

Sl. Questions

no.

1. Six boys A, B, C, D, E and F play a game of cards. Each has a pack of 10 cards. F borrows 2 cards from A and gives away 5 to C who in turn gives 3 to B while B gives 6 to D who passes on 1 to E. Then the number of cards possessed by D and E is equal to the number of cards possessed by
- (a) A, B and C
(b) B, C and F
(c) A, B and F
(d) A, C and F
2. A freight train left Delhi for Mumbai at an average speed of 40 km/hr. Two hours later, an express train left Delhi for Mumbai, following the freight train on a parallel track at an average speed of 60 km/hr.
- How far from Delhi would the express train meet the freight train?
- (a) 480km
(c) 240 km
(b) 260 km
(d) 120 km
3. A village having a population of 4000 requires 150 L of water per head per day. It has a tank measuring 20m * 15m * 6 m. The water of this tank will last for
- (a) 2 days
(b) 3 days
(c) 4 days
(d) 5 days
4. Read the following **passage** and

answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage-

Elephants are landscape architects, creating clearings in the forest, preventing overgrowth of certain plant species and allowing space for the regeneration of others, which in turn provide sustenance to others herbivorous animals. Elephants eat plants, fruits and seeds, propagating the seeds when they defecate in other places as they travel. Elephant dung provides nourishment to plants and animals and acts as a breeding ground for insects. In times of drought, they access water by digging holes which benefits other wildlife.

Which one of the following statements best reflects the most logical and rational inference that

can be drawn from the passage?

- (a) The home range of elephants needs to be a vast area of rich biodiversity.
- (b) Elephants are the keystone species and they benefit the biodiversity.
- (c) Rich biodiversity cannot be maintained in the forests without the presence of elephants.
- (d) Elephants are capable of regenerating forests with species as per their requirement.

5.

The average contribution of 5 men to a fund is 35. Sixth man joins and pays 35 more than the resultant average of 6 men. Find the total contribution of all 6 men.

- (a) 210
- (b) 245
- (4) 250

- (d) 252
6. How best can the problems of floods and droughts be addressed so that the losses are minimal and the system becomes resilient? In this context, one important point that needs to be noted is that India gets 'too much' water (about 75% of annual precipitation) during 120 days (June to September) and 'too little' for the remaining 245 days. This skewed water availability has to be managed and regulated for its consumption throughout the year.
- Which one of the following best reflects the practical, rational and lasting solutions?
- (a) Constructing huge concrete storage tanks and canals across the country
- (b) Changing the cropping patterns and farming practices
- (c) Interlinking of rivers across the country
- (d) Buffer stocking of water through dams and recharging aquifers
7. After distributing the sweets equally among 25 children, 8 sweets remain. Had the number of children been 28, 22 sweets would have been left after equally distributing. What was the total number of sweets?
- (a) 328
- (b) 348
- (c) 358
- (d) Data is inadequate
8. There are two containers X and Y. X contains 100 ml of milk and Y contains 100 ml of water. 20 ml of milk from X is transferred to Y.

- After mixing well, 20 ml of the mixture in Y is transferred back to X. If m denotes the proportion of milk in X and n denotes the proportion of water in Y, then which one of the following is correct?
- (a) $m=n$
- (b) $m > n$
- (c) $m < n$
- (d) Cannot be determined due to insufficient data
9. The marked price of a table is 1200, which is 20% above the cost price. It is sold at a discount of 10% on the marked price. Find the profit per cent.
- (a) 10%
- (b) 8%
- (c) 7.5%
- (d) 6%
10. The ratio between the speeds of two trains is 8:9. If the second train covers 360 km in 4 h, then the distance covered by first train in 3 h is
- (a) 240 km
- (b) 480 km
- (c) 120 km
- (d) 60 km
11. The average salary of 100 employees in an office is 16000 per month. The management decided to raise salary of every employee by 5% but stopped a transport allowance of 800 per month which was paid earlier to every employee. What will be the average monthly salary?
- (a) 16000
- (b) 16500
- (c) 16800

- (d) Cannot be determined
12. A bus started its journey from Ramgarh and reached Devgarh in 44 min with its average speed of 50 km/h. If the average speed of the bus is increased by 5 km/h, then how much time will it take to cover the same distance?
- (a) 40 min
(b) 38 min
(c) 36 min
(d) 31 min
13. A person can walk a certain distance and drive back in 6 h. He can also walk both ways in 10 h. How much time will he take to drive both ways?
- (a) 2 h
(b) 10 h
(c) $7/2$ h
- (4) 4 h
14. A mixture of 90 L of milk and water contains milk and water in the ratio 7: 3. How much water must be added to it, so that the ratio of milk to water be reversed to 3:7
- (a) 120 L
(b) 160 L
(c) 175 L
(d) Cannot be determined
15. The incomes of Mahesh and Suresh are in the ratio 7: 6 and their expenditures are in the ratio 4: 3. If both saves 5000, then find the income of Mahesh.
- (a) 32000
(b) 36000
(c) 39000

- (d) None of these
16. In an examination, there are three subjects A, B and C. A student has to pass in each subject. 20% students failed in A. 22% students failed in B and 16% failed in C. The total number of students passing the whole examination lies between
- (a) 42% and 84%
- (b) 42% and 78%
- (c) 58% and 78%
- (d) 58% and 84%
17. 4, 6, 12, 30, 90,?
- (a) 214
- (b) 315
- (c) 224
- (d) 335
18. Two pipes P and Q can fill a cistern in 12 and 15 min, respectively. If both are opened together and at the end of 3 min, the first is closed. How much longer will the cistern take to fill?
- (a) $3\frac{3}{4}$ min
- (b) $3\frac{5}{4}$ min
- (c) 5 min
- (d) $1\frac{7}{2}$ min
19. At a dinner party, every two guests used a bowl of rice between them, every three guests used a bowl of dal between them and every four used a bowl of meat between them. There were altogether 65 dishes. How many guests were present at the party?
- (a) 60
- (b) 65
- (c) 90
- (d) None of these
20. Four men working together can

- dig a ditch in 42 days. They begin but one man works only half days. How long will it take to complete the same job?
- (a) 48 days
(b) 47 days
(c) 45 days
(d) 42 days
21. The average wages of a worker during a month comprising 31 consecutive working days was 95 per day. During the first 15 days, his average wages was 92 per day and the average wages during the last 15 days was 97 per day. What was his wages on the 16th day?
- (a) 110
(b) 115
(c) 105
(d) ₹100
22. Ashu and Mohan are working on an assignment. Ashu takes 7 h to type 42 pages on a computer, while Mohan takes 4 h to type 40 pages. Working together on two different computers, how much time (in hours) will they take to type an assignment of 240 pages?
- (a) 15
(b) 27
(c) 45
(d) 12
23. The tank full petrol in Arun's motorcycle lasts for 10 days. If he starts using 25% more every day, then how many days will the tank full petrol last?
- (a) 5
(b) 6
(c) 7
(d) 8

24.

A bus is moving at a speed of 30 km/h ahead of a car which is moving with speed of 50 km/h. How many kilometres apart are they, if it takes 15 min for the car to catch the bus?

- (a) 5 km
- (b) 7.5 km
- (c) 12.5 km
- (d) 15 km

25. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.**

"In simple matters like shoe-making, we think only a specially trained person will serve our purpose, but in politics, we presume that everyone who knows how to get votes knows how to administer a State. When we are ill, is a guarantee of

specific preparation and technical competence—we do not ask for the handsomest physician, or the most eloquent one: well then, when the whole State is ill should we not look for the service and guidance of the wisest and the best?"

Which one of the following statements best reflects the message of the author of the passage?

- (a) We assume that in a democracy, any politician is qualified to administer a State.
- (b) Politicians should be selected from those trained in administration.
- (c) We need to devise a method of barring incompetence from public office.
- (d) As voters select their administrators, the eligibility of politicians to administer a State

- cannot be questioned.
26. "SPECIAL" is written as "65" in a certain code language what will "CONNECT" be coded as?
- (a) 70
(b) 64
(c) 32
(d) 74
27. Two candidates A and B contested an election. 80% of the voters cast their vote and there was no NOTA option. 5% of the votes were invalid and A got 50% of the vote and won by 2500 votes. What is the total number of voters in voters list?
- (a) 62,500
(b) 60,000
(c) 52,500
(d) 50,000
28. A three-digit number 'A' has 0 as its unit digit. Let 'B' be the number obtained by interchanging the digit in tenth and hundredth place of A. If the difference between 'A' and 'B' is 270, and each digit of 'A' is distinct, the how many values of 'A' are possible?
- (a) 4
(b) 5
(c) 6
(d) 7
29. Two persons P and Q enter into a business. P puts ₹ 14,000 more than Q, but P has invested for 8 months and Q has invested for 10 months. If P's share is ₹ 400 more than Q's share out of the total profit of ₹ 2,000, what is the capital contributed by P?
- (a) ₹ 30,000
(b) ₹ 26,000

(c) ₹ 24,000

(d) ₹ 20,000

30. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.**

We take it for granted now that science has a social responsibility. The idea would not have occurred to Newton or Galileo. They thought of science as an account of the world as it is, and the only responsibility that they acknowledged was to tell the truth. The idea that science is a social enterprise is modern, and it begins at the industrial revolution. We are surprised that we cannot trace a social sense further back, because we nurse the illusion that the industrial revolution ended a golden age.

Which one of the following statements best reflects the thinking of the author about the science?

- (a) Science must value the commitment of the scientists.
- (b) Science is a product of civilized society and must be used for the promotion of scientific awareness in people.
- (c) Industrial revolution was made possible by the advancements in science.
- (d) Science must pursue truth but be responsible for social welfare.

31. 23 people could do a piece of work in 18 days. After 6 days 8 of the workers left. How many days from then will it take to complete the work?

- (a) 17.6
- (b) 18.4

- (c) 20.4
(d) 16.8
32. If $1*2*3=6$, $2*4*5=4$ and $3*5*7=6$, then what is $4*6*7$?
- (a) 15
(b) 10
(c) 8
(d) 6
33. The ratio of the ages of A and B is 3 : 2. Ten years hence, the sum of their ages will be 80. What are their respective present ages (in years)?
- (a) 27, 18
(b) 36, 24
(c) 42, 28
(d) 45, 30
34. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.**

The poverty line is quite unsatisfactory when it comes to

grasping the extent of poverty in India. It is not only because of its extremely narrow definition of 'who is poor' and the debatable methodology used to count the poor, but also because of a more fundamental assumption underlying it. It exclusively relies on the notion of poverty as insufficient income or insufficient purchasing power. One can better categorize it by calling it income poverty. If poverty is ultimately about deprivations affecting human well-being, then income poverty is only one aspect of it. Poverty of a life, in our view, lies not merely in the impoverished state in which the person actually lives, but also in the lack of real opportunity given by social constraints as well as personal circumstances—to choose other types of living. Even the relevance of low incomes, meagre possessions, and other aspects of what are standardly seen as economic poverty relate

ultimately to their role in curtailing capabilities, i.e., their role in severely restricting the choices people have to lead variable and valued lives.

Why is income poverty only one measure of counting the 'poor'?

- (a) It talks of only one kind of deprivation ignoring all others.
- (b) Other deprivations in a human life have nothing to do with lack of purchasing power.
- (c) Income poverty is not a permanent condition, it changes from time to time.
- (d) Income poverty restricts human choices only at a point of time.

35. Let x be a positive integer such that $7x + 96$ is divisible by x . How many values of x are possible?

- (a) 10
- (b) 11
- (c) 12
- (d) Infinitely many

36. A car travels from a place X to place Y at an average speed of V km/hr, from Y to X at an average speed of $2v$ km/hr, again from X to Y at an average speed of $3v$ km/hr and again from Y to X at an average speed of $4v$ km/hr. Then the average speed of the car for the entire journey
- (a) is less than v km/hr
 - (b) lies between v and $2v$ km/hr
 - (c) lies between $2v$ and $3v$ km/hr
 - (d) lies between $3v$ and $4v$ km/hr

37. X and Y run a 3 km race along a circular course of length 300m. Their speeds are in the ratio 3:2.

If they start together in the same direction, how many times would the first one pass the other (the start-off is not counted as passing)?

- (a) 2
- (b) 3
- (c) 4
- (d) 5

38. The ages of two persons differ by 16 years. If 6 years ago, the elder one be 3 times as old as the younger one, find their present ages of elder one?

- (a) 48
- (b) 26
- (c) 30
- (d) 36

39. When 70% of a number x is

added to another number y , the sum becomes 165% of the value of y . When 60% of the number x is added to another number z , then the sum becomes 165% of the value of z . Which one of the following is correct?

- (a) $z < x < y$
- (b) $x < y < z$
- (c) $y < x < z$
- (d) $z < y < x$

40. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.**

There is a claim that organic farming is inherently safer and healthier. The reality is that because the organic farming industry is still young and not well-regulated in India, farmers and consumers, alike, are not only confused about what products are best for them, but

sometimes use products in ways that could harm them as well. For example, since organic fertilizers are difficult to obtain on a large scale in India, farmers often use farmyard manure, which may contain toxic chemicals and heavy metals. Certain plant sprays, such as Datura flower and leaf spray, have an element called atropine. If it is not applied in the right dose, it can act on the nervous system of the consumer. Unfortunately, how much and when to use it are not well-researched or regulated issues.

Which one of the following statements best reflects the most logical, rational and practical message conveyed by the author of the passage?

(a) In India, organic farming should not be promoted as a substitute for conventional farming.

(b) There are no safe organic alternatives to chemical fertilizers.

(c) In India, farmers need to be guided and helped to make their organic farming sustainable.

(d) The aim of organic farming should not be to generate huge profits as there is still no global market for its products.

41.

A box contains 14 black balls, 20 blue balls, 26 green balls, 28 yellow balls, 38 red balls and 54 white balls. Consider the following statements:

1. The smallest number n such that any n balls drawn from the box randomly must contain one full group of at least one colour is 175.

2. The smallest number m such that any m balls drawn from the box randomly must contain at least one ball of each colour is

- 167.
- Which of the above statements is/are correct?
- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 42.
- There are some benches in a classroom. If 4 students sit on each bench, then 3 benches are left unoccupied. However, if 3 students sit on each bench, 3 students are left standing. How many students are there in the class?
- (a) 36
- (b) 48
- (c) 56
- (d) 64
- 43.
- The age of Prakash is 4 times the age of his son. After 10 yr, the age of Prakash will be only twice the age of his son. Find the present age of Prakash's son
- (a) 10 year
- (c) 12 year
- (c) 11 yr
- (d) None of these
44. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.**
- The poverty line is quite unsatisfactory when it comes to grasping the extent of poverty in India. It is not only because of its extremely narrow definition of 'who is poor' and the debatable methodology used to count the poor, but also because of a more fundamental assumption underlying it. It exclusively relies

on the notion of poverty as insufficient income or insufficient purchasing power. One can better categorize it by calling it income poverty. If poverty is ultimately about deprivations affecting human well-being, then income poverty is only one aspect of it. Poverty of a life, in our view, lies not merely in the impoverished state in which the person actually lives, but also in the lack of real opportunity given by social constraints as well as personal circumstances—to choose other types of living. Even the relevance of low incomes, meagre possessions, and other aspects of what are standardly seen as economic poverty relate ultimately to their role in curtailing capabilities, i.e., their role in severely restricting the choices people have to lead variable and valued lives

What does the author mean by 'poverty of a life'?

- (a) All deprivations in a human life which stem not only from lack of income but lack of real opportunities
- (b) Impoverished state of poor people in rural and urban areas
- (c) Missed opportunities in diverse personal circumstances
- (d) Material as well as non-material deprivations in a human life which restrict human choices permanently.

45.

In a school, there are 2000 students out of whom 36% are girls. Each boy's monthly fee is ₹ 480 and each girl monthly fee is 25% less than a boy. What is the total of the monthly fees of girls and boys together?

- (a) 873400
- (b) 867300
- (c) 876300

- (d) 873600
46. Virat Kohli has certain average for 9 innings. In the tenth inning, he scores 100 runs, thereby increasing his average by 8 runs. His new average is
- (a) 20
(b) 24
(c) 28
(d) 32
47. A bus covered a certain distance from village A to village B at the speed of 60 km/h. However, on its return journey, it got stuck in traffic and covered the same distance at the speed of 40 km/h and took 2 h more to reach its destination. What is the distance covered between villages A and B?
- (a) 240 km
(b) 260 km
- (c) 200 km
(d) Cannot be determined
48. In a question paper, there are four multiple choice type questions. Each question has five choices with only one choice for its correct answer. What are the total number of ways in which a candidate will not get all the four answers correct?
- (a) 19
(b) 120
(c) 624
(4) 1024
49. If $7 + 9 + 10 = 8$, $9 + 11 + 30 = 5$, $11 + 17 + 21 = 13$, what is the value of $23 + 4 + 15$?
- (a) 6
(b) 8

- (c) 13
- (d) 15
50. Two Statements S1 and S2 are given below with regard to two numbers followed by a Question:
- S1: Their product is 21.
- S2: Their sum is 10.
- Question:
- What are the two numbers?
- Which one of the following is correct in respect of the above Statements and the Question?
- (a) S1 alone is sufficient to answer the Question.
- (b) S2 alone is sufficient to answer the Question.
- (c) S1 and S2 together are sufficient to answer the Question, but neither S1 alone nor S2 alone is sufficient to answer the Question.

(d) S1 and S2 together are not sufficient to answer the Question.

51. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.**

In some places in the world, the productivity of staples such as rice and wheat has reached a plateau. Neither new strains nor fancy agrochemicals are raising the yields. Nor is there much unfarmed land left that is suitable to be brought under the plough. If global temperature continues to rise, some places will become unsuitable for farming. Application of technology can help overcome these problems. Agricultural technology is changing fast. Much of this change is brought about by affluent farmers in the West/Americas. Techniques developed in the West are being adapted in some places to make

tropical crops more productive. Technology is of little use if it is not adapted. In the developing world, that applies as much to existing farming techniques as it does to the latest advances in genetic modification. Extending to the smallholders and subsistence farmers of Africa and Asia the best of today's agricultural practices, in such simple matters as how much fertilizers to apply and when, would lead to a greatly increased availability of food for humanity. So would things like better roads and storage facilities, to allow for the carriage of surpluses to markets and reduce wastage.

Based on the above passage, the following assumptions have been made:

1. Poor countries need to bring about change in their existing farming techniques.
2. Developed countries have

better infrastructure and they waste less food.

Which of the above assumptions is/are valid?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

52.

In a tournament of Chess having 150 entrants, a player is eliminated whenever he loses a match. It is given that no match results in a tie/draw. How many matches are played in the entire tournament?

- (a) 151
- (b) 150
- (c) 149
- (d) 148

53.

A train overtakes two persons

- who are walking in the same direction in which the train is going at the rate of 2 km/h, 4 km/h and passes them completely in 9 s and 10 s, respectively. The length of the train is
- (a) 70 m
- (b) 80 m
- (c) 60 m
- (d) 50 m
54. A boat's speed in still water is 5 km/h. While river is flowing with a speed of 2 km/h and time taken to cover a certain distance upstream is 2 h more than time taken to cover the same distance downstream. Find the distance.
- (a) 10.5 km
- (b) 11 km
- (c) 10.9 km
- (d) 15 km
55. A contract on construction job specifies a penalty for delay in completion of the work beyond a certain date is as follows: 200 for the first day, 250 for the second day, 300 for the third day etc., the penalty for each succeeding day being 50 more than that of the preceding day. How much penalty should the contractor pay if he delays the work by 10 days?
- (a) 4950
- (b) 4250
- (c) 3600
- (d) 650
56. A sum of 700 has to be used to give seven cash prizes to the students of a school for their overall academic performance. If each prize is 20 less than its preceding prize, what is the least value of the prize?
- (a) ₹30

- (b) ₹40
- (c) ₹60
- (d) ₹80
57. In a certain code language “EASY” is written as “5117”. In the same code language, how will “BEAM” be written as?
- (a) 4512
- (b) 4567
- (c) 2513
- (d) 2514
58. A certain number of men can complete a piece of work in $6k$ days, where k is a natural number. By what percent should the number of men be increased so that the work can be completed in $5k$ days?
- (a) 10%
- (b) $(50/3) \%$
- (c) 20%
- (d) 25%
59. In the expression $5 * 4 * 3 * 2 * 1$, $*$ is chosen from $+$, $-$, \times each at most two times. What is the smallest non-negative value of the expression?
- (a) 3
- (b) 2
- (c) 1
- (d) 0
60. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.**
- As inflation rises, even governments previously committed to budget discipline are spending freely to help households. Higher interest rates announced by central banks are supposed to help produce modest

fiscal austerity, because to maintain stable debts while paying more to borrow, governments must cut spending or raise taxes. Without the fiscal backup, monetary policy eventually loses traction. Higher interest rates become inflationary, not disinflationary, because they simply lead governments to borrow more to pay rising debt-service costs. The risk of monetary unmooring is greater when public debt rises, because interest rates become more important to budget deficits.

Based on the above passage, the following assumptions have been made:

1. Fiscal policies of governments are solely responsible for higher prices.
2. Higher prices do not affect the long-term government bonds.

Which of the assumptions given above is/are valid?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

61.

One of the biggest ironies around water is that it comes from rivers and other wetlands. Yet it is seen as divorced from them. While water is used as a resource, public policy does not always grasp that it is a part of the natural ecosystem. Efforts at engineering water systems are thus effort at augmenting water supply rather than strengthening the capacities of ecological systems.

Which one of the following is the most logical and rational inference that can be made from

- the above passage?
- (a) Rivers and other wetlands should be protected under Ramsar Convention.
- (b) Engineering water systems should be modernized and further augmented.
- (c) Wetlands need to be reinforced as more than just open sources of water.
- (d) Water supply should not be free of cost so as to prevent its misuse or overuse.
62. A contractor employed 25 labourers on a job. He was paid 275 for the work. After retaining 20% of this sum, he distributed the remaining amount among the labourers. If the number of men to women labourers was in the ratio 2: 3 and their wages in the ratio 5: 4, what wages did a woman laborer get?
- (a) 6
- (b) 8
- (c) 14
- (d) 16
63. How much does a watch lose per day, if its hands coincide every 64 min?
- (a) $32\frac{8}{11}$ min
- (b) $38\frac{5}{11}$ min
- (c) 95 min
- (d) 97 min
64. A person sold a cow at a gain of 15%. Had he bought it for 25% less and sold it for 60 rupees less, he would have made a profit of 32%. The cost price of the cow is
- (a) 263

- (b) 360
- (c) 375
- (d) 425
65. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:
- (a) 39, 30
- (b) 41, 32
- (c) 42, 33
- (d) 43, 34
66. $422: 21: 366 : ?$
- (a) 18
- (b) 66
- (c) 36
- (d) 6
67. On one side of a 1.01 km long road, 101 plants are planted at equal distance from each other. What is the total distance between 5 consecutive plants?
- (a) 40 m
- (b) 40.4 m
- (c) 50m
- (d) 50.5 m
68. The letters A, B, C, D and E are arranged in such a way that there are exactly two letters between A and E. How many such arrangements are possible?
- (a) 12
- (b) 18
- (c) 24
- (d) 36
69. Consider the following in respect of prime number p and composite number c .

1. $p + c / p - c$ can be even.

2. $2p + c$ can be odd.

3. pc can be odd.

Which of the statements given above are correct?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

70.

RAM: 49: JON : ?

(a) 42

(b) 39

(c) 34

(d) 48

71. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on**

the passages only.

Although most of the Genetically Modified (GM) crops cultivated now are genetically engineered for a single trait, in future, crops genetically engineered for more than one trait will be the norm. Thus, biotechnology's role in agriculture and the regulation of the same cannot be generation of GM crops. Instead, there is a need to take a comprehensive look, considering various aspects, including socio-economic impacts, so that the potential of the technology can be harnessed while minimizing negative impacts. Given the importance of biotechnology in developing varieties that can help in climate change mitigation and adaptation, not using biotechnology as a part of the climate change action plan cannot be an option. Domestic regulation of biotechnology cannot be viewed in isolation of

trade policy and obligations under various international treaties and conventions.

Which one of the following statements best implies the crux of the passage?

- (a) Precautionary principle is not given importance in current debate on developing GM crops.
- (b) Biotechnology is not currently used in climate change mitigation and adaptation mechanisms.
- (c) Biotechnology's role is not confined to the current priorities of developing GM crops.
- (d) The negative impacts of biotechnology are not properly understood.

72.

A and B are two friends. A is twice as old as B. Five years ago, A was three times as old as B. What is the current age of A?

- (a) 10 years

- (b) 15 years
- (c) 20 years
- (d) 25 years

73.

Three dice each having six faces with each face having one number from 1 or 6 are rolled. What is the number of possible outcomes such that atleast one dice shows the number 2?

- (a) 36
- (b) 81
- (c) 91
- (d) 116

74.

A club has 108 members. Two-thirds of them are men and the rest are women. All members are married except for 9 women members. How many married women are there in the club?

- (a) 20
- (b) 24

- (c) 27
- (d) 30
75. Arun and Sajal are friends. Each has some money. If Arun gives 30 to Sajal, then Sajal will have twice the money left with Arun. But, if Sajal gives 10 to Arun, then Arun will have thrice as much as is left with Sajal. How much money does each have?
- (a) 62, 32
- (b) 64, 34
- (c) 62, 34
- (d) None of these
76. 12 cows and 8 horses were bought for 192000. If the average price of the horses be 4000, then find the average price of a cow.
- (a) 5000
- (b) 4000

- (c) 6000
- (d) Cannot be determined
77. Divide ₹ 500 among A, B, C and D, so that A and B together get thrice as much as C and D together, B gets four times of what C gets and C gets 1.5 times as much as D. Then, the value of what B gets, is
- (a) 300
- (b) 75
- (c) 125
- (d) None of these
78. Raman scored 456 marks in an exam and Sita got 54% marks in the same exam, which is 24 marks less than Raman. If the minimum passing marks in the exam is 34%, then how much more marks did Raman score than the minimum passing marks?

- (a) 184
- (b) 196
- (c) 190
- (d) 180
79. Four friends A, B, C and D distribute some money among themselves in such a manner that A gets one less than B, C gets 5 more than D. D gets 3 more than B. Who gets the smallest amount?
- (a) A
- (b) B
- (c) C
- (d) D
80. Mr. Kumar drives to work at is 10 min more than the time taken to cover the remaining distance. How far is his office? tan average speed of 48 km/h. The time taken to cover the first 60% of the distance
- (a) 30 km
- (b) 40 km
- (c) 45 km
- (d) 48 km
81. What is the number of fives used in numbering a 260-page book?
- (a) 55
- (b) 56
- (c) 57
- (d) 60
82. **Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.**
- When a child reaches adolescence, there is apt to be a conflict between the parents and the child, since the latter considers himself to be by now

quite capable of managing his own affairs, while the former are filled with parental solicitude, which is often a disguise for love of power. Parents consider, usually, that the various moral problems which arise in adolescence are peculiarly their province. The options they express, however, are so dogmatic that the young seldom confide in them, and usually go their own way in secret.

Which one of the following statements best reflects the central idea of the above passage?

- (a) Parents in general may not be of much help when children are on their way to becoming adults.
- (b) When children reach adolescence, involvement of parents in their lives is unnecessary.
- (c) Modern-day nuclear families

are not capable of bringing up children properly.

(d) In modern societies, adolescents tend to be stubborn, disobedient and careless.

83. How many integers are there between 1 and 100 which have 4 as a digit but are not divisible by 4?

- (a) 5
- (b) 11
- (c) 12
- (d) 13

84. Two statements are given followed by two Conclusions:

Statements:

All numbers are divisible by 2.

All numbers are divisible by 3.

Conclusion-I:

All numbers are divisible by 6.

Conclusion-II:

All numbers are divisible by 4.

Which of the above Conclusions logically follows/follow from the two given Statements?

- (a) Only Conclusion-I
- (b) Only Conclusion-II
- (c) Neither Conclusion-I nor Conclusion-II
- (d) Both Conclusion-I and Conclusion-II

85.

Prabhakar is 15 yr older than Navin and Navin is 25 yr younger than Ashok. Which of the following represents the difference between the ages of Ashok and Prabhakar?

- (a) 40 yr

(b) $(40+2N)$ yr

(c) $(40+N)$ yr

(d) None of these

86.

Seven men A, B, C, D, E, F and G are standing in a queue in that order. Each one is wearing a cap of a different colour like violet, indigo, blue, green, yellow, orange and red. D is able to see in front of him green and blue, but not violet. E can see violet and yellow, but not red. G can see caps of all colours other than orange. If E is wearing an indigo coloured cap, then the colour of the cap worn by Fis

- (a) blue
- (b) violet
- (c) red
- (d) orange

87.

50 g of an alloy of gold and silver contains 80% gold (by weight).

- The quantity of gold that is to be mixed up with this alloy, so that it may contain 95% gold, is
- (a) 200 g
(b) 50 g
(c) 150 g
(d) 10 g
88. A rectangular water tank measures 15 m x 6 m at top and is 10 m deep. It is full of water. If water is drawn out lowering the level by 1 m, then how much of water has been drawn out?
- (a) 90000 L
(b) 45000 L
(c) 4500 L
(d) 900 L
89. 125 identical cubes are arranged in the form of cubical block. How many cubes are surrounded by other cubes from each side?
- (a) 27
(b) 25
(c) 21
(d) 18
90. Raj has ten pairs of red, nine pairs of white and eight pairs of black shoes in a box. If he randomly picks shoes one by one (without replacement) from the box to get a red pair of shoes to wear, what is the maximum number of attempts he has to make?
- (a) 27
(b) 36
(c) 44
(d) 45
91. A bottle contains 20 litres of

liquid Q. 4 litres of liquid A is taken out of its and replace by same quantity of liquid B. Again 4 litres of the mixture is taken out and replaced by same quantity of liquid B. What is the ratio of quantity of liquid A to that of liquid B in the final mixture?

- (a) 4 : 1
- (b) 5 : 1
- (c) 16 : 9
- (d) 17 : 8

92.

How many different 5-letter words (with or without meaning) can be constructed using all the letters of the word 'DELHI' so that each word has to start with D and end with I?

- (a) 24
- (b) 18
- (c) 12

(d) 6

93.

Which number amongst 2^{40} , 3^{21} , 4^{18} and 8^{12} is the smallest?

- (a) 2^{40}
- (b) 3^{21}
- (c) 4^{18}
- (d) 8^{12}

94.

Read the following passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.

The poverty line is quite unsatisfactory when it comes to grasping the extent of poverty in India. It is not only because of its extremely narrow definition of 'who is poor' and the debatable methodology used to count the poor, but also because of a more fundamental assumption underlying it. It exclusively relies on the notion of poverty as

insufficient income or insufficient purchasing power. One can better categorize it by calling it income poverty. If poverty is ultimately about deprivations affecting human well-being, then income poverty is only one aspect of it. Poverty of a life, in our view, lies not merely in the impoverished state in which the person actually lives, but also in the lack of real opportunity given by social constraints as well as personal circumstances—to choose other types of living. Even the relevance of low incomes, meagre possessions, and other aspects of what are standardly seen as economic poverty relate ultimately to their role in curtailing capabilities, i.e., their role in severely restricting the choices people have to lead variable and valued lives.

What does the author mean by 'poverty of a life'?

(a) All deprivations in a human

life which stem not only from lack of income but lack of real opportunities

(b) Impoverished state of poor people in rural and urban areas

(c) Missed opportunities in diverse personal circumstances

(d) Material as well as non-material deprivations in a human life which restrict human choices permanently.

95.

A person buys three articles P, Q and R for ₹ 3,330. If P costs 25% more than R and R costs 20% more than Q, then what is the cost of P?

(a) ₹ 1,000

(b) ₹ 1,200

(c) ₹ 1,250

(d) ₹ 1,350

96. What is the middle terms of the sequence
Z, Z, Y, Y, Y, X, X, X, X, W, W, W,
W, W,.....,A?
- (a) H
(b) I
(c) J
(d) M
97. What is the remainder if 2^{192} is divided by 6?
- (a) 0
(b) 1
(c) 2
(d) 4
98. Household finance in India is unique. We have a tendency to invest heavily in physical assets such as gold and property. Steps to encourage the financialization

of savings are critical. A populace accustomed to traditional processes will not simply jump into financialization. Hurdles to change include onerous bureaucracy, a scepticism of organized financial institutions, a lack of basic information about which of the myriad services and providers is best for each family, and how (and even if) one can make the transition between them if necessary.

Regarding the financialization of household savings, which of the following statements best reflect the solutions that are implied by the passage?

1. A flexible environment is needed to develop solutions.
2. Households need customized solutions.
3. Innovations in financial technology are required.

Select the correct answer using

the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

99.

What will come in place of * in the sequence 3, 14, 39, 84, *, 258?

- (a) 150
- (b) 155
- (c) 160
- (d) 176

100

a + b means a – b; a – b means a x b; a x b means a ÷ b; a ÷ b;

means a + b, then what is the value of $10 + 30 - 100 \times 50 \div 25$? (Operations are to be replaced simultaneously)

- (a) 15
- (b) 0
- (c) -15
- (d) -25

101

$32^5 + 2^{27}$ is divisible by

- (a) 3
- (b) 7
- (c) 10
- (d) 11

Sl. no.	Ans	EXPLANATIONS
1.	B	Correct answer is (b)

		<p>According to the question,</p> <p>Number of cards A = $10 - 2 = 8$</p> <p>B = $10 + 3 - 6 = 7$</p> <p>C = $10 + 5 - 3 = 12$</p> <p>D = $10 + 6 - 1 = 15$</p> <p>E = $10 + 1 = 11$</p> <p>F = $10 + 2 - 5 = 7$</p> <p>Sum of cards possessed by D and E = $15 + 11 = 26$</p> <p>From the given options,</p> <p>Cards possessed by B, C and F = $7 + 12 + 7 = 26$</p> <p>which is equal to number cards possessed by D and E.</p>
2.	C	<p>Correct answer is (c)</p> <p>Let the distance covered by freight and express train be 'x km in time t' hrs and t - 2' hr, respectively.</p> <p>According to the questions,</p> <p>$40t = 60(t - 2)$</p> <p>$40t = 60t - 120$</p> <p>$20t = 120$</p>

		$t = 6\text{hr}$ So, Required distance = $60(6-2)$ $= 60 * 4$ $= 240\text{kms}$
3.	B	Correct answer is (b) Total volume = $l b h$ $= 320 * 15 * 6$ $= 1800\text{m}^3$ $= 1800000\text{L}$ Per day consumption $n = 4000 * 150\text{L} = 600000\text{L}$ So, Number of days required to empty tank $1800000 / 600000$ $= 3\text{ days}$
4.	B	Option (a) is incorrect: The passage does not discuss what qualifies for the home range of the elephants. It rather discusses the importance and benefits of elephants for the forest ecosystem. Option (b) is correct: The passage discusses this aspect in the entire

and each line of the passage.

Option (c) is incorrect: While this option might seem true, as the passage does discuss the importance of elephants to a point where their presence might seem critical in the forest ecosystem, the passage does not go to the extent of stating that the rich biodiversity in the forests cannot be maintained without the presence of elephants. For example, there might be another species/ multitude of species that could maintain the rich biodiversity of forests even in the absence of elephants. Hence, it would be extreme and incorrect to infer that the rich biodiversity of the forests cannot be maintained in the forests without the presence of elephants.

Option (d) is incorrect: This option is incorrect because it mentions “as per their requirement”. The passage shows that elephants regenerate forests in an involuntary manner (not as per their consciousness or own requirements per se), for example, they “propagate(ing) the seeds when they defecate...Elephant dung acts as a breeding ground for insects.” Further, one might argue that the passage mentions “In times of drought, they access the water by digging holes which benefits other wildlife” which they do “for their requirement”. However, how such access to water benefits other wildlife is not consciously controlled by them, i.e. they are only accessing water here for their own requirement, and not facilitating regeneration in the forest for their own requirement!

5.	D	<p>Correct Answer: d</p> <p>Let the new average contribution of 6 men be x</p> <p>Then, according to the question,</p> $= (35 * 5 + (x + 35))/6 = x$ $175 + x + 35 = 6x$ $210 = 6x - x$ $x = 210/5$ $= 42$ <p>Total contribution = 6 * 42</p> $= 252$
6.	D	<p>Correct Answer: D</p> <p>Option (a) is incorrect as constructing huge concrete storage tanks and canals across the country is not the most rational and practical solution due to the large capital expenditure associated with such dams, their viability in seismically active zones, and other socio-environmental problems associated with them. Also, the passage only discusses the temporal aspect of the same- “too much’ water (about 75% of annual precipitation) during 120 days (June to September) and ‘too little’ for the remaining 245 days.”-and not the spatial aspect. Whereas the solution in this option discusses a spatial component as</p>

		<p>well. Therefore, it does not quite follow the passage and goes beyond its scope.</p> <p>Option (b) is incorrect Apart from the reason discussed above, changing the cropping patterns and farming practices would not lead to practical water management as excess water still can not be utilized or regulated which would flow to the oceans and can not be available for other times.</p> <p>Option (c) is incorrect as the interlinking of rivers is a controversial issue due to sustainability issues associated with it. For example, the displacement of people, the disturbance of the ecosystem of riparian regions, and the loss of biodiversity and productive lands.</p> <p>Option (d) is correct Buffer stocking of water through dams and recharging aquifers would mean that the excess water is being stored in a practical and cost-effective manner. Also, no sustainability issues are involved with it. Recharged aquifer would also ensure that groundwater is available for a longer duration and during the off rainy seasons as well.</p>
7.	C	<p>Correct Answer: c</p> <p>Let the total number of sweets be $(25x + 8)$</p> <p>Then, $(25x + 8) - 22$ is divisible by 28.</p> <p>$= (25x - 14)$ is divisible by 28.</p>

		<p>$=28x - (3x + 14)$ is divisible by 28</p> <p>$= (3x + 14)$ is divisible by 28.</p> <p>$x = 14$</p> <p>Total number of sweets = $(25 * 14 + 8)$</p> <p>$= 358$</p>
8.	A	<p>Answer: (a)</p> <p>Container X contains 100 ml of milk and container Y contains 100 ml of water.</p> <p>If 20 ml of milk transferred from container X to container Y, then:</p> <p>Amount of milk left in container X = $100 - 20 = 80$ ml</p> <p>Amount of solution in container Y becomes = 100 ml water + 20 ml milk = 120 ml</p> <p>Ratio of milk and water in container Y = $20: 100 = 1: 5$</p> <p>Amount of milk in 20 ml solution of container Y = $(1/6) \times 20 = 3.33$ ml</p> <p>Amount of water in 20 ml solution = $20 - 3.33 = 16.67$ ml</p> <p>If 20 ml of this solution is transferred from container Y to container X, then:</p> <p>Amount of solution in container X becomes = $(80 + 3.33)$, i.e. 83.33 ml</p>

		<p>milk + 16.67 ml water</p> <p>Amount of solution in container Y becomes = $(100 - 16.67)$, i.e. 83.33 ml water + $(20 - 3.33)$, i.e. 16.67 ml milk</p> <p>As per the question, m denotes the proportion of milk in X, and n denotes the proportion of water in Y.</p> <p>So, $m = 83.33$ ml and $n = 83.33$ ml</p> <p>Thus, $m = n$</p>
<p>9.</p>	<p>B</p>	<p>Answer: (b)</p> <p>Given, marked price = 1200</p> <p>$CP = 1200/120 * 100$</p> <p>=1000</p> <p>If sold at 10% discount, then</p> <p>$SP = 1200 * 90/100$</p> <p>= 1080</p> <p>Profit on CP = 80</p> <p>Profit percentage = $80 / 1000 * 100$</p> <p>= 8%</p>

10.	A	<p>Answer: (a)</p> <p>Let the speed of first train be $8x$ km/h and the speed of second train be $9x$ km/h.</p> <p>Speed of second train = $360/4 = 90$km / h</p> <p>Now, $9x = 90$</p> <p>$x = 10$</p> <p>Then, speed of first train = $8 * 10 = 80$km / h</p> <p>So, Required distance = $80 * 3$</p> <p>= 240km</p>
11.	A	<p>Answer: a</p> <p>Increment = 5% of 16000</p> <p>= 800</p> <p>So, Increased salary = 16000 + 800</p> <p>= 16800</p> <p>Salary after deducting transport allowance</p> <p>= 16800 – 800</p> <p>= 16000</p>

12.	A	<p>Answer: (a)</p> <p>Distance between Ramgarh and Devgarh</p> $= 50 \times 44 / 60$ $= 110 / 3 \text{ km}$ <p>Now, speed is increased by 5 km/h.</p> <p>New speed = 55 km/h</p> $= 55 / 60 \text{ km/min}$ <p>So, Required time = Distance/Speed</p> $= 110 / 3 \times 60 / 55$ $= 40 \text{ min}$
13.	A	<p>The correct answer is (a)</p> <p>Let total time taken to cover the given distance by walking be x hour and by driving be y hour.</p> <p>Then, $x + y = 6 \dots(i)$</p> <p>$x + x = 10 \dots (ii)$</p> <p>On solving Eqs. (i) and (ii), we get</p>

		<p>$x = 5h$ and $y = 1h$</p> <p>Hence, driving both ways will take $y + y = 2y$ hours</p> <p>$= 2 * 1 = 2h$</p>
14.	A	<p>The correct answer is (a)</p> <p>Quantity of milk = $7 / 10 * 90 = 63$ L</p> <p>and quantity of water = $3 / 10 * 90 = 27$L</p> <p>Let the required quantity of water to be added be x L.</p> <p>Then, $63 / (27 + x) = 3 / 7$</p> <p>$3(27 + x) = 63 * 7$</p> <p>$81 + 3x = 441$</p> <p>$3x = 360$</p> <p>$x = 120$L</p> <p>So, quantity of water to be added is 120 L</p>
15.	D	<p>The correct answer is (d)</p>

		<p>Let their respective incomes be $7I$ and $6I$</p> <p>and their expenditures be $4E$ and $3E$, respectively.</p> <p>Then, according to the question,</p> $7I - 4E = 5000 \dots(i)$ $6I - 3E = 5000 \dots (ii)$ <p>and on solving Eqs. (i) and (ii), we get</p> $I = E = 5000$ <p>Income of Mahesh = $7I$</p> $= (7 \times 5000)$ $= 35000$
16.	B	<p>The correct answer is (b)</p> <p>There are three subjects A, B and C.</p> <p>Total percentage of students failed individually in each subject</p> $= 20 + 22 + 16 = 58$ <p>So, Minimum students passing the whole exam</p> $= (100 - 58)$

		<p>=42%</p> <p>Maximum student passing the whole exam happens when students commonly failed in all three subjects. In this condition, the minimum number of students who failed in the exam will be 22% i.e. in subject B</p> <p>Maximum students passing the whole exam = $(100-22) = 78\%$</p> <p>Hence, total number of students passing the whole examination lies between 42% and 78%</p>
17.	B	<p>Correct answer: b</p> <p>The pattern of given series is as follows:</p> <p>$4 * 1.5 = 6$</p> <p>$6 * 2 = 12$</p> <p>$12 * 2.5 = 30$</p> <p>$30 * 3 = 90$</p> <p>$90 * 3.5 = 315$</p>
18.	A	<p>Correct answer: (a)</p> <p>Part filled by pipe P in 1min = $1/12$</p> <p>and part filled by pipe Q in 1min = $1/15$</p> <p>So, Part filled by both pipes in 1 min = $1/12 + 1/15$</p>

		<p>$= (5 + 4)/60$</p> <p>$= 9/60$</p> <p>$= 3/20$</p> <p>Now, part filled by both pipes in 3min = $(3 * 3)/20 = 9/20$</p> <p>So, Remaining part to be filled = $1 - 9/20 = 11/20$</p> <p>Let the remaining part is filled by pipe Q in x min.</p> <p>Then, $x * 1/15 = 11/20$</p> <p>$x = (15 * 11)/20$</p> <p>$= (3 * 11)/4$</p> <p>$= 33/4$ min</p> <p>Hence, the remaining part is filled by pipe Q in $33/4$ min.</p>
19.	A	<p>Correct answer: (a)</p> <p>Let the number of guests be x.</p> <p>Then, number of bowls of rice = $x/2$</p> <p>Number of bowls of dal = $x/3$</p> <p>Number of bowls of meat = $x/4$</p>

		<p>According to the question,</p> $x/2 + x/3 + x/4 = 65$ $(6x + 4x + 3x)/12 =$ $13x = 65 * 12$ $x = (65 * 12)/13$ $= 60$ <p>Hence, total number of guests are 60.</p>
20.	A	<p>Correct answer: (a)</p> <p>It would take for 1 man, $42 \times 4 = 168$ days to complete the work alone.</p> <p>As one man works half day and 3 men work full days, we can $7/2$ men are working , for $7/2$ men the job would take</p> $168 / (7/2)$ $= 48 \text{ days.}$
21.	A	<p>The correct answer is (a)</p> <p>Total wages of 31 days = $(95 \times 31) = 2945$</p> <p>Total wages of first 15 days = $(92 \times 15) = 1380$</p> <p>Total wages of last 15 days = $(97 \times 15) = 1455$</p>

		Hence, wages on 16th day = $(2945-1380-1455)$ = 110
22.	A	The correct answer is (a) Number of pages typed by Ashu in 1h = $42/7 = 6$ Number of pages typed by Mohan in 1 h = $40/4 = 10$ Number of pages typed by both in 1h = $6 + 10 = 16$ So, Time taken by both to type 240 pages = $240/16$ = 15h
23.	D	The correct answer is (d) Let Arun has 10 L of petrol and he uses 1 L every day. As per given condition, he starts using 25% more every day. i.e. $1 + 1/4 = 5/4$ L every day. It will last for $10 / (5/4) = 40/5$ = 8 days

24.	A	<p>The correct answer is (a)</p> <p>The relative speed of car as compared to the bus = $50 - 30$</p> <p>= $20\text{km} / \text{h}$</p> <p>Distance travelled by car to catch bus</p> <p>= Distance travelled by car in 15min</p> <p>= $20 * 15/60$</p> <p>= 5km</p>
25.	B	<p>Answer: (b)</p> <p>The question is asking us about the message being delivered by the author. That is, what does (s)he wants to convey to the readers.</p> <p>Option (a) is incorrect: While this option is close and might seem correct, the author clearly states that “but in politics, we presume that everyone who knows how to get votes knows how to administer a State”. (S)he clearly specifies that the public/ voters presume that the person elected “knows how to administer a state” but not necessarily an assumption of qualifications.</p> <p>Option (b) is correct: This is a valid message being conveyed by the author throughout the passage. In each of the lines, (s)he makes a bid to focus on the skill sets of the candidates standing for elections while voting.</p>

		<p>Option (c) is incorrect: This goes beyond the scope of the passage. There is no mention of keeping any kinds of bars for candidates in the passage.</p> <p>Option (d) is incorrect: The author is clearly calling into question the eligibility of politicians and is urging the voters to vote for those who are specialised and trained in the sphere of administration. This is evident from the lines, “but in politics, we presume that everyone who knows how to get votes knows how to administer a State.”, “well then, when the whole State is ill should we not look for the service and guidance of the wisest and the best?”</p>
26.	D	<p>Correct Option: (d)</p> <p>SPECIAL → Sum of the place value of each alphabet in the alphabetical order</p> <p>SPECIAL = 19+16+5+3+9+1+12</p> <p>= 65</p> <p>So,</p> <p>CONNECT = 3+15+14+14+5+3+20</p> <p>= 74</p>
27.	A	<p>Correct Option: a</p>

		<p>X got 50% vote. Since there were no NOTA and since 5% vote were invalid, Vote share of Y = $100 - (50 + 5) = 45\%$.</p> <p>So, X won by $50 - 45 = 5\%$ votes.</p> <p>5% of cast votes = 2500</p> <p>$5/100 \times \text{Cast Vote} = 2500$, Cast vote = $(2500 \times 100)/5 = 50,000$</p> <p>80% of voters in voters list = 50000</p> <p>$80/100 \times \text{voters in voters list} = 50000$, voters in voters list = $(50000 \times 100)/80 = 62,500$</p>
28.	C	<p>Correct Option: c</p> <p>Let A = XY0 and B = YX0.</p> <p>$XY0 - YX0 = 100X + 10Y - 100Y - 10X = 90(X - Y) = 270$</p> <p>$X - Y = 3$</p> <p>300 not possible as digits won't be distinct</p> <p>Then possible values of A are 410, 520, 630, 740, 850, 960</p>
29.	A	<p>Answer: (a)</p> <p>Let Q invested Rs. X for 10 months and P invested Rs. (X + 14000) for 8 months.</p>

		<p>Now, in the profit of Rs.2000, P's share is Rs. 1200 and Q's share is Rs. 800.</p> <p>We know that, the profit is divided in the ratio of contribution.</p> <p>So, $\{8 \times (X + 14000)\} / (10X) = 1200/800$</p> <p>Or $8X + 112000 = 15X$</p> <p>Or $7X = 112000$</p> <p>Or $X = \text{Rs. } 16000$</p> <p>Hence, money invested by Q = Rs. 16000</p> <p>So, money invested or contributed by P = Rs. 16000 + Rs. 14000 = Rs. 30000</p>
30.	D	<p>Answer: (d)</p> <p>Option (a) is incorrect: This statement emphasizes the importance of scientists' commitment but doesn't directly address the author's focus on the social responsibilities of science. It's more about the personal dedication of scientists rather than the broader social role of science itself.</p> <p>Option (b) is incorrect: This statement highlights science as a societal product and discusses promoting scientific awareness. While it may slightly touch upon the social role of science, it does not specifically</p>

		<p>address the social responsibilities or consequences that the author discusses about the Industrial Revolution and modern views on science.</p> <p>Option (c) is incorrect: This statement is factual in that scientific advancements did play a role in enabling the Industrial Revolution. However, the passage does not focus on this causal relationship, but rather on how the concept of science's social responsibility emerged around the time of the Industrial Revolution. Therefore, this statement, while true, is not directly relevant to the specific point the author is making.</p> <p>Option (d) is correct: This statement most accurately reflects the author's view as outlined in the passage. It captures the dual aspect of science that the author describes: pursuing truth, as in the times of Newton and Galileo, and also being responsible for social welfare, a modern perspective that emerged around the time of the Industrial Revolution.</p>
31.	B	<p>Option (b): 18.4</p> <p>Total work = 23×18</p> <p>= 414 units</p> <p>In 6 days, total work done = 23×6</p> <p>= 138 units</p>

		<p>Remaining work = $(414 - 138)$</p> <p>= 276 units</p> <p>Time taken to complete the remaining work = $276 \div (23 - 8)$</p> <p>= 18.4 days</p>
32.	A	<p>Option (a): 15</p> <p>$1 \times 2 \times 3 = 6, 1 \times 2 \times 3 = 6$</p> <p>$2 \times 4 \times 5 = 4, 2 \times 4 \times 5 = 40, 4 + 0 = 4$</p> <p>$3 \times 5 \times 7 = 6, 3 \times 5 \times 7 = 105, 1 + 0 + 5 = 6$</p> <p>$4 \times 6 \times 7, 4 \times 6 \times 7 = 168, 1 + 6 + 8 = 15$</p>
33.	B	<p>The correct answer is (b)</p> <p>Given:</p> <p>The ratio of the ages of A and B is 3 : 2. Ten years hence, the sum of their ages will be 80.</p> <p>Formula used:</p> <p>Let the present ages of A and B be $3x$ and $2x$ respectively.</p> <p>Ten years hence, the sum of their ages will be:</p>

		$(3x + 10) + (2x + 10) = 80$ <p>Calculation:</p> $(3x + 10) + (2x + 10) = 80$ $\Rightarrow 3x + 2x + 20 = 80$ $\Rightarrow 5x + 20 = 80$ $\Rightarrow 5x = 80 - 20$ $\Rightarrow 5x = 60$ $\Rightarrow x = 12$ <p>Therefore, the present ages of A and B are:</p> $A = 3x = 3 \times 12 = 36$ $B = 2x = 2 \times 12 = 24$ <p>\therefore The correct answer is 36 and 24.</p>
34.	A	<p>Answer: (a)</p> <p>Option (a) is correct: This option follows from the lines, “income poverty. If poverty is ultimately about deprivations affecting human well-being, then income poverty is only one aspect of it.” The author, in the passage, later goes on to describe poverty, in the true sense, stems from a “lack of real opportunity given by social constraints as well as personal circumstances—to choose other types of living.”</p>

		<p>Option (b) is incorrect: This option is rather extreme and goes beyond the scope of the passage. Nothing in the passage talks about the factors affecting the purchasing power of a person.</p> <p>Option (c) is incorrect: This option is beyond the scope of the passage. There is no mention in the passage of income being a temporary or permanent condition.</p> <p>Option (d) is incorrect as the passage does not lay out a time consideration (i.e. when does income poverty affect human choices by restricting them- whether only at a point of time or always, till such poverty exists) anywhere while suggesting how income poverty affects or restricts human choices.</p>
35.	C	<p>Answer: (c)</p> <p>$7x + 96$ is divisible by x. It means that 96 is divisible by x, or x is a factor of 96.</p> $96 = (2 \times 2 \times 2 \times 2 \times 2) \times 3$ <p>So, x can be 1, 3, 2, 4, 8, 16, 32, 6, 12, 24, 48, and 96. So, a total of 12 possible values.</p> <p>Hence, option (c) is correct.</p>

<p>36.</p>	<p>B</p>	<p>Ans: (b)</p> <p>Let the distance between X and Y be 12 km and $v = 1$ km/hr.</p> <p>Time taken in 1st journey = Distance/Speed = $12/v = 12/1 = 12$ hrs</p> <p>Time taken in 2nd journey = $12/2v = 12/2 = 6$ hrs</p> <p>Time taken in 3rd Journey = $12/3v = 12/3 = 4$ hrs</p> <p>Time taken in 4th Journey = $12/4v = 12/4 = 3$ hrs</p> <p>Now, total distance = $12 \times 4 = 48$ kms</p> <p>Average Speed = Total Distance/Total Time = $48 / (12 + 6 + 4 + 3) = 48/25$ (this value lies between 1 and 2)</p> <p>So, the average speed of the car for the entire journey lies between v and $2v$.</p> <p>Hence option (b) is the correct answer</p>
<p>37.</p>	<p>B</p>	<p>Answer: (b)</p> <p>The faster runner will cross the slower one when he covers an extra 300 m.</p> <p>Let their speeds be 3 m/sec and 2 m/sec.</p> <p>So, their relative speed = $3 - 2 = 1$ m/sec</p> <p>So, the time taken by the faster runner to cross the slower one =</p>

		<p>Distance/Relative Speed = $300/1 = 300$ seconds</p> <p>It basically means that the faster runner will cross the slower one every 300 seconds, or 5 minutes.</p> <p>Now, the time taken for the faster racer to complete the entire race = Total Distance/Speed = $3000/3 = 1000$ seconds.</p> <p>So, the faster racer will cross the slower one 3 times during the entire race – after 300 seconds, 600 seconds, and 900 seconds.</p>
38.	C	<p>Answer: (C)</p> <p>Let the age of the younger person be x years. Then, age of the elder person = $(x + 16)$ years.</p> $3(x - 6) = (x + 16 - 6)$ $3x - 18 = x + 10$ $2x = 28$ $x = 14.$ <p>Hence, their present ages are 14 years and 30 years.</p>
39.	A	<p>Option 1: $z < x < y$</p>

Calculation:

Let there are three numbers x, y and z.

$$70\% x + y = 165\% y$$

$$70x + 100y = 165y$$

$$70x = 65y$$

$$14x = 13y$$

$$x/y = 13/14$$

$$60\% x + z = 165\% z$$

$$60x + 100z = 165z$$

$$60x = 65z$$

$$12x = 13z$$

$$x/z = 13/12$$

So, we get $x = 13$, $y = 14$, $z = 12$.

$$y > x > z$$

Hence, option 1 is correct.

40.

C

Answer: (c)

		<p>Option (a) is incorrect: It is a little extreme in drawing an inference that In India, organic farming should not be promoted as a substitute for conventional farming. The passage is using a cautionary, rather than an exaggerated, tone regarding organic farming. Further, the author is nowhere found comparing or even promoting conventional farming at the cost of organic farming in the passage.</p> <p>Option (b) is incorrect: This option is extreme. Nowhere has the author indicated that there are no safe organic alternatives to chemical fertilizers. In fact the author of the passage states the contrary that “since organic fertilizers are difficult to obtain on a large scale in India” implying that safe (can assume safe) organic alternatives to chemical fertilizers are present, but not accessible or readily available.</p> <p>Option (c) is correct: The passage mentions, “The reality is that because the organic farming industry is still young and not well-regulated in India, farmers and consumers, alike, are not only confused about what products are best for them, but sometimes use products in ways that could harm them as well.” The passage in the further lines goes on to explain the same. Therefore, we can correctly infer that In India, farmers need to be guided and helped to make their organic farming sustainable.</p> <p>Option (d) is incorrect: This option is extreme. The passage does not discuss the profit or market aspect of organic farming at all.</p>
41.	C	Answer: (c)

		<p>The box contains 14 black balls, 20 blue balls, 26 green balls, 28 yellow balls, 38 red balls and 54 white balls.</p> <p>Value of n</p> <p>We have to find out the minimum possible number of balls that should be drawn from the box such that the balls drawn must contain one full group of at least one colour. Say, it may have all 14 black balls, or all 20 blue balls, etc.</p> <p>Let's think about the worst-case scenario. What is the maximum number of balls that we can draw without selecting a full group of any colour?</p> <p>Let's select 13 black balls, 19 blue balls, 25 green balls, 27 yellow balls, 37 red balls and 53 white balls. These are 174 balls in total.</p> <p>Now, if we select even one more ball (of any colour), it's a certainty that at least one full group of a certain colour will get selected. So, the value of $n = 174 + 1 = 175$.</p> <p>So, Statement 1 is correct.</p>
42.	B	<p>Answer: (b)</p> <p>Let there be x students in the class.</p> <p>When 4 students sit on each bench, then</p>

		<p>Number of benches = $(x/4 + 3)$</p> <p>When 3 students sit on each bench, then</p> <p>Number of benches = $((x - 3)/3)$</p> <p>According to the question,</p> $x/4 + 3 = (x - 3)/3$ $3x + 36 = 4x - 12$ $x = 48$ <p>Hence, the number of students in the class is 48.</p>
43.	D	<p>Answer: (d)</p> <p>Let the present ages of Prakash and his son be x and y years, respectively.</p> <p>Now, $x = 4y$.....(i)</p> <p>After 10 yr, according to the question,</p> $(x+10) = 2(y+10)$ $x + 10 = 2y + 20$ $x - 2y = 10 \dots(ii)$ <p>On solving Eqs. (i) and (ii), we get</p>

		<p>$x = 20\text{yr}$</p> <p>and $y = 5\text{yr}$</p>
44.	A	<p>Answer: (a)</p> <p>Option (a) is correct: This option is the best answer. Although the phrase, “all deprivations” might seem extreme, the author does make a case for deprivations stemming from lack of choices (real opportunities), rather than solely income.</p> <p>Option (b) is incorrect: The option goes beyond the scope of the passage as there is no mention of rural versus urban poor in the passage.</p> <p>Option (c) is incorrect: The option also goes beyond the scope of the passage. There is no mention of diverse personal circumstances and missed opportunities therein. The author refers to the lack of opportunities rather than missed ones.</p> <p>Option (d) is incorrect: This option states, ‘restricting human choices permanently’. This cannot be assumed. (In fact, the very purpose of discussing poverty and poverty estimations is the hope of reversing the condition of lack of choices and opportunities). So, the use of the phrase ‘permanently’ is incorrect here. No deprivation, material or non-material, restricts choice permanently. In fact, there are many rags to riches stories in the world to deny this.</p>

45.	D	<p>correct answer: (d)</p> <p>Number of girls = $(2000 * 36)/100$</p> <p>= 720</p> <p>and number of boys = $2000-720$</p> <p>= 1280</p> <p>Now, each girl's fee = $480 * 75/100$</p> <p>= 360</p> <p>∴ Total monthly fees = $(1280 * 480 + 720 * 360)$</p> <p>= $(614400 + 259200)$</p> <p>= 873600</p>
46.	C	<p>correct answer: (c)</p> <p>Let the old average and new average be x and y respectively.</p> <p>Then, and $y = x + 8$... (i)</p> <p>$y = (9x + 100)/10$... (ii)</p> <p>From Eqs. (i) and (ii).</p> <p>$10(x + 8) = 9x + 100$</p>

		$10x + 80 = 9x + 100$ $x = 100 - 80$ $x = 20$ $y = 20 + 8$ $= 28$ <p>Hence, the new average is 28.</p>
47.	A	<p>correct answer: (a)</p> <p>Let the distance between villages A and B be x km.</p> <p>Then, according to the question,</p> $x/40 - x/60 = 2$ $(3x - 2x)/120 = 2$ $x = 2 * 120$ $= 240\text{km}$
48.	C	<p>Correct answer: (c)</p> <p>Given, number of multiple-choice type questions = 4</p>

		<p>So, Total number of ways = $5 \times 5 \times 5 \times 5 = 625$</p> <p>and number of correct answers = 1</p> <p>So, Total number of ways of getting the false answers</p> <p>= $625 - 1$</p> <p>= 624</p>
49.	A	<p>Answer: (a)</p> <p>Here, we are just adding up the numbers and then summing up the digits of the resultant number.</p> <p>$7 + 9 + 10 = 7 + 9 + 10 = 26 = 2 + 6 = 8$</p> <p>$9 + 11 + 30 = 9 + 11 + 30 = 50 = 5 + 0 = 5$</p> <p>$11 + 17 + 21 = 11 + 17 + 21 = 49 = 4 + 9 = 13$</p> <p>So, $23 + 4 + 15 = 23 + 4 + 15 = 42 = 4 + 2 = 6$</p> <p>Hence, option (a) is correct.</p>
50.	C	<p>Ans: (c)</p> <p>According to S1, the product of numbers is 21.</p> <p>So, numbers can be: (3, 7) or (1, 21)</p>

		<p>According to S2, sum of numbers is 10.</p> <p>So, numbers can be: (1, 9), (2, 8), (3, 7), (4, 6) or (5, 5)</p> <p>Either of the two statements alone is not sufficient to answer the question.</p> <p>If we read both the statements together, we can see that the required two numbers with product of 21 and sum of 10 are: (3, 7)</p> <p>Hence, we can say that both S1 and S2 together are sufficient to answer the question.</p> <p>Hence, option (c) is the answer.</p>
51.	A	<p>Answer: (a)</p> <p>Assumption 1 is correct: As per the passage, “Technology is of little use if it is not adapted. In the developing world, that applies as much to existing farming techniques as it does to the latest advances in genetic modification.”. The passage clearly recommends the need to extend latest agricultural practices in simple matters like the timing and amount of fertilizer usage. This highlights the need to change agricultural practices. Therefore, this assumption is valid. (Though the author has nowhere mentioned poor countries, but only developed and developing countries. This makes this option partially incorrect too – the typical RC grey area.)</p> <p>Assumption 2 is incorrect: This assumption goes beyond the</p>

		<p>information provided in the passage. There is no mention of the infrastructure status of the developed countries or the food wastage there. Though the last lines of the passage do suggest that better roads and storage facilities will reduce wastage, but it has been stated in a very general way (with no comparison between developed countries and developing countries whatsoever). The only comparison being made in the passage between developed and developing countries is regarding agricultural technology.</p>
52.	C	<p>Answer: (c)</p> <p>The tournament starts with 150 players.</p> <p>After first round (in which 75 matches are held): 75 players are eliminated, and 75 remain.</p> <p>After second round (in which 37 matches are held): 37 players are eliminated, and 38 remain.</p> <p>After third round (in which 19 matches are held): 19 players are eliminated, and 19 remain.</p> <p>After fourth round (in which 9 matches are held): 9 players are eliminated, and 10 remain.</p> <p>After fifth round (in which 5 matches are held): 5 players are eliminated, and 5 remain.</p>

		<p>After sixth round (in which 2 matches are held): 2 players are eliminated, and 3 remain.</p> <p>After seventh round (in which 1 match is held): 1 player is eliminated, and 2 remain.</p> <p>After eighth round (in which 1 match is held): 1 player is eliminated, and 1 remain.</p> <p>So, total number of matches = $75 + 37 + 19 + 9 + 5 + 2 + 1 + 1 = 149$</p>
53.	D	<p>correct answer (d)</p> <p>Let us assume the speed of train to be x km/h.</p> <p>Then, according to the question,</p> $(x - 2) * 9/3600 = (x - 4) * 10/3600$ $9x - 18 = 10x - 40$ $x = 40 - 18$ $x = 22\text{km / h}$ <p>Thus, relative speed = $(22 - 4) * 5/18 = 5\text{m / s}$</p> <p>and time taken = 10s</p> <p>So, Length of the train = $5 * 10$</p> $= 50\text{m}$

54.	A	<p>correct answer (a)</p> <p>Let the distance be x km.</p> <p>Speed downstream = (5+2)</p> <p>= 7 km/h</p> <p>and speed upstream = (5-2)</p> <p>= 3 km/h</p> <p>According to the question,</p> $x/3 - x/7 = 2$ $7x - 3x = 21*2$ $X = (21*2) / 4$ $= 10.5 \text{ km}$
55.	B	<p>correct answer (b)</p> <p>The penalty follows arithmetic progression 200, 250, 300, ...</p> <p>Here, first term, a = 200</p> <p>Common difference, d = 50</p> <p>Number of terms, n = 10</p> $\text{Sum of first n terms} = n / 2 [2a + (n-1) d]$

		$= 10/2 * [2 * 200 + (10 - 1) * 50]$ $= 5[400 + 450]$ $= 4250$
56.	B	<p>correct answer (b)</p> <p>Let the minimum prize be x, then seven cash prizes are cx + 20x + 40x + 60x + 80x + 100 and x + 120</p> <p>It is given that,</p> $x + x + 20 + x + 40 + x + 60 + x + 80 + x + 100 + x + 120 = 700$ $7x + 420 = 700$ $7x = 280$ $x = 40$
57.	D	<p>Correct Option: (d)</p> <p>EASY → E is the 5th alphabet in the series</p> <p>A is the first alphabet in the series</p> <p>S is the 19th alphabet, which makes it (1+9 = 10 ⇒ 1+0 = 1)</p> <p>Y is the 25th alphabet, which makes it (2+5 = 7)</p>

		<p>Hence, EASY = 5117</p> <p>Similarly,</p> <p>BEAM → B is the 2nd alphabet in the series</p> <p>E is the 5th alphabet in the series</p> <p>A is the 1st alphabet in the series</p> <p>M is the 13th alphabet, which makes it (1+3 = 4)</p> <p>Hence BEAM = 2514</p>
58.	C	<p>Answer: (c)</p> <p>Let the number of men in the first and second instances be m and n respectively.</p> <p>So, man-days required = $6k \times m = 5k \times n$</p> <p>Or $6m = 5n$</p> <p>Or $n = (6/5) m$</p> <p>Or $n = 1.2 m$</p> <p>Or $n = m + 20\% \text{ of } m$</p> <p>So, the number of men need to be increased by 20%</p>

59.	D	<p>Answer: (d)</p> $5 - 4 - 3 + 2 \times 1$ $= 5 - 4 - 3 + 2$ $= 0$
60.	D	<p>Answer: (d)</p> <p>Assumption 1 is invalid: The passage discusses how government spending and fiscal policies interact with monetary policies and interest rates to impact inflation and does not suggest that fiscal policies are solely responsible for higher prices. The passage suggests how monetary policy also impacts inflation in the lines, “Higher interest rates are announced by central banks.... Higher interest rates become inflationary”.</p> <p>Assumption 2 is invalid: The passage does not mention the impact or interaction between (long-term) government bonds and higher prices</p>
61.	C	<p>Ans: (c)</p> <p>Option A is incorrect: The passage nowhere refers to or makes an implied reference to the Ramsar Convention.</p> <p>Option B is incorrect: The passage is suggesting for the opposite as to</p>

		<p>what is mentioned in option (b) i.e. instead of focusing on modernizing and augmenting the water system (i.e. augmenting the water supply), policies must focus on the source of such water i.e. it must try to strengthen the capacity of ecological systems. (However, as per the given passage, public policies are doing just the opposite)</p> <p>Option C is correct: The first statement clearly states that “One of the biggest ironies, around water is that it comes from rivers and other wetlands. Yet it is seen as divorced from them. While water is used as a resource, public policy does not always grasp that is a part of the natural ecosystem.” Thus, the statement given in Option (c) that wetlands need to be reinforced as more than just open sources of water, can be logically derived from the passage.</p> <p>Option D is incorrect: While the statement given in option (d) is correct in its own merit, it is out of context with respect to the given passage, as the author does not state or indicate towards any such measure. Also, the statement is rather narrow in approach, as compared to the overall broader tone of the author.</p>
62.	B	<p>Ans: (b)</p> <p>Let the wages of each man be 5k and wages of each woman be ₹ 4k.</p> <p>Number of men = $\frac{2}{5} * 25$</p> <p>= 10</p> <p>Number of women = $\frac{3}{5} * 25$</p>

		<p>= 15</p> <p>Now, 220 is to be divided among 10 men and 15 women.</p> $10 * 5k + 15 * 4k = 220 \text{ [} 275 - (275 * 20\%) = 220 \text{]}$ $110k = 220 \text{ k}$ <p>= 2</p> <p>Hence, a woman labourer will get 8 as wages.</p>
63.	A	<p>Ans: (a)</p> <p>55 min spaces are covered in 60 min.</p> <p>60 min spaces are covered in $(60/55 * 60)$ min</p> $= 65 \text{ (} 5/11 \text{) min}$ <p>Loss in 64min = $65 \text{ (} 5/11 \text{) - 64}$</p> $= 16/11 \text{ min}$ <p>Loss in 24h = $(16/11 * 1/64 * 24 * 60)$ min</p> $= 32 \text{ (} 8/11 \text{) min}$
64.	C	<p>Ans: (c)</p> <p>Suppose, CP of the cow be x.</p> $SP = x + 15\% \text{ of } x$

		$= 23x/20$ <p>If CP = $x - 25\%$ of x</p> $= (3x)/4$ <p>then SP = $(23x)/20 - 60$</p> $= (23x - 1200)/20$ <p>According to the question,</p> $(3x)/4 + 32\% \text{ of } (3x)/4$ $= (23x - 1200)/20$ $(3x)/4 + (6/25)x - (23x)/20$ $= - 60$ $x = 375$
65.	C	<p>Answer: C</p> <p>Let their marks be $(x + 9)$ and x.</p> <p>Then, $x + 9 = 56/100(x + 9 + x)$</p> $25(x + 9) = 14(2x + 9)$ $3x = 99$ $x = 33$

		So, their marks are 42 and 33.
66.	D	<p>Answer: D</p> $422 = 42/2$ $= 21$ <p>So, $366 = 36 / 6$</p> $= 6$
67.	B	<p>Answer: (b)</p> <p>Length of the road = 1.01 km = 1010 m</p> <p>101 plants are planted at equal distance from each other. So, there will be 100 gaps between those plants.</p> <p>Length of each gap = $1010/100 = 10.1$ m</p> <p>Now, there must be 4 gaps between 5 consecutive plants.</p> <p>So, required distance = $4 \times 10.1 = 40.4$ m</p>
68.	C	<p>Answer: (c)</p> <p>There are exactly 2 letters between A and E. So, the fifth letter must be</p>

		<p>either beside A or E.</p> <p>So, the following four arrangements are possible:</p> <p>A _ _ E _</p> <p>_ A _ _ E</p> <p>E _ _ A _</p> <p>_ E _ _ A</p> <p>The three blank spaces can be filled by three distinct letters in $3 \times 2 \times 1 = 6$ ways</p> <p>So, total possible arrangements = $6 \times 4 = 24$</p>
69.	D	<p>Answer: (d)</p> <p>Let's place some numbers in place of p and c in the given expressions and check them out.</p> <p>Statement 1:</p> <p>$(p + c) / (p - c) = (11 + 9) / (11 - 9) = 20/2 = 10$ (an even number)</p> <p>So, statement 1 is correct.</p> <p>Statement 2:</p> <p>$2p + c = (2 \times 3) + 9 = 15$ (an odd number)</p> <p>So, statement 2 is correct.</p>

		<p>Statement 3:</p> <p>$pc = 3 \times 9 = 27$ (an odd number)</p> <p>So, statement 3 is correct.</p> <p>Hence, option (d) is correct.</p>
70.	A	<p>Answer: (a)</p> <p>$RAM = 9 + 26 + 14$</p> <p>$= 49$</p> <p>(Positional number from right)</p> <p>$\Rightarrow JON = 17 + 12 + 13$</p> <p>$= 42$</p>
71.	C	<p>Ans: (c)</p> <p>Passage talks about role of biotechnology in cultivation of Genetically Modified (GM) crops in developing limited traits for time being and also categorically mentions the potential of biotechnology in developing multiple traits in the future crops as well. Also, role of biotechnology is far broader than confining it to the current priorities of developing GM crops only but in development of varieties that can help in climate change mitigation and adaptation. So, option (c) best implies the crux of the passage</p>

72.	C	<p>Answer: C) 20 years</p> <p>Let B's current age be x. Then A's current age is 2x.</p> <p>Five years ago:</p> <p>A's age was $2x-5$ B's age was $x-5$</p> <p>According to the problem, five years ago, A was three times as old as B:</p> $2x-5 = 3(x-5)$ <p>Expanding the equation:</p> $2x-5=3x-15$ <p>Rearranging gives:</p> $15-5=3x-2x$ $10=x$ <p>So, B's current age is 10years, and A's current age is:</p> $2x= 2 \times 10$ $=20 \text{ years}$
73.	C	<p>Answer: (c)</p>

		<p>When three dice are rolled, the number of possible outcomes = $6*6*6$</p> <p>= 216</p> <p>Number of possible outcomes in which 2 does not appear on any dice = $5*5*5$</p> <p>= 125</p> <p>So, Number of possible outcomes in which at least one dice shows the number 2 = $216-125$</p> <p>= 91</p>
74.	C	<p>Answer: (c)</p> <p>Number of men members in the club = $\frac{2}{3} * 108$</p> <p>= 72</p> <p>So, Number of women members in the club = $108-72$</p> <p>= 36</p> <p>Out of 36 woman 9 are unmarried.</p> <p>Thus, number of married women in the club = $36-9$</p> <p>= 27</p>
75.	C	<p>Answer: (c)</p>

		<p>Suppose Arun has x and Sajal has y.</p> <p>Then, according to the question,</p> $2(x - 30) = y + 30$ $2x - y = 90 \dots (i)$ $x + 10 = 3(y - 10)$ $x - 3y = -40 \dots (ii)$ <p>On solving Eqs. (i) and (ii), we get</p> $x = 62 \text{ and } y = 34$ <p>Hence, Arun has 62 and Sajal has 34.</p>
76.	A	<p>Answer: (a)</p> <p>Price of 8 horses = (4000×8)</p> $= 32000$ <p>and price of 12 cows = $(92000 - 32000)$</p> $= 60000$ <p>So, Average price of a cow = $(60000/12)$</p> $= ₹ 5000$

77.	A	<p>Correct answer: (a)</p> <p>Given, $A + B + C + D = 500$</p> <p>Here, $A + B = 3(C + D)$</p> <p>So, $4(C + D) = 500$</p> <p>$C + D = 125 \dots\dots(i)$</p> <p>And, $A + B = 375$</p> <p>Also, $B = 4C$</p> <p>And, $C = 1.5D$</p> <p>From Eq. (i), $1.5D + D = 125$</p> <p>$2.5D = 125$</p> <p>$D = 125/2.5$</p> <p>$= 50$</p> <p>And, $C = 125 - 50$</p> <p>$= 75$</p> <p>So, $B = 300$</p>
78.	A	<p>Correct answer: (a)</p> <p>If total maximum marks be x.</p>

		<p>Then, according to the question,</p> $x * 54/100 = 456 - 24$ $= 432$ $x = (432 * 100)/54$ $= 800$ <p>Now, minimum passing marks = $800 \times 34/100$</p> $= 272$ <p>So, Required answer = $456 - 272$</p> $= 184$
79.	A	<p>Correct answer: (a)</p> <p>Let the amount of money with A be a, B be b, C be c and D be d.</p> <p>Given, $a = b - 1$, $c = d + 5$, $d = b + 3$</p> <p>Now, $c = d + 5 = b + 8$</p> <p>Hence, only A gets less than b and no one else gets less than b, which means that A gets the smallest amount.</p>

80.	B	<p>Correct answer: (b)</p> <p>Let Mr. Kumar takes t min to cover 40% of the distance.</p> <p>Then, he takes $(t + 10)$ min to cover 60% of the distance.</p> <p>Now, $t+10/t = 3/2$</p> <p>$t = 20\text{min}$</p> <p>So, Time required to complete the journey = $2t + 10 = 50\text{min}$</p> <p>So, Total distance covered = $50/60 * 48$</p> <p>= 40km</p>
81.	B	<p>Answer:(b)</p> <p>From 1 to 100, 5 comes 20 times.</p> <p>Similarly, from 101 to 200, 5 comes 20 times.</p> <p>Similarly, from 201 to 300, 5 comes 20 times.</p> <p>So, we just need to check the numbers after 260. Such numbers having 5 are 265, 275, 285, 295 i.e. 4 numbers.</p> <p>So, the number of 5's used from 1 to 260 = $(20 + 20 + 20) - 4 = 56$</p>
82.	A	<p>Answer: (a)</p>

Option (a) is correct: This statement best reflects the central idea of the passage that parents' attempts to control and guide adolescents can be counterproductive, as it leads to conflict and secrecy. Consider the lines of the passage, "When a child reaches adolescence, there is apt to be a conflict between the parents and the child", "young seldom confide in them, and usually go their own way in secret." This indicates the lack of power of parents to control young adolescents. This option fits in as the best answer.

Option (b) is incorrect: The statement is too absolute. The passage critiques the nature of parental involvement but does not mention or indicate all parental involvement to be unnecessary.

Option (c) is incorrect: This statement is extreme and not supported by the passage. The passage is quite general and makes no mention or specification of modern nuclear or any particular type of family structure where this pattern is observed.

Option (d) is incorrect: The passage nowhere mentions adolescents to be stubborn, disobedient and careless. It only suggests that adolescents consider themselves to be capable of managing their affairs. In fact, the passage suggests parents disguise power under the claim of love and calls them to be dogmatic, instead of blaming the adolescents.

The passage describes the behaviour of secrecy as a reaction to their parents' attitudes, rather than inherently labelling them as stubborn, disobedient, and careless.

83.	C	<p>Ans: (c)</p> <p>The integers between 1 and 100 which have 4 as a digit are:</p> <p>4, 14, 24, 34, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 54, 64, 74, 84 and 94</p> <p>So, there are a total 19 such integers.</p> <p>Out of these, the integers which are divisible by 4 are:</p> <p>4, 24, 40, 44, 48, 64 and 84</p> <p>So, the number of integers not divisible by 4 = $19 - 7 = 12$ integers</p> <p>Hence, option (c) is the correct answer.</p>
84.	A	<p>Ans: (a)</p> <p>Given statements are:</p> <ol style="list-style-type: none">1. All numbers are divisible by 22. All numbers are divisible by 3 <p>Conclusion-I is true, because all numbers which are divisible by 2 and 3 must also be divisible by 6.</p> <p>Conclusion-II is false, because all numbers which are divisible by 2 and 3 need not be divisible by 4.</p>

		<p>Hence, only conclusion 1 logically follows.</p> <p>Option (a) is the correct answer.</p>
85.	D	<p>Correct answer: (d)</p> <p>Let the age of Prabhakar be P yr, age of Navin be N yr and age of Ashok be A yr.</p> <p>Then, according to the question,</p> $P = N + 15 \dots (i)$ $A = N + 25 \dots (ii)$ <p>On subtracting Eq. (i) from Eq. (ii), we get</p> $A - P = (N + 25) - (N + 15)$ $= 10 \text{ yr}$ <p>Hence, the difference between the ages of Ashok and Prabhakar is 10 yr.</p>
86.	C	<p>Correct answer: (c)</p> <p>The sequence of the seven men is as following</p> <p>A - Yellow</p> <p>B-Blue</p>

		<p>C- Green</p> <p>D – Violet</p> <p>E - Indigo</p> <p>F-Red</p> <p>G-Orange</p> <p>Hence, the colour of the cap worn by F is red.</p>
87.	C	<p>Correct answer: (c)</p> <p>According to the question, quantity of gold in alloy</p> $= 80/100 * 50$ $= 40g$ <p>Let x g of gold is mixed with this alloy.</p> <p>Then, $(40 + x/50 + x) \times 100 = 95$</p> $4000 + 100x = 4750 + 95x$ $x = 750/5$ $= 150 g$
88.	A	<p>Volume of water drawn out = Volume of tank - Volume of water to height 9 m</p>

		$= 10 * 15 * 6 - 15 * 6 * 9$ $= 900 - 810$ $= 90m * m * m$ $= 90000L \qquad (1m * m * m = 1000L)$
89.	A	<p>Answer: (a)</p> <p>We have to find the number of internal cubes, i.e. the number of cubes that are not exposed.</p> <p>There are 125 cubes.</p> <p>Now, $5^3 = 125$.</p> <p>So, $n = 5$</p> <p>Number of internal cubes = $(n - 2)^3 = (5 - 2)^3$</p> $= 3^3$ $= 27$ <p>Hence, option (a) is correct.</p>
90.	D	<p>Answer: (d)</p> <p>Raj has ten pairs of red, nine pairs of white and eight pairs of black shoes in a box. So, he has 20 red shoes, 18 white shoes, and 16 black shoes.</p>

		<p>To find the maximum number of attempts we need to visualize the worst-case scenario. Let Raj draw all white and black shoes, which amounts to $18 + 16 = 34$ shoes.</p> <p>Now, if he picks any two shoes, they are certainly going to be red. However, we also need to ensure that the red shoes picked by him make a pair, i.e. there should be one red shoe for left foot and one red shoe for right foot. For this to happen we need to pick 11 red shoes.</p> <p>So, maximum number of attempts to get a red pair of shoes = $34 + 11 = 45$</p> <p>Hence, option (d) is correct.</p>
<p>91.</p>	<p>C</p>	<p>Ans: (c)</p> <p>Let us just focus on liquid A.</p> <p>Out of initial 20 liters, 4 liters is taken out, i.e. a decrease of 20%.</p> <p>This process is repeated again, i.e. again a decrease of 20%. So, this is a case of successive percentage change.</p> <p>Net percentage change = $x + y + (xy/100) = -20 - 20 + 4 = 36\%$</p> <p>So, if initially liquid A was 100 liters, now after 36% reduction, only 64 liters is left. The rest 36 liters is liquid B.</p> <p>So, ratio of A and B in the final mixture = $64 : 36 = 16 : 9$</p>

		Hence option (c) is the correct answer.
92.	D	<p>Ans: (d)</p> <p>Positions of D and I are fixed.</p> <p>So, E, L, H can be arranged in $3! = 3 \times 2 \times 1 = 6$ ways.</p> <p>Hence option (d) is the correct answer.</p>
93.	B	<p>Answer: (b)</p> <p>The given numbers are: 2^{40}, 3^{21}, 4^{18}, and 8^{12}</p> <p>We can also write them as: 2^{40}, 3^{21}, 2^{36}, and 2^{36}. (as $4 = 2^2$ and $8 = 2^3$)</p> <p>So, we basically need to find the smallest one from among 2^{36}, and 3^{21}.</p> <p>As we cannot have two correct answers, it must be 3^{21}.</p> <p>(We can rewrite 2^{36} and 3^{21} as:</p> <p>2^{12} and 3^7</p> <p>$4096 > 2187$</p> <p>Hence, 3^{21} is the smallest number.)</p>

94.	A	<p>Answer: (a)</p> <p>Option (a) is correct: This option is the best answer. Although the phrase, “all deprivations” might seem extreme, the author does make a case for deprivations stemming from lack of choices (real opportunities), rather than solely income.</p> <p>Option (b) is incorrect: The option goes beyond the scope of the passage as there is no mention of rural versus urban poor in the passage.</p> <p>Option (c) is incorrect: The option also goes beyond the scope of the passage. There is no mention of diverse personal circumstances and missed opportunities therein. The author refers to the lack of opportunities rather than missed ones.</p> <p>Option (d) is incorrect: This option states, ‘restricting human choices permanently’. This cannot be assumed. (In fact, the very purpose of discussing poverty and poverty estimations is the hope of reversing the condition of lack of choices and opportunities). So, the use of the phrase ‘permanently’ is incorrect here. No deprivation, material or non-material, restricts choice permanently. In fact, there are many rags to riches stories in the world to deny this.</p>
95.	D	<p>Answer:(d)</p> <p>Let Q = 100, then R = 120% of 100 = 120 & P =125% of 120 = 150</p> <p>So, P: Q: R = 15:10:12</p>

		<p>Now, $15 + 10 + 12 = 37$ units = Rs. 3330</p> <p>Or 1 unit = Rs. 90</p> <p>So, P = 15 units = $15 \times 90 =$ Rs. 1350</p>
96.	B	<p>Answer: (b)</p> <p>The given sequence is: Z, Z, Y, Y, Y, X, X, X, X, W, W, W, W, W,, A</p> <p>So, the number of terms in the given sequence = $2 + 3 + 4 + \dots + 27 =$</p> $[27(27 + 1)/2] - 1 = [27 \times 28/2] - 1 = 378 - 1 = 377$ <p>So, the middle term is $378/2$, i.e. 189th</p> <p>Now, $377 - (27 + 26 + 25 + 24 + 23 + 22 + 21 + 20) = 189$</p> <p>So, the 189th term must be I.</p> <p>Hence, option (b) is correct.</p>
97.	D	<p>Answer: (d)</p> $2^{192} / 6 = 2^{191} / 3$ <p>Remainder $[2^{191} / 3] = (-1)^{191}$</p> $= -1 = 2$ <p>So, Remainder $[2^{192} / 6] = 2 \times 2$</p> $= 4$

		Hence, option (d) is correct.
98.	A	<p>Answer: (a)</p> <p>Statement 1 is correct: The line “Hurdles to change include onerous bureaucracy...” implies a rigid and challenging environment creating challenges in the financialization of household savings. Thus, a flexible environment is required to develop solutions to address the challenges related to the financialization of savings. Thus, it is a correct statement.</p> <p>Statement 2 is correct: The line “A lack of basic information about which of the myriad services and proverbs is best for each family.” reflects that families do not have information and access to solutions that meet their specific needs. This can be solved by providing customized solutions to each household. Thus, it is a correct statement.</p> <p>Statement 3 is incorrect: The passage focuses more on the scepticism of organized financial institutions and the lack of knowledge among households. While financial technology innovations can be beneficial in improving access to information and services, they are not directly implied as a solution in the passage.</p>
99.	B	<p>Given series: 3, 14, 39, 84, *, 258</p> <p>The series follows the following pattern:</p>

		$1^3 + 1^2 + 1 = 3$ $2^3 + 2^2 + 2 = 14$ $3^3 + 3^2 + 3 = 39$ $4^3 + 4^2 + 4 = 84$ $* = 5^3 + 5^2 + 5 = 155$ $6^3 + 6^2 + 6 = 258$ Thus, missing number is 155.
100.	D	<p>Answer:(d)</p> <p>On changing the mathematical signs according to the given instructions, we get:</p> $10 - 30 \times 100 \div 50 + 25$ $= 10 - 30 \times 2 + 25$ $= 10 - 60 + 25$ $= 35 - 60$ $= - 25$
101.	C	<p>Answer:(c)</p>

$$32^5 + 2^{27} = (2^5)^5 + 2^{27}$$

$$= 2^{25} + 2^{27}$$

$$= 2^{25} (1 + 2^2)$$

$$= 2^{25} \times 5$$

$$= 2^{24+1} \times 5$$

$$= 2^{24} \times 2^1 \times 5$$

$$= 2^{24} \times 10$$

Thus, $32^5 + 2^{27}$ completely divisible by 10.