

Reading Test

65 MINUTES, 52 QUESTIONS

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

DIRECTIONS

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

Questions 1-11 are based on the following passages.

This passage is from Nathaniel Hawthorne, *The Blithedale Romance*, originally published in 1852.

Line
5 Five-and-twenty years ago, at the epoch of this story, there dwelt in one of the Middle States a man whom we shall call Fauntleroy; a man of wealth, and magnificent tastes, and prodigal expenditure. His home might almost be styled a palace; his habits, in the ordinary sense, princely. His whole being seemed to have crystallized itself into an external splendor, wherewith he glittered in the eyes of the world, and had no other life than upon this gaudy surface. He had married a lovely woman, whose nature was deeper than his own. But his affection for her, though it showed largely, was superficial, like all his other manifestations and developments; he did not so truly keep this noble creature in his heart, as wear her beauty for the most brilliant ornament of his outward state. And there was born to him a child, a beautiful daughter, whom he took from the beneficent hand of God with no just sense of her immortal value, but as a man already rich in gems would receive another jewel. If he loved her, it was because she shone.

15 After Fauntleroy had thus spent a few empty years, coruscating continually an unnatural light, the source of it—which was merely his gold—began to grow more shallow, and finally became exhausted. He saw himself in imminent peril of losing all that had heretofore distinguished him; and, conscious of no innate worth to fall back upon, he recoiled from this calamity with the instinct of a soul shrinking from annihilation. To avoid it,—wretched man!—or rather to defer it, if but for a month, a day, or only to procure himself the life of a few breaths more amid the false glitter which was now less his own than ever,—he made himself guilty of a crime.

30 It was just the sort of crime, growing out of its artificial state, which society (unless it should change its entire constitution for this man's unworthy sake) neither could nor ought to pardon. More safely might it pardon murder. Fauntleroy's guilt was discovered. He fled; his wife perished, by the necessity of her innate nobleness, in its alliance with a being so ignoble; and betwixt her mother's death and her father's ignominy, his daughter was left worse than orphaned.

35 There was no pursuit after Fauntleroy. His family connection, who had great wealth, made such arrangements with those whom he had attempted to wrong as secured him from the retribution that would have overtaken an unfriended criminal. The wreck of his estate was divided among his creditors: His name, in a very brief space, was forgotten by the multitude who had passed it so diligently from mouth to mouth. Seldom, indeed, was it recalled, even by his closest former intimates. Nor could it have been otherwise. The man had laid nor real touch on any mortal's heart. Being a mere image, an optical delusion, created by the sunshine of prosperity, it was his law to vanish into the shadow of the first intervening cloud. He seemed to leave no vacancy; a phenomenon which, like many other that attended his brief career, went for to prove the illusiveness of his existence.

40 Not, however, that the physical substance of Fauntleroy had literally melted into vapor. He had fled northward to the New England metropolis, and had taken up his abode, under another name, in a squalid street or court of the older portion of the city. There he dwelt among poverty-stricken wretches, sinners, and forlorn good people, Irish, and whomsoever else

45 were neediest. Many families were clustered in each house to gather, above stairs and below, in the little peaked garrets, and even in the dusky cellars. The house where Fauntleroy paid weekly rent for a chamber and a closet had been a stately habitation in its day. An old colonial governor had built it,

and lived there, long ago, and held his levees in a great
 65 room where now slept twenty Irish bedfellows; and died in
 Fauntleroy's chamber, which his embroidered and white-
 wiggled ghost still haunted. Tattered hangings, a marble
 hearth, traversed with many cracks and fissures, a richly
 carved oaken mantelpiece, partly hacked away for kindling-
 70 stuff, a stuccoed ceiling, defaced with great, unsightly
 patches of the naked laths, – such was the chamber's
 aspect, as if, with its splinters and rags of dirty splendor,
 it were a kind of practical gibe at this poor, ruined man of
 show.

75 At first, and at irregular intervals, his relatives allowed
 Fauntleroy a little pittance to sustain life; not from any
 love, perhaps, but lest poverty should compel him, by
 new offences, to add more shame to that with which he
 had already stained them. But he showed no tendency to
 80 further guilt. His character appeared to have been radically
 changed (as, indeed, from its shallowness, it well might)
 by his miserable fate; or, it may be, the traits now seen in
 him were portions of the same character, presenting itself
 in another phase. Instead of any longer seeking to live in
 85 the sight of the world, his impulse was to shrink into the
 nearest obscurity, and to be unseen of men, were it possible,
 even while standing before their eyes. He had no pride;
 it was all trodden in the dust. No ostentation; for how
 could it survive, when there was nothing left of Fauntleroy,
 90 save penury and shame! His very gait demonstrated that
 he would gladly have faded out of view, and have crept
 about invisibly, for the sake of sheltering himself from the
 irksomeness of a human glance. Hardly, it was averred,
 within the memory of those who knew him now, had
 95 he the hardihood to show his full front to the world. He
 skulked in corners, and crept about in a sort of noonday
 twilight, making himself gray and misty, at all hours, with
 his morbid intolerance of sunshine. *The copyright belongs
 to SAT xiaobangshou. Any unauthorized use is considered
 as intellectual theft.

1

Which choice best summarizes the passage?

- A) A careful depiction of a profound change of a character.
- B) A detailed analysis of the tragic life of a character.
- C) A passionate discussion of how a person could fall from heaven to hell.
- D) A satirical description of pompous behaviors of a superficial character.

2

As used in line 15, “just” most nearly means

- A) only
- B) simple
- C) proper
- D) justified

3

As used in line 30, “artificial” most nearly means

- A) insincere
- B) manmade
- C) false
- D) antiqued

4

According to the passage, why was there no revenge on Fauntleroy?

- A) Fauntleroy had fled to an area so remote that no one could find him.
- B) Fauntleroy's family members had made monetary deals with potential avengers.
- C) The court had decided that there should never again happen anything similar.
- D) His creditors had protected him in return for all his estates.

5

The passage strongly suggests that Fauntleroy was seldom mentioned after he fled because

- A) He had never really made any deep connections with people.
- B) He had become penniless from which state no one could profit.
- C) He had done so much evil that almost everyone hated him.
- D) He did not exist in the world as a real being.

6

Which of the following choices provides the best evidence for the answer to the previous question?

- A) lines 38-42 (“His ... criminal.”)
- B) lines 42-45 (“The ... mouth.”)
- C) lines 45-47 (“Seldom, ... heart.”)
- D) lines 47-52 (“Being ... existence.”)

7

Lines 53-54 (“Not, ... vapor.”) mainly serves to

- A) introduce a new character and setting to the story.
- B) show the resulting impact of his guilt.
- C) add a surprising twist to the story.
- D) provide a transition to the next phase of the story.

8

Based on the passage, what does “practical gibe” in line 73 indicate?

- A) The place Fauntleroy lived and Fauntleroy’s life had a similar state.
- B) No one showed any compassion towards Fauntleroy.
- C) Fauntleroy’s living condition could never be worse.
- D) Fauntleroy had received punishment from God.

9

As used in line 90, “save” most nearly means

- A) rescue
- B) except
- C) keep
- D) avoid

10

Which did Fauntleroy’s relatives continue to support him?

- A) They still loved him and wanted him healthy.
- B) They feared he would further shame the family.
- C) They sensed that he had changed for good.
- D) They pitied him due to his miserable condition.

11

Which of the following choices provides the best evidence for the answer to the previous question?

- A) lines 75-79 (“At ... them.”)
- B) lines 80-84 (His ... phase.”)
- C) lines 84-87 (“Instead ... eyes.”)
- D) lines 87-90 (“He ... shame!

Questions 12-22 are based on the following passages.

This passage is adapted from Clay Shirky, *Here Comes Everybody: The Power of Organizing without Organizations*. ©2008 Clay Shirky. The author is discussing websites such as Wikipedia and Flickr to which users contribute content.

Given that everyone now has the tools to contribute equally, you might expect a huge increase in equality of participation. You'd be wrong.

Line Wikipedia articles for asphalt had 129 contributors making
5 205 total edits, but the bulk of the work was contributed by a small fraction of participants, and just six accounted for about a quarter of the edits. A similar pattern appears on Flickr: 118
10 photographers contributed over three thousand Mermaid Parade photos to Flickr, but the top tenth contributed half of those, and the most active photographer, Czarina, contributed 238 photos (about one in twelve) working alone. This shape, called a power law distribution, is shown in the figure.

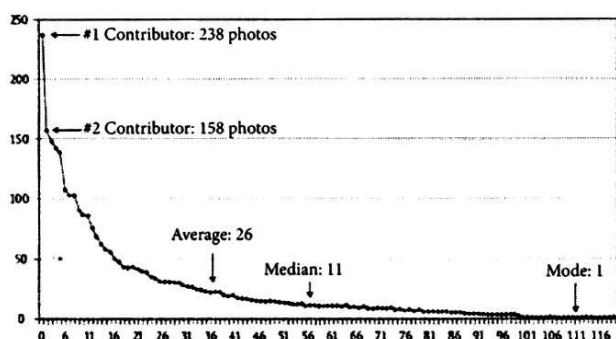


Figure: The distribution of photographers contributing photos of the 2005 Coney Island Mermaid Parade.

Five points are shown on this graph. The two leftmost data points are the most and second-most active photographers.
15 The most active photograph is far more active than the second most active, and they are both far more active than most of the rest of the photographers. The average number of photos taken (all photos divided among all photographers) is twenty-six, while the median (the middle photographer) took eleven photos, and the mode (the number of photos that
20 appeared most frequently) is a single photo.

Note the sharp drop-off in the number of photos between the top few contributors and most of the participants. Notice too that because of the disproportionate contribution of
25 these few photographers three-quarters of the photographers contributed a below-average number of pictures. This pattern is general to social media: on mailing lists with more than a couple dozen participants, the most active writer is generally

much more active than the person in the number-two slot, and far more active than average. The longest conversation goes on much longer than the second-longest one, and much longer than average, and so on. Bloggers, Wikipedia contributors, photographers, people conversing on mailing lists, and social participation
35 in many other large-scale systems all exhibit a similar pattern.

There are two big surprises here. The first is that the imbalance is the same shape across a huge number of different kinds of behaviors. A graph of the distribution of photo labels (or “tags”) on Flickr is the same shape as the graph of readers-per-weblog and contributions-per-user to Wikipedia. The general form of a power law distribution appears in social setting when some set
45 of items-users, pictures, tags-is ranked by frequency of occurrence. You can rank a group of Flickr users by the number of pictures they submit. You can rank a collection of pictures by the number of viewers. You can rank tags by the number of pictures they are applied to. All of these graphs will be in the rough shape of a power law distribution.
50

The second surprise is that the imbalance drives large social systems rather than damaging them. Fewer than two percent of Wikipedia users ever contribute, yet that is enough to create profound value for millions of users. And among those contributions. The spontaneous division of labor driving Wikipedia wouldn't be possible if there were concern for reducing inequality. On the contrary, most large social experiments are engines for harnessing inequality rather than limiting it. Though the word “ecosystem” is overused as a way to make simple situations seem more complex, it is merited here, because large social systems cannot be understood as a simple aggregation of the behavior of some nonexistent “average” user.
65

The most salient characteristic of a power law is that the imbalance becomes more extreme the higher the ranking. The operative math is simple—a power law describes data in which the n th position has $1/n$ th of the first position's rank. In a pure power law distribution, the gap between the first and second position is larger than the gap between second and third, and so on. In Wikipedia article edits, for example, you would expect the second most active user to have committed only half as many edits as the most active user, and the tenth most active to have committed one-tenth as many. This is the shape behind the so-called 80/20 rule, where, for example, 20 percent of a store's inventory accounts for 80 percent of its revenues, and its has been part of social
75

80 science literature since Vilfredo Pareto, an Italian
economist working in the early 1900s, found a power law
distribution of wealth in every country he studied; the
pattern was so common that he called it “a predictable
imbalance.” This is also the shape behind Chris
85 Andersson’s discussion in *The Long Tail*; most items
offered at online retailers like iTunes and Amazon don’t
sell well, but in aggregate they generate considerable
income. The pattern doesn’t apply just to goods, though,
but to social interactions as well. Real-world distributions
90 are only an approximation of this formula, but the
imbalance it creates appears in a astonishing number of
places in large social systems.

12

Over the course of the passage, the main focus shifts from

- A) a general expectation of a pattern to the reality of it.
- B) an overview of the history of power law to a study about it.
- C) an argument about power law is abnormal to an approach to minimizing its effect.
- D) a discussion about power law in social media to description of its impact on politics.

13

As used in line 22, “sharp” most nearly means

- A) keen
- B) steep
- C) astute
- D) shrew

14

It can reasonably be inferred from the passage that the author initially thinks power law

- A) is specific to one kind of behavior.
- B) is a universal pattern that holds in many different areas.
- C) has a considerable amount of value for Internet users.
- D) can create huge gap in wealth.

15

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

- A) lines 33-36 (“Bloggers, ... pattern.”)
- B) lines 37-39 (“There ... behaviors.”)
- C) lines 49-50 (“All ... distribution.”)
- D) lines 80-82 (“Vilfredo ... studied.”)

16

Which choice provides the best evidence for the claim that inequality in social media contribution is not necessarily a bad thing?

- A) lines 49-50 (“All ... distribution.”)
- B) lines 51-52 (“The ... them.”)
- C) lines 55-56 (“And ... contributions.”)
- D) lines 56-58 (“The ... inequality”.)

17

The author mentions the word “ecosystem” in line 61 in order to

- A) expression skepticism to the appropriateness of this word.
- B) emphasize the correctness of making simple things complex.
- C) indicate the complexity of large social systems.
- D) defend an argument that average users are the core of the system.

18

As used in line 70, “pure” most nearly means

- A) theoretical
- B) clear
- C) genuine
- D) ethical

19

The main purpose of the author’s comment about Vilfredo (pareto (line ...)) is most likely to

- A) stress the universality of wealth gap around the world.
- B) highlight the omnipresence of power law.
- C) praise the quality of the work done by economists.
- D) encourage everyone to work to minimize the effect of power law.

20

According to the graph and the passage, which statement about a photographer who contributes 20 photographs is correct?

- A) The photographer can be ranked as the most active.
- B) The photographer is not consistent with the mode.
- C) The photographer can be sorted into the category of median.
- D) The photographer is representative of the average.

21

Which choice best describes the part of the graph ranging from median to mode?

- A) “The operative math” (line 68)
- B) “80/20 rule” (line 77)
- C) “a predictable imbalance.” (lines 83-84)
- D) “The Long Tail” (line 85)

22

Which statement is best supported by both graph and the passage?

- A) Number 1 contributor accounts for almost a quarter of the edits.
- B) Number 1 contributor accounts for edits more than that of the combination of the rest of the contributors.
- C) Number 1 contributor ranks as the highest among all the contributors.
- D) Number 1 contributors is probably the best and most diligent photographer.

Questions 23–32 are based on the following passages.

These two passages discuss water fluoridation, the practice of adding controlled amounts of fluoride to public water supplies for the purpose of reducing the incidence of tooth decay in children. Passage 1 is from a 2004 book; Passage 2 is from a 2010 book.

Passage 1

Line
5
10
15
20
Fluoridation has been a contentious issue for many years because of concerns about the effects of the fluoride on public health. Opposition has come from many sources, sometimes distinguished researchers and policy makers as well as an array of fringe organizations and vocal individuals. The Internet has dozens of Web sites with headings such as “Act Now to Ban Fluoride in Drinking Water” and “You’re Putting What in Our Drinking Water?” Over the years the proponents have demonstrated to the satisfaction of professional dental and medical organizations world wide that fluoridation is effective in reducing caries* and is safe. The opposition has claimed that it does not work and that it causes almost every affliction known to humans. Science must always be challenge because that is the way that progress is made, but the challenge must use scientifically sound experiments and robust analysis. In some cases, scientific studies have been badly designed, but the antifluoridation lobby weakens its own credibility by making claims that are often completely spurious and by resorting to falsehoods, conspiracy theories, and scare tactics.

20 Concerns about the safety of fluoridation have been made and investigated many times over the last 40 years. One of the most recent summary statements on the safety was by the U.S. National Institute of Dental and Craniofacial Research:

25 As with other nutrients, fluoride is safe and effective when used and consumed properly. After more than 50 years of research and practical experience – as well as data evaluation by the U.S. government, committees of experts, and national and international health organization – the verdict remains the same: fluoridating community water supplies, at optimal levels, is an effective and safe method for preventing tooth decay.

35 At a public meeting hold on October 17, 2009, in Yellow springs, Ohio, a community that was considering halting its fluoridation program, Paul Connett gave a twenty-minute presentation on the scientific arguments against the practice. After a county health commissioner and local dentist responded, a woman in the audience said, “Whether this practice is safe or not, or beneficial or not, I want freedom of choice. It is my right to choose what substances I put into my body, not some governmental agency’s”.

40 This woman echoed what many opponents of fluoridation have believed and articulated for over 60 years; government has no right to force anyone to take a medicine. Thus, while in the effort to end this practice worldwide it is helpful to provide scientific evidence that the program is neither effective nor safe, this commonsense position remains at the crux of the argument against fluoridation.

45 Proponents respond to this ethical argument by turning it upside down. They argue that it is unethical to deprive children of a benefits that might reduce pain and help them lead healthier lives, especially children from low-income families. However, by not putting fluoride in the water, you are not depriving anyone of access to fluoride: it is available in tablet form and in fluoridated toothpaste. From an economic perspective, avoiding fluoride is an expensive business, whether it involves purchasing bottled water for cooking and drinking or the use of distillation equipment or reverse osmosis systems. Thus, low-income families are disproportionately burdened by fluoridation since by and large they cannot afford avoidance measures.

*tooth decay”

23

Which statement best describes the relationship between the two passages?

- A) Passage 2 explores an ethical implication of a practice discussed in Passage 1.
- B) Passage 2 elaborates on an argument referred to in Passage 1.
- C) Passage 2 affirms the philosophical position stated in Passage 1.
- D) Passage 2 discredits the validity of the evidence offered in Passage 1.

24

Which statement summarizes an important difference between the two passages?

- A) Passage 1 describes the pros and cons of a practice, whereas Passage 2 focuses exclusively on its benefits.
- B) Passage 1 is made up of a series of generalizations, whereas Passage 2 supports each claim with expert testimony.
- C) Passage 1 offers a historical overview, whereas Passage 2 based its argument on a recent study.
- D) Passage 1 relies primarily on a recent scientific evidence, whereas Passage 2 considers such evidence a secondary concern.

25

In line 15, “sound” most nearly means

- A) wise
- B) firm
- C) healthy
- D) valid

26

The author of Passage 1 considers the actions of the “lobby” (line 17) to be

- A) deplorable
- B) unconventional
- C) tentative
- D) auspicious

27

The statement in lines 24-31 (“As ... decay.”) is best described as

- A) an unprecedented recommendation
- B) an unequivocal endorsement
- C) a candid admission
- D) an informal announcement

28

The “commonsense position” (line 46) is best described as one that values

- A) scientific authority
- B) public health
- C) individual agency
- D) government intervention

29

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

- A) lines 37-39 (“Whether ... choice.”)
- B) lines 41-42 (“This ... years”)
- C) lines 44-46 (“it ... safe”)
- D) lines 46-47 (“this ... fluoridation.”)

30

The statement in lines 52-54 (“However, ... toothpaste”) primarily serves to

- A) note an exception
- B) refute a claim
- C) acknowledge a drawback
- D) level a criticism
- E) If you need the answers the questions please contact Wechat: satxbs123

31

The author of Passage 1 would likely characterize the “avoidance measures” (line 60) as

- A) prudent
- B) expedient
- C) onerous
- D) inadvisable

32

Which choice provides the best evidence for the claim that fluoridation is not the only way to get floridate?

- A) lines 11-13 (“The ... humans.”)
- B) lines 29-31 (“fluoridating ... decay.”)
- C) lines 52-54 (“by ... toothpaste.”)
- D) lines 54-56 (“From ... business”)

Questions 33-43 are based on the following passage.

The passage is excerpted from Franklin, Benjamin, *From Benjamin Franklin to William Shirley*, 4 December 1754

I mention'd it Yesterday to your Excellency as my Opinion, that Excluding the People of the Colonies from all Share in the Choice of the Grand Council would
 Line probably give extreme Dissatisfaction, as well as the
 5 Taxing them by Act of Parliament where they have no Representative. In Matters of General Concern to the People, and especially where Burthens are to be laid upon them, it is of Use to consider as well what they will be apt to think and say, as what they ought to think: I shall,
 10 therefore, as your Excellency requires it of me, briefly mention what of either Kind occurs at present, on this Occasion.

First, they will say, and perhaps with Justice, that the Body of the People in the Colonies are as loyal, and as
 15 firmly attach'd to the present Constitution and reigning Family, as any Subjects in the King's Dominions; that there is no Reason to doubt the Readiness and Willingness of their Representative to grant, from Time to Time, such Supplies, for the Defence of the Country, as shall be
 20 judg'd necessary, so far as their Abilities will allow: That the People in the Colonies, who are to feel the immediate Mischiefs on Invasion and Conquest by an Enemy, in the Loss of their Estates, Lives and Liberties, are likely to be better Judges of the Quantity of Forces necessary to be
 25 raised and maintain'd, Forts to be built and supported, and of their own Abilities to bear the Expence, than the Parliament of England at so great a Distance. That Governors, often come to the Colonies meerly to make Fortunes, with which they intend to return to Britain,
 30 are not always Men of the best Abilities and integrity, have no Estates here, nor any natural Connections with us, that should make them heartily concern'd for our Welfare; and might possibly be sometimes fond of raising and keeping up more Forces than necessary, from the
 35 Profits accruing to themselves, and to make Provision for their Friends and Dependents. That the Councillors in most of the Colonies, being appointed by the Crown, on the Recommendation of Governors, are often of small Estates, frequently dependant on the Governors for
 40 Offices, and therefore too much under Influence. That there is therefore great Reason to be jealous of a Power in

such Governors and Councils, to raise such Sums as they shall judge necessary, by Draft on the Lords of the Treasury, to be afterwards laid on the Colonies by
 45 Act of Parliament, and paid by the People here; since they might abuse it, by projecting useless Expeditions, harrassing the People, and taking them from their Labour to execute such Projects, and meerly to create Offices and Employments, gratify their Dependants and divide Profits. That the Parliament of England is at a great
 50 Distance, subject to be misinform'd by such Governors and Councils, whose united Interests might probably secure them against the Effect of any Complaints from hence. That it is suppos'd an undoubted Right of Englishmen not to be taxed but by their own Consent given thro's their Representatives. That the Colonies have no Representatives in Parliament. That to propose taxing them by Parliament, and refusing them the Liberty of chusing a Representative Council, to meet in the
 60 Colonies, and consider and judge of the Necessity of any General Tax and the Quantum, shews a Suspicion of their Loyalty to the Crown, or Regard for their Country, or of their Common Sense and Understanding, which they have not deserv'd. That compelling the Colonies to pay
 65 Money without their Consent would be rather like raising Contributions in an Enemy's Country, than taxing of Englishmen for their own publick Benefit. That it would be treating them as a conquer'd People, and not as true British Subjects. That a Tax laid by the Representatives of
 70 the Colonies might easily be lessened as the Occasions should lessen, but being once laid by Parliament, under the Influence of the Representations made by Governors, would probably be kept up and continued, for the Benefit of Governors, to the grievous Burthen and
 75 Discouragement of the Colonies, and preventing their Growth and Increase. . .

33

The author's central claim in the passage is that

- A) Governors of colonies are all villains and should never go away with impunity.
- B) Deprivation of people of the colonies rights to represent themselves would lead to discontent.
- C) Parliament in Britain should reserve seats for the representatives of colonies.
- D) People in the colonies are loyal and firmly attached to the Reigning Family.

34

In the context, Franklin mentions "Distance" in line 27 and line 51 in order to

- A) emphasize the remoteness of colonies from King's Dominions.
- B) imply that Parliament of England might not understand the real conditions of colonies.
- C) warn Parliament of England that colonies are prepared to declare independence.
- D) allude to the fact that people in colonies are ignorant of what's English.
- E) This is a watermark of SAT xiaobangshou, please save me.

35

Why does Franklin believe governors do not heartily concern the welfare of colonies?

- A) Because they are not chosen by the local people.
- B) Because they are poor and without estates.
- C) Because they are naturally greedy and vicious.
- D) Because they are forced to come to the colonies.

36

Franklin thinks councils are highly influenced by governors because

- A) They depend on governors to live.
- B) They are appointed by the Crown.
- C) They are not men of best abilities.
- D) They intend to go to Britain.

37

As used in line 41, "jealous" most nearly means

- A) envious
- B) desirous
- C) resentful
- D) distrustful

38

Franklin points out that governors don't represent the benefits of colonies but

- A) the benefits of England.
- B) the benefits of Parliament.
- C) the benefits of themselves.
- D) the benefits of their party.

39

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

- A) lines 29-30 (“they ... Integrity.”)
- B) lines 33-36 (“and ... Dependents.”)
- C) lines 42-45 (“to ... here”)
- D) lines 50-54 (“That ... hence.”)

40

As used in line 64, “compelling” most nearly means

- A) fascinating
- B) gripping
- C) convincing
- D) forcing

41

Which choice best supports the claim that it’s fair to tax people when they consent?

- A) lines 50-54 (“That ... hence.”)
- B) lines 57-64 (“That ... deserv’d.”)
- C) lines 64-69 (“That ... Subjects.”)
- D) lines 69-76 (“That ... increase...”)

42

The main difference Franklin draws between taxation by representatives of colonies and that by Parliament is that

- A) the former can adapt to the needs of colonies over time while the latter cannot.
- B) the former is more powerful and covers more states than the latter.
- C) the former can only lessen whereas the latter can only increases.
- D) the former benefits Parliament but the latter benefits governors.

Questions 43-52 are based on the following passages.

This passage is from Robert Kunzig, *The Big Idea: Perennial Solution*. © Robert Kunzig

Line Humans made an unwitting but fateful choice 10,000 years
ago as we started cultivating wild plants: We chose annuals.
All the grains that feed billions of people today – wheat, rice,
5 corn, and so on – come from annual plants, which sprout
from seeds, produce new seeds, and die every year. “The
whole world is mostly perennials,” says USDA geneticist
Edward Buckler, who studies corn at Cornell University.
“So why did we domesticate annuals?” Not because annuals
10 were better, he says, but because Neolithic farmers rapidly
made them better – enlarging their seeds, for instance, by
replanting the ones from thriving plants, year after year.
Perennials didn’t benefit from that kind of selective breeding,
because they don’t need to be replanted. Their natural
15 advantage became a handicap. They became the road not
taken.

Today an enthusiastic band of scientists has gone back
to that fork in the road: They’re trying to breed perennial
wheat, rice, and other grains. Wes Jackson, co-founder
and president of the Land Institute in Salina, Kansas, has
20 promoted the idea for decades. It has never had much money
behind it. But plant breeders in Salina and elsewhere are now
crossing modern grains with wild perennial relatives; they’re
also trying to domesticate the wild plants directly. Either
way the goal is crops that would tap the main advantage of
25 perennials – the deep, dense root systems that fuel the plants’
rebirth each spring and that make them so resilient and
resource efficient – without sacrificing too much of the grain
yield that millennia of selection have bred into annuals.

We pay a steep price for our reliance on high yields and
30 shallow roots, says soil scientist – and National Geographic
emerging explorer – Jerry Glover of the Land institute
Because annual root crops mostly tap into only the top foot
or so of soil, that layer gets depleted, forcing farmers to rely
on large amounts of fertilizers to maintain high yields. Often
35 less than half the fertilizer in the Midwest gets taken up by
crops; much of it washes into the Gulf of Mexico, where it
fertilizers algae blooms that cause a vast dead zone around the
mouth of the Mississippi. Annuals also promote heavy use of
40 pesticides or tillage because they leave the ground bare much
of the year. That allows weeds to invade.

Above all, leaving the ground bare after harvest and
plowing it in planting season erodes the soil. No-till
farming and other conservation practices have reduced
the rate of soil loss in the U.S. by more than 40 percent
45 since the 1980s, but it’s still around 1.7 billion tons a
year. Worldwide, one estimate put the rate of soil erosion
from plowed fields at ten to a hundred times the rate
of soil production. “Unless this disease is checked, the
human race will wilt like any other crop,” Jackson wrote
50 30 years ago. As growing populations force farmers in
poor countries onto steeper, erodible slopes, the “disease”
threatens to get worse.

Perennial grains would help with all these problems.
They would keep the ground covered, reducing erosion
55 and the need for pesticides, and their deep roots would
stabilize the soil and make the grains more suitable for
marginal lands. “Perennials capture water and nutrients
10 or 12 feet down in the soil, 11 months of the year,”
Glover says. The deep roots and ground cover would also
60 hold on to fertilizer – reducing the cost to the farmer as
well as to the environment.

The perennial wheat- wheatgrass hybrid now growing at
the Land Institute can already be made into flour. Yields
are too low to compete with annual wheat in Kansas –
65 but maybe not in Nepal, which has steeper slopes and a
harsher climate, and where a researcher is now testing
perennial hybrids in small plots. Amber waves of
perennial grain may be decades away, but the emergence
of cheap DNA sequencing is allowing plant breeders to
70 work much faster than they used to. Buckler thinks that
for a tiny fraction of the billions spent annually on corn
research, one could create field-testable perennial corn
in as little as ten years. “I think we should take a shot at
revolutionizing agriculture,” he says.

43

Which choice best summarizes the passage?

- A) A proposal of replacing annuals with perennials in agriculture.
- B) A contrast between perennials and annuals in terms of their productivity.
- C) A discussion about problems caused by annuals and perennials.
- D) A description of how natural advantages could be counterproductive.

44

Which choice provides the best answer to the question in line 8 (“Why ... annuals?”)?

- A) Annual have advantages over perennials.
- B) Natural selection accidentally favored annuals.
- C) Perennials did not receive replantation by farmers.
- D) Neolithic farmers thought perennials noxious.

45

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

- A) lines 1-2 (“Humans ... annuals.”)
- B) lines 3-5 (“All ... year.”)
- C) lines 5-8 (“The ... annuals?”)
- D) lines 12-15 (“Perennials ... taken.”)

46

As used in line 29, “steep” most nearly means

- A) rapid
- B) excessive
- C) sharp
- D) perpendicular

47

The primary purpose of the paragraph 3 and 4 is to

- A) identify severe problems caused by our reliance on annuals.
- B) point out the dangerous outcomes of planting annuals.
- C) persuade people to plant annuals no more.
- D) emphasize that human agriculture is on the verge of destruction.

48

Which choice provides the best evidence for the claim that perennial crops have financial benefits?

- A) lines 29-71 (“We ... Institute.”)
- B) lines 42-46 (“No-till ... year.”)
- C) lines 54-57 (“They ... lands.”)
- D) lines 59-61 (“The ... environment.”)

49

As used in line 48, “checked” most nearly means

- A) examined
- B) contained
- C) established
- D) verified

50

The passage implies that Butler’s attitude towards the prospect of perennial crops is

- A) hopeful
- B) puzzled
- C) pessimistic
- D) neutral

51

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

- A) lines 5-8 (“The ... annuals?”)
- B) lines 18-20 (“Wes ... decades.”)
- C) lines 29-31 (“We ... Institute.”)
- D) lines 70-74 (“Buckler ... says.”)

52

It can reasonably be inferred from the passage that even though yields of perennials are low, they are competitive in

- A) harsh climate
- B) small pots
- C) Kansas
- D) Land Institute

STOP

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