

# READING TEST <br> 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 1

PROSE FICTION: This passage is adapted from the novel The Bonesetter's Daughter by Amy Tan (©2001 by Amy Tan).

The setting of the passage is a small town in China during the early part of the twentieth century. The capital city of China, now known in English as Beijing, formerly was called Peking:

When I was growing up, nearly two thousand people lived in Immortal Heart. It was crowded, packed from one edge of the valley to the other. We had a brick maker, a sack weaver, and a dye mill. We had twenty-
5 four market days, six temple fairs, and a primary school that GaoLing and I went to when we were not helping our family at home. We had all kinds of peddlers who went from house to house, selling fresh bean curd and steamed buns, twisted dough and colorful candies. A
10 few coppers, that was all you needed to make your stomach as happy as a rich man's.

The Liu clan had lived in Immortal Heart for six centuries. For that amount of time, the sons had been inkstick makers who sold their goods to travelers. They 15 had lived in the same courtyard house that had added rooms, and later wings, when one mother four hundred years ago gave birth to eight sons, one a year. The family home grew from a simple three-pillar house to a compound with wings stretching five pillars each.

All in all, our family was successful but not so much that we caused great envy. We ate meat or bean curd at almost every meal. We had new padded jackets every winter, no holes. We had money to give for the temple, the opera, the fair. But the men of our family
25 also had ambitions. They were always looking for more. They said that in Peking, more people wrote important documents. Those important documents required more good ink. Peking was where more of the big money was. Around 1920, Father, my uncles, and
30 their sons went there to sell the ink. From then on, that was where they lived most of the time, in the back room of a shop in the old Pottery-Glazing District.

In our family, the women made the ink. We stayed home. We all worked-me, GaoLing, my aunts and girl cousins, everybody. Even the babies and Great-Granny had a job of picking out stones from the dried millet we boiled for breakfast. We gathered each day in the
inkmaking studio. According to Great-Granny, the studio began as a grain shed that sat along the front ation of $s$ strengthened the beams and lengthened it by two pillars. The next tiled the floors and dug pits for storing the ingredients. Then other descendants made a cellar
45 for keeping the inksticks away from the heat and cold.
Because our ink was the best quality, we had to keep the tables and the floors clean year-round. With the dusty yellow winds from the Gobi Desert, this was not easy to do. The window openings had to be covered
50 with both glass and thick paper. In the summer, we hung netting over the doorways to keep out the insects. In the winter, it was sheep hides to keep out the snow.

I can still smell the ingredients of our ink. There were several kinds of fragrant soot: pine, cassia, cam55 phor, and the wood of the chopped-down Immortal Tree. There was also a glue of sticky paste mixed with many oils. Then we added a sweet poisonous flower that helped resist insects and rats. That was how special our ink was, all those lasting smells.
made the ink a little at a time. If a fire broke out, as it had a couple of hundred years before, all the supplies and stock would not be lost at once. Each of us had at least one part in a long list of things to do. First there was burning and grinding, measuring and 65 pouring. Then came stirring and molding, drying and carving. And finally, wrapping and counting, storing and stacking. One season I had to wrap, only that. My mind could wander, but my fingers still moved like small machines. Another season I had to use very fine 70 tweezers to pluck bugs that had fallen onto the sticks. Whenever GaoLing did this, she left too many dents. Precious Auntie's job was to sit at a long table and press the sooty mixture into the stone molds. When the ink was dry, she used a long, sharp tool to carve the good-luck words and drawings into the sticks. Her calligraphy was even better than Father's.

It was boring work, but we were proud of our secret family recipe. It yielded just the right color and hardness. An inkstick of ours could last ten years or 80 more. It did not dry out and crumble, or grow soggy with moisture. And if the sticks were stored in the coolness of a root cellar, as ours were, they could last from
one great period of history into another. Those who used our ink said the same. It didn't matter how much 85 heat or moisture or dirt from fingers soaked into the page, their words lasted, black and strong.

1. The point of view from which the passage is told is best described as that of:
A. a child living in a small town in China.
B. an adult remembering her childhood in China.
C. an inkmaker describing the century-old production process she still uses.
D. a.great-grandmother whose family makes ink.
2. According to the passage, the men in the family lived in Peking most of the time because they:
F. wanted to write important documents in the capital.
G. made pottery in the Pottery-Glazing District.
H. were ambitious salesmen in the Pottery-Glazing District.
J. produced ink in the Pottery-Glazing District.
3. According to the passage, the family's ink studio consisted of a:
A. refurbished shed, pits, and a cellar.
B. house, a courtyard, and a cellar.
C. refurbished shed, a courtyard, and a cellar.
D. storeroom, a house, and pits.
4. It can most reasonably be inferred from the passage that one ingredient being burned (lines 64-65) to make the ink was:
F. millet or another grain.
G. roots from the cellar.
H. wooden beams from the compound.
J. wood from the Immortal Tree.
5. The main purpose of the last paragraph is to:
A. explain the importance of storing inksticks in a cool place.
B. show that the family refused to share its recipe for making ink, which remained a secret.
C. illustrate the lasting quality of the Liu clan's ink.
D. indicate that Chinese history is divided into a series of "great periods."
6. As it is used in line 10, the word coppers most likely refers to:
F. ink-storage containers.
G. metal cooking pots.
H. police officers.
J. coins.
7. The passage makes clear that the house grew from a simple house to a compound because:
A. the family business required more and more space.
B. one mother in the family had borne many sons.
C. the storage of ink ingredients had taken up several rooms.
D. everybody in the family worked in the inkmaking studio.
8. The narrator makes clear that one mark of success for her family was:
F. eating dried millet for breakfast every day.
G. owning sheep hides to provide warmth in winter.
H. having bean curd or meat at almost every meal.
J. giving birth to a son each year for many years.
9. Which of the following does the passage suggest had happened about two hundred years earlier?
A. The family had added a secret fragrance to the ink.
B. The ink and its ingredients had been damaged or lost in a fire.
C. The family had experimented with yellow-colored ink.
D. There had been an invasion of pests that had ruined the ink.
10. Which of the following comparisons regarding calligraphy does the narrator make?
E. The narrator's calligraphy was better than GaoLing's.
G. Precious Auntie's calligraphy was better than Father's.
H. Great-Granny's calligraphy was better than the narrator's.
J. Father's calligraphy was the best of all the family members'.

## Passage II

SOCIAL SCIENCE: This passage is adapted from the article "High Over Kitty Hawk, Looking for a Profit" by Paul Hoffman (©2003 by The New York Times Company).

The foggiy lens of history has been kind to Wilbur and Orville Wright. We regard the boys from Dayton, Ohio, as American heroes who flew the first airplane and ushered in the age of air travel. At the time, though,
5 the brothers' achievement was barely recognized-and their motives were far from visionary.

On Dec. 17, 1903, the Wrights took turns making short ascents over the dunes of Kill Devil Hills, four miles south of Kitty Hawk, N.C., in a propeller-driven 10 biplane powered by an internal combustion engine. They each got airborne twice-with Wilbur going the farthest, 852 feet in 59 seconds-before a gust flipped the plane while it was on the ground.

But what was really so historic about the flight? The Wrights were certainly not the first people to rise above the Earth. Balloonists had been doing that for more than a century. In June 1783, Joseph and Étienne Montgolfier, paper makers from Annonay, France, demonstrated in a public square the first hot-air balloon capable of carrying a load as heavy as a human being.

The Wrights were also not the first to pilot a heavier-than-air craft. In 1849, Sir George Cayley, a British physicist, constructed a three-winged glider that lifted a 10 -year-old child a few feet. After four years of 5 further experimentation, Cayley enlarged his "boy glider" into an adult-size craft and sent a grown man through the air for several hundred feet.

Nor were the Wright brothers the first to achieve powered flight. In 1901, a Brazilian named Alberto 30 Santos-Dumont entertained all of Paris by making a 14-mile trip over the city, including a revolution of the Eiffel Tower, in a cigar-shaped balloon powered by a car engine.

The Wrights were not even the first to leave the 35 ground in a powered plane. In 1874, Félix du Temple, a French naval officer, watched the steam-powered plane he devised speed down a ski-jump-like ramp and sputter through the air with a young sailor at the helm.
'Of course, it is one thing to be hurled through the 40 air for a few fleeting moments-what aviation historians call a "hop"-and quite another to make a controlled flight under one's own power. Control is what the Wright brothers so ably and singularly demonstrated. While other aviation pioneers concentrated on ow to power a plane-not a difficult task by the time automobile engines had come into their own-the Wrights focused on how to stabilize it.

Many early aviation pioneers employed horizontal and vertical rudders to keep their experimental aircraft 50 from veering right or left or unintentionally diving or
rising. But only the Wrights appreciated another necessity: preventing the plane from suddenly rolling because of a difference in wind on the left and right wings. They ingeniously countered roll by "wing55 warping"-using flexible wing tips with wire controls so that the pilot can bring the right wing into the wind at a different inclination from the left one, creating lift.

Thus while the brothers' flights were remarkable, they were hardly bolts from the blue. Rather, their 0 achievement was a vital step in a long progression toward controlled flight. And by no means did their success make them overnight celebrities: in 1903 hardly anyone heard about their flights, and those who did were not inclined to believe the tale.

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The Wright brothers chose the Outer Banks of North Carolina not just for the favorable winds, but also for the remoteness. They wanted to fly in near secrecy because they weren't sure they could patent their plane, and wanted to profit from it before others knocked off the design. Yet, they expected the press to hail them as the conquerors of the air.

But reporters were skeptical. Six days before Kitty Hawk, a crowd of official witnesses and Washington bigwigs had gathered to watch what was supposed to be
S maiden flight of the giant Aerodrome designed by tion. The plane was caead of the Smithsonian InstituPotomac but instead of rising into the air plunged into the frigid waters. News reporters could not accept that 80 two bicycle mechanics with little money had succeeded while the dean of American science, financed with government money, had failed.

The few newspapers that wrote about Kitty Hawk got everything wrong. The Dayton Daily News planted the Wrights aircraft as a dirigible and planted the story under the headline "Dayton Boys Emulate Great Santos-Dumont." The first eyewitness account of their subsequent flights was published more than two years after Kitty Hawk, in an obscure maga90 zine called Gleanings in Bee Culture.
11. The point of view from which the passage is told is best described as that of:
A. a writer with a historical perspective who wants to correct misconceptions about early flight.
B. a relative of the Wright brothers who wants to build a monument in their honor.
C. an inventor who wants to illustrate how difficult it is to invent something important.
D. an observer of the initial Kitty Hawk flight who is critical of how it was reported, both then and later.
12. What does the passage indicate was the main difference between the Wright brothers' aircraft and the works of other inventors?
F. The Wright brothers succeeded in flying when other inventors had failed.
G. Other inventors used balloons, not heavier-than-air craft.
H. No other inventors had used both horizontal and vertical rudders.
J. The Wright brothers prevented the rolling of a plane while other inventors had concentrated on powering a plane.
13. According to the passage, what was one reason reporters were skeptical that the Wright brothers had successfully flown?
A. The first story of the Wright brothers' flight was not published for two years.
B. It was widely assumed that the Wright brothers wanted to profit from their ideas.
C. A leader in science with government funding had failed to have his own plane fly.
D. Balloonists had already been flying for more than a century.
14. The main purpose of the last paragraph is to show that the Wright brothers:
F. were successful in their attempt to fly.
G. had merely duplicated what Alberto SantosDumont had done earlier.
H. were originally from Dayton, Ohio.
J. were initially poorly covered by the media.
15. The main purpose of the second paragraph (lines 7-13). is to:
A. argue that more people should admire the Wright brothers for their accomplishments.
B. explain why it took two years for the first eyewitness account of the Wright brothers' initial flight to be published.
C. detail the first successful flights of the Wright brothers near Kitty Hawk.
D. clarify that it took many more years before the airplane was perfected.
16. As it is used in line 31 , the word revolution most nearly means:
F. political rebellion.
G. radical change.
H. circular course.
J. pivotal invention.
17. The passage makes clear that it became easier for inventors to power their aircraft after:
A. the Wright brothers flew near Kitty Hawk.
B. automobile engines had been developed.
C. they started adding horizontal and vertical rudders.
D. Sir George Cayley perfected his "boy glider."
18. The statement "they were hardly boits from the blue" (line 59) most strongly suggests that flights like the Wright brothers' were:
F. unsurprising.
G. improbable.
H. unusual.
J. remarkable.
19. The passage makes clear that one personal reason the Wright brothers had for testing their aircraft where they did was to:
A. avoid the negative publicity that would come if their plane failed to fly.
B. keep away anyone who couldn't help if something went wrong during the test flight.
C. maintain confidentiality despite the many interviews they had previously given.
D. make money from their invention by isolating it from potential imitators.
20. It can most reasonably be inferred from the tenth paragraph (lines 65-71) that the author believes:
F. the Wright brothers shouldn't have expected to be praised by the press.
G. North Carolina was too windy for flying experimental aircraft safely.
H. secrecy is necessary for inventors.
J. reporters can't be trusted to get their information correct.

## Passage III

HUMANITEES: This passage is adapted from the article "The Comics" by M. Thomas Inge (©1990 by Smithsonian Institution).

Comic art has much in common with all the other forms of literary and visual communication of the twentieth century. As in fiction, the elements of narrative, characterization, and setting are important in accom5 plished comic art; and as in poetry, ideas must be developed within a very short period of reading time, a few seconds for a comic strip and fifteen minutes or less for a comic book story. As in drama, a story or incident must be staged before our eyes within the artificial 10 strictures of a box-like frame and with all the limitations of a play in terms of compressed time, dialogue, and plot development. As in a motion picture, such visual devices as cutting, framing, close-ups, and montage are used by the comic artist, and the point-of-view 15 is free to roam the world over to places known and fantastic.

Although the comics share a good deal with other forms of artistic expression, they differ in distinct ways and provide a method of communication which is ultimately unique. For one thing, comics depend for their effectiveness on a balanced combination of word and picture, the one depending fuily on the other for maximum effect. Thus some commentators have suggested not essential to understanding, then a proper balance is lacking.

There are other essential features of comic art, which distinguish it from other art forms. For example, comic strips appear on a daily basis in newspapers 30 delivered to homes, while comic books appear on a monthly basis in special serial publications sold at newsstands or comic book shops (and more recently a few bookstores). Both are usually printed on inexpensive paper, and while comic books generally appear in color, comic strips have traditionally been in color only on Sundays.

Another distinguishing feature is that most comic strips and books feature a set of recurring characters with whom the reader becomes familiar over a period 40 of time, with an occasional retelling of their past histories in capsule form. It is the accumulative weight of familiarity over several months or years of reading experience with the characters through which the development of personality occurs, although many characters 45 remain essentially the same throughout their lifetimes. Especially in humor, a set of stock and stereotyped players is essential to the daily comic routines, formumost often make people laugh (as in Chniques which unsuccessful attempt to kick the football held annually by Lucy in the Peanuts comic strip).

Time is also treated differently in that generally it has no effect on the lives of characters in the comics. They do not grow old chronologically (with the notable

55 exception of Gasoline Alley in which several generations of a family have grown old along with the readers). The dramatic narrative is open-ended and the action, whenever the reading experience begins, is always somewhere in the middle. Thus comics charac60 ters inhabit a world that has no beginning and no end, that remains constant and is shored up against the usual influences of change and deterioration. Only in the case of politically satiric strips, such as Doonesbury, Bloom County, or Pogo, are immediately contemporary events and personalities refiected or depicted in the comics.

Since comics characters inhabit a world of silence, due to the restrictions of the printed page which cannot allow for motion and sound, dialogue and noise require a special set of conventions. Words are usually spoken
70 in cloud-like puffs of smoke called balloons. Because of the limited amount of space, dialogue must be kept to an absolute minimum and the joke or story told with the fewest words possible, a continual challenge to the
skills of the writer of a comic. As for sounds the 5 artist-must resort to the poetic device of onomatopoeia and while many traditional words such as slam, bang, sock, smash, or bump will serve the situation, new word coinages have proven necessary. Thus the comics have enriched American English by such contributions as 80 wow, plop, zowie, bam, and whap. In order to convey ideas which cannot be expressed with words, the comic artist has also developed a vocabulary of visual symbols, such as bubble balloons for silent thoughts, stars to show pain, drops of water to express labor or worry, remarkable how to convey pride or enlige these conventions are in it creating the impression of a loud and noisy medium.
21. Suppose a reader had composed the following summary of the passage:

Comic art has been an important part of U.S. culture for decades, reflecting the historical and aesthetic changes within the country and its changing values.
Would this be an effective summary of the passage?
A. Yes, because the passage focuses on how comic artists have used their art to reflect the changing cuiture.
B. Yes, because the passage focuses on how comic artists have developed their own storytelling methods over many decades.
C. No, because the passage focuses on the established practices that comic artists have traditionally used in comic art.
D. No, because the passage focuses on the connections between comic art and film.
32. The primary purpose of the first paragraph is to:
F. compare the elements of comic art to elements of other artistic forms.
G. describe the various techniques used in a wide variety of artistic forms.
H. introduce the history and development of comic art as a form of artistic expression.
J. define the limitations of various forms of artistic expression.
33. It can reasonably be inferred from the passage that the anthor believes which of the following about the publication materials used in comic art?
A. High-quality paper is necessary in the publication of the best comic art.
B. The use of color in comic art enhances the distinction between pictures and words.
C. Whether color or good paper is used in comic art is irrelevant to its artistic quality. .
D. The use of recyclable paper is necessary for the purest forms of comic art.
24. The passage makes all of the following points about time and the comics EXCEPT that:
F. comic strips and comic books appear in print on a regular schedule.
G. readers can slow the pace of a story line by the speed at which they read the comics.
H. the dramatic narrative is open ended and the action is always somewhere in the middle.
J. the passage of time usually has little effect on the characters' lives.
25. Which of the following questions does the passage NOT answer?
A. What elements do comic art and literary art share?
B. Are stock characters used in humorous comic strips?
C. How is the effect of sound created in comic art?
D. What drawing styles are most popular in comic art?
26. As it is used in lines 69 and 86, the word conventions most nearly means:
F gatherings of comic artists.
G. stereotypical situations.
H. common courtesies.
J. customary practices.
27. The passage mentions which one of the following poetic devices as having been used by comic artists to create linguistic effects?
A. Rhyme
B. Onomatopoeia
C. Metaphor
D. Hyperbole
28. According to the passage, balance must be achieved in comics between:
F. word and picture.
G. humor and drama.
H. sound and silence.
J. stereotyped and original characters.
29. The passage states that the development of the personalities of characters in comic art occurs as a result of:
A. dialogue.
B. descriptive character sketches.
C. familiarity over time.
D. stereotypes.
30. According to the passage, direct references to current real-world events and personalities are found only in which type of comic?
F. Political satire
G. Family
H. Horror
J. Science fiction

## Passage IV.

NATURAL SCIENCE: This passage is adapted from The Blind Watchmaker by Richard Dawkins (©1986 by Richard Dawkins).

The South American and the African weakly electric fish are quite unrelated to each other, but both live in the same kinds of waters in their respective continents, waters that are too muddy for vision to be effective. The physical principle that they exploit-electric fields in water-is even more alien to our consciousness than that of bats and dolphins. We at least have a subjective idea of what an echo is, but we have almost no subjective idea of what it might be like to perceive
10 an electric field. We didn't even know of the existence of electricity until a couple of centuries ago.

It is easy to see on the dinner plate that the muscles down each side of any fish are arranged as a row of segments, a battery of muscle units. In most fish they
15 contract successively to throw the body into sinuous waves, which propel it forward. In electric fish, both strongly and weakly electric ones, they have become a battery in the electric sense. Each segment (cell) of the battery generates a voltage. These voltages are con-
20 nected up in series along the length of the fish so that, in a strongly electric fish such as an electric eel, the whole battery generates as much as 1 amp at 650 volts. An electric eel is powerful enough to knock a man out. Weakly electric fish don't need high voltages or cur-
25 rents for their purposes, which are purely informationgathering ones.

The principle of electrolocation, as it has been called, is fairly well understood at the level of physics though not, of course, at the Ievel of what it feels like
30 to be an electric fish. The following account applies equally to African and South American weakly electric fish: the convergence is that thorough. Current flows from the front half of the fish, out into the water in lines that curve back and return to the tail end of the ish. There are not really discrete 'ines' but a continuing the fish's body. However, for human visualization it is easiest to think in terms of a family of curved lines leaving the fish through a series of portholes spaced
40 along the front half of the body, all curving round in the water and diving into the fish again at the tip of its tail. The fish has what amounts to a tiny voltmeter monitoring the voltage at each 'porthole.' If the fish is suspended in open water with no obstacles around, the porthole all register the voltage as 'normal' for their porthole. But if some obstacle appears in the vicinity, say a rock or an item of food, the lines of current that happen to hit the obstacle will be changed. This will affected, and the appropriate voltmeter will register the fact. So in theory a computer, by comparing the pattern of voltages registered by the voltmeters at all the portholes, could calculate the pattern of obstacles around the fish. This is apparently what the fish brain does. Once again, this doesn't have to mean that the fish are
clever mathematicians. They have an apparatus that solves the necessary equations, just as our brains unconsciously solve equations every time we catch a 60 ball.

It is very important that the fish's own body is kept absolutely rigid. The computer in the head couldn't cope with the extra distortions that would be introduced if the fish's body were bending and twisting 65 like an ordinary fish. Electric fish have, at least twice independently, hit upon this ingenious method of navigation, but they have had to pay a price: they have had to give up the normal, highly efficient, fish method of swimming, throwing the whole body into serpentine
70 waves. They have solved the problem by keeping the body stiff as a poker, but they have a single long fin all the way along the length of the body. Then instead of the whole body being thrown into waves, just the long fin is. The fish's progress through the water is rather 75 slow, but it does move, and apparently the sacrifice of fast movement is worth it: the gains in navigation seem to outweigh the losses in speed of swimming. Fascinatingly, the South American electric fish have hit upon almost exactly the same solution as the African ones,
80 but not quite. Both groups have developed a single long fin that runs the whole length of the body, but in the African fish it runs along the back whereas in the South American fish it runs along the belly.
31. Which of the following questions about the .South American and African weakly electric fish does the passage NOT directly answer?
A. What do they use electrolocation for?
B. What effect does their differing fin location have?
C. What do the voltmeters on the fish do?
D. Why do they swim more slowly than ordinary fish?
32. The author does all of the following in the second paragraph (lines 12-26) EXCEPT:
F. contrast electric fish to other types of fish.
G. compare strongly electric fish to weakly electric fish.
H. begin to explain electrolocation.
J. give an example of a weakly electric fish.
33. According to the author's simplified description in the passage, the flow of electric current generated by the weakly electric fish enters the water from the:
A. tip of the tail and is reabsorbed into the head.
B. head and is reabsorbed into the portholes.
C. portholes and is reabsorbed into the portholes.
D. portholes and is reabsorbed into the tip of the tail.
34. According to the passage, a weakly electric fish would know if there were a rock in its path because the:
F. lines of current the fish generates would be in a smooth curve around the fish.
G. fish would receive a small shock when the current it generates contacted the rock.
$\cdot H$. current the fish generates would create a sound when it contacted objects.
J. affected lines of current generated by the fish would produce detectable changes in voltage.
35. The main focus of the last paragraph is on the way weakly electric fish differ from ordinary fish in terms of:
A. the length of their bodies.
B. how they swim.
C. how they use sight.
D. the complexity of their brains.
36. The passage indicates that weakly electric fish have developed a system of navigation using electric fields because:
F. as predators, it gives them an advantage over other fish.
G. it helps keep them on course during lengthy migrations.
H. they are nocturnal creatures and swim only in the dark.
J. their habitats are muddy and therefore visibility is limited.
37. As it is used in line 14 , the word battery most nearly refers to the:
A. arrangement of fish muscles.
B. electric field produced by fish muscles.
C. energy that propels fish forward.
D. different kinds of muscles contained in fish.
38. According to the passage, an electric eel is a type of:
F. South American weakly electric fish.
G. African weakly electric fish.
H. strongly electric fish.
J. dangerous water snake.
39. The author indicates that he chooses to describe the electric field emitted by the weakly electric fish as a "family of curved lines" (line 38) because:
A. that is the precise scientific terminology for the phenomenon.
B. this image is relatively easy for people to visualize.
C. cocoons are made from curved lines.
D. each line supports the others, like family members support each other.
40. According to the passage, successful navigation for weakly electric fish requires:
F. frequent breaks in motion.
G. an unobstructed swimming area.
H. a rigid body.
J. rapid water currents.

