



Questions 13-25 are based on the following passage.

This passage, adapted from a novel, is set during the 1950s. A boy and his father are driving to New York City, where the father, Earl, hopes to begin a career as a musician.

- Earl's aim was to take two-lane highways all the way from Chicago to New York. "This way," he explained, as we moved out into the hot July dawn, "we'll actually see where we're going. I hate those turnpikes, Virgil. They're inhuman and, just you wait, one day they'll take over the whole country. Everything will be concrete." There were other, less sentimental reasons for taking the back roads: no tolls to pay, cheaper gasoline stations, and a chance to price shop when we were hungry.
- He had me laughing from the moment we left town. I'd never seen him in better spirits. He did imitations all across Indiana. In Ohio, our road sometimes moved right alongside the turnpike and we could see the new cars, with their outlandish fins, passing us as regularly as cards being dealt off the top of an endless deck. Earl urged the Pontiac on with whoops and slaps at the steering wheel, like a cowboy racing his horse against a train. He made remarks to the waitresses in the little restaurants we'd stop in every three hours, coolly demanding boiling water for his imported tea bags and then lavishly complimenting their culinary skills. He even let me listen to the car radio and seemed to develop a taste for Elvis Presley singing "Won't You Wear My Ring Around Your Neck." We were like convicts escaping; every mile crossed testified to our incredible good fortune, our giddy peril.
- Earl wanted to make it across the country in one sprint, without wasting money on a motel. He asked me to keep an eye out for hitchhikers, so we might have someone to share the driving. My father had, however, exacting tastes in hitchhikers and though we passed perhaps a half dozen, I had no luck in finding someone who met Earl's standards.
- "No, I won't ride with servicemen," said my casually seditious father, as he slowed down and peered at a young soldier and then resumed his full cruising speed, while I, patriotically offended, watched the stunned defender of my freedoms kicking at his duffle bag and getting smaller and smaller as planet Pontiac continued its fuming orbit. We passed teenagers, we passed old men, we passed a man in a suit who held a gas can, and each time Earl had a different excuse for not stopping.
- Finally, I felt the sullen rage of one whose suggestions have been systematically rejected and I exploded, "Why don't you ever stop? It's not fair to look at people and then not stop!"
- Earl looked at my face. "I don't know, Virgil," he said. "I think the reason is that I don't want anyone in the car. We never have any time alone and I like it with just the two of us."

- "But you're getting so tired." It was no use, though. My reply was a weak reflex and it could not control the surprise I felt at his unexpected tenderness nor could it conceal the tears in my eyes. He wanted us to be alone! How wonderful, yet how disturbing, and how unprepared I was to hear it.
- We pulled in for the night some twelve hours after leaving Chicago and checked into a nameless motel. We stayed in a cabin that smelled like a brand new shoe. It had two double beds, soft as éclairs, pink walls, sanitized glasses, and a TV that received but one channel and even that rather ectoplasmically. It was in this motel that my father and I spent one of the best nights of our lives. He watched television with me for a while and then he cadged a deck of cards from the motel manager and did card tricks for me—a talent I had no idea he possessed.
- Then my father and I played casino and were so entertained and comforted by the game that we took the deck with us when we drove for a late night snack of ham and eggs. The sky was riddled with stars and before we went to bed we turned out all the lights in our room and looked out the window. I thought about my mother because I always imagined her beneath a sky bright and thick with stars, planets, comets, and moons. Earl had a soft, distant expression on his face and I was certain his thoughts moved in the same direction as mine, and for that moment our loss combined with our blood, and he was my friend. We whispered to each other in bed, like boys who fear they might be overheard. He told me what he remembered of New York, a city which, in his mind, held hope itself in its huge electronic fist. I don't remember what I said, but I was sure he was listening, and certain that, perhaps for the very first time, I truly interested him.

13. The passage is primarily concerned with

- (A) presenting a portrait of an era
- (B) reflecting on a difficult decision
- (C) describing a memorable experience
- (D) acknowledging a lifelong regret
- (E) articulating a childhood grievance

14. Virgil suggests that Earl's explanation in lines 2-6 ("This . . . concrete") should be viewed as

- (A) narrow-minded
- (B) defensible
- (C) incomplete
- (D) commonplace
- (E) amusing



15. Which would best serve as an additional example of the "reasons" (line 7) ?
- (A) Faster travel
 - (B) Scenic views
 - (C) Less pollution
 - (D) Fewer cities
 - (E) Inexpensive motels
16. The reference to "cards" (line 15) serves to suggest
- (A) a foolish gamble
 - (B) a continuous sequence
 - (C) the randomness of fate
 - (D) the deceptiveness of appearances
 - (E) the importance of luck
17. In line 17, Earl is compared to a "cowboy" in order to emphasize his
- (A) wild exuberance
 - (B) rugged appearance
 - (C) quest for freedom
 - (D) mistrust of technology
 - (E) love of the outdoors
18. The reference to "convicts escaping" (line 24) is primarily used to express a sense of
- (A) grim pursuit
 - (B) stealthy progress
 - (C) inevitable punishment
 - (D) unaccustomed freedom
 - (E) unspoken regret
19. Earl's remark in line 32 ("No . . . servicemen' ") strikes Virgil as being
- (A) disloyal
 - (B) shrewd
 - (C) confusing
 - (D) humorous
 - (E) irrational
20. In line 43, "fair" most nearly means
- (A) right
 - (B) attractive
 - (C) impartial
 - (D) adequate
 - (E) moderate
21. The final paragraph primarily suggests a growing sense of
- (A) companionship
 - (B) responsibility
 - (C) tolerance
 - (D) upheaval
 - (E) danger
22. Virgil's reference to a "brand new shoe" (line 57) does which of the following?
- (A) Offers a surprising discovery
 - (B) Introduces a recurrent symbol
 - (C) Indicates a feeling of discomfort
 - (D) Evokes a sensory impression
 - (E) Implies a sense of regret
23. In line 72, "soft" most nearly means
- (A) comfortable
 - (B) lenient
 - (C) impressionable
 - (D) weak
 - (E) tender



24. The mood in lines 70-75 ("I thought . . . friend") is best characterized as one of

- (A) lightheartedness
- (B) apprehension
- (C) isolation
- (D) despair
- (E) wistfulness

25. The passage suggests that Virgil is most impressed by which aspect of the day's events?

- (A) The revelation of his father's affection for him
- (B) The celebratory nature of the car trip
- (C) The discovery of his father's philosophical beliefs
- (D) The excitement of seeing new places and trying new foods
- (E) The vastness and beauty of the night sky

STOP

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



Questions 10-15 are based on the following passage.

The following is adapted from a 1992 autobiography by an African American writer traveling to Africa for the first time.

I walk through the center of Tunis and I look into the eyes of the strangers I pass. The face of Africa here has Arab eyes. All the eyes are brown, a deep rich and dark brown, eyes that speak to me but in a language I do not understand. Every woman sneaks a glance; every man stares. I am more than stranger, I am also strange.

I am tall and I am very dark. I have not shaved my beard and there is not another beard in this city. I wear clothes that set me apart and attract attention: a bright red T-shirt with long sleeves, baggy pants held up by blue suspenders, hiking boots that are heavy and durable. From a belt loop on my trousers hangs a watch I refuse to wear. My clothes are not African clothes.

By journey's end, I will not be the man I am today. Africa will have changed me in ways I cannot predict, perhaps in ways profound, perhaps only superficial. Perhaps I will lose a few pounds, perhaps the arrogance in my walk. Perhaps my walk, even my way of looking at things, will be a little more African. But for now, I am different. I am not one of these Africans. Not yet, and may not ever be. The color of my skin says that I could be Algerian or Senegalese or from Chad. But the Tunisian eyes that watch me can see that I at least am not from Tunisia. They know I am not one of them, but they do not know where I come from.

The whole of Africa lies before me and I have no plan, no itinerary. It might be better if I were searching for some three-legged zebra, for at least I would know when I found it. Without a plan, without a goal, a traveler is at the mercy of the road. Traveling overland is not like traveling on a river. The river has a beginning. It has an end. The path, though not straight, is defined. Not so traveling overland. The prospects, like the possibilities and promises of life, are endless and varied and arbitrary.

An old man asks, "Where in Tunisia do you want to go?"

I have no idea. It isn't always the getting there that is important. Sometimes it's just the going.

"Go to Sousse," he tells me. "Go to Sfax."

I have been feeling my way through town, searching the brown eyes of Arabs for some sign of recognition. Somewhere on this continent there is a man who looks like me. When I find him, our hearts will shake hands.

10. The primary purpose of the passage is to

- (A) relate a traveler's experience of feeling foreign
- (B) illustrate certain aspects of Tunisian culture
- (C) contrast two different cultures
- (D) describe a mysterious set of circumstances
- (E) argue that traveling alone is ultimately unrewarding

11. The statement in line 6 ("I am more . . . strange") primarily refers to the

- (A) author's inability to understand the local language
- (B) difference between the author's appearance and that of native Tunisians
- (C) changes that Africa will make in the author's behavior
- (D) aimlessness of the author's itinerary
- (E) author's search for someone from his own country

12. Word repetition is used in lines 15-19 primarily to

- (A) stress the likelihood of an encounter
- (B) create a sense of continuous confusion
- (C) demonstrate a breadth of knowledge
- (D) emphasize the uncertainty of an outcome
- (E) illustrate a decision-making process

13. In lines 14-20 ("By . . . different"), the author implies that, compared to himself, Africans typically

- (A) are less conscious of people's nationalities
- (B) travel with less advance planning
- (C) walk more modestly
- (D) dress more colorfully
- (E) speak more effusively



Questions 16-24 are based on the following passage.

This passage is adapted from a 1983 book based on interviews with women in the sciences.

Line Laboratory research is at the heart of scientific life;
5 scientists' real work consists of testing out ideas that
come to them as they ponder the mysteries of the world
around them. A natural biologist walks through a city park
or across a suburban lawn and is half-consciously
wondering: Why two leaves instead of three? Why pink
flowers instead of white? Such rumination goes on without
end in a scientist's mind, a continuous accompaniment to
the rhythm of daily life. Whatever a scientist is doing—
10 reading, cooking, talking, playing—science thoughts are
always there at the edge of the mind. They are the way the
world is taken in; all that is seen is filtered through an ever-
present scientific musing.

How a would-be scientist decides on a discipline, settles
15 on a problem, and goes to work is often as much a matter of
chance as it is of temperament. One can as easily become
a chemist or a neuroanatomist because of where one went
to school or whose influence one happened to come under
as because of a compelling early response to the logic of
20 chemistry or the beauty of the human nervous system.
No matter. Once the discipline is established, the problem
chosen, and the scientist immersed in the work, he or she
becomes as persuaded as need be of the centrality and
urgency of the particular work being done. Such adaptive
25 myopia is necessary in science because the grinding,
repetitive minuteness of daily laboratory work is so time-
consuming (for weeks, months, even years at a time) that,
often, even to remember the original impetus for the work
is a psychological trick of the highest order. To stimulate
30 the memory back into existence with fair regularity, one
must believe in the fundamental importance of what one
is doing. Those who do are the most energetic, vital,
exciting, and excited of scientists.

Carol Steiner, a geneticist, comes up with a fine
35 metaphor for how to make a working proposition of
scientific mystery. "Imagine," she says, "that you have
a jigsaw puzzle with no picture printed on it. All you have
are pieces you haven't a clue how to make sense of. The
pieces are your separate scientific observations. Here's
40 an example of how you might try to get a handle on
the puzzle:

"We have a microorganism with a secretory structure
on one end. We know this structure is always on the same
place in the cell and that the position of this structure is
45 inherited. The question we want to answer is, how can
inherited information be translated into positional
information? Why in that one place and no place else?
Is the genetic code involved, and if so, how? The answer
will tell us how the genes work in concert with the rest of
50 the cell to put things where they belong.

"In order to gather pieces of the jigsaw puzzle (that is,
pieces of information), we poke at the cell. We change it
a little . . . A specific mutation that altered the membrane
structure of the cell was found to turn off the synthesis
55 of the secretory structure. This was a piece of the jigsaw
puzzle. But just one piece. Because we hadn't a clue as
to how this *had* happened or *could* happen." Steiner
indicates that there will be many further questions that will
suggest experiments whose results may allow us to print
60 pictures on the pieces of the jigsaw puzzle: "Not put the
puzzle together, mind you. But help us think about what
the picture will ultimately look like."

The realized picture on Carol Steiner's jigsaw puzzle is
the map of gene expression laid out clearly with all roads,
65 pathways, connecting signal points, and railway junctions
marked so that any tourist can find his or her way in this
beautiful country, which is confusing only when one is
wandering about in ignorance—as we all are now—with
a highly incomplete map.

16. The primary purpose of the passage is to convey information about the
 - (A) occupational hazards encountered by laboratory workers
 - (B) problem-solving skills taught by chemists and neuroanatomists
 - (C) puzzling nature of everyday phenomena
 - (D) professional collaboration necessary for geneticists
 - (E) thought processes distinctive to research scientists
17. In line 1, the author characterizes "Laboratory research" as something that is
 - (A) fundamental
 - (B) ambitious
 - (C) challenging
 - (D) time-consuming
 - (E) well regarded
18. The author indicates that the process of "rumination" (line 7) is
 - (A) subjective
 - (B) vexatious
 - (C) incessant
 - (D) innovative
 - (E) futile



19. In line 21, "No matter" dismisses as irrelevant the means by which
- (A) science students learn research skills
 - (B) scientists choose research specialties
 - (C) laboratory reports explain methodologies
 - (D) scientific knowledge is perceived by the public
 - (E) researchers make use of laboratory workers
20. In line 29, "trick" most nearly means
- (A) ruse
 - (B) feat
 - (C) prank
 - (D) illusion
 - (E) peculiarity
21. The "memory" referred to in line 30 is that of the
- (A) initial fascination with a scientific goal
 - (B) steps required to establish scientific truth
 - (C) data collection process used in the experiment
 - (D) day-to-day repetitiveness of the work
 - (E) relevant training in the academic field
22. In lines 32-33 ("Those . . . scientists"), the author's feeling toward certain scientists is best described as one of
- (A) astonishment
 - (B) appreciation
 - (C) perplexity
 - (D) envy
 - (E) reproach
23. The passage implies that the discovery of the "specific mutation" (line 53) was most significant for
- (A) demonstrating the random nature of scientific breakthroughs
 - (B) proving that multiple factors affect microorganisms
 - (C) providing a clue to the solution of a research question
 - (D) justifying the expense of a major research project
 - (E) revealing a flaw in a scientific methodology
24. Which best describes the function of Steiner's account of her research in the overall development of the passage?
- (A) A digression from the author's central argument
 - (B) A refutation of criticisms raised earlier in the passage
 - (C) A recapitulation of points made in the opening paragraph
 - (D) An observation that challenges previous assertions
 - (E) An example that expands upon preceding generalizations

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Correct Answers and Difficulty Levels
Form Codes AEGA, BWGA, CFGA

Critical Reading

Section 2			Section 4			Section 9			
COR. DIFF. ANS. LEV.			COR. DIFF. ANS. LEV.			COR. DIFF. ANS. LEV.			
1. D	3	14. C	5	1. C	3	13. C	3	10. E	2
2. C	3	15. E	3	2. D	3	14. A	2	11. B	2
3. C	3	16. B	2	3. C	3	15. C	1	12. E	2
4. C	3	17. A	1	4. A	4	16. E	3	13. D	3
5. A	4	18. D	2	5. B	5	17. A	3	14. A	2
6. E	4	19. A	4	6. C	2	18. C	4	15. D	3
7. D	5	20. A	1	7. D	4	19. B	3	16. B	2
8. C	5	21. A	1	8. A	1	20. B	4	17. E	3
9. B	3	22. D	2	9. D	3	21. A	3	18. D	5
10. E	4	23. E	3	10. A	2	22. B	3		
11. A	3	24. E	5	11. B	1	23. C	4		
12. B	5	25. A	2	12. D	1	24. E	4		
13. C	1								
Number correct			Number correct			Number correct			
Number incorrect			Number incorrect			Number incorrect			

Mathematics

Section 3				Section 5				Section 8					
Multiple-Choice Questions			Student-Produced Response Questions	COR. DIFF. ANS. LEV.		COR. DIFF. ANS. LEV.		COR. DIFF. ANS. LEV.		COR. DIFF. ANS. LEV.			
	COR. DIFF. ANS. LEV.		COR. ANS.	DIFF. LEV.									
1. E	1	9. 15/2 or 7.5		1	1. C	1	11. C	4	1. A	1	9. C	3	
2. C	2	10. 8		2	2. D	1	12. D	3	2. C	2	10. D	3	
3. E	2	11. 80		2	3. A	1	13. A	3	3. E	2	11. C	3	
4. A	3	12. 140		2	4. B	2	14. B	4	4. D	1	12. E	3	
5. B	2	13. 3250		2	5. D	1	15. D	4	5. B	2	13. D	3	
6. B	2	14. $2 < x < 3$		2	6. C	1	16. D	4	6. A	3	14. B	4	
7. C	4	15. 72		3	7. A	2	17. E	4	7. C	2	15. A	4	
8. A	5	16. 25		4	8. B	3	18. A	4	8. A	2	16. A	4	
		17. 135		4	9. E	3	19. C	5					
		18. 1/9 or .111		4	10. D	3	20. C	5					
Number correct					Number correct					Number correct			
Number incorrect					Number incorrect					Number incorrect			

Writing Multiple-Choice

Section 7

COR. DIFF. ANS. LEV.		COR. DIFF. ANS. LEV.		COR. DIFF. ANS. LEV.		COR. DIFF. ANS. LEV.	
1. E 1	10. E 4	19. E 2	28. C 5	1. A 1	6. E 2	11. D 4	
2. E 1	11. C 5	20. D 3	29. C 5	2. B 1	7. B 3	12. C 3	
3. D 1	12. C 1	21. E 2	30. E 2	3. B 1	8. D 3	13. D 5	
4. D 3	13. D 1	22. B 3	31. E 3	4. E 1	9. E 3	14. E 5	
5. A 3	14. C 1	23. A 3	32. C 2	5. A 1	10. D 3		
6. D 3	15. C 2	24. C 3	33. D 3				
7. B 3	16. B 2	25. D 3	34. C 3				
8. A 3	17. E 1	26. C 4	35. D 3				
9. D 3	18. B 2	27. D 4					

Number correct

Number incorrect

Section 10

COR. DIFF. ANS. LEV.		COR. DIFF. ANS. LEV.		COR. DIFF. ANS. LEV.	
1. A 1	6. E 2	11. D 4			
2. B 1	7. B 3	12. C 3			
3. B 1	8. D 3	13. D 5			
4. E 1	9. E 3	14. E 5			
5. A 1	10. D 3				

Number correct

Number incorrect

NOTE: Difficulty levels are estimates of question difficulty for a reference group of college-bound seniors. Difficulty levels range from 1 (easiest) to 5 (hardest).