

Bulls Eye Mock Sample Paper

Test Booklet No.

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Please read the Instructions for the test carefully

GENERAL INSTRUCTIONS

1. DO NOT OPEN THE SEAL OF THIS BOOKLET. WAIT FOR THE SIGNAL TO START.
2. Use only a HB pencil to fill in the Test Booklet and the Answer sheet.
3. Keep only the Admit Card, pencil, eraser and sharpener with you. DO NOT KEEP with you books, rulers, slide rules, drawing instruments, calculators, (including watch calculators), cellular phones, pagers, digital or any other devices or loose paper. These should be left outside the room.
4. Ensure that your personal data has been correctly entered in the Answer sheet on both the sides.

AT THE START OF THE TEST

5. As soon as the signal to start is given, open the Booklet.
6. This Test Booklet contains a total of 20 pages. You will get the first seven pages in the first section and the remaining pages in the second section. Immediately after opening the Test Booklet, verify that all the pages are printed properly and are in order.

HOW TO ANSWER

7. Directions for answering the questions are given before each group of questions. Read these directions carefully and answer the questions by darkening the appropriate circles on the Answer Sheet. There is only one correct answer to each question.
8. Each correct question carries 3 marks. Wrong answers carry proportionate, 1/3rd negative marking i.e. one mark will be deducted for every wrong answer.
9. Do your rough work only on the Test Booklet and NOT on the Answer Sheet.
10. Follow the instructions of the invigilator. Candidates found violating the instructions will be disqualified.

AFTER THE TEST

11. At the end of the test remain seated till the invigilator collects your Application Form-cum-Answer sheet from your seats. Do not leave the hall till the invigilator announces, "You may leave now." The invigilator will make the announcement only after collecting the Application Form-cum-Answer sheets from every candidate in the room.
12. You may retain the test booklet with you.



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Section I: Quant & DI

1. The daily wages of Kalu and Bawa and also of Bawa and Lalit are in the ratio 2 : 3 each. A third of Lalit's wages exceeds half of Kalu's wages by Rs.80. Each of them spends the same amount of money and their savings are in the ratio 1 : 9 : 21. What is their combined expenditure?
 1. Rs.300
 2. Rs.450
 3. Rs.900
 4. Rs.280
2. The number of ordered triplets (k, l, m) such that k, l and m are distinct prime numbers and $kl + lm + km = 120$ is
 1. 9
 2. 0
 3. 3
 4. Infinite
3. Which of the following is true?
 1. $(150!)^2 < 150^{150}$
 2. $(170)^{170} < (170!)^2$
 3. $(130!)^2 < (130)^{130}$
 4. None of these
4. Arvind built a fence using 48 posts to enclose a square field. He placed the posts 5 metres apart. What is the area of the field bounded by the fence?
 1. 4225 m²
 2. 3600 m²
 3. 3025 m²
 4. 2025 m²
5. Pitamber selected four numbers from out of n consecutive natural numbers such that the differences between the two numbers in all possible pairs are distinct. What is the least possible value of n ?
 1. 7
 2. 8
 3. 11
 4. 13
6. With a view to increasing competition among his students, the principal of St. John's High School has decided to distribute books to the students. The number of books is more than the number of students. Each of the books is different from the other. There are p students and q books, but each student will get a minimum of 1 book and a maximum of $(p - 1)$ books. Find the total number of ways of distributing the books.
 1. $q^p - 1$
 2. p^q
 3. $q^p - p$
 4. None of these
7. How many positive integers less than 143 are relatively prime to 143?
 1. 142
 2. 120
 3. 43
 4. None of these
8. Rahim has Rs.4,096 with him and he places bets 6 times. Each time he places a bet, he stakes one-fourth of the total money that he has at the time of placing the bet. If he wins the bet, he gets back the sum of money he had staked and wins a sum equal to the money he had staked and if he loses the bet, he loses the sum of money he had bet. If the probability of winning a bet is 0.5 and it is known that Rahim wins 3 bets and loses 3 of them, find the money left with Rahim at the end of all the bets.
 1. Rs.3,375
 2. Rs.721
 3. Rs.3072
 4. Cannot be determined
9. Which of the following statement(s) is/are correct?
 - I. $a^2 + a + 41$ gives a prime number for all natural numbers a .
 - II. A number, sum of whose digits is 15, can never be a perfect square.
 1. Only I
 2. Only II
 3. Both of them
 4. None of these

10. The XY-plane is marked on the ground in preparation for a sack race. The participants start from point P(0, 2) and finish the race at point Q(10, 3). In hopping from P to Q, the participants must touch the X-axis exactly once. What point on the X-axis should a participant touch so that the total distance travelled is the least?
1. (4, 0) 2. (6, 0) 3. (3, 0) 4. (5, 0)
11. In how many ways can 68068 be written as the difference of two squares?
1. 8 2. 10 3. 12 4. 16
12. For real number p , the maximum value of the expression $\frac{p^2 - 14p + 9}{p^2 - 2p + 3}$ is
1. 4 2. -4 3. 6 4. 5
13. How many values of natural number k exist such that $(k + 2)$ divides $(k + 18)^2$?
1. 4 2. 8 3. 9 4. 7
14. Kamal asked Rahim to find the number of ways in which all the numbers 1, 2, 3, 4 and 5 can be rearranged without repetition such that the number n is never in the n^{th} position. For example, 25413 and 51234 are acceptable, but 12435 is not. How many such rearrangements are possible?
1. 24 2. 45 3. 43 4. 44
15. The longest side of a scalene triangle is 11. If all sides are of integral length, how many such triangles are possible?
1. 45 2. 36 3. 21 4. 20

DIRECTIONS for questions 16 to 19: Each question below is followed by two statements marked I and II. As your answer,

mark 1, if the question can be answered by using any one statement alone but not by using the other statement alone,

mark 2, if the question can be answered by using either of the statements alone,

mark 3, if the question can be answered by using both statements together, and,

mark 4, if the question cannot be answered even by using both statements together.

16. Anup went out between 5 o'clock and 6 o'clock. At what time did he go out?

I. When he went out, the angle between the hour and the minute hands was 18° .

II. When he went out, the minute hand was 3 minutes ahead of the hour hand.

17. Is xyz an integer?

I. $\log_y z = x$, $y = \log_z x$

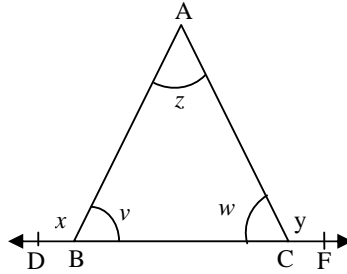
II. $z = \log_x y$

18. If x and y are natural distinct numbers, what is the value of $\frac{x^2}{y^2} + \frac{y^2}{x^2}$?

I. L.C.M. of x and y is 10.

II. $\frac{5x}{y} > 1$ and $\frac{5y}{x} > 1$

19. In the figure below, what is the value of $x + y$?



I. $z = 50^\circ$

II. $v = w = 70^\circ$

DIRECTIONS for questions 20 to 22: Refer to the following information and answer the questions given below.

Satinder went to the wholesale market to buy some vegetables and fruits for his grocery store. He bought some ashgourd, some beetroot and some apples. He had to buy at least 15 of each. The number of ashgourd had to be more than the number of Beetroot, which had to be more than the number of apples. He bought 50 vegetables and fruits in all at the following rates: 1 apple @ Rs.3, 1 beetroot @ Rs.2 and 1 ashgourd @ Rs.4.

20. How many apples did Satinder buy?

1. 15 2. 16 3. options 1 or 2 4. 17

21. Satinder sold off all the vegetables and fruit he had bought for a profit of Rs.38. If he had bought 17 beetroot, what was total selling price of all the vegetables and fruit?

1. Rs.153 2. Rs.191 3. Rs.189 4. Rs.151

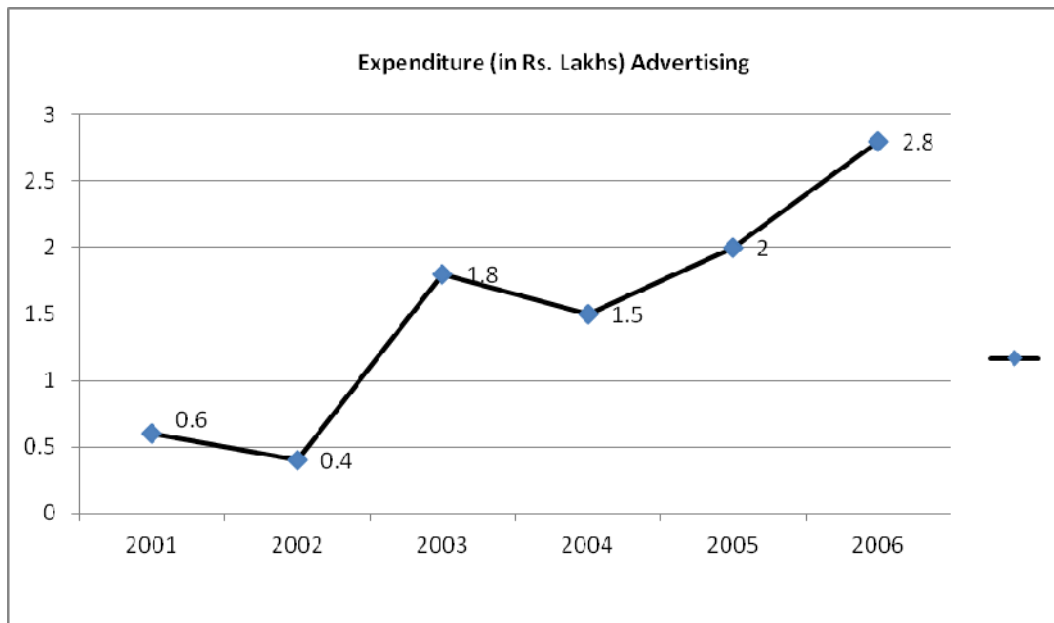
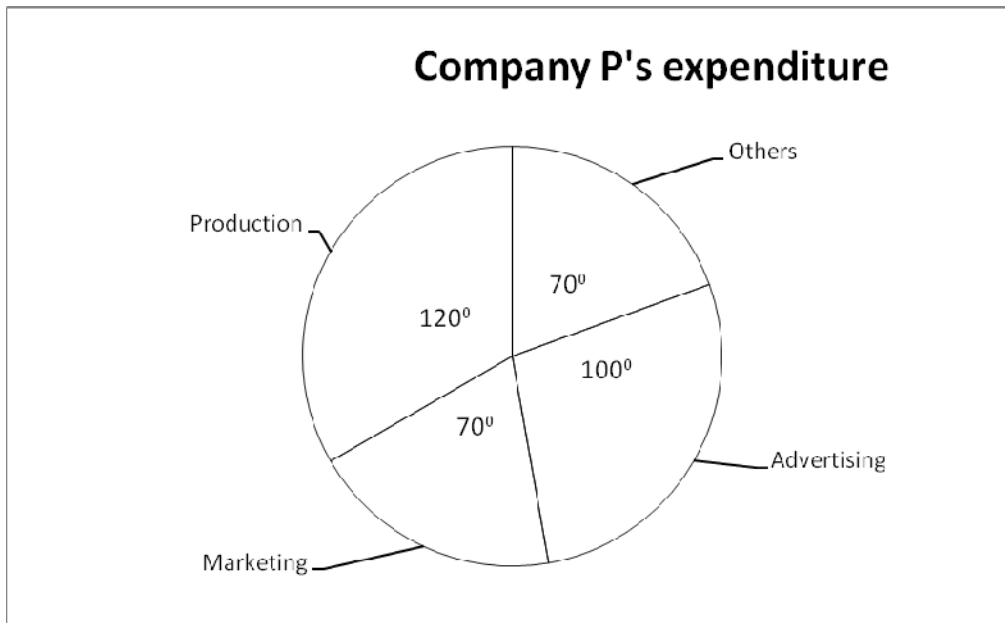
22. If the number of ashgourd bought could have been more than or equal to the number of Beetroot bought, then what is the maximum money that Satinder could expect to save on the purchase of his basket of 50 vegetables and fruit?

1. 0 2. Rs.3 3. Rs.1 4. Rs.10

23. Rahim and Sahil were trying to crack a puzzle in which they were given a slip of paper with a code of two digits selected from 0, 1, 2...9. But the slip on which the code is handwritten allows for confusion between the top and the bottom because some of the digits are indistinguishable when read from either side. Thus, for example, the code 91 could be confused with 16. How many codes are there such that there is no possibility of any confusion?

1. 82 2. 75 3. 80 4. 78

DIRECTIONS for questions 24 to 27: Answer the questions on the basis of the charts given below.



The shares of different factors (percentage) in company P's expenditure remain constant over the given years.

- 24.** What was Company P's expenditure on production in the year 2006?
1. Rs.93,333 2. Rs.284,000 3. Rs.336,000 4. Rs.38,888
- 25.** In 2003, the total revenue earned by Company P was Rs.8.4 lakhs and it had to pay a tax of 10.5% on revenue. If profit is calculated as Revenue less expenses and tax, what was company P's profit in 2003?
1. Rs.590,700 2. Rs.171,840 3. Rs.571,800 4. Rs.103,800

26. What has been the increase in company P's expenditure over the given period?
1. Rs.220,000 2. Rs.792,000 3. Rs.824,000 4. Rs.1,008,000
27. In 2007, the company decides to cut the expenditure on marketing, so that marketing now contributes only to half as much to the total expenditure compared to what it was in previous years. This surplus amount is now added to the advertising expenditure. As a result advertising expenditure is Rs.50,000 more than the previous year. How much does company P spend on marketing in 2007?
1. Rs.27,200 2. Rs.85,500 3. Rs.81,100 4. Rs.24,200
28. The letters M, N, O, P, Q, R and S, not necessarily in that order, stand for seven consecutive integers from 1 to 10. S is 4 less than O, P is greater than M, Q is the middle term and M is as much less than Q as N is greater than S. If P has only one integer below it, then the value of $(R - S)$ will be:
1. 5 2. 6 3. 4 4. 2

DIRECTIONS for questions 29 and 30: Refer to the table given below and answer the questions that follow.

Where India stands in Information Technology (1995 – 96)				
Country	No. of computers per 1000 persons	No. of telephone lines per 1000 persons	Software Production (\$ mn)	IT Spending as % of GDP
Aruba	300	1000	50,000	3
Austria	100	700	51,000	2
Bhutan	200	600	800	1.5
India	1	12	500	0.75
Chile	10	40	2700	0.4
China	1	12	2100	0.3

29. If China's GDP is thrice as large as that of India's GDP, then China's IT spending exceeds that of India's by _____ percentage?
1. 8 % 2. 11 % 3. 20 % 4. 45%
30. The ratio of telephone lines to computers is the smallest for which one of the following countries?
1. Aruba 2. Austria 3. Chile 4. Bhutan

Section II: Verbal & Reasoning

DIRECTIONS for question 31: Pick the best option which completes the sentence in the most meaningful manner.

31. The _____ in many parts of the metros has made the _____ of infectious diseases more swift, because pathogens spread fast in close quarters.

- | | |
|---------------------------------|--|
| 1. squalorcirculation | 2. congestion.....deterioration |
| 3. overcrowding.....propagation | 4. over-development..... proliferation |

DIRECTIONS for question 32: In the question, a word has been used in sentences in FOUR different ways. Choose the option corresponding to the sentence in which the usage of the word is **incorrect or inappropriate**.

32. PHASE

1. Until the matter is gone into at length it will be impossible to discuss any phase of it with exactness.
2. On Monday, the Directorate of Education released a list of 11 schools set to be phased out and a charter school recommended for non-renewal.
3. China will phase in planned changes to its loan-loss provisioning rules to give banks time to adapt.
4. The current lack of good quality programming doesn't phase the leaders of this up-and-coming company.

DIRECTIONS for question 33: Given below are five sentences. Identify the sentence(s) or part(s) of sentence(s) that is/are **incorrect** in terms of grammar and usage (including spelling, punctuation and logical consistency). Then, choose the most **appropriate** option.

33. A. She looked at me with tears falling down from her eyes.
 B. Many of these children grow in an atmosphere of violence.
 C. The question is whether doctors should lengthen life when there is no hope of recovery.
 D. Suddenly a wonderful smile lighted up her face.
 E. In today's material society, most people think only about money.

- | | | | |
|---------------|-----------------|---------------|----------------|
| 1. A, B and C | 2. C and E only | 3. A, D and E | 4. All of them |
|---------------|-----------------|---------------|----------------|

DIRECTIONS for questions 34 to 36: The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

In most people's minds, yawning – that slow, exaggerated mouth opening with the long, deep inhalation of air, followed by a briefer exhalation – is the most obvious sign of sleepiness. It is a common behaviour shared by many animals, including not only our pet dogs and cats but also, crocodiles, snakes, birds, and even some fish. It is certainly true that sleepy people tend to yawn more than wide-awake people. It is also true that people who say they are bored by what is happening at the moment will tend to yawn more frequently. However, whether yawning is a sign that you are getting ready for sleep or that you are successfully fighting off sleep is not known.

Unfortunately, yawns don't just indicate sleepiness. In some animals, yawning is a sign of stress. When a dog-trainer sees a dog yawning in a dog obedience class, it is usually a sign that the animal is under a good deal of pressure. Perhaps the handler is pushing too hard or moving too fast for the dog to feel in control of the situation. A moment or two of play and then turning to another activity is usually enough to banish yawning for quite a while.

Yawning can also be a sign of stress in humans. Once, when observing airborne troops about to take their first parachute jump, I noticed that several of the soldiers were sitting in the plane and yawning. It was 10 A.M.,

just after a coffee break, and I doubted that they were tired; I knew for a fact that they were far too nervous to be bored. When I asked about this, the officer in charge laughed and said it was really quite a common behaviour, especially on the first jump.

There is also a social aspect to yawning. Psychologists have placed actors in crowded rooms and auditoriums and had them deliberately yawn. Within moments, there is usually an increase in yawning by everyone else in the room. Similarly, people who watch films or videos of others yawning are more likely to yawn. Even just reading about yawning tends to stimulate people to yawn.

The truth of the matter is that we really don't know what purpose yawning serves. Scientists originally thought that the purpose of yawning was to increase the amount of oxygen in the blood or to release some accumulated carbon dioxide. We now know that this is not true, since increasing the concentration of carbon dioxide in the air seems not to increase the likelihood of yawning.

Since yawning seems to be associated with a lot more than the need for sleep, we obviously have to find some other measure of sleepiness. Some researchers have simply tried to ask people how sleepy they feel at any time using some sort of self-rating scale. There are, however, problems with getting people to make these types of judgments. Sometimes people simply lie to the researchers when asked about how sleepy they are. This occurs because in many areas of society admitting that one is fatigued and sleepy is considered a mark of weakness or lack of ambition and drive. In other instances, people may admit they need four cups of coffee to make it through the morning, but it may never occur to them that this might be due to the fact that they are so sleepy that they need stimulation from caffeine to be able to do their required tasks. For these reasons, many researchers have developed an alternate method to determine how sleepy a person is. It is based upon a simple definition of sleep need: The greater your sleep need, or the sleepier you are, the faster you will fall asleep if given the opportunity to do so.

34. What is the primary purpose of the passage?

1. To refute the claim that yawning increases the amount of oxygen in the blood.
2. To challenge the assertion that yawning indicates stress and boredom.
3. To determine whether yawning is an effective measure of sleepiness.
4. To illustrate that yawns are signs of something more than just sleepiness.

35. At the beginning of the last paragraph the author tries to

1. Deviate from the topic under discussion.
2. Evaluate the findings in the earlier paragraphs
3. Accepts a drawback to an approach mentioned in the previous paragraph
4. Brings the discussion back to a problem mentioned earlier in the passage

36. The author uses all of the following to put forth his views, except

1. An anecdote
2. Illustration
3. Comparison
4. Understatement

DIRECTIONS for questions 37 to 39: Answer the questions on the basis of the information given below.

Seven boys are made to stand in a row in order of their increasing heights (shortest boy first). Their name are Arjun, Balvinder, Chaman, Diljeet, Deepak, Farhaan, Gopal (not in that order). Following statements give information about their positions in the row.

1. Balvinder is the tallest boy.
2. Farhaan is exactly between Arjun and Diljeet.
3. There are exactly three boys between Diljeet and Gopal.
4. Chaman comes right after Balvinder in height.

37. According to the information given, how many arrangements are possible?

1. 1 2. 2 3. 3 4. 4

38. How many boys take the same position in the row in all the possible arrangements?

1. 2 2. 3 3. 4 4. 5

39. If it is given that Farhaan is taller than Deepak, then who is the shortest boy?

1. Chaman 2. Deepak 3. Gopal 4. Cannot be determined

DIRECTIONS for question 40: The question consists of five statements labelled A, B, C, D and E which when logically ordered forms a cogent passage. Choose the option that represents the most logical order.

40.

- A. Prokaryotic sex, on the other hand, is infrequent and inefficient.
- B. The creative process of natural selection works by preserving favorable genetic variants from an extensive pool.
- C. Major evolutionary change cannot occur unless organisms maintain a large store of genetic variability.
- D. Sex can provide variation on this scale, but efficient sexual reproduction requires the packaging of genetic material into discrete units.
- E. Thus, in eukaryotes, sex cells have half the chromosomes of normal body cells and when two cells join to produce an offspring, the original amount of genetic material is restored.

1. BCDEA 2. CBD AE 3. CD BEA 4. BDCEA

DIRECTIONS for question 41: Pick the best option which completes the sentence in the most meaningful manner.

41. The student found writing to be very _____, since she was not terribly _____ and always struggled to find enough to say to fill her term papers.

1. morose...mawkish 2. perfunctory..... laconic
 3. stanchion... verbose 4. onerous... loquacious

DIRECTIONS for question 42: In the following paragraph, a part of the paragraph is left unfinished. Beneath the paragraph, four different ways of completing the paragraph are indicated. Choose the best alternative amongst the four.

42. When any new substitutive technology enters the market for the first time, it is priced higher than the technology it is supposed to be substituting. This is what happened when CDs were launched. They were priced significantly higher than vinyl records. The justification was that low volumes increased production costs. With economies of scale and learning curves, the price of CDs did come down. Yet vinyl records, which had been in existence for a very long period of time, started going up in price to become almost as expensive as CDs.

This can be explained by the fact that _____

1. Listeners appreciated the enhanced quality of sound in CDs so much that they were ready to pay more for CDs.
2. Price sensitive consumers refused to upgrade to CDs.
3. As the switch to CDs started happening, the volumes in the vinyl record market reduced, thereby increasing production costs.
4. The requirement to buy a separate CD player was a reason for consumers to continue buying vinyl records.

DIRECTIONS for question 43: Given below are five sentences. Identify the sentence(s) or part(s) of sentence(s) that is/are **incorrect** in terms of grammar and usage (including spelling, punctuation and logical consistency). Then, choose the most **appropriate** option.

43.

- A. Conditions for journalism have never been better; robust media profits, strong legal protections, and sophisticated technology.
- B. Yet there is an influential movement, representing the concensus of the profession's elite,
- C. dedicating to convincing us that all is not well.
- D. The book *The Elements of Journalism* suggests that unless a certain "theory of news"
- E. is adhered to, the country might be annihilated.

1. B and E only

2. D only

3. A, B and C

4. D and E only

DIRECTIONS for questions 44 to 46 : The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

If the new art is not accessible to everyone, which certainly seems to be the case, this implies that its impulses are not of a generically human kind. It is an art not for people in general but for a special class who may not be better but who are evidently different.

Before we go further, one point must be clarified. What is it that the majority of people call aesthetic pleasure? What happens in their minds when they "like" a work of art; for example, a play? The answer is easy. They like a play when they become interested in the human destinies that are represented, when the love and hatred, the joys and sorrows of the dramatic personages so move them that they participate in it all as though it were happening in real life. And they call a work "good" if it succeeds in creating the illusion necessary to make the imaginary personages appear like living persons. In poetry the majority of people seek the passion and pain of the human being behind the poet. Paintings attract them if they find in them, figures of men or women it would be interesting to meet.

It thus appears that to the majority of people aesthetic pleasure means a state of mind that is essentially indistinguishable from their ordinary behaviour. It differs merely in accidental qualities, being perhaps less utilitarian, more intense and free from painful consequences. But the object toward which their attention and, consequently, all their other mental activities are directed is the same as in daily life: people and passions. When forced to consider artistic forms proper – for example, in some surrealist or abstract art – most people will only tolerate them if they do not interfere with their perception of human forms and fates. As soon as purely aesthetic elements predominate and the story of John and Susie grows elusive, most people feel out of

DIRECTIONS for question 49: *In the following paragraph, a part of the paragraph is left unfinished. Beneath the paragraph, four different ways of completing the paragraph are indicated. Choose the best alternative amongst the four.*

49. Hindi Films and TV programs have often been blamed for making today's young men more violent. This however could be putting the cart before the horse; it is possible that youth are attracted to films and such TV programs because the characters these programs have, mirror their own images.
1. The fact is that action-oriented films possibly help as pressure-release valves for the youth today.
 2. A university professor did some research recently with some of his male students, and concluded that there is a higher probability that these students consider films such as *Agneepath* and *Ghajni*, as being highly realistic.
 3. In other words, an unusual interest in action programming may be an indication of a violence-prone personality rather than an incitement to violence.
 4. Hence the censor board should ensure that films with a lot of explicit violence are asked to tone down these scenes.

DIRECTIONS for question 50: *The question consists of five statements labelled A, B, C, D and E which when logically ordered forms a cogent passage. Choose the option that represents the most logical order.*

50. A. The function of the world government is to prevent war, and it should have only such powers as are necessary to this end.
 B. The general principle should be to leave to smaller bodies all functions which do not prevent the larger bodies from fulfilling their purpose.
 C. This involves a monopoly of armed force, a power to sanction and revise treaties, and the right to give decisions in disputes between States.
 D. The problem of delimiting the powers of various bodies will be one presenting many difficulties.
 E. Confining ourselves, for the moment, to geographical bodies, there should be a hierarchy from the world government to parish councils.
1. DCABE 2. BCDEA 3. ECDBA 4. DBEAC

DIRECTIONS for question 51: *Pick the best option which completes the sentence in the most meaningful manner.*

51. Being a _____ is especially _____ since confirmed criminals continually do horrible things.
1. recidivist... reprehensible
 2. lawbreaker... remiss
 3. ribald... tenacious
 4. resurgent...reckless

DIRECTIONS for question 52: *In the following paragraph, a part of the paragraph is left unfinished. Beneath the paragraph, four different ways of completing the paragraph are indicated. Choose the best alternative amongst the four.*

52. From the eighth through nineteenth century, the power of the big kingdoms in India underwent a period of steady decline. This is often wrongly attributed to a fundamental bias in Indian society ensuring that caste loyalty was always more important than loyalty to any emperor. Even as late as the thirteenth or the fourteenth centuries, military commanders who had been gifted land called 'jagirs' with the title "jagirdars" ruled in the name of the emperor and exercised a strong, centralized power. However, _____
1. many citizens followed the jagirdar because they feared his power and not because they were loyal.
 2. the jagirdars came from independent castes and ruled without concern for the emperor.

3. during the years 800 to 1200, the power of the jagirdars was far less than that of the emperor.
4. many historians believed that the geography and the system of taxation were more crucial than caste loyalty in undermining imperial power

DIRECTIONS for questions 53 and 54: Answer the questions on the basis of the information given below.

4 persons A, B, C and D are standing on the four corners of a rectangular field (not necessarily in that order) of dimensions 6 km×5 km.

- 53.** If the distance between A and D is less than the distance D and C, who is standing on the either side of B?
1. A and C 2. C and D 3. A and D 4. Either (1) or (2)
- 54.** Now, further if A walks for 4 km along the border of the field and then B walks for 4 km along the border, what could be the minimum distance between them?
1. 3 km 2. 8 km 3. 6 km 4. None of these

DIRECTIONS for questions 55 to 57: The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

If religion and community are associated with global violence in the minds of many people, then so are global poverty and inequality. There has, in fact, been an increasing tendency in recent years to justify policies of poverty removal on the ground that this is the surest way to prevent political strife and turmoil. Basing public policy – international as well as domestic – on such an understanding has some evident attractions. Given the public anxiety about wars and disorder in the rich countries in the world, the indirect justification of poverty removal – not for its own sake but for the sake of peace and quiet in the world – provides an argument that appeals to self-interest for helping the needy. It represents an argument for allocating more resources on poverty removal because of its presumed political, rather moral, relevance.

While the temptation to go in that direction is easy to understand, it is a perilous route to take even for a worthy cause. Part of the difficulty lies in the possibility that if wrong, economic reductionism would not only impair our understanding of the world, but would also tend to undermine the declared rationale of the public commitment to remove poverty. This is a particularly serious concern, since poverty and massive inequality are terrible in themselves, and deserve priority even if there were no connection whatsoever with violence. Just as virtue is its own reward, poverty is at least its own penalty. This is not to deny that poverty and inequality can – and do – have far-reaching connections with conflict and strife, but these connections have to be examined and investigated with appropriate care and empirical scrutiny, rather than being casually invoked with unreasoned rapidity in support of a “good cause”.

Destitution can, of course, produce provocation for defying established laws and rules. But it need not give people the initiative, courage, and actual ability to do anything very violent. Destitution can be accompanied not only by economic debility, but also by political helplessness. It is thus not surprising that often enough intense and widespread suffering and misery have been accompanied by unusual peace and silence.

Indeed, many famines have occurred without there being much political rebellion or civil strife or intergroup warfare. For example, The Bengalis have been responsible for many violent rebellions (one against the Raj occurred even in 1942, in the year preceding the famine of 1943), but things were quiet in the famine year itself.

The issue of timing is particularly important, since a sense of injustice can feed discontent over a very long period, much after the debilitating and disabling effects of a famine and deprivation are over. The memory of destitution and devastation tends to linger, and can be invoked and utilized to generate rebellion and violence.

Economic destitution may not lead to any immediate violence, but it would be wrong to presume from this that there is no connection between poverty, on the one hand, and violence on the other.

The neglect of the plight of Africa today can have a similar long-run effect on world peace in future. What the rest of the world (especially the richer countries) did - or did not do - when at least a quarter of the African population seemed to be threatened with extinction through epidemics, involving AIDS, malaria and other maladies, might not be forgotten for a very long time to come.

Neglect can be reason enough for resentment, but a sense of encroachment, degradation, and humiliation can be even easier to mobilize for rebellion and revolt.

Poverty and economic inequality may not instantly breed terrorism or influence the leaders of terrorist organizations, but nevertheless they can help to create rich recruiting grounds for the foot soldiers of the terrorist camps.

Even though poverty and a sense of global injustice may not lead immediately to an eruption of violence, there are certainly connections there, operating over a long period of time, that can have a significant effect on the possibility of violence.

Excerpted from 'Identity and Violence – The illusions of Destiny' by Amartya Sen

- 55.** All of the following can be inferred from the passage except,
1. A starving wretch can be too frail and too dejected to fight and battle, and even to protest and holler.
 2. People may not immediately react violently when faced with a natural calamity but may react much later.
 3. During epidemics or intense poverty periods, people sometimes remain peaceful and quiet.
 4. Non-violence and suffering always go hand in hand during natural calamities.
- 56.** Which of the following is inconsistent with what is given in the passage?
1. It is thought that poverty removal is some sort of panacea for preventing political strife and turmoil.
 2. Looking at poverty removal as politically relevant rather than as morally relevant for the sake of reducing violence is not correct.
 3. Long after the actual circumstances or situations, feelings of injustice can be evoked to engender a rebellion.
 4. Poverty ingrains a deep sense of resentment but does not lead to violence.
- 57.** A Suitable title for the passage is
1. Globalisation and violence
 2. Poverty, violence and the sense of justice
 3. Poverty and the possibility of fairness
 4. Economic globalisation and inequality

DIRECTIONS for questions 58 and 59: Refer to the following information to answer the questions

In order to gain full course credit for her tour of a foreign city, Sue must visit exactly seven famous points of interest - a factory, a garden, the harbour, a library, a museum, a palace and a theatre. Any tour plan that Sue devises will allow her to keep to her timetable and is thus acceptable, except that she must plan her tour to conform to the following conditions.

- The factory must be one of the first three points visited.
- The harbour must be visited immediately before the garden.
- The library can be neither the first nor the last point visited.
- The museum must be either the first or the last point visited.
- The palace must be one of the last three points visited.

58. Sue begins her tour with a visit to the harbour. Which of the following could be the fourth point of interest she would visit on the tour?

- 1. the factory
- 2. the garden
- 3. the library
- 4. the museum

59. If Sue visits exactly one point of interest between her visits to the factory and the palace, then that point must be either the

- 1. garden or the harbour
- 2. Library or the theatre
- 3. harbour or the museum
- 4. Library or the museum

DIRECTIONS for question 60: In the sentences given below one word has been used in different ways. Select the one in which the usage is incorrect.

60. STAND

- 1. The stars in the flag stand for the thirteen original colonies.
- 2. You must act respectful to him; he stands upon ceremony.
- 3. Why don't you stand up to your boss when you know you're right?
- 4. That machine won't stand. You should get a dependable kind.

Sample Paper

ANSWER KEY

1.	3	31.	3
2.	2	32.	4
3.	2	33.	4
4.	2	34.	3
5.	1	35.	4
6.	4	36.	4
7.	2	37.	2
8.	1	38.	2
9.	2	39.	3
10.	1	40.	3
11.	1	41.	4
12.	1	42.	3
13.	4	43.	3
14.	4	44.	4
15.	4	45.	1
16.	1	46.	4
17.	3	47.	4
18.	3	48.	2
19.	2	49.	3
20.	1	50.	4
21.	3	51.	1
22.	2	52.	2
23.	3	53.	4
24.	3	54.	4
25.	4	55.	4
26.	2	56.	4
27.	2	57.	2
28.	4	58.	3
29.	3	59.	2
30.	4	60.	4

Sample Paper

EXPLANATIONS

1. Kalu: Bawa = 2 : 3 and Bawa: Lalit = 2 : 3,
 $\Rightarrow K : B : L = 4 : 6 : 9$.
 Let the wages be $4k, 6k$ and $9k$.
 Given that $\frac{1}{3}9k = \frac{1}{2}4k = 80$
 $\Rightarrow k = 80$.
 Wages of $K = 4k = 320, B = 6k = 480, L = 9k = 720$.
 Let p be the expenditure per head.
 Now $(320 - p) : (480 - p) : (720 - p) = 1 : 9 : 21$
 $\Rightarrow \frac{320 - p}{480 - p} = \frac{1}{9}$.
 By solving we get $p = 300$.
 Total Expenditure = $3 \times 300 = ₹ 900$.

2. Since k, l, m are distinct prime numbers, either one of them is even and the other two are odd or all three are odd.
 In either case, the sum of $kl + lm + km$ will be an odd number.
 Hence there is no set of values for k, l, m such that $kl + lm + km = 120$.
 So answer is 2nd option.

3. Consider natural number n .
 If $n = 2$, then $(2!)^2 = 2^2$.
 If $n = 3$, then $(3!)^2 > 3^3$.
 If $n = 4$, then $(4!)^2 > 4^4$.
 If $n = 5$, then $(5!)^2 > 5^4$.
 So, we can conclude that for any natural number $n > 2, (n!)^2 > n^n$.
 Hence answer is 2nd option.

4. We have 48 poles in total and 4 poles are placed at 4 corners of the square field.
 The remaining 44 poles are distributed as 11 poles along each side.
 So, each side will have 13 poles.
 In other words, each side has 12 gaps of 5 m each.
 Therefore length of each side will be 60 m and area of the square field is 3600 sq. m.
 Hence option 2.

5. Let the four numbers be n_1, n_2, n_3, n_4 where $n_1 < n_2 < n_3 < n_4$.
 Let $n_1 + a_1 = n_2, n_2 + a_2 = n_3$ and $n_3 + a_3 = n_4$.
 The differences between n_1 and n_2, n_3 and n_4 between n_2 and n_3 and n_4 and between n_3 and n_4 are tabulated below:

n_1	n_2	n_3
A_1		
$a_1 + a_2$	a_2	
$A_1 + a_2 + a_3$	$a_2 + a_3$	a_3

We require that n be minimised and these 6 expressions have distinct values.
 Let $n_1 = 1$.
 Now $n = 1 + a_1 + a_2 + a_3$
 (because $n_4 = n_1 + a_1 + a_2 + a_3$, i.e., $a_1 = a_2 + a_3$, i.e., $a_1 + a_2 + a_3 + 1$ consecutive natural numbers are involved).
 Now $a_1 + a_2 + a_3$ can be chosen as the least possible values, i.e., 1, 2, 3.

However the order of choosing should be such that the six differences should be distinct.
 By trial and error $(a_1 + a_2 + a_3)$ can be (1, 3, 2) or (2, 3, 1) in which $n = 7$ and four numbers can be (1, 2, 5, 7) or (1, 3, 6, 7) respectively.
 Hence the minimum value of $n = 7$.

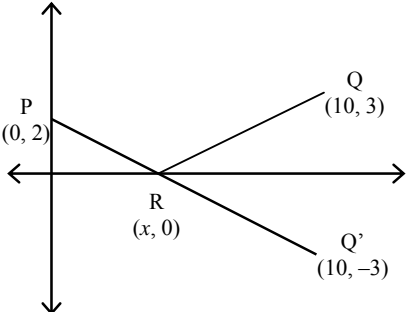
Alternate method:
 By trial method four numbers can be (1,2,5,7) or (1,3,6,7) respectively.
 Hence the minimum value of $n = 7$.

6. Had there been no restrictions, the first book could have been given to any of the p students, thus it could have been given in p ways.
 Similarly, for the other books, each of them could have been given in p ways.
 \Rightarrow Thus, without restriction, the total number of ways = $p.p.p\dots(q \text{ times}) = p^q$.
 Now the restriction is that, each kid would be receiving at most $(p - 1)$ books; in other words, not all the books should go to one kid.
 Since there are p kids in all, the number of ways in which one kid gets all of the books = p
 Thus, the required number of ways = $p^q - p$.
 So answer is 4th option.

7. As $143 = 11 \times 13$
 Required number of numbers
 $= 143 \left(1 - \frac{1}{11}\right) \left(1 - \frac{1}{13}\right) = 120$.
Alternate solution:
 Of all the 143 numbers up to 143, we are not interested in numbers that share a common factor other than 1 with 143.
 Since $143 = 11 \times 13$, we are not interested in numbers which are multiples of 11 or 13 or both.
 Up to 143, there are 13 multiples of 11 and 11 multiples of 13.
 However, 143 is common to both lists.
 So, the number of multiples of 11 or 13 is $11 + 13 - 1 = 23$.
 Thus the numbers of integers that are relatively prime to 143 is $143 - 23 = 120$.

8. Suppose Rahim has ₹ x initially and he loses a bet, the amount left with him will be ₹ $0.75x$.
 Similarly, if Rahim has ₹ x initially and he wins a bet, the amount now with him will be ₹ $1.25x$.
 Thus, winning or losing only results in multiplying the amount by 1.25 or 0.75.
 Since he wins thrice, his original amount will be multiplied by 1.25 thrice and since he loses thrice, his original amount will be multiplied by 0.75 thrice. Since multiplication is commutative, the order of winning and losing is not important.
 Thus, in any case, final amount left
 $= 4096 \times 0.75^3 \times 1.25^3 = ₹ 3,375$.
 Hence, option 1.

9. It is a well known fact that no expression can produce only primes.
 If we substitute some values for a , we find that we do get primes and may be tempted to assume that statement I is true.
 However, if $a = 41$, the given expression can be rewritten as $41(41 + 1 + 1)$, which is not a prime number, i.e., 41 divides the expression at $a = 41$.
 Hence, statement (I) is false.
 According to statement (II) Sum of the digits = 15. So,

	<p>3 divides the given number but 9 does not. Therefore, the given number cannot be a perfect square. Thus, statement II is true. Hence, option 2.</p>		<p>Hence, $k + 2 = 1, 2, 4, \dots, 16^2$ But, k is a natural no., hence $k + 2 = 4, 8, 16, \dots, 16^2$ So we have 7 values of k. Hence, option 3. <u>Alternate solution:</u> $(k + 18)^2 = k^2 + 36k + 324$ $= (k^2 + 4k + 4) + 32k + 320$ $= (k + 2)^2 + 32(k + 2) + 256$. Now, $(k + 2)$ will obviously divide the 1st two terms of this expression. So, we need to find values of k such that $(k + 2)$ divides $256 = 2^8$. Since k is a natural number and factors of 256 are 2, 2², 2³, ..., 2⁸, we have $(k + 2) = 2^2, 2^3, \dots, 2^8$. Thus, k can take 7 different values.</p>
<p>10.</p>	 <p>Take the reflection of point Q in the X-axis and call it Q'(10, -3). Let the point at which the student touches x-axis be R. Then, by symmetry, $RQ = RQ'$ and hence minimizing $(PR + RQ)$ is same as minimizing $(PR + RQ')$. It is evident that for $(PR + RQ')$ to be minimum, P, R and Q' should be collinear. So $(x, 0)$ lies on the line joining $(0, 2)$ and $(10, -3)$. By solving, we get x to be 4. Hence, option 1.</p>		<p>14. This is a case of derangement. In combinatorial mathematics, a derangement is a permutation of the elements of a set such that none of the elements appear in their original position. The derangement formula is $n!(1/2! - 1/3! + \dots)$ Using it here we get the answer as 44. Hence, option 4. <u>Alternate solution:</u> The total number of ways of arranging the 5 digits is $5! = 120$. We are not interested in arrangements where 1 or more of the digits occupy the corresponding place, i.e., we are not interested in 5C, 3C2W, 2C3W or 1C4W. All 5 digits occupying the correct corresponding places, i.e., 5C, can happen in only 1 way. In case of 3C2W, the 3 correct cases can be chosen in ${}^5C_3 = 10$ ways and the 2 wrong digits can be arranged in 1 way. So, there are 10 possibilities for 3C2W. In case of 2C3W, the 2 correct digits can be chosen in ${}^5C_2 = 10$ ways and the 3 wrong digits can be arranged in 2 ways. So, there are $10 \times 2 = 20$ possibilities for 2C3W. In case of 1C4W, the correct digit can be chosen in 5 ways and the 4 wrong digits can be arranged in 9 ways. So, there are $5 \times 9 = 45$ possibilities for 1C4W. Thus, the number of ways in which none of the digits occupy their corresponding positions is $120 - 1 - 10 - 20 - 45 = 44$.</p>
<p>11.</p>	<p>$68068 = 2^2 \times 7 \times 11 \times 13 \times 17$. Let $68068 = A^2 - B^2 = (A + B)(A - B)$, where A and B are whole numbers. Since the product is even, at least one of $(A + B)$ or $(A - B)$ must be even. To ensure this, both A and B must either be even or odd. Consequently, $(A + B)$ and $(A - B)$ are both even $\Rightarrow (A + B) = 2x$ and $(A - B) = 2y$. So, x and y are any number of factors from among 7, 11, 13 and 17. These can be chosen in $2^4 = 16$ ways. If we select factors for x, the remaining factors will be y. $A + B$ will always be greater than $A - B$. Half of the 16 possibilities will result in $A + B < A - B$. So, the actual number of factors will be $16/2 = 8$. Alternately, no of ways will be total number of factors of $7 \times 11 \times 13 \times 17 / 2$. So answer is 8 ways. Hence 1st option.</p>		<p>15. Let a, b, c be the sides then $a < b < c$ as the triangles are scalene. Also $c = 11$, hence, by triangle inequality $7 \leq b \leq 10$ and $c - b < a < b$ Thus, as b decreases by 1, the range of a decreases by 2. For $b = 10$, we have $2 \leq a \leq 9$. Hence, the number of triangles = $8 + 6 + 4 + 2 = 20$ Hence, option 4. <u>Alternate solution:</u> Suppose the sides of the triangle are $a < b < 11$. We know that $a + b > 11$ and $b - a < 11$. So, $b - a = 1, 2, \dots, 10$. Since a and b are both less than 11, there are 4 possibilities each if $(b - a) = 1$ or 2, 3 possibilities each if $(b - a) = 3$ or 4, 2 possibilities each if $(b - a) = 5$ or 6 and 1 possibility each if $(b - a) = 7$ or 8. Thus, the total number of triangles is $2(4 + 3 + 2 + 1) = 20$.</p>
<p>12.</p>	<p>Let $\frac{p^2 - 14p + 9}{p^2 - 2p + 3} = k$. So, $p^2 - 14p + 9 = kp^2 - 2kp + 3k$ $\Rightarrow p^2(k - 1) + (14 - 2k)p + 3k - 9 = 0$. Since p is real, $\Delta \geq 0$ $\Rightarrow (14 - 2p)^2 - 4(k - 1)(3k - 9) \geq 0$. Expanding and simplifying this expressions yields $k^2 + k - 20 \leq 0$ $\Rightarrow -5 \leq k \leq 4$. So the maximum value of the expression is 4.</p>	<p>16. In a clock one minute is equivalent to 6°. So, 18° is equivalent to 3 minutes and vice versa.</p>	
<p>13.</p>	<p>$(k + 18)^2 = [(k + 2) + 16]^2$ $= (k + 2)^2 + 32(k + 2) + 16^2$ Hence, $(k + 2)$ must divide 16^2,</p>		

	<p>So statement I and statement II both are providing the same information with a minute distinction. Only statement II is providing information about exact position of hour needle and minute needle, but statement I does not say whether the hour needle is ahead of the minute needle is ahead while making an 18° angle. So, statement II alone is sufficient to answer the question. Hence (1).</p>
17.	<p>From statement I and II individually, we cannot say anything definite about xyz. On combining two statements and using base change rule, $xyz = \log_x z \times \log_z x \times \log_x y$ $= \log_x z / \log_x y \times \log_x / \log_x z \times \log_y / \log_x$ $= 1$ i.e. xyz is an integer. Hence (3).</p>
18.	<p>Neither statement alone is sufficient to answer the question. From statement I, we have $(x, y) \equiv (1, 10), (2, 10), (5, 10), (2, 5), (5, 2), (10, 5), (10, 2)$ or $(10, 1)$. Using statement II, we can reduce this list to $(x, y) \equiv (5, 10), (2, 5), (5, 2)$ or $(10, 5)$. Since we do not have unique values for x and y, it is not possible to determine the value of $\frac{x^2}{y^2} + \frac{y^2}{x^2}$. The best answer is option 4.</p>
19.	<p>Since x and y are exterior angles, we have $x = w + z$ and $y = v + z$. So, $x + y = v + w + z + z$. From statement I, we know that $z = 50$. Since v, w and z are angles of a triangle, their sum must be 180°. So, statement I alone is sufficient to answer the question. From statement II, knowing v and w helps find the value of z. So statement II alone is sufficient to answer the question. Thus, either statement alone is sufficient to answer the question. Hence option 2.</p>
20.	<p>He has to have at least 15 of each. So that takes care of 45 numbers. Now the remaining 5 can be split into two different increasing orders as follows: 0, 2, 3. That means 15 apples, 17 beetroot, 18 ashgourd Or 0, 1, 4. That means 15 apples, 16 beetroot, 19 ashgourd. In both cases the number of apples is 15. Hence (1).</p>
21.	<p>If Satinder bought 17 beetroot, then he must have bought 15 apples and 18 ashgourd. So his total cost is $17 \times 2 + 15 \times 3 + 18 \times 4 = 151$. So selling price was $151 + 38 = 189$. Hence (3).</p>
22.	<p>Now we can also have a case of 16 apples, 17 ashgourd and 17 beetroot. We now will expect the basket price to reduce. So his new price will be $16 \times 3 + 17 \times 2 + 17 \times 4 = 150$. Also in the last case his cost price is $15 \times 3 + 16 \times 2 + 19 \times 4 = 153$. He saves ₹ 3 in the second and ₹ 1 in the first case.</p>

	<p>The max saving is ₹ 3.</p>
23.	<p>The digits which can create a confusion in top & bottom are 0, 1, 6, 8, 9. Total two-digit confusing codes = $5 \times 5 = 25$. But 00, 11, 88, 69, 96 don't change their value in both the cases. So these five do not come in category of confusing code. \therefore Total confusing code number = $25 - 5 = 20$. \therefore Total non – confusing code of two digits = $100 - 20 = 80$. Ans. is (3).</p>
24.	<p>Company P's total expenditure in 2006 = $2.8 \times 360/100$. Expenditure on production = $120/360 \times 2.8 \times 360/100 = 3.36$ lakh. Hence (3).</p>
25.	<p>Total expenditure in 2003 = $1.8 \times 360/100 = 6.48$ lakh. Tax = $10.5 \times \frac{10.5}{100} \times 8.4 = 0.882$ lakh. So Profit = $8.4 - 6.48 - 0.882 = ₹ 1.038$ lakh. Hence (4).</p>
26.	<p>Increase in advertising expenditure = ₹ $(2.8 - 0.6) = ₹ 2.2$ lakh. Increase in total expenditure = $2.2 \times 360/100 = ₹ 7.92$ lakhs. So (2).</p>
27.	<p>The new share of marketing = $70 \times 1 \div 2 = 35^0$. So the new share of advertising = $100 + 35 = 135^0$. In the year 2007, expenditure = $2.8 + 0.5 = ₹ 3.3$ lakhs. So Expenditure on marketing = $\frac{35}{360} \times 3.3 \times \frac{360}{135}$ $= \frac{7.7}{9} = ₹ 0.855$. Hence(2).</p>
28.	<p>From the given condition: $S = O - 4, P > M$ and Q is the middle term. $Q - M = N - S$. We can make the diagram lowest to highest (left to right) 1 2 3 4 5 6 7 M P S Q R N O. So, $R - S = 2$. Hence (4).</p>
29.	<p>Let India's GDP be x. \therefore China's GDP = $3x$. India's IT spending = $\frac{0.75x}{100} = 0.0075x$. China's IT spending = $\frac{0.3 \times 3x}{100} = 0.009x$. Therefore, China's spending exceeds India's spending by $\frac{0.009x - 0.0075x}{0.0075x} = \frac{0.0015x}{0.0075x} = 20\%$, Hence, 3rd option.</p>
30.	<p>Aruba = $1000/30 = 3.33$, Austria = $700/100 = 7$, Chile = $40/1 = 4$ and Bhutan = $600/200 = 3$. Thus Bhutan has the lowest ratio.</p>
31.	<p>Option 3. The words that helps us to identify the correct option are <i>close quarters</i>. We are talking about infectious diseases and their</p>

	spread would be fast because of people being in close contact with one another. Hence overcrowding or congestion can fit the first blank. However the statement states that infectious diseases spread fast in close quarters hence the word <i>deterioration</i> cannot fit the second blank. Propagation is the correct choice for the second blank. Squalor means filth. There is no doubt that filth and dirt will result in a fast spread of the disease but we are interested in finding a word which talks about infectious diseases spreading from one person to another.
32.	Option 4. As a verb , <i>phase</i> means <i>to plan or carry out systematically</i> . It's usually followed by <i>in</i> or <i>out</i> . <i>Faze</i> means <i>to disrupt the composure of</i> . So, for example, when you implement a plan little by little, you <i>phase</i> it in. If you are not bothered by something, you are <i>unfazed</i> .
33.	Option 4. In A, <i>tears falling</i> and not <i>tears falling down</i> . In B, <i>grow up</i> instead of <i>grow in</i> (Grow – develop or get bigger as part of a natural process. Grow up – pass from childhood into maturity.) In C, instead of <i>lengthen</i> it should be <i>prolong</i> . Lengthen – making something longer, become longer. Prolong – prevent a feeling, activity or life from ending. In D, <i>lit</i> instead of <i>lighted</i> . In British English, the usual past tense and the past participle form of light is lit. Lighted is mainly used before a noun – lighted match, lighted cigarette. In E, the word needed is an adjective. Material is a noun. Materialistic instead of material.
34.	Option 3. The author starts the passage saying that most people feel that yawning is the most obvious example of sleepiness. Then he goes on to say that boredom and stress also induce yawns. In the last paragraph, he states that since yawning is associated with a lot more things than denoting sleep, we need to find some other measure of sleepiness. He also concludes the passage stating that some researchers have developed an alternate method of determining how sleepy a person is. Though option is true it is not the primary purpose of the passage. Option 2 is incorrect because the author states that yawning indicates much more than sleepiness, it indicates boredom and stress too.
35.	Option 4. The author is not evaluating the earlier paragraphs. He is in a way summarising the findings and then taking the discussion forward. Hence option 2 is incorrect. Option 1 is incorrect as the author is continuing on the topic of yawning.
36.	Option 4. Anecdote : A short and amusing or interesting story about a real incident or person. The anecdote is the incident of the soldiers who are to take their first parachute jump. Illustration is material used to clarify or explain – dog training and people in crowded places. (dogs yawn when stressed. People yawn in crowded places because of the social aspect – the power of suggestion). Comparison is between animals and human beings – both yawn.

37-39.	Considering the given statement is following order , we get, From (1) Balvinder is at 7 th place. From (4), Diljeet is at 6 th place. From (3) Diljeet and Gopal must be standing at 1 st and 5 th places. From (2), Arjun, Farhaan and Diljeet are standing at 3 rd , 4 th and 5 th places respectively or at 3 rd , 2 nd and 1 st places respectively. Thus, we get two possible arrangements as:																																
	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="8">Shortest to Tallest</th> </tr> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Dt</td> <td>F</td> <td>A</td> <td>Dk</td> <td>G</td> <td>C</td> <td>B</td> </tr> <tr> <td>2</td> <td>G</td> <td>Dk</td> <td>A</td> <td>F</td> <td>Dt</td> <td>C</td> <td>B</td> </tr> </tbody> </table>	Shortest to Tallest									1	2	3	4	5	6	7	1	Dt	F	A	Dk	G	C	B	2	G	Dk	A	F	Dt	C	B
Shortest to Tallest																																	
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1	Dt	F	A	Dk	G	C	B																										
2	G	Dk	A	F	Dt	C	B																										
	Now, all the questions can be answered.																																
37.	Two different arrangements are possible.																																
38.	3 boys, Arjun, Chaman and Balwinder, occupy the same positions in both arrangements.																																
39.	If Farhan is taller than Deepak, we need to refer to the 2 nd arrangement, in which Gopal is the shortest boy.																																
40.	Option 3. The paragraph talks about evolutionary change, organisms and genetic material. C introduces the idea first. A will follow E, as first we talk of eukaryotes and then “on the other hand” on prokaryotic sex. The <i>this</i> in D refers to the idea mentioned in B.																																
41.	Option 4. Onerous means difficult or laborious. Loquacious means verbose or talkative or wordy. If she is “struggling” to find something to say, we know we are looking for a word like “difficult” to describe her attitude towards writing. The information that she was not terribly... tells us that we are looking for something that means the opposite of the rest of the sentence - so a word like “good at writing.” Onerous and loquacious both fit in these context. Morose means gloomy. Mawkish means sickening or unpleasant and inappropriate. A stanchion is a bar used to keep cattle in their cages.																																
42.	Option 3. Just as the low volumes made the cost of CDs high initially, so too when the demand for the vinyl records fell, the cost of the vinyl records increased.																																
43.	Option 3. In A, the <i>semicolon</i> needs to be replaced by a <i>colon</i> . In B, the correct spelling is <i>consensus</i> and not <i>concensus</i> . In C, we need a verb and not a gerund to complete the sentence – <i>dedicated</i> instead of <i>dedicating</i> .																																
44.	Option 4. The author states that the “ object towardspassions”. Hence if there is little which they can relate to in a particular thing most people are not interested in that thing.																																
45.	Option 1. The author is stating that any relation to human content in art is not compatible with aesthetic enjoyment. The author assumes here that aesthetic pleasure is a behaviour stimulated by the artistic elements only and not by any human content visible to the person.																																
46.	Option 4. The author states that most people appreciate art only when it is in line with their world or with living persons or with people whom they would like to meet.																																
47.	Since a reading spot can accommodate at most 4 readers, the numbers of readers at different sports have																																

	to be 4, 3, 2 or 1 as $10 = 1 + 2 + 3 + 4$. So $(10 - 4) = 6$ reading sports are vacant. Hence (4).
48.	Since the Economics, Psychology and Medicine students do not cook breakfast, the Mechanical Engineering student, K, cooks breakfast. M teaches Drawing. Now since L does not teach English, she must be teaching Maths. Hence, (2).
49.	Option 3. The paragraph states that films and TV programs could be a reflection of what is present in the society rather than the other way round. Option 3 is another way of saying the same. If the scenes are toned down, what they reflect may not be reality.
50.	Option 4. The passage talks about delimiting powers and hence D is the best opening sentence. What the <i>delimiting</i> should involve is spoken of in B. In order to prevent what is required is mentioned in C. Hence C will follow A. Hence the sequence is DBEAC.
51.	Option 1. A <i>recidivist</i> is a confirmed criminal or a criminal who continues to commit crimes. <i>Reprehensible</i> means very bad or horrible. The same direction trigger "since" lets us know that the information after the since explains the preceding information. Since confirmed criminals are bad, we know the second blank must be negative and mean something like "bad." <i>Remiss</i> - which means careless- is not a negative enough word for the second blank. <i>Ribald</i> refers to indulging in indecent or inappropriate behaviour. <i>Tenacious</i> refers to being dedicated. <i>Resurgent</i> means to resurface or return. <i>Reckless</i> means behaving carelessly.
52.	Option 2. The decline in the big kingdoms was not due to a fundamental bias favouring caste loyalty over loyalty to the emperor. Further it is stated that the jagirdars ruled in the name of the emperor. The word "however" suggests that what follows will be contrary to this view and hence option 2 is the best answer.
53.	$AD < DC$. If $AD = 5$, then DC could be one of the sides or the diagonal of the rectangle. Then either A and C stand on the either side of B or D and C stands on either side of B. If $AD = 6$ km, then DC is the diagonal. So C and D stand on either side of B. Hence (4).
54.	To minimise the distance A and B must be standing on the same side. So $AB = 6$ km. If A walks 4 km towards B and B walks 4 km towards A, then the distance between them is minimum = 2 km. Hence (4).
55.	Option 4. "Many famineswarfare". This means most of the time this holds true but not all of the time as is implied by the option 4. Destitution need not give people ability to be violent and option 1 states just that. Speaking about Africa, the author feels that we may

	encounter violence later on as the neglect of the plight of Africa today would not be forgotten by the African population														
56.	Option 4. The author states that "Poverty and a sense of global injustice.....violence"														
57.	Option 2. The author talks about poverty, its relation to violence and also of the sense of injustice during poverty which later on leads to violence or rebellions.														
58-59.	From the given conditions: The factory must be at point 1 or 2 or 3. The harbour must not be point 7 and garden must not be point 1. The library must be point 2 or 3 or 4 or 5 or 6. The museum must be point 1 or 7. The palace must be the point 5 or 6 or 7. The harbour must be the point visited just before the garden.														
58.	If Sue begins her tour at the harbour then the garden must be point 2. So, the factory must be point 3 and the museum must be point 7. The palace must be point 5 or 6. Library or theatre could be the 4th point. Ans.(3)														
59.	<table style="margin-left: 40px;"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td> </tr> <tr> <td></td><td>F</td><td></td><td>P</td><td></td><td></td><td></td> </tr> </table> <p>Since the harbour must be immediately followed by the garden, so neither the harbour nor the garden will be that point between the factory and the palace. So, options (1) and (3) are eliminated. Since museum must be either point 1 or 7, so option (4) is also eliminated. Ans.(2)</p>	1	2	3	4	5	6	7		F		P			
1	2	3	4	5	6	7									
	F		P												
60.	Option 4. Should have read "stand up" – to last. 2 - "to stand upon" – be strict about observing formality, one's rights etc. 3 - "to stand up to" oppose.														