

READING COMPREHENSION

Basic Strategy

1. Read the questions first to identify what information to look out for when reading the passage. Do NOT read the answer choices at that time.
2. Always read the italicized portion before the passage. Sometimes the passage is taken from a much larger work, so it will be difficult to understand the passage without having read the background information from the italicized text. Also, sometimes the italicized information can provide enough information to correctly answer one or more questions.
3. Don't spend too much time on one question. Move on. You may come across the answer to the questions while you are answering another.
4. After each paragraph, recap in your mind what you just read. If you can't recap the paragraph, you may have been daydreaming. Read the paragraph again.
5. Keep in mind that you do not have to become an expert on what you're reading; you just need to understand it well enough to answer the questions correctly.
6. Don't leave any questions blank.

A. Main Idea

Examples:

The main point of the passage is to

The passage is primarily concerned with

The author's primary purpose in this passage is to

Which of the following statements best expresses the main idea of

Tips

Think about the main idea as you are reading the passage.

The main idea is often repeated in the first and last paragraphs.

All or most of the paragraphs in the passage should related to, but not necessarily the focus of, the main idea.

If you are stuck, answer the main idea question last.

B. Fact Questions

According to the author

The author states all of the following EXCEPT

According to the passage, which of the following is true

According to the passage, the main characteristic of the subject is

Which of the following is best supported by the passage?

Which of the following is NOT cited in the passage as evidence of

*Answer can
be found directly
stated in
the passage*

Fact Question Vocabulary

Aesthetic - artistic; dealing with appearance
Allusion - an indirect reference
Assumption - something accepted as true without proof
Attribute - characteristic
Divergent - differing from another
Fluctuate - to shift continually
Hypothetical - based on assumptions
Incompatible - not able to exist in harmony; conflicting; unsuited
Indicative - suggestive; pointing out something
Inherent - built-in; inborn
Innate - inborn; existing from birth
Misconception - mistaken idea; wrong impression
Phenomenon - observable fact or occurrence; subject of scientific investigation
Preclude - to make impossible; to keep from happening

tell students to
memorize these
words. Do not
Spend class
time on any
of
them

C. Inference Questions

examples:

It can be inferred from the passage that
The passage suggests that the author would support which of the following
The author implies that
According to the passage, it is most likely that
The passage is most likely directed toward which audience
Which of the following statements about _____ can be inferred from the passage

Tips

Answer must be based on information from the passage, but the answer will not be clearly stated in the passage.

Do not make too big of a jump.

Go through each answer choice.

If a line reference is given, always start at least five lines up and finish five lines down.

Inference Question Vocabulary

Criterion - a standard used in judging something; a basis for comparison
Excerpt - a selection from a longer literary work
Implication - an indirect suggestion; a logical inference
Imply - to suggest without stating explicitly; to mean
Likelihood - probability; chance of something happening
Plausible - appearing reasonable; apparently believable
Suggestive - tending to suggest something
Tentative - not defined or positive; hesitant

students to
memorize

D. Evidence

Evidence from Passage

Example:

Which choice best supports the claim that Nawab performs his duties for Harouni well?

- A) Lines 28-32 (“By his...Lahore”)
- B) Lines 40-42 (“The landowner...ahead”)
- C) Lines 46-49 (“In your...should”)
- D) Line 58 (“I’ve...years”)

Tip Pay attention to where the quote in the answer choice starts and stops. If evidence is before or after the quoted part but not in it, then it is not the answer.

Sample Pair of Questions: *(one question asks about the passage - The other asks where the evidence is)*
It can reasonably be inferred from the passage that Harouni provides Nawab with a motorcycle mainly because

- A) Harouni appreciates that Nawab has to work hard to support his family.
- B) Harouni sees benefit to himself from giving Nawab a motorcycle.
- C) Nawab’s speech is the most eloquent that Harouni has ever heard.
- D) Nawab threatens to quit if Harouni doesn’t agree to give him a motorcycle.

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

- A) Lines 65-66 (“And...crux”)
- B) Lines 66-68 (“He didn’t...him”)
- C) Lines 75-76 (“He even...gasoline”)
- D) Lines 80-81 (“He could...business”)

When you are given a pair of questions such as the ones above, use the line references in the second question to find the answer to the first question. Do NOT answer the first question and then try to match up the evidence.

★ IMPORTANT TIP

F. Data: Table/Diagram/Chart

Pay very close attention to the title of chart and the titles of data.

Examples:

Which statement is best supported by information presented in the table?

The 2011 data in the table best serve as evidence of...

Age Group	Percent of Group Who Watches Football
13-17	17
18-27	30
28-37	42
38-47	65

Based on the table above, which of the following are reasonable conclusions?

- A. More 28-37-year-olds watch football than 13-17-year-olds.
- B. There are more than double the number of 38-47-year-olds who watch football than 18-27 – year-olds.
- C. 38-47-year-olds watch football more often than 28-37-year-olds.
- D. For every 100 38-47-year-olds there are more people who watch football than for every 100 28-37-year-olds who watch football.

Ask the class to try this on their own. The correct answer is D, because the second column only tells us percentages, NOT #s. For example, 18-27 has a higher percentage than 13-17, but if there are more 13-17 year olds, there could still be more who watch football, if the group is significantly bigger.

G. Vocab-In-Context

Do not base your answer to the question on the definition that you know. Always go back to the passage and see which of the answer choices fits.

As used in line 24, “common” most nearly means

- A) numerous.
- B) familiar.
- C) widespread.
- D) ordinary.

In describing squash bees as “indifferent” (line 68), the author most likely means that they

- A) could not distinguish enhanced flowers from normal flowers.
- B) visited enhanced flowers and normal flowers at an equal rate.
- C) largely preferred normal flowers to enhanced flowers.
- D) were as likely to visit beetle-infested enhanced flowers as to visit beetle-free enhanced flowers.

H. Tone Questions

examples:

The author's attitude to the problem can best be described as..

Which of the following best describes the author's tone in the passage?

The author's tone in the passage is that of a person attempting to

Tips

Avoid answer choices that are extremely positive or negative.

Look at the adjectives used by the author/character in the passage. Do the adjectives have a positive or negative connotation?

Based on the information included and words used, how did the passage make you feel?

Passages on the SAT will not cause controversy. A group of people will not be portrayed in a controversial way on the SAT.

Tone Question Vocabulary

Admonishing- reprimanded, rebuking

Aloof – distant, detached

Apologetic – being sorry

Cautious – hesitant; careful

Confrontational – argumentative; challenging

Contrite – remorseful, sorry

Cynical – skeptical; seeing the worst in people

Defensive – protecting one's point of view

Derisive – ridiculing

Empathetic – having feelings for others

Entreating – begging, pleading

Explanatory – explaining

Inquisitive – Asking questions, curious

Nostalgic – remembering how good the past was

Reflective – thinking back on the past

Sardonic – sarcastic

Scathing – harsh

Scholarly – intellectual, cerebral

Sensationalistic – exaggerating emotions

Skeptical – doubtful

Tentative – hesitant

Understated – mildly suggested; unstressed

Wry – bitter or ironic

*Memorize
these
words*

Attitude Question Vocabulary

Ambivalent – unable to decide between two points of view
 Amusement – humor
 Bemusement – puzzlement
 Condescension – patronizing behavior
 Disdain – scorn; contempt
 Disparagement – belittlement
 Didactic – inclined to lecture excessively
 Hypocritical – pretending to have virtues or feelings one lacks
 Indignation – anger
 Indifference – lack of concern
 Irony – incongruity
 Mockery- derision; insincere imitation
 Objectivity – dealing with facts; having no opinion
 Pessimism – lack of hopefulness
 Sarcasm – cutting remarks
 Satirical – mocking
 Smugness – self-satisfaction; conceit
 Somber – sullen; gloomy
 Trite - overused
 Whimsical – fanciful; unpredictable

*Memorize
these*

I. Author's Purpose

This type of question doesn't specifically ask about the included material, but instead asks why it was included

examples

- o The description of _____ serves chiefly to
- o The author most likely outline/includes/references _____ in order to

Author's Technique Vocabulary

Abstract – theoretical; not concrete
 Analogy – similarity of functions or properties; likeness
 Antithesis – direct opposite
 Argumentative – presenting a logical argument
 Assertion – positive statement; declaration
 Cite – to refer to; to quote as an authority
 Concrete – real; actual; not abstract
 Evidence – data presented as proof
 Explanatory – serving to explain
 Expository – concerned with explaining ideas, facts, etc.
 Generalization – simplification; general idea or principle
 Narrative – relating to telling a story
 Persuasive – intended to convince
 Thesis – the central idea in a piece of writing; a point to be defended

For example:

If I wrote a passage on how to become a professional quarterback, I would include tips from actual quarterbacks.

- Why would I do that?

- To add credibility.

note: the question doesn't ask what the tips are; it asks what purpose they serve in the passage.

Reading Test 1

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 1-10 are based on the following passage.

This passage is taken from a novel about a Native American woman's experiences in college.

Cassie shuddered into a straight-backed posture as the door suddenly catapulted open with a jarring noise. "Hi ... oh ... whoa!" said the surprised
Line entrant, whose arms, reaching for a doorknob that
5 had just escaped her reach, thrust forward to brace her fall. She came to rest about six feet inside the threshold in a pose that brought to mind a runner in the starting blocks: both palms on the floor, one leg bent, the other extended. Cassie stood up, her eyes
10 wide, piecing the scene together.

"Are you ok?" Cassie asked, drawing out each word, knowing that any injuries suffered were psychological.

The intruder looked up. "I'm fine. Just a little
15 rug burn on my palms!" She looked at her hand and forced a laugh. Cassie stepped forward and, extending her own hand, realized that the young lady on her carpet was wearing a turquoise tank top and white capri pants. This was the same young
20 lady she had seen from her window about an hour earlier, who had been flitting about the courtyard, introducing herself to the other students, seeming so desperate to find a friend. Up close, Cassie knew her: Maddie Jones. The one who had been posting
25 drivel on Facebook all summer ("Can't wait to meet all those people who will end up meaning the world to me!!!").

The scene brought Cassie sad pleasure; she knew it was cruel to take pleasure in Maddie's flop, but she also felt affirmed: Try too hard; seem too eager; end up embarrassed.

Maddie eagerly grabbed and pulled Cassie's outstretched arm. Lost in her thoughts, Cassie was unprepared for the shift in dynamics and stumbled a
35 few steps before righting herself. Maddie rose to her feet; Cassie seethed at being pulled into the continuing comedy.

Maddie forced another awkward laugh, this time louder than the first. "OK, let's forget this
40 whole thing happened. I'm going out and starting over." The intruder departed, careful to leave the door slightly ajar behind her.

This time, the knock, more measured, left the hinges inert. Cassie answered with a singsong
45 "Come in!"

"Hello! I'm your neighbor from down the hall. I'm Maddie." Maddie's tone and smile showed no effects from her stumble, though she did have a deep grey scuff mark on the front of her capri pants.

50 Cassie approached and stiffly extended her arm. "Hello Maddie. I recognize you from Facebook. I'm Cassidy. Please call me Cassie."

Maddie raised her eyebrows and smiled, surprised by the formal tone. "I wasn't sure there
55 was anybody here." She shook Cassie's hand and answered with her own unintentionally awkward

gesture, a smile that sought to portray warmth but hinted strongly at bemusement. Looking around for a conversation topic, she noted that Cassie had done no decorating except to tape a yellow piece of construction paper, elaborately colored, above the solitary desk in the corner. Maddie peered at the paper.

"Ummm ... Cassady Ninovan Smith? Is that your full name? Do you have a hyphenated last name, or something?"

"That is my full name. Everyone asks about Ninovan; it's a Cherokee name."

"Are you part Native American?" said Maddie.

"Yeah. My little sister made that sign. She calls me Nin at home."

"That is so cool!"

Cassie suddenly felt exhausted, in need of peace. Her mind wandered unexpectedly to an old Cherokee story her father had told her years ago. A teenage boy used to leave his family in the morning, head to the mountains, and return in the evening. As the days went by, he would get up and go earlier, and then return later. His family was puzzled; why would he not even eat with them? They also noticed a change in his appearance as well. He began growing brown hair all over his body.

The boy's family asked him why he had forsaken them. The boy told them that he had found plentiful food in the mountains, better food than the family ate. He calmly told them that he was becoming too different to live among their people. Soon he would leave to live on the mountain forever. He was transforming.

Cassie mentally vowed to be very careful not to transform. Any changes to Cassady Ninovan Smith would be made on her own terms.

A question interrupted Cassie's thoughts. "Can I call you Nin too?" asked Maddie.

1

Which statement about Cassady Ninovan Smith is NOT supported by the passage?

- A) She found Maddie somewhat annoying.
- B) She was startled by Maddie.
- ☒ C) She had a strained relationship with her younger sister.
- D) She did not want to change too much while living away from her family.

the only mention of a sister is in this section which indicates a pos. relationship

2

As used in line 12, "suffered" most nearly means

- ☒ A) sustained.
- B) punished.
- C) languished.
- D) regretted.

this word is in reference to the injuries, indicating that they occurred sustained is the only word that best fits the description

3

It can reasonably be inferred from the passage that Maddie

- A) only had one pair of capri pants.
- ☒ B) was overly excited to begin college.
- C) was not eager to transform herself while in college.
- D) was reserved but determined to make friends.

the third paragraph speaks to how eager Maddie was by trying to make friends in the courtyard
c) refers to Cassie

CONTINUE

4

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

- A) Lines 16-19 ("Cassie stepped ... pants")
- ☒ B) Lines 25-27 ("Can't wait ... me!!!")
- C) Lines 47-49 ("Maddie's tone ... pants")
- D) Lines 91-92 ("Cassie ... transform")

these lines show Maddie's excitement for college

5

Based on the passage, which choice best describes Cassie's feelings toward her family?

- ☒ A) Loyalty
 - B) Ambivalence
 - C) Regret
 - D) Volatility
- Cassie's only dear was something from her sister + she was proud of her father's story which shows her love + loyalty

6

The passage refers to Maddie as an "entrant" in line 4 and an "intruder" in line 14. What is the rhetorical effect of this switch in words?

- A) It foreshadows Maddie's attempt to pull Cassie to the floor.
- B) It indicates Cassie's growing confusion.
- ☒ C) It marks a change in Cassie's perception of Maddie.
- D) It signals Cassie's fear of being accosted.

at first Cassie was startled, the neg connotation of the words add to Cassie's feelings of Maddie

7

The passage most strongly suggests that Cassie participated in

- A) track and field.
- B) old Cherokee traditions.
- C) modern Cherokee culture.
- ☒ D) online social media.

The passage mentions Cassie's engagement with Facebook to meet people in college

8

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

- A) Lines 6-9 ("She came ... extended")
- ☒ B) Lines 24-25 ("The one ... summer")
- C) Lines 74-75 ("Her mind ... ago")
- D) Lines 92-93 ("Any changes ... terms")

Find the lines that have mention of Cassie using social media

9

With regard to the passage as a whole, the rhetorical effect of the sixteenth and seventeenth paragraphs (lines 73-90) is to

- A) explain how Cherokee boys differ from Cherokee girls.
- ☒ B) help explain why Cassie did not want to change too much while away at college.
- C) suggest that Cassie's parents did not want her to go away to college.
- D) transition the essay from Cassie's present to her distant past.

the story speaks to how a boy changed too much, this is used to draw a direct parallel to Cassie + her want to not change

10

Which of the following best describes the point of view from which the passage was written?

- A) Cassie
- B) Maddie
- ☒ C) An omniscient third-party narrator
- D) An eavesdropping proctor in the dormitory

the passage mentions both Cassie and Maddie's names which shows it is written in 3rd person POV

CONTINUE

Questions 11-21 are based on the following passage and supplementary material.

This passage examines the effect of air pollution on the Latino population in California.

Line From the earliest days of immigration to North
America, people new to the continent instinctively
sought the community of others with similar ethnic
5 backgrounds. These immigrants hoped to gain a
foothold in their new surroundings with the aid of
sympathizers who spoke the same language and
shared the same heritage.

Newcomers realized that rapid and successful
assimilation was largely contingent upon securing
10 employment. In many cases, however, employment
obtained through association with an ethnic group
was wrought with peril. For example, the Irish men
who helped build many miles of canal throughout
New York, Pennsylvania, and Ohio in the early 19th
15 century had to endure countless on-site difficulties.
Physically exacting work performed under a blazing
sun often caused debilitating sunburn. Outbreaks of
cholera and malaria were not uncommon, while
violent labor riots were common, unfortunately.
20 Similarly, during the late 1800s, railroad
construction companies subjected Chinese workers
to beatings, racial slander, pay discrimination, and
occupational hazards such as working with
dynamite.

25 The employment network among ethnic
enclaves still exists today. Census statistics reveal
concentrations of ethnic groups throughout the
United States where immigrants of similar
backgrounds are likely to land. Thankfully,
30 episodes of immigrants who toil under barbaric
conditions do not occur with the same frequency as
they did long ago. However, certain immigrant
groups, like Latinos, do encounter occupational
hazards that affect them disproportionately.

35 One example of this phenomenon can be seen
in California. Long a haven for immigrants from
Mexico and other Central American countries,
California has a large Latino population relative to
other states, in part due to continuing immigration.

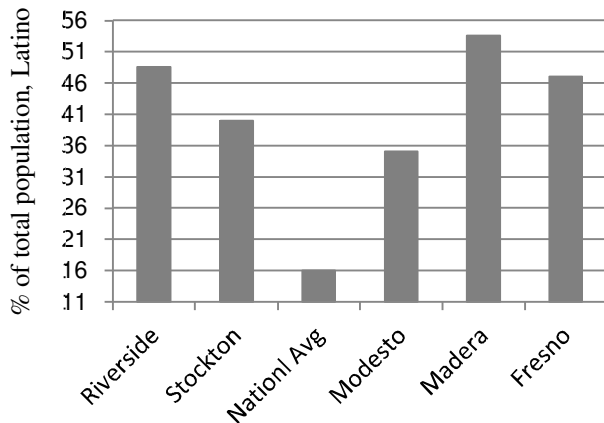
40 In many cases, these immigrants work in the
farming and landscaping industries, spending long
hours laboring outdoors.

This outdoor employment involves
environmental conditions that may be detrimental to
45 workers. The observable smog for which the Los
Angeles metropolitan area is notorious bears itself
out in poor air quality for outdoor workers in
several California cities with concentrated Latino
populations.

50 The Environmental Protection Agency (EPA)
aggregates air quality measurements across the
country and pays close attention to $PM_{2.5}$. $PM_{2.5}$
stands for “particulate matter measuring less than
2.5 micrometers in diameter.” Small particles such
55 as $PM_{2.5}$ particles find their way into the lungs more
easily than larger ones; $PM_{2.5}$ measurements,
therefore, provide a reasonable indication of
dangerous air conditions. $PM_{2.5}$ particles can
become airborne as a result of combustion. Motor
60 vehicles, power plants, and industrial activities are
all sources of $PM_{2.5}$ particles. The grinding of more
coarse particles, such as the creation of dust from
larger road particles, also releases $PM_{2.5}$ particles.
Gaseous byproducts of combustion can interact
65 chemically with sunlight or water vapor to produce
 $PM_{2.5}$ particles.

While the average citizen has little knowledge
of the significance of high $PM_{2.5}$ measurements,
airborne particles trigger asthma and other serious
70 respiratory conditions. Therefore, residents of cities
with high $PM_{2.5}$ readings find themselves at a higher
risk for such conditions, and outdoor workers in
these places are in even worse straits. While
California citizens fighting on the front lines for
75 better air quality standards hope to bring relief to
the entire state population, their work will have a
major impact on Latino immigrants who seek
employment and a better life in cultural enclaves
throughout a number of California metropolitan
80 areas.

Latino populations in California cities with substandard PM_{2.5} levels, 2010



11

From the point of view of a recent immigrant to North America, the “sympathizers” referred to in line 6 are most likely

- A) politicians who advocate for the rights of illegal immigrants and their children.
- B) farmers who require seasonal employees to perform menial tasks.
- ☒ C) less recent immigrants to North America of the same ethnic group.
- D) other immigrants to North America, but from countries like Ireland and China.

It is stated that these sympathizers spoke the same language and shared the culture which indicates ppl from the same ethnic group

12

As used in line 9, “securing” most nearly means

- A) fastening.
 - ☒ B) gaining.
 - C) mooring.
 - D) shielding.
- securing refers to “getting employment” which is most similar to “gaining”

13

The passage suggests which of the following about the relationship between Irish workers and Chinese workers in the United States?

- A) They understood each other’s circumstances very well.
- B) They helped each other succeed in America.
- C) The Chinese workers failed to learn from the misfortune of the Irish workers.
- ☒ D) The passage does not suggest a relationship between Irish and Chinese workers in America.

both of these workers are mentioned but there is no significant connection between the two

14

The primary function of the third paragraph (lines 25-34) is to

- A) explain why conditions in the United States have improved for immigrants.
- ☒ B) transition the passage from the past to the present.
- C) offer a solution to the problems discussed in the preceding paragraphs.
- D) shift the discussion from the social struggles faced by Irish and Chinese immigrants to the environmental adversity endured by Latino immigrants.

the paragraph speaks about the connection between past immigrants + current

15

The author of the passage makes an assertion in the last sentence of the third paragraph (lines 32-34). How does the author support this assertion?

- A) By offering a counter example
- B) By citing statistics
- C) By offering sound reasoning
- ☒ D) By offering a current example

Right after the assertion, the author states “one example” to support the claim about occupational hazards

CONTINUE

16

Which of the following statements is supported by the graph that accompanies the passage?

- A) There are more Latinos living in Madera than in Riverside, Stockton, Modesto, or Fresno.
- B) The quality of air in Riverside is very similar to the quality of air in Fresno.
- C) The air quality in California is generally worse than the national average.
- ☒ D) For every 10 residents of Fresno there are more Latinos than for every 10 residents of Stockton.

The graph provides info about population and not air quality leaving A/D. choice D is stating that there is a larger percentage in Fresno shown by the higher bar

17

The passage suggests that ethnic populations in America were often concentrated because

- A) California, which borders Mexico to the north, is very welcoming to immigrants.
- B) U.S. employers required newly hired employees to live together.
- C) immigration laws require immigrants to stay with relatives until they find a job.
- ☒ D) immigrants tend to seek out others with backgrounds similar to their own.

This is described in the beginning of the passage with immigrants finding "sympathizers" for help

18

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

- ☒ A) Lines 4-7 ("These ... heritage")
- B) Lines 8-10 ("Newcomers ... employment")
- C) Lines 25-26 ("The employment ... today")
- D) Lines 36-39 ("Long ... immigration")

19

As used in line 45, "observable" most nearly means

- A) capable of being studied by scientists.
- B) often, but not always, present.
- ☒ C) capable of being seen by the naked eye.
- D) detectible with the proper equipment.

this word is used to describe how bad the air quality is - the smog is bad when it can be seen (def. of observable)

20

The primary function of the sixth paragraph (lines 50-66) is to

- A) provide a welcome digression from the main topic.
- B) offer a solution to the problem faced by outdoor workers in California.
- C) establish the credibility of the author of the passage.
- ☒ D) provide background information on certain technical aspects of air quality.

This paragraph explains how air quality is measured to give more context on the severity of air quality

21

In order to better align the graph with the language in the final paragraph of the passage (lines 67-80), the word "substandard" in the title of the graph should be changed to which of the following?

- A) dangerously low
- ☒ B) elevated
- C) constant
- D) deadly

substandard indicates a low amount of PM_{2.5} but the final paragraph speaks to high levels of it which best matches elevated

CONTINUE

Questions 22-31 are based on the following passage.

This passage is adapted from an article about the development of ultrasound.

Line An expectant father is usually full of emotion
as his pregnant partner heads to the doctor's office
for an ultrasound test. Happiness, nervousness,
excitement, concern, and anxiety are all common
5 feelings. In John Beck's case, pride in his father
was near the top of the list as well. In 1991, John
mentioned to his father, William Nelson "Nels"
Beck, that his wife was to undergo an ultrasound.
Nels Beck, an exceedingly humble retired physicist,
10 casually replied, to his son's great surprise, that he
had discovered ultrasound.

Like so many scientific discoveries, Nels
Beck's discovery was somewhat accidental. In
1957, he was working on a scanner at the Argonne
15 National Laboratory outside Chicago. The United
States government had created Argonne for nuclear
research, and Beck's scanner was intended to
inspect nuclear fuel elements. A fuel element is an
assembly of rods that is inserted into a nuclear
20 reactor. Each rod contains uranium fuel pellets;
Beck wanted to see the pellets within the rods
without deconstructing the fuel element to assess
the fuel's purity.

The scanner Beck devised worked on the same
25 principal as sonar. Sonar, an acronym for SOUNd
Navigation And Ranging, is a system that emits a
sound wave and then measures the echo of that
sound wave to determine distances from objects and
the shapes of those objects. Beck's scanner also
30 emitted a sound wave and recorded the echo. While
testing his device, Beck placed his arm underneath
the scanner. After calibrating the sensitivity of the
recording unit, Beck was able to create and print out
an image of his arm that distinguished bone and
35 flesh.

In the decades since Beck's discovery,
scientists have modified and improved ultrasound
equipment to provide reliable, high-quality images

for medical diagnoses. Today, ultrasound allows
40 doctors to obtain images for many uses, including
viewing a developing fetus, investigating heart and
kidney function, and detecting tumors throughout
the body. A technician uses a handheld probe that
transmits millions of high-frequency sound pulses
45 into the body every second. The waves created by
each pulse travel through the body until they
encounter tissues or fluids, where they are reflected
back to the probe. The probe reads the millions of
echoes and then transfers the readings to an attached
50 computer. The computer calculates the distance
between the probe and the waves, as well as the
amount of time it takes each echo to return,
calibrating to millionths of a second. The computer
then displays the distances and intensities of the
55 echoes in the form of a two-dimensional image.

A more recent variation of the standard
ultrasound, called 3-D ultrasound, is gaining in
popularity among doctors for its ability to detect
certain conditions. During a 3-D ultrasound, the
60 technician can move the probe over different
surfaces of the same part of the body; on a pregnant
woman, for example, the probe can be moved over
the front and sides of the belly. Specialized
software can combine the images from each surface
65 to form a three-dimensional picture. 3-D ultrasound
has proven particularly effective in detecting early
tumors and determining whether they are benign or
malignant. 3-D ultrasound also provides a better
overall view of a fetus's face and limbs, which
70 doctors can use to spot growth abnormalities.

In the future, scientists expect to improve the
sharpness and clarity of the 3-D ultrasound. They
also hope to allow doctors to view the images in
real time, rather than in photographed stages.
75 These advancements would represent significant
enhancements to the more humble prototype
developed by a humble man, Nels Beck.

22

According to the passage, the “list” referred to in line 6 is most likely a list of

- A) things that John Beck admired about his father.
- B) discoveries made by Nels Beck.
- ☒ C) emotions that an expectant father will likely experience.
- D) medical uses of ultrasound technology.

The sentence before states numerous emotions in the context of an expectant father

23

The primary function of the second paragraph (lines 12-23) is to

- A) explain how Nels Beck discovered ultrasound.
- ☒ B) provide context for Beck’s accidental discovery.
- C) suggest that government-funded programs often lead to unexpected discoveries.
- D) explain the assembly of nuclear fuel elements.

introduces the topic by beginning with how the invention started accidentally

24

As used in line 24, “devised” most nearly means

- A) concocted.
 - B) suggested.
 - ☒ C) designed.
 - D) imagined.
- ↓ in reference to the sonar it was designed but not made completely by Beck (can't be concocted)

25

According to the passage, it is reasonable to conclude that

- A) Nels Beck never achieved his goal of viewing nuclear fuel elements without deconstructing them.
- ☒ B) ultrasound technology has broad applications in the medical field.
- C) high-frequency sound pulses can be harmful to a developing fetus.
- D) wireless probes are not yet being developed by scientists.

the 5th paragraph speaks to the different uses for ultrasounds

26

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

- A) Lines 32-35 (“After calibrating ... flesh”)
- ☒ B) Lines 39-43 (“Today ... body”)
- C) Lines 45-48 (“The waves ... probe”)
- D) Lines 71-72 (“In the future ... ultrasound”)

states how there are many uses

27

Based on the passage, a list of the “conditions” referred to in line 59 might include all of the following EXCEPT:

- A) a tumor.
- B) a shorter than normal femur, or thigh bone.
- C) a longer than normal humerus, or arm bone.
- ☒ D) a fetus’s facial features.

talks about fetus limbs not facial features — 2nd to last paragraph

CONTINUE

28

As used in line 76, the phrase “more humble” most nearly means

- A) more reserved.
- ☒ B) less sophisticated.
- C) more respectful.
- D) less arrogant.

*talked about how the ultrasound can improve
↓ humble indicates earlier, less advanced ultrasound*

29

Based on the passage, it is reasonable to infer that scientists currently working on ultrasound enhancements and innovations are

- A) unsure of what the future holds.
- B) not coordinating well with doctors.
- ☒ C) confident in their abilities.
- D) ahead of schedule in creating prototypes.

talks about different uses for the ultrasound and how much it will improve

— last P

30

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

- A) Lines 36-39 (“In the decades ... diagnoses”)
- B) Lines 56-59 (“A more ... conditions”)
- C) Lines 63-65 (“Specialized ... picture”)
- ☒ D) Lines 71-72 (“In the future ... ultrasound”)

↳ the certainty in this line portrays confidence

31

The passage as a whole can be best described as which of the following?

- A) Persuasive
- ☒ B) Informational
- C) Clinical
- D) Critical

nonfiction passage w/ concrete facts

CONTINUE

Questions 32-42 are based on the following passages.

Passage 1 is an excerpt from a speech given by Dr. Martin Luther King, Jr. entitled "Remaining Awake Through a Great Revolution." Passage 2 is an excerpt from a speech given by President Barack Obama at the commencement ceremony for the United States Military academy in 2014. Both discuss the role of the United States in world affairs.

Passage 1

There is another thing closely related to racism that I would like to mention as another challenge. We are challenged to rid our nation and the world of poverty. Like a monstrous octopus, poverty spreads its nagging, prehensile tentacles into hamlets and villages all over our world. Two-thirds of the people of the world go to bed hungry tonight. They are ill-housed; they are ill-nourished; they are shabbily clad. I've seen it in Latin America; I've seen it in Africa; I've seen this poverty in Asia.

I remember some years ago Mrs. King and I journeyed to that great country known as India. And I never will forget the experience. It was a marvelous experience to meet and talk with the great leaders of India, to meet and talk with and to speak to thousands and thousands of people all over that vast country. These experiences will remain dear to me as long as the cords of memory shall lengthen.

But I say to you this morning, my friends, there were those depressing moments. How can one avoid being depressed when he sees with his own eyes evidences of millions of people going to bed hungry at night? How can one avoid being depressed when he sees with his own eyes God's children sleeping on the sidewalks at night? In Bombay more than a million people sleep on the sidewalks every night. In Calcutta more than six hundred thousand sleep on the sidewalks every night. They have no beds to sleep in; they have no houses to go in. How can one avoid being depressed when he discovers that out of India's population of more than five hundred million people, some four

hundred and eighty million make an annual income of less than ninety dollars a year. And most of them have never seen a doctor or a dentist.

As I noticed these things, something within me cried out, "Can we in America stand idly by and not be concerned?" And an answer came: "Oh no!" Because the destiny of the United States is tied up with the destiny of India and every other nation.

Passage 2

So the United States is and remains the one indispensable nation. That has been true for the century passed and it will be true for the century to come.

But the world is changing with accelerating speed. This presents opportunity, but also new dangers. We know all too well, after 9/11, just how technology and globalization have put power once reserved for states in the hands of individuals, raising the capacity of terrorists to do harm. And even as developing nations embrace democracy and market economies, 24-hour news and social media makes it impossible to ignore the continuation of sectarian conflicts and failing states and popular uprisings that might have received only passing notice a generation ago.

It will be your generation's task to respond to this new world. The question we face, the question each of you will face, is not whether America will lead, but how we will lead -- not just to secure our peace and prosperity, but also extend peace and prosperity around the globe.

Now, this question isn't new. At least since George Washington served as Commander-in-Chief, there have been those who warned against foreign entanglements that do not touch directly on our security or economic wellbeing. Today, according to self-described realists, conflicts in Syria or Ukraine or the Central African Republic are not ours to solve. And not surprisingly, after costly wars and continuing challenges here at home, that view is shared by many Americans.

A different view from interventionists from the 75 left and right says that we ignore these conflicts at our own peril; that America's willingness to apply force around the world is the ultimate safeguard against chaos, and America's failure to act... not only violates our conscience, but invites escalating 80 aggression in the future.

And each side can point to history to support its claims. But I believe neither view fully speaks to the demands of this moment. It is absolutely true that in the 21st century American isolationism is not 85 an option.

32

In the first paragraph of Passage 1 (lines 1-10), what does Dr. King do to help the reader comprehend the pervasive nature of poverty?

- A) He describes how poverty is similar to racism in America.
- B) He challenges Americans to rid the world of poverty.
- ☒ C) He personifies poverty by likening it to a monstrous octopus.
- D) He offers a difficult, but workable solution to end poverty.

"like a monstrous octopus... prehensile tentacles..." shows how it penetrates society

33

The second paragraph of Passage 1 (11-19) suggests that Dr. King did all of the following in India EXCEPT:

- A) meet with leaders.
- B) give speeches.
- ☒ C) witness poverty.
- D) converse with many citizens.

POE
- great leaders
- talk to thousands of people
↓ implies speeches

not similar to meeting + talking

34

As it is used in line 33, "some" most nearly means

- ☒ A) roughly.
- B) exactly.
- C) more than.
- D) several.

"some" indicates a number, however it is not precise
→ estimate

35

In Passage 2, President Obama suggests that which of the following is contributing to the increasing speed of change in the world?

- A) Failing states
- ☒ B) News networks
- C) Global prosperity
- D) Popular uprisings

P2 "technology + globalization"
"24-hour news and social media"
attributes these things the world changing with "accelerating speed"

36

Based on the passages, with which of the following statements would both speakers most likely agree?

- A) Poverty is the root of all evil.
- ☒ B) America should not ignore what happens beyond its borders.
- C) America must take care of its own citizens before it provides aid to foreign citizens.
- D) The threat of terrorism will continue to grow because two-thirds of the world's citizens live in poverty.

Both passages mention events outside the U.S.
↓ India + Syria/Africa

CONTINUE

37

In his speech, President Obama most likely included the remarks set forth in lines 64-68 (“At least ... wellbeing”) in order to

- A) offer an example of how George Washington grappled with foreign affairs.
- B) weaken the argument made by some conservatives.
- C) prove that all United States presidents dealt with similar issues.
- ☒ D) support an assertion made in the preceding sentence.

previous lines talk ab if U.S will be isolationism or not — mentions G.W to indicate how leaders before him have asked this question

38

The “view” referred to in line 73 is the view that

- ☒ A) America does not need to solve the rest of the world’s problems.
- B) America must respond to wars being waged around the world.
- C) unless the security of the United States is at risk, politicians should not insert themselves into foreign matters.
- D) America must lead by responding to the new globalized, technology-driven, world.

↳ speaks about how others believe “conflicts in Syria ... are not ours to solve.”

39

As used in line 79, “invites” most nearly means

- ☒ A) encourages.
- B) offers.
- C) accepts.
- D) requests.

indicates that U.S. is encouraging future aggression if no action is taken

40

One of the main differences between the passages is that, unlike President Obama in Passage 2, Dr. King in Passage 1

- A) references events from history.
- B) addresses circumstances in foreign countries.
- ☒ C) discusses personal observations and experiences.
- D) offers a solution to a problem.

King talks about trip to India + first hand experience
↳ Obama just references conflicts

41

Which of the following words best describes tone of the final paragraph of each passage?

- ☒ A) Decisive
- B) Fearful
- C) Morose
- D) Humorous

both paragraphs are assertive in what should be done, uses words like “absolutely” and “destiny”

42

Which of the following best summarizes the two passages?

- ☒ A) Passage 1 focuses on America’s role in ending poverty worldwide, while Passage 2 focuses on America’s role in foreign conflicts.
- B) Passage 1 focuses on poverty in Asia, while Passage 2 focuses on European conflicts.
- C) Passage 1 focuses on Dr. King’s observations, while Passage 2 focuses on President Obama’s goals.
- D) Passage 1 focuses on domestic issues, while Passage 2 focuses on foreign policy.

King focuses on poverty while Obama talks more generally about foreign affairs (mentions numerous countries + problem

CONTINUE

Questions 43-52 are based on the following passage and supplementary material.

This passage discusses the field of cosmology and advancements made in mankind's understanding of the universe.

Line Cosmology is all about the big picture, or
perhaps more precisely, the biggest picture
imaginable. The field itself is relatively new. In the
1940s, physicists like Albert Einstein began to
5 speculate on the origins and nature of the universe.
Unfortunately, the ability to gather data from the
great beyond was largely undeveloped back then.

In the 1960s, two scientists from Bell
Laboratories in Holmdel, New Jersey, made a vital
10 discovery. The company had installed a 20 foot
antenna on the premises for use with an early
satellite system. When the satellite became
obsolete, employees Arno Penzias and Robert
Wilson conducted company-sanctioned experiments
15 using the antenna. Penzias and Wilson began their
experiments in 1964 with the intention of listening
to intergalactic radio waves, but in every direction
they pointed the antenna, they picked up microwave
noise.

20 After careful inspection of their equipment,
Penzias and Wilson ruled out defects in the antenna.
They also determined that environmental
interference could not be the source of the
microwave noise. Unable to explain the
25 phenomenon, they fortuitously discovered that, less
than 30 miles away at Princeton University, a
physicist named Robert Dicke was designing an
experiment to test his theory about the origin of the
universe. Dicke believed that the "Big Bang," the
30 cosmic eruption of energy that he believed was the
start of the universe, would have produced a low-
level noise still detectable in the present day.
Penzias and Wilson learned of Dicke's hypothesis
and his plans to test it; they alerted him to their own
35 findings. The union of Dicke's hypothesis with
Penzias and Wilson's experimental findings resulted
in the birth of cosmology as a field.

As speculation about the Big Bang grew and
ancillary theories proliferated, cosmologists
40 recognized that new data-gathering mechanisms

were needed. In 1989, NASA launched the Cosmic
Background Explorer satellite. Nicknamed
"COBE," the satellite went into orbit high above the
Earth in order to eliminate the possibility of
45 atmospheric interference. It then detected and
mapped the microwave radiation that had caused
the interference with the Bell antenna. The map
showed slight changes in the density of radiation
across the universe. Cosmologists had predicted
50 that these irregular densities would exist, reasoning
that, if the Big Bang had distributed radiation and
matter evenly, the clumping necessary to form
celestial bodies would not have occurred.

Cosmologists next set out to achieve finer
55 measurements of the microwave radiation. In 2001,
NASA launched the Wilkinson Microwave
Anisotropy Project, or WMAP satellite. Anisotropy
is the property of being directionally dependent;
WMAP was designed to delineate the densities of
60 the microwave radiation even more clearly than
COBE had. Stabilized by the gravity of both the
sun and Earth, WMAP's orbit was well over a
million miles farther from Earth than COBE's orbit
had been. Because of its superior distance from
65 Earth, WMAP was able to detect a detail of analysis
30 times that of COBE.

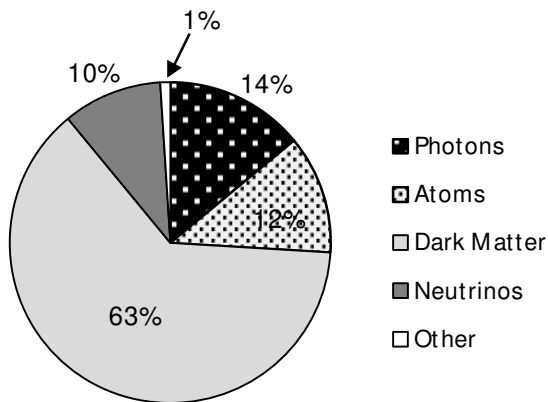
WMAP provided cosmologists with a deeper
understanding of the kinds of matter that once
composed, and now compose, the universe. Only a
70 few decades ago, physicists believed the universe
was composed entirely of baryonic matter, or matter
composed of different combinations of protons,
neutrons, and electrons. All matter on Earth is
baryonic. However, WMAP confirmed that non-
75 baryonic matter exists as well. This is the matter
commonly referred to as "dark matter."

Dark matter, which currently makes up
approximately two-thirds of the universe, is still an
unsolved mystery. Cosmologists believe they know
80 what dark matter is not. It is not baryonic matter
because WMAP would have detected that dark
areas absorb microwave radiation, as baryonic
matter does. Dark matter is also not enormous,
galaxy-sized, black holes because light passing by
85 would be twisted by the hole's gravitational pull.

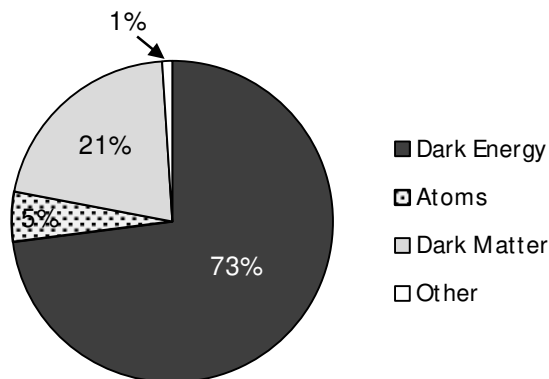
Cosmologists are also seeking to understand the nature of "dark energy," which has become the most prevalent substance in the universe. Dark energy can best be termed an invisible force that clearly has an effect on the expansion of the universe. Cosmologists estimate that it began pulling galaxies apart at an accelerated rate about 7.5 billion years ago. It remains viable today, causing the universe's continual expansion.

Perhaps dark energy is, as Einstein theorized decades ago, a property of space. He contended that the layman's idea of space as vast, colorless, nothingness needs to change. Whatever dark energy and dark matter are, they both represent big missing pieces of the biggest picture imaginable.

Changes in the composition of the universe



13.7 Billion Years Ago



Today

43

The passage begins with a tone that can best be described as which of the following?

- A) Serious
- B) Formal
- ☒ C) Lighthearted
- D) Admiring

*Informal
"or perhaps more precisely, the biggest picture imaginable"
uses common colloquial words*

44

As used in line 9, "vital" most nearly means

- A) urgent.
- B) cardinal.
- C) necessary.
- ☒ D) significant.

*"Important"
in reference to the discovery*

45

According to the passage, what did the two scientists from Bell Laboratories discover?

- A) An obsolete 20-foot satellite antenna
- B) Intergalactic radio waves
- ☒ C) Microwave noise
- D) A theory about the origin of the universe

*#2 - last sentence
"picked up microwave noise"*

46

The passage suggests that the microwave noise detected by Penzias and Wilson was caused by

- ☒ A) the explosive birth of the universe.
- B) environmental interference.
- C) defects in the antenna.
- D) Robert Dicke's experiment only 30 miles away.

*#2 lines 29-32
indicates how micro-
noise might have been present during Big Bang*

CONTINUE

47

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

- A) Lines 20-21 (“After careful ... antenna”)
- B) Lines 24-29 (“Unable ... universe”)
- ☒ C) Lines 29-32 (“Dicke believed ... day”)
- D) Lines 35-37 (“The union ... field”)

Refer to prev. question

48

As used in line 52, “evenly” most nearly means

- A) fairly.
 - ☒ B) uniformly.
 - C) equitably.
 - D) numerically.
- used word “distributed” in sentence to indicate uniformly

49

To better align the text with the graphics, the word “two-thirds” in line 78 should be changed to

- ☒ A) one-fifth.
 - B) one-third.
 - C) 63 percent.
 - D) 72 percent.
- in pie chart, dark matter currently (today) makes up 21% (1/5)

50

According to the passage, which of the following seems to be true about cosmologists?

- A) They generally disagree with physicists.
- B) Their ranks have grown since the 1960s.
- ☒ C) There are phenomena they cannot yet explain.
- D) They look to Einstein for inspiration.

2nd to last paragraph
cosmologists are trying to learn more about “dark energy”

51

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

- A) Lines 38-41 (“As speculation ... needed”)
- B) Lines 69-73 (“Only a ... electrons”)
- ☒ C) Lines 86-88 (“Cosmologists ... universe”)
- D) Lines 95-96 (“Perhaps dark ... space”)

52

Based on the graphics, which of the following statements is accurate?

- A) The universe will one day have no atoms.
- B) Dark energy first formed about 12 billion years ago.
- C) The universe no longer contains Neutrinos.
- ☒ D) Dark matter is less abundant today than it was 13.7 billion years ago.

dark matter was abundant in 63% but is now 21%

STOP

If you finish before time is called, you may check your work in this section only.
Do not return to any other section in the test.