

## READING TEST

35 Minutes—40 Questions

**DIRECTIONS:** There are four passages in this test. Each passage is followed 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

**PROSE FICTION:** This passage is adapted from the novel *Bel Canto* by Ann Patchett (©2001 by Ann Patchett).

Giuseppe Verdi (1813–1901) was an Italian opera composer.

He remembers another birthday, his eleventh, the birthday on which he first heard opera, Verdi's *Rigoletto*. His father had taken him to Tokyo by train and together they walked to the theater in a steady  
5 downpour. It was October 22 and so it was a cold autumn rain and the streets were waxed in a paper-thin layer of wet red leaves. When they arrived at the Tokyo Metropolitan Festival Hall, their undershirts were wet beneath coats and sweaters. The tickets waiting inside  
10 Katsumi Hosokawa's father's billfold were wet and discolored. They did not have especially good seats, but their view was unobstructed. In 1954, money was precious; train tickets and operas were unimaginable things. They climbed the long set of stairs to their row,  
15 careful not to look down into the dizzying void beneath them. They bowed and begged to be excused by every person who stood to let them pass into their seats, and then they unfolded their seats and slipped inside. They were early. They waited, father and son, without  
20 speaking, until finally the darkness fell and the first breath of music stirred from someplace far below them. Tiny people, insects, really, slipped out from behind the curtains, opened their mouths, and with their voices gilded the walls with their yearning, their grief, their  
25 boundless love.

It was during that performance of *Rigoletto* that opera imprinted itself on Katsumi Hosokawa. Many years later, when everything was business, when he worked harder than anyone in a country whose values  
30 are structured on hard work, he believed that life, true life, was something that was stored in music. True life was kept safe in the lines of Tchaikovsky's *Eugene Onegin* while you went out into the world and met the obligations required of you. Certainly he knew (though  
35 did not completely understand) that opera wasn't for everyone, but for everyone he hoped there was something. He knew that without opera, part of himself would have vanished altogether. It was early in the second act, when *Rigoletto* and Gilda sang together,  
40 their voices twining, leaping, that he reached out for his father's hand. He had no idea what they were saying, nor did he know that they played the parts of father and

daughter, he only knew that he needed to hold to something. The pull they had on him was so strong he could  
45 feel himself falling forward out of the high and distant seats.

Such love breeds loyalty, and Mr. Hosokawa was a loyal man. He never forgot the importance of Verdi in his life. He became attached to certain singers, as  
50 everyone does. He believed in the genius of Maria Callas above all others. There was never a great deal of time in his days. Custom was that after having dinner with clients and completing paperwork, he would spend thirty minutes listening to music before falling asleep.  
55 It was impossibly rare, maybe five Sundays a year, that he found three consecutive hours to listen to one opera start to finish. Once, in his late forties, he ate a spoiled oyster and suffered a vicious bout of food poisoning that kept him home for three days. He remembered this  
60 time as happily as any vacation because he played Handel's *Alcina* continually, even while he slept.

It was his eldest daughter, Kiyomi, who bought him his first recording of Roxane Coss for his birthday. Her father was a nearly impossible man to buy gifts for,  
65 and so when she saw the disc and a name she did not recognize, she thought she would take a chance. But it wasn't the unknown name that drew her, it was the woman's face. Kiyomi found the pictures of sopranos irritating. They were always peering over the tops of  
70 fans or gazing through veils of soft netting. But Roxane Coss looked at her directly, even her chin was straight, her eyes were wide open. Kiyomi gave her money to the girl at the counter.

When Mr. Hosokawa put the CD in the player and  
75 sat down in his chair to listen, he did not go back to work that night. It was as if he was a boy in those high seats in Tokyo again, his father's hand large and warm around his own. It was soaring, that voice, warm and complicated, utterly fearless. How could it be at once  
80 controlled and so reckless? He called Kiyomi's name and she came and stood in the doorway of his study. She started to say something—yes? or, what? or, sir?—but before she could make out the words she heard that voice, the straight-ahead woman from the picture. Her  
85 father didn't even say it, he simply gestured towards one speaker with his open hand. She was enormously pleased to have done something so right. Mr. Hosokawa closed his eyes. He dreamed.

1. The point of view from which the passage is told is best described as that of:
  - A. a young boy with a passion for opera.
  - B. the daughter of an extremely busy father.
  - C. an omniscient narrator, who knows the thoughts of the characters.
  - D. an unnamed narrator who relates events from Mr. Hosokawa's perspective.
2. The passage establishes all of the following about Mr. Hosokawa EXCEPT that he:
  - F. heard his first opera on his eleventh birthday.
  - G. appreciated *Eugene Onegin*.
  - H. rarely went out into the world.
  - J. didn't understand the plot of *Rigoletto* when he saw the opera performed.
3. Which of the following statements best characterizes Kiyomi's relationship with her father, as it is presented in the passage?
  - A. She wants to please him.
  - B. She shares his fondness for opera.
  - C. She feels increasingly distant from him.
  - D. She enjoys spending time with him.
4. In the passage, lines 3–12 primarily serve to:
  - F. suggest that the opera was overshadowed by unpleasant weather and bad seats.
  - G. describe the typical, rainy October weather in Tokyo in the mid-1950s.
  - H. offer sensory details that help set the stage for the important experience to be related.
  - J. imply that for Mr. Hosokawa, the train trip was more memorable than the opera.
5. Mr. Hosokawa's reaction to the *Rigoletto* performance is most clearly reflected in the way Mr. Hosokawa:
  - A. "climbed the long set of stairs to their row" (line 14).
  - B. "bowed and begged to be excused by every person who stood to let them pass into their seats" (lines 16–17).
  - C. "waited . . . without speaking" (lines 19–20).
  - D. "reached out for his father's hand" (lines 40–41).
6. The passage indicates that Kiyomi ultimately decided on the CD by Coss because Kiyomi:
  - F. knew Coss was one of her father's favorites.
  - G. was drawn to an unknown name.
  - H. liked how Coss's face looked in a picture.
  - J. couldn't find a Callas recording.
7. The phrase *dizzying void* (line 15) is most likely included in the passage to suggest that Mr. Hosokawa and his father:
  - A. feared heights.
  - B. sat high up in the theater.
  - C. sat above a section of empty seats.
  - D. felt emotionally drained.
8. The statement in lines 34–37 most nearly means that Mr. Hosokawa:
  - F. wanted everyone to love opera as much as he did.
  - G. felt that few people could learn to appreciate opera the way he had.
  - H. wanted everyone to experience the kind of joy that opera had brought him.
  - J. refused to realize that opera wasn't for everyone.
9. The statement "Such love breeds loyalty, and Mr. Hosokawa was a loyal man" (lines 47–48) most directly refers to the fact that Mr. Hosokawa:
  - A. loved his father, and that love continued to guide his life.
  - B. retained his appreciation for his favorite opera composers and singers.
  - C. was unhesitatingly loyal to the people at his workplace.
  - D. listened exclusively to the recordings of Callas for several years.
10. According to the passage, the time Mr. Hosokawa remembered "as happily as any vacation" (line 60) was:
  - F. one of the few Sundays he was able to listen to an entire opera.
  - G. the three days he'd had the time to listen continuously to *Alcina*.
  - H. the time he saw *Rigoletto* with his father.
  - J. the sick days he took off from work when he wasn't really ill.

## Passage II

**SOCIAL SCIENCE:** This passage is adapted from the article "A Native Spirit, Inside the Beltway" by Patricia Leigh Brown (©2004 by The New York Times Company).

*Ethnobotany* is the study of how plants are used in particular cultures.

When Donna House, a Navajo ethnobotanist, steps gingerly through the barbed wire fence into her backyard—a former alfalfa field along the Rio Grande now brimming with native plants framed by a distant mesa—there is a sense of homecoming, of reunion, of land returning to its origins. So it is, too, on the National Mall in Washington, D.C., where House is the guiding force behind a landscape of cornfields, meadows, forest and wetlands—complete with 3,500 specially introduced ladybugs—outside the Smithsonian Institution's National Museum of the American Indian.

In her career as an ethnobotanist, House, who grew up on a Navajo reservation in Arizona, has served as a translator of sorts between "the people" (or the Dineh) and the outside world. A traditional "old school" Indian, as she sometimes jokingly refers to herself, as well as an environmental scientist, she has worked for or consulted with the Nature Conservancy, the federal Fish and Wildlife Service, the National Park Service, the Navajo Nation and others, helping to protect rare and endangered plants that have cultural, as well as ecological, significance. "Recognizing the diversity of plants is no different than recognizing the diversity of people," she said.

Along the way, she often bridges the gap between the native world view—in which human beings and nature are interrelated, and all plants, animals and mountains and other landforms are sacred—and the more scientific one, pollinating a deeper understanding between them. Her home ground, or habitat—a word she prefers to landscape—stretches far into the horizon, to the cottonwoods along the river presided over by the steep, rocky mesa. "A landscape is not dynamic," she said. "A habitat is a place where beings come to life."

These fields were farmland until House, much to the consternation of some of her neighbors, dispensed with the alfalfa and roses, "allowing the memory of the land to return." The globe mallow, prized by the Navajo for its medicinal applications, came back. So did the sunflowers, used for millennia by the Navajo to treat prenatal infections. The Navajo have also fashioned the hollow stalks of sunflowers into bird snares and flutes and boiled the seed hulls for a dark-red dye. The seeds themselves are used for soup.

To the Mall's polite formality—its "tulips all in a line," in House's words—has come a contrasting presence: a wetland visible from the Capitol sprouting cattails, wild rice and about 1,440 waterlilies. Visitors meander past a meadow of buttercups, panic grass and other Potomac Valley plants and a somewhat surreal field of corn, tobacco, squash and other crops. Massive

boulders, shipped from as far away as the Northwest Territories, echo the curvaceous form of the museum building, its rough-hewn limestone surface meant to recall a cliff face sculptured by the wind.

To acquaint herself with the Middle Atlantic region, House consulted fellow botanists, but also set out on the Potomac River in a canoe. In a sense, she has served both as a botanist and the conscience of the landscape, guiding the planting to reflect both the museum's collection—which includes artifacts like a 2,000-year-old Paiute duck decoy made of bulrushes—and Indian beliefs and values.

House frequently receives calls at odd hours from tribes worried about endangered plants. During her eight years advising the Nature Conservancy about conservation on Indian lands, House worked with the Tohono O'odham (the Papago) in southern Arizona, on whose lands grows Kearney's blue star, a wildflower that in the late 1980's federal botanists declared the rarest plant in Arizona, believing that it was down to its last eight specimens. A few years later, House showed a picture of the plant to Jefford Francisco, now the tribe's natural resources technician, and he thought he recognized it from the days when his father took him deer hunting. House traveled with him to the shady canyon of his childhood memories, where they found scores of blue stars. "They knew more about their ecosystem than I did, no matter how much I read," she said of the tribe. "Elders know the birds, the paths the animals take, the plants. A lot of knowledge you can't find in a library."

She was overjoyed recently to discover that a great blue heron had arrived on the Mall and was perched on a dead cypress trunk in the museum wetland. Ducks were feasting on the wild rice, somewhat to her chagrin, and the dragonflies were soaring four stories high. It is a habitat—"one little quark," she said, "in the huge galaxy of the native world"—coming to life.

11. The main purpose of the passage is to:
- A. discuss House, with emphasis on her ideas about and work on behalf of the environment.
  - B. recount in chronological order several key events in House's career.
  - C. describe the National Museum of the American Indian and House's work for it.
  - D. list and describe the duties of a typical ethnobotanist, using House as an example.
12. The passage indicates that House intentionally added all of the following to the grounds outside the National Museum of the American Indian EXCEPT:
- F. herons.
  - G. ladybugs.
  - H. corn.
  - J. squash.

13. The phrase in quotation marks in lines 37–38 most nearly means that the fields:
- A. had been well tended by the farmers who had owned them.
  - B. are an important resource for the Navajo who use them.
  - C. were permitted by House to revert to their natural condition.
  - D. live on in House's memory long after she sold them.
14. The sixth paragraph (lines 56–63) primarily does which of the following regarding House's work on the grounds of the National Museum of the American Indian?
- F. Reveals flaws in her work
  - G. Lists influences on her work
  - H. Describes the Paiute reaction to her work
  - J. Portrays museumgoers' reaction to her work
15. The main purpose of the seventh paragraph (lines 64–81) is to:
- A. depict House's work with the Nature Conservancy.
  - B. describe the habitat and features of the Kearney's blue star.
  - C. illustrate the knowledge of ecosystems that tribal elders possess.
  - D. discuss the role of federal botanists on Tohono O'odham lands.
16. Based on the passage, the federal botanists' claim in the late 1980s about the Kearney's blue star is best described as:
- F. correct; only recent efforts by House and Francisco have saved the plant from extinction.
  - G. correct; experts estimate that as few as eight specimens of the plant exist today.
  - H. incorrect; for centuries, the Tohono O'odham have raised the plant.
  - J. incorrect; numerous specimens of the plant still grow wild, as House and Francisco discovered.
17. In the passage, House says that recognizing the diversity of plants and of people is:
- A. the same kind of thing.
  - B. occasionally possible.
  - C. rarely desirable.
  - D. a continual challenge.
18. The neighbors mentioned in the passage are said to have reacted to House's decisions about what should grow in her backyard with:
- F. praise.
  - G. curiosity.
  - H. indifference.
  - J. disapproval.
19. The arrangement of which of the following plants is used in the passage to symbolize the general orderliness of the National Mall?
- A. Water lilies
  - B. Tulips
  - C. Cattails
  - D. Buttercups
20. The passage implies that the design of the National Museum of the American Indian building was intended to:
- F. suggest that the building was a natural form affected by the elements.
  - G. minimize the damage to the cliff from which the building was carved.
  - H. use a wide variety of materials imported from the Northwest Territories.
  - J. match the style and form of other buildings on the National Mall.

## Passage III

**HUMANITIES:** This passage is adapted from the essay "Southern Women" by Shirley Abbott (©1993 by Franklin Square Press).

The South where I was born and raised was Arkansas, in a peaceable little resort town called Hot Springs.

My mother and the other women I knew as a child, 5 just before World War II began, were farm women, one or two generations removed from the real pioneer days, gentled and domesticated by the time I came among them. But the marks were there. Their skin was leathery from working outdoors. Some of these women were 10 serene and some hot-tempered, and in either case they brooked no transgressions of their notions of morality, and woe to anyone who spoke to these women with disrespect. They were not innocent or submissive or delicately constituted, not afraid of balky cows or chicken 15 hawks. It took them approximately two hours to transform a live rooster into Sunday dinner. They could reason with a mule and shoot a gun. But they also knew just how to take hold of a baby and what to say to a weeping two-year-old.

Urban spirit that I was, I had no more aptitude as a 20 farmer's daughter than my father had as a farmer. I hated digging potatoes, and I hated gathering eggs. I hated the smell of chicken houses—vinegary, sweet, rotten—despised the chickens, shrank from the finger- 25 skinning work that went on seven days a week, indoors and out. I comforted myself with the thought that I had, after all, not been born for such indignities.

Sometime in the late 1960s feminists brought forth 30 the notion of sisterhood—of women "bonded" to women. Sisterhood was going to be "powerful." But sisterhood was nothing new to me. It has been a zealously guarded secret among Southern women for years. Next to motherhood, sisterhood is what they value 35 most, taking an endless pleasure in the daily, commonplace society of one another.

The most vivid memories of my childhood are long afternoons when my Aunt Vera would come to our house with her daughter June. Sometimes the four of us would dress and get in the car and drive around Hot 40 Springs, buying thread and snaps at the dry-goods store, "rattling up and down," as my aunt called it, on Central Avenue. Hearing what they said on these after- 45 noons, I gradually realized that my mother and her sister were not awed by men in the least, that they preferred each other's company.

I also realized that these two women had unma- 50 tronically desires, usually involving beautiful dresses and travel, that otherwise went unmentioned—merely the circumspect fantasies of a pair of young housewives caught in the coils of the commonplace. And yet the sharing of these fantasies made them laugh, gave them a secret life as they bent their dark heads over the

sewing machine. I knew that the part of their lives they liked most was here, with each other. Not at the supper 55 table or at work. My father used to be jealous of these tête-à-têtes, and he had cause.

I was in love with my mother too. I hated her doing housework, could not bear the sight of her in an old dress and a pair of unlaced oxfords, feeding soapy 60 bedsheets into the wringer, scraping carrots and parsnips at the sink. But one thing she had acquired in town was the ability to be glamorous, to divorce herself, by means of paints and polishes, from that other world. I loved her glamorous aspect.

On those rare afternoons when she did abandon 65 her housework and go out, having brought her face to its state of daytime perfection, she would take up her car keys and shut the door on her immaculate house. She and I would set out for town together. We'd go find 70 a parking place and go into Woolworth's for a spool of thread and a nickel's worth of candy. Sometimes, to my despair, she'd bump into one of her thousands of cousins on the street and talk for half an hour. The exoticism of the afternoon would vanish sooner than 75 the bag of candy.

Many years later, I stopped to wonder why a woman of her thoroughly practical inclinations would spend upward of an hour prettifying up to go to the dime store. She certainly was not trying to attract a man. She 80 was not doing it for Daddy, for by the time he got home from work she'd be in a housedress again, perspiring over the kitchen range. Nor was she competing with other women. She was doing it for fun, and for a mark of her separateness, and for a way of showing herself— 85 and me—that even so responsible a person as herself could do something that had no purpose to it. It was her one real break with her past. Maybe she wanted to let me know, in the most subtle way, that femininity was not merely the massive, serious, strenuous thing she 90 usually made it seem to be, but occasionally a matter of pleasing yourself.

21. The passage can best be described as the author seeking a balance between:
- A. her dislike for farmwork, a respect for the women who performed it, and an awareness of how they influenced her notions of what femininity is.
  - B. her attraction to urban life, her awareness of how it broke her ties to her mother's generation, and her belief that time heals all wounds.
  - C. her childhood as she remembers it, as her mother remembers it, and as it must in fact have been.
  - D. the life she envisioned for herself, the one her mother envisioned for her, and the one she is living.

22. The author would most likely agree with which of the following descriptions of her mother?
- F. She grew to like farmwork, after years of feeling confined by it.
  - G. She was gradually worn down, both physically and psychologically, by grueling farmwork.
  - H. She was more than capable of managing the many demands that a life of farmwork placed on her.
  - J. She wanted a better life for her daughter than the isolated life she lived as a farm woman.
23. It is most reasonable to infer that the description in lines 13–19 would apply to:
- A. Aunt Vera.
  - B. June.
  - C. the author's father.
  - D. the author.
24. How does the author characterize the outings that she and her mother would take in Hot Springs?
- F. Boring obligations, dutifully performed
  - G. Cherished escapes, rich in significance
  - H. Strained visits, mercifully brief
  - J. Quiet drives, soothing to their spirits
25. In the passage, how does the author relate Southern women to the feminists of the late 1960s?
- A. The sisterhood honored publicly by feminists of the late 1960s had long been practiced and valued among Southern women.
  - B. Southern women valued motherhood while feminists of the late 1960s valued sisterhood, creating tension between the two groups.
  - C. The Southern women's notion of sisterhood was directly challenged by the feminists of the late 1960s.
  - D. The feminism of the late 1960s was embraced among Southern women primarily because of its emphasis on sisterhood.
26. The author concludes that her mother's occasional efforts at "prettying up to go to the dime store" (lines 78–79) were intended in part to:
- F. uphold an honored practice from the past.
  - G. attract the attention of men.
  - H. compete for the fun of it with the glamorous women in town.
  - J. demonstrate the worth of doing something with no apparent purpose.
27. The author strongly implies that for her mother, breaking from the past was something:
- A. to experience rarely and be enriched and inspired by.
  - B. to be avoided, as the past is what defines the present.
  - C. she longed for but achieved only at the end of her life.
  - D. she wanted for her daughter but not for herself.
28. As it is used in the passage, which word conveys something with unpleasant associations for the author?
- F. Spirit (line 20)
  - G. Sweet (line 23)
  - H. Secret (line 32)
  - J. Society (line 35)
29. According to the passage, when the author was young, the sight of her mother wearing an old dress and scraping carrots and parsnips at the sink had what effect on the author?
- A. It comforted her in that it was a familiar part of everyday life.
  - B. It inspired her to see the connection between her mother and the person she imagined she herself would become.
  - C. It upset her because it suggested that her mother was caught in a restricted life of endless drudgery.
  - D. It prompted her to drop what she was doing and help her mother, even though she hated the work.
30. According to the passage, what effect did running into her mother's cousins on the shopping trips she took with her mother have on the author?
- F. It excited her to see people outside the world of farming.
  - G. It showed her how little interest her mother had in superficial socializing.
  - H. It renewed a connection she felt to people who had once lived on the farm.
  - J. It drained the appeal out of moments the author was otherwise enjoying.

## Passage IV

**NATURAL SCIENCE:** This passage is adapted from the article "Infrasonic Symphony" by Kate Ramsayer (©2004 by Science Service).

"Let me start off with a riddle," says NASA scientist Allan J. Zuckerwar. In his office in Hampton, Va., he rattles off items as dissimilar as rhinoceroses, supersonic aircraft, and hurricanes. "Now, what do they have in common?" The answer, Zuckerwar explains, is that each one generates silent infrasound—long sound waves at a frequency below 20 hertz. People can't hear anything below that frequency, probably for good reason. Otherwise, they'd be bombarded by the constant din of wind, the intermittent groaning of Earth, and the occasional distant explosion. But scientists are eavesdropping on volcanoes, avalanches, earthquakes, and meteorites to discern these phenomena's infrasound signatures and see what new information infrasound might reveal.

Just as seismic waves travel through Earth, infrasonic waves travel through the air. And the lower the frequency of the waves, the farther they can travel without losing strength. Scientists first detected infrasound in 1883, when the eruption of the Krakatoa volcano in Indonesia sent inaudible sound waves careening around the world, affecting barometric readings.

Infrasonic research gained significant attention and funding in the 1950s, when the United States and the Soviet Union used infrasound to detect each other's atmospheric nuclear testing. Interest declined when aboveground bomb testing was banned in 1963 as part of the Limited Test Ban Treaty.

But lately, scientists have turned back to infrasound.

Infrasound interpretation is a young science. Acousticians and geophysicists are still learning what phenomena generate infrasound signatures and how to match signatures with phenomena.

For example, John V. Olson of the University of Alaska in Fairbanks recalls one morning last April when a colleague rushed into his office and asked whether he had heard an explosion the night before. The two scientists found a large pulse on the infrasound record from the nuclear-test monitoring station that the university operates and traced it to a nearby firing range. The next day, the local paper reported that a citizen had found a bundle of dynamite, which police exploded at the range.

"So, we take [the signal] out of the 'little green men' file and say, 'This is what dynamite looks like from 5 miles away,'" says Olson. "Slowly, daily, we sift and sort through these signals."

Ocean storms and waves are two of the big generators of infrasound, says Milton A. Garcés of the Uni-

versity of Hawaii at Manoa. The routine up-and-down movements of the waves act as a giant loudspeaker, pushing the air at infrasonic frequencies.

Low-frequency sounds are also generated by one of the most colorful displays in the sky, the northern lights, which are caused by charged particles in the air. This electricity heats atmospheric gases, and the warmed gas molecules spread out and increase air pressure.

"It pushes the neutral air forward, almost like the bow wave off a ship," says Olson. This air movement creates an infrasonic signal. The readings are visible during the beginnings of these magnetic storms, as the bright, greenish lights sweep across the sky like a fluttering curtain.

While specialized microphones can pick up infrasonic signals generated high in the atmosphere, they detect more earthly rumbles, as well. For instance, Jeffrey B. Johnson of the University of Hawaii at Manoa has placed microphones within a kilometer of a vent of the active Erebus volcano in Antarctica. The sensors have recorded low-frequency signals so powerful that, were they audible, they'd have a volume in excess of 130 decibels—"somewhere between a jet airplane and the threshold of pain," says Johnson. Erebus does produce some audible sound, but it's not very loud, he says.

The infrasound radiating from the volcano's lava lake is generated by the rupture of 10-meter-wide, gas-filled bubbles, which pushes huge infrasound waves into the atmosphere. Johnson can use infrasound readings to estimate the size of the lava bubbles within Erebus and the amount of gas they contain.

"Infrasound is a powerful tool to understand more about explosions and eruption sources," says Johnson. "It allows us to directly quantify what's going on at a volcanic vent."

Whether infrasound is used for commercial purposes, to learn more about natural phenomena, or simply to listen for something that nobody wants to hear, it is entering what those in the field call a renaissance. Geophysicists and acousticians are sorting through, categorizing, and studying a wide range of inaudible noise.

31. The main idea of the passage is that:
- understanding the infrasonic frequency of the northern lights can help scientists track magnetic storms in space.
  - scientists expect that recently developed methods of measuring infrasound will be useful primarily for commercial purposes.
  - identifying new sources of infrasound has led scientists to conclude that earlier definitions of infrasound were inaccurate.
  - scientists have recently begun focusing more attention and resources on expanding on earlier infrasound research.
32. The passage's mention of scientists' attempts to "discern these phenomena's infrasound signatures" (lines 13–14) most nearly refers to their attempts to:
- understand the effects of making infrasound audible to humans.
  - categorize different types of infrasound detection devices.
  - determine identifying characteristics of the infrasound various phenomena produce.
  - label infrasound phenomena with the names of the scientists who discovered them.
33. Which of the following is NOT mentioned in the passage as something that has indicated to scientists the presence of infrasound activity?
- Barometers
  - Specialized microphones
  - Nuclear-test monitoring equipment in Alaska
  - Loudspeakers used by scientists at the University of Hawaii at Manoa
34. Allan J. Zuckerwar's riddle (lines 1–5) is based mainly on the unstated assumption that most people:
- won't immediately see what rhinoceroses, supersonic aircraft, and hurricanes have in common.
  - will find it humorous that a rhinoceros could generate more infrasound than a supersonic aircraft.
  - already know that supersonic aircraft and hurricanes are sources of infrasound.
  - won't realize that sounds below 20 hertz are inaudible to humans.
35. Within the passage, the sixth and seventh paragraphs (lines 35–48) primarily serve to:
- provide an example of how scientists correlate infrasonic data with particular phenomena.
  - indicate that one practical application of infrasonic identification is preventing explosions.
  - illustrate how infrasound can be used in nuclear-test monitoring.
  - explain the disagreements among scientists in interpreting infrasonic data.
36. The passage indicates that all of the following contribute to creating the northern lights' infrasonic sounds EXCEPT:
- warmed gas molecules spreading out.
  - air pressure increasing.
  - electricity heating atmospheric gases.
  - greenish lights fading to yellow.
37. According to the passage, how does infrasound help scientists understand volcanoes?
- Infrasonic activity originating from tremors at the base of a volcano provides an indication of lava activity within.
  - Infrasound readings help scientists estimate the size of lava bubbles within a volcano and collect data about volcanic vent activity.
  - Knowing the frequency of infrasonic waves helps scientists determine the history of a volcano's eruption patterns.
  - Details gathered about infrasound can help scientists better understand the composition of volcanic matter.
38. According to the passage, the fact that infrasound is inaudible to the human ear is:
- fortunate; the intermittent groaning of Earth would interfere with radio frequencies.
  - fortunate; the additional noise of infrasound activity would be overwhelming to humans.
  - unfortunate; hearing infrasound would be useful to humans in their daily lives.
  - unfortunate; the constant din of infrasound would prevent people from eavesdropping.
39. The passage indicates that the distance infrasonic waves can travel without losing strength is in inverse proportion to the:
- size of the waves' source.
  - depth of water over which the waves travel.
  - frequency of the waves.
  - electricity in the atmospheric gases.
40. According to the passage, which of the following was the source of the earliest detected infrasonic waves?
- A hurricane
  - The northern lights
  - A nuclear test
  - A volcano

END OF TEST 3

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