

Paragraph/Instructions

To write well you have to be able to write clearly and logically, and you cannot do this unless you can think clearly and logically. If you cannot do this yet you should train yourself to do it by taking particular problems and following them through, point by point, to a solution, without avoiding any difficulties that you meet.

At first you find clear, step-by-step thought very difficult. You may find that your mind is not able to concentrate. Several unconnected ideas may occur together. But practice will improve your ability to concentrate on a single idea and think about it clearly and logically. In order to increase your vocabulary and to improve your style, you should read widely and use a good dictionary to help you find the exact meanings and correct usages of words. Always remember that regular and frequent practice is necessary if you want to learn to write well. It is no good waiting until you have an inspiration before you write. Even with the most famous writers, inspiration is rare. Someone said that writing is ninety-nine per cent hard work and one per cent inspiration, so the sooner you get into the habit of disciplining yourself to write, the better.

1. To write well, a person must train himself in
 - A. dealing with a difficult problem
 - B. not leaving anything out
 - C. thinking clearly and logically
 - D. following a step-by-step approach

1. (c)
2. Initially it is difficult to write because
 - A. a good dictionary is not used
 - B. ideas occur without any sequence
 - C. aids to correct writing are not known
 - D. exact usages of words are not known

2. (b)
- The author mentions that initially it is difficult to write because the mind is not able to concentrate due to occurrence of unconnected ideas altogether.
3. According to the passage, writing style can be improved by
 - A. thinking logically
 - B. writing clearly
 - C. undergoing training
 - D. reading widely

3. (d)
- The author mentions that “In order to increase your vocabulary and to improve your style, you should read widely and use a good dictionary to help you find the exact meanings and correct usages of words”.
4. Famous writers have achieved success by

- A. using their linguistic resources properly
 - B. disciplining their skill
 - C. following only one idea
 - D. waiting for inspiration
4. (b)

Refer to the last paragraph where the author says that “Even with the most famous writers, inspiration is rare. Someone said that writing is ninety-nine per cent hard work and one per cent inspiration, so the sooner you get into the habit of disciplining yourself to write, the better.”

5. All the following words mean 'exact' except
 - A. precise
 - B. accurate
 - C. very
 - D. erect
5. (d)

Paragraph/Instructions

The 32,000-word novella *The Time Machine* by H.G. Wells, published in 1895, is generally credited with popularizing the idea of time travel by means of a time machine, a vehicle which takes the occupant backward or forward in time. Dozens of sequels and adaptations over the years have further promoted the notion. Indeed, Albert Einstein’s Theory of Special Relativity lays the foundation for the possibility of time travel. So far, no one has demonstrated the ability to travel in time. However, time machines have been constructed, and they do allow glimpses into the past.

The most efficacious time machine currently in existence is the Hubble Telescope, named after the American astronomer Edwin P. Hubble. Its capability to locate distant astronomical targets and lock in on them, permitting their faint light to aggregate on its detectors, allows it to peer far into the past. Light travels 186,000 miles per second. The Hubble Telescope has looked back in time at 10,000 galaxies whose light left them billions of years ago. Therefore, utilizing the telescope as time machine, astronomers are able to contemplate galaxies as they were eons ago.

Although the telescope was launched into space in 1990, its inception was almost a half-century earlier as astronomer Lyman Spitzer, Jr. mulled over the possibility of a large space telescope in a 1946 report, “Astronomical Advantages of an Extra-Terrestrial Observatory.” Because the earth is bathed in its constantly churning atmosphere, earth-based telescopes cannot penetrate deep space; the atmosphere distorts the view. Telescopes were constructed on mountains, but there was still no way to wholly escape the effects of the layers of gases enveloping the earth.

During the 1960s, the Space Race between the then-Soviet Union and the United States was accelerating. The National Aeronautics and Space Administration (NASA) was established. Funds for space endeavors were abundant, and plans for a large space telescope, by then designated the LST, were underway. The designs called for a 2.4-meter primary telescope mirror which could be transported into space by one of NASA's rockets. According to National Geographic's *Imaging Space and Time*, the resolving power of the deep space telescope would be "equivalent to being able to distinguish the left and right headlights of a car in California seen from New York, or features less than 1/30,000th the size of the full moon. This was at least a tenfold increase over the atmospheric limit."

One of the primary challenges involved in successfully transporting the telescope into space was protecting the mirror from the jarring vibrations that occur during launch. It was crucial that the mirror be able to withstand the shuttle's **vicissitudes** as well as the volatile atmospheric conditions found in space. If not, the precise shape of the mirror could be compromised, and its imaging capability significantly weakened.

After the telescope had been launched, astronomers subsequently realized that the primary mirror had not been ground correctly. A lens in the test instrument was about one millimeter askew, which is large by optical standards. In 1993, space-walking astronauts installed corrective lenses which improved the eyesight of the Hubble. In 2009, the corrective lenses themselves were replaced with a supersensitive spectrograph with built-in corrective lenses. The new spectrograph is expected to provide insight into the origins of stars and galaxies.

The successor to Hubble, the James Webb Space Telescope, is expected to be launched in 2014. It will observe only in infrared, so it will complement the Hubble Telescope, which observes in the visible and ultraviolet light ranges.

Hubble currently has the capability to view galaxies that were formed 13.7 billion years ago, long before humans existed, in an area called the Hubble Ultra Deep Field. Astronomers aspire to see beyond the Hubble Ultra Deep Field to a time that is devoid of galaxies, a time before galaxies had formed. If H.G. Wells was onto something in his novella, that time may be close at hand. As one of the characters in the popular work asked, "If Time is really only a fourth dimension of Space, why is it, and why has it always been, regarded as something different? And why cannot we move in Time as we move about in the other dimensions of Space?"

Less than a decade after Wells' novella, Einstein's Special Theory Relativity seemed to concur with Wells' character by proposing that traveling through space at the speed of light would alter time by causing it to dilate, raising the possibility of not

merely glimpsing the past, but perhaps traveling to it.

6. According to the passage, which of the following statements is/are true of the Hubble Telescope?
 - (I) It is unable to observe light on the infrared part of the spectrum.
 - (II) It will be replaced by the James Webb Space Telescope in 2014.
 - (III) It was initially constructed in 1946, but not launched until 1990.
 - A. (I) only
 - B. (II) only
 - C. (III) only
 - D. (I) and (II) only
6. (a) Statement (I) is true as It is unable to observe light on the infrared part of the spectrum. It will be replaced by the James Webb Space Telescope in 2014. Statement (II) is incorrect as It will not be replaced by the James Webb Space Telescope in 2014; it will be complemented by it. Statement (III) is also incorrect as It was initially constructed as part of the Space Race, but not launched until 1990.
7. According to the passage, who had the idea for the Hubble Telescope?
 - A. H.G. Wells
 - B. Albert Einstein
 - C. Lyman Spitzer, Jr
 - D. Edwin P. Hubble
7. (c) Lyman Spitzer, Jr. wrote a 1946 paper about a space-based observatory and hence he had the idea for the Hubble Telescope. Options (A), (B) and (D) are incorrect. H.G. Wells wrote a novella about time travel. Albert Einstein theorized about space and time. The Hubble Telescope was named after Edwin P. Hubble.
8. As per the passage, vicissitudes most closely means
 - A. long delays which may compromise the shuttle launch
 - B. toxic emissions which may cause corrosion around the mirror
 - C. sound waves which may penetrate the mirror
 - D. shaking and quivering which may cause changes in the mirror
8. (d) Vicissitudes are jarring changes or difficulties. Therefore, shaking and quivering which may cause changes in the mirror is the best answer. The passage states that, "One of the primary challenges involved in successfully transporting the telescope into space was protecting the mirror from the jarring vibrations that occur during launch," and if this was not accomplished, then, "The precise shape of the mirror could be compromised, and its imaging capability significantly weakened."
9. In the context of the passage, which of the following best articulates the author's opinion of the inception of the Hubble?
 - A. It was a pipedream with little imminent chance of success.
 - B. It was a literary vehicle with little basis in reality.



- C. It was an emergency response to the quickening Space Race.
- D. It was based on a scientific proposition which was not proven.
9. (a)
Astronomer Lyman Spitzer, Jr. mulled over the possibility of a large space telescope in a 1946 report, as explained in the passage. He did not plan the observatory. It was a pipedream with little imminent chance of success. Hence, option (A) is the correct answer. Option (B) is incorrect as it was a literary vehicle at the time of H.G. Wells, as shown in first para. By the 1940s, it was a possibility. It was no an emergency response to the quickening Space Race but rather it was built during the Space Race because money was available. This makes option (C) incorrect. Option (D) is also incorrect as it was based on scientific facts, as Spitzer explained in his 1946 report.
10. The primary purpose of the passage is to
- draw a comparison between H.G. Wells' notion of time travel with Albert Einstein's Special Theory of Relativity.
 - discuss the construction of the Hubble Space Telescope as a tool for exploring deep space.
 - examine difficulties which precipitated construction of corrective lenses for the Hubble's primary mirror.
 - describe the circumstances which underlay the mid-century national drive toward a large space-based observatory.
10. (b)
The passage discusses the construction of the Hubble Space Telescope as a tool for exploring deep space, such as the Hubble Ultra Deep Field and beyond.
11. It can be inferred that the author regards time travel as
- an effective hook for a work of fiction, but an improbability in the reality of astronomy.
 - an interesting literary notion, but proven to be impossible by Einstein's Special Theory.
 - a persuasive topic in fiction, as well as a hypothetical possibility in light of Einstein's Special Theory.
 - ridiculous idea whose time has come and gone, as well as an astronomical improbability.
11. (c)
The author regards time travel to be a persuasive topic in fiction, as well as a hypothetical possibility in light of Einstein's Special Theory.
12. It can be inferred from the passage that scientists believe that time is
- constant.
 - unidirectional.
 - a spatial dimension.
 - an impenetrable mystery.
12. (c)
It is thought to be some sort of spatial dimension, alluded to. Hence, option (C) is the correct answer. Einstein's Special Theory suggests that time can be manipulated through speed of travel, so time is not a

constant. Since time might be manipulated through speed of travel, it is not necessarily considered unidirectional. Einstein's Special Theory suggests that it is not an impenetrable mystery. Therefore, all (A), (B) and (D) are incorrect.

Paragraph/Instructions

The postmaster first took up his duties in the village of Ulapur. Though the village was a small one, there was an indigo factory nearby and the proprietor, an Englishman, had managed to get a post office established.

Our postmaster belonged to Calcutta. He felt like a fish out of water in this remote village. His office and living-room were in a dark thatched shed, not far from a green, slimy pond, surrounded on all sides by a dense growth.

The men employed in the indigo factory had no leisure, moreover, they were hardly desirable companions for decent folk. Nor is a Calcutta boy an adept in the art of associating with others. Among strangers, he appears either proud or ill at ease. At any rate the postmaster had but little company, nor had he much to do.

At times he tried his hand at writing a verse or two. That the movement of the leaves and clouds of the sky were enough to fill life with joy - such were the sentiments to which he sought to give expression. But God knows that the poor fellow would have felt it as the gift of a new life, if some genie of the Arabian Nights had in one night swept away the trees, leaves and all, and replaced them with a macadamized road, hiding the clouds from view with rows of tall houses.

13. At times, the postmaster wrote
- Poems
 - Novels
 - Short Stories
 - Dramas
13. (a)
Refer to the third paragraph where the author says "At times he tried his hand at writing a verse or two."
14. What does the phrase "little company" in the passage mean?
- Bad Friendship
 - Hardly any friends
 - Small business
 - Business-like
14. (b)
15. The postmaster wrote on the
- beauty of nature
 - beauty of himself
 - beauty of the weather
 - beauty of the village
15. (a)
Refer to the line where the author mentions "That the movement of the leaves and clouds of the sky were enough to fill life with joy - such were the sentiments to which he sought to give expression."
16. The word 'genie' means
- monster
 - spirit
 - ghost
 - soul
16. (b)
The 'genie' of the Arabian Nights was a spirit who fulfilled his master's wishes.
17. Which factory was situated near the village Ulapur?

- A. Chemical
C. Clothes
- B. Rubber
D. Dyes

17. (d)

The first paragraph mentions that there was a indigo factory nearby the village.

Paragraph/Instructions

Imagine for a moment that you are the manager of a day-care centre. You have a clearly stated policy that children are supposed to be picked up by 4 p.m. But very often parents are late. The result: at day's end, you have some anxious children and at least one teacher who must wait around for the parents to arrive. What to do? A pair of economists who heard of this dilemma, it turned out to be a rather common one, offered a solution, fine the tardy parents. Why, after all, should the day-care centre take care of these kids for free? The economists decided to test their solution by conducting a study of ten day-care centres in Haifa, Israel. The study lasted twenty weeks, but the fine was not introduced immediately. For the first four weeks, the economists simply kept track of the number of parents who came late; there were, on average, eight late pickups per week in the day-care centre. In the fifth week, the fine was enacted. It was announced that any parent arriving more than ten minutes late would pay \$3 per child for each incident. The fee would be added to the parents' monthly bill, which was roughly \$380. After the fine was enacted, the number of late pickups promptly went up. Before long there were twenty late pickups per week, more than double the original average. The incentive had plainly backfired. Economics is, at root, the study of incentives, how people get what they want, or need, especially when other people want or need the same thing.

Economists love incentives. They love to dream them up and enact them, study them and tinker with them. The typical economist believes the world has not yet invented a problem that he cannot fix if given a free hand to design the proper incentive scheme. His solution may not always be pretty, it may involve coercion or exorbitant penalties or the violation of civil liberties but the original problem, rest assured, will be fixed. An incentive is a bullet, a lever, a key, an often tiny object with astonishing power to change a situation. We all learn to respond to incentives, negative and positive, from the outset of life. If you toddle over to the hot stove and touch it, you burn a finger. But if you bring home straight A's from school, you get a new bike. If you break curfew, you get grounded. But if you ace your SAT's, you get to go to a good college. If you flunk out of law school, you have to go to work at your father's insurance company. But if you perform so well that a rival company comes calling, you become a vice president and no longer have to work for your father. If you become so excited about your new vice president job that you drive home at eighty mph, you get pulled over by the police and fined \$100. But if you hit your sales projections and collect a year-end

bonus, you not only aren't worried about the \$100 ticket but can also afford to buy that Viking range you've always wanted and on which your toddler can now burn her own finger. An incentive is simply a means of urging people to do more of a good thing and less of a bad thing.

18. What is the primary function of the second paragraph?

- A. To show the ubiquity of incentives in economics and beyond.
B. To argue against the relevance of incentives in economics.
C. To moot the ineptitude of the traditional economists.
D. To illustrate the problem-solving ability of the economics.

18. (a)

The last paragraph is loaded with examples that show the prevalence of incentives in Economics and day to day life. Option (B) is against the main idea. Option (C) and option (D) are not covered in the passage.

19. What does the author believe about the role played by the typical economists?

- A. Their incentive schemes fail to solve the real problems.
B. They are involved in coercion and violation of civil liberties.
C. They wield astonishing power to change a situation.
D. In their zealotry to solve the main problem, they may create more problems.

19. (d)

Look at the line – 'it may involve coercion or exorbitant penalties'. It indicates the answer to the question. Option (A) is not supported by the passage. Option (B) is wrong. Option (C) is true for incentives, but not the answer to this question. Hence option (D) is the answer.

20. Why does the author mention the day-care centre case in the first paragraph?

- A. To prove the futility of financial incentive in economics.
B. To discuss a dilemma faced by a pair of economists.
C. To illustrate the primary goal of economics.
D. To illustrate the role of incentives in economics.

20. (d)

Option (D) is the correct answer. In the context of the first paragraph, the idea of mentioning the case is to illustrate the role of incentives in economics, notwithstanding the failure to use the right incentive in this particular case; Option (A) is against the main idea and option (B) does not explain the reason. Option (C) is out of scope of the passage.

21. What was the assumption of the economists mentioned in the first paragraph who proposed to fine the tardy parents?



- A. Imposing fine is the best possible way to modify the behaviour of late coming parents.
 - B. Imposing fine would be profitable for the business in the long run.
 - C. Not fining the parents would ruin the day-centre business.
 - D. Imposing fine can be a powerful economic incentive.
21. (a)

An assumption is the missing piece of an argument, which is unstated. In this particular case some parents were coming late for pickup and the economists suggested imposing fine on them. Obviously, their assumption must have been imposing fine is the best way to correct this behaviour. Option (B) weakens the point, option (C) reads too much and is far-fetched, and option (D) is not possible because it uses 'can be' which shows a possibility. Hence option (A) is the answer.

Paragraph/Instructions

More than 50 years after its delivery, Dr Martin Luther King Junior's famous refrain of 'I have a dream' remains a cry for freedom that has been adopted by activists the world over, from Tiananmen Square to the West Bank. But in order to fully appreciate the magnitude of King's 1963 speech at the March on Washington, we must first understand the context of its delivery. King spoke of an America whose black population was 'sadly crippled by the manacles of segregation and the chains of discrimination.' That he framed his words with images of slavery was no accident. President Abraham Lincoln had issued the Emancipation Proclamation a century prior, but the Jim Crow laws, which mandated racial segregation, were still in full force throughout the South. Just 10 weeks before King's speech, Governor George Wallace had attempted to obstruct two African American students from enrolling at the University of Alabama; President John F. Kennedy had to send the National Guard to make the governor stand down. Meanwhile, the civil-rights movement was blossoming across the country. Peaceful sit-ins and boycotts—à la Rosa Parks—had yielded to violent action by 1963, most notably in the Birmingham riot of May. As King noted in his speech, these 'whirlwinds of revolt' as characterised by riots and militant demonstrations, blustered through 100 towns and cities nationwide.

The environment was ripe for change. To this end, King helped organise an ambitious political rally in the nation's capital in August, along with five other prominent civil-rights leaders. On August 28, roughly 250,000 protesters gathered in front of the Lincoln Memorial. By late afternoon, the marchers had begun to fade in the oppressive summer heat. Among them was the author Norman Mailer, who later recalled 'a little of the muted disappointment which attacks the crowd in the seventh inning of a very important baseball game when the score has

gone eleven-to-three.' Many were already leaving by the time King was slated to speak.

The months leading up to August 28, 1963, had been tumultuous for King. Not only had he been the victim of multiple death threats and attempts on his life, but he had also attracted fierce opposition from within the civil-rights movement itself. Malcolm X, a leader of the Nation of Islam, had disparagingly dubbed the march the 'Farce on Washington.' King had also been arrested, for the 13th time, during the Birmingham campaign only a few months earlier. Nevertheless, he now found himself at the wheel of a massive vehicle for change; almost a quarter of a million activists anxiously waited for him to begin his address.

22. What is the purpose of the first sentence?
- A. To throw light on the magnetic personality of Martin Luther King.
 - B. To prove that King's speech is relevant even today.
 - C. To highlight the worldwide popularity of King's speech.
 - D. To fully appreciate the magnitude of King's 1963 speech.
22. (c)
- Option (C) is the answer. The first sentence says it has been adopted by the activists all over the world. (B) is not the choice as it doesn't prove anything. (A) is not correct as it is the speech not the person who is in focus. (D) is not correct as the next sentence implies that it needs to be done.
23. What can be inferred about the emancipation proclamation by President Abraham Lincoln?
- A. It was against racial segregation.
 - B. It was not framed with words loaded with images of slavery.
 - C. It led to the whirlwinds of revolt throughout the country.
 - D. It led to the blossoming of civil rights movement throughout the country.
23. (a)
- Option (A) is the answer, but the Jim Crow laws, which mandated racial segregation, (B) contradicts the passage. Options (C) and (D) are true for Martin Luther King and not for Abraham Lincoln.
24. What is the meaning of the phrase 'the environment was ripe for change'?
- A. Martin Luther King had managed to mobilise the disgruntled African American populace.
 - B. The blacks were largely united against segregation and discrimination against them.
 - C. The civil rights movement was facing the teething troubles.
 - D. The curse of slavery was a thing of the past.
24. (b)
- The blacks were united to fight against discrimination through boycotts, riots and demonstration. Option (A) is not supported, nor were the people disgruntled. Option (C) and option (D) are

factually incorrect according to the passage. Hence option (B) is the answer.

25. What is the primary purpose of the passage?
- A. To fully appreciate the impact of King's 1963 speech.
 - B. To discuss the blossoming of civil rights movement.
 - C. To discuss the significance of King's historic speech.
 - D. To understand the context in which King's iconic speech took place.

25. (d)

The second sentence, 'we must first understand the context of its delivery.' Options (A) and (C) are incorrect as the passage discusses neither the impact nor the significance of King's speech. Option (B) is a part of the discussion so partially correct, not the primary purpose. Hence option (D) is the answer.

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