history. Even today, nothing in our experience allows us to relate to it. The fastest most of us have traveled is about 500 miles per hour, the cruising speed of a jet. If we set out for the nearest star beyond our solar system at that speed, it would take us about 5 million years to reach our destination. If we traveled in the fastest rocket ship ever manufactured on Earth, the trip would last 100,000 years, at least a thousand human life spans.

31. The overall organization of the passage is best described as a:
- A. chronological account of scientists' attempts to determine the distance of the stars from Earth.
 - B. series of historical examples explaining how increasingly large distances were measured.
 - C. step-by-step explanation of the calculations used to measure Earth's circumference.
 - D. collection of anecdotes describing how maps of the universe have changed over time.
32. The main function of the first paragraph is to:
- F. list the distances and measurements that were known when Eratosthenes made his calculations.
 - G. explain what led early geographers to conclude that Earth was curved.
 - H. demonstrate how humans' sense of their surroundings has expanded over time.
 - J. summarize contributions the ancient Greeks made to astronomy.

33. Based on the passage, one similarity among the ancient models of the universe described in lines 6–18 is that:
- A. they were based on the assumption that the universe was infinite.
 - B. they provided no scientific estimates of the size or scale of the objects they identified.
 - C. their depictions of geographical features were surprisingly accurate according to modern maps.
 - D. the people who developed them positioned their homelands as the center of the universe.
34. The main idea of the last paragraph is that:
- F. nothing in our experience allows us to relate to the distance from Earth to the nearest stars.
 - G. recent advancements in space travel make the distance from Earth to the nearest stars seem small.
 - H. the time it would take to travel the distance from Earth to the nearest stars has been calculated only recently.
 - J. the nearest stars are more distant from Earth than Newton predicted.
35. According to the passage, the early Greeks imagined Earth as a:
- A. circular plane with the ocean enveloping it and Greece at the center.
 - B. giant crystalline sphere to which the stars were attached.
 - C. planet tilted 7.2 degrees from the vertical.
 - D. plot of land 354 *iku* in size.
36. Based on the passage, to calculate the distance between Syene and Alexandria, Eratosthenes required information about the:
- F. curvature of Earth and the angle of the sun in each city.
 - G. number of miles in one hundred stadia and the complete circumference of Earth.
 - H. height of the sun at noon in each city and the length of shadows cast on the ground.
 - J. time it took camels to travel between the cities and the distance camels could cover in one day.
37. The passage indicates that astronomers could not calculate the distance from Earth to other points in the solar system until:
- A. they had identified proper observation points.
 - B. they applied ancient Greek calculations.
 - C. the telescope was invented.
 - D. Earth and Mars aligned.
38. The passage suggests that compared to his other work, Newton's calculation of the distance to the nearest stars was:
- F. more important.
 - G. more speculative.
 - H. less complete.
 - J. less acknowledged.
39. It can reasonably be inferred from the passage that the author includes the description of Newton's handwriting and writing tools (lines 70–74) primarily to:
- A. highlight how advanced Newton's calculation was by contrasting it with Newton's old-fashioned writing method.
 - B. suggest one reason Newton's calculation took so long to decipher.
 - C. describe the artistic flourishes of the section of *Principia* in which Newton's calculation appears.
 - D. illustrate the number of mistakes Newton made before arriving at the correct calculation.
40. As it is used in line 82, the phrase *set out* most nearly means:
- F. described a vision.
 - G. stated a purpose.
 - H. started a journey.
 - J. created an arrangement.

END OF TEST 3

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

DO NOT RETURN TO A PREVIOUS TEST.