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SI QUESTIONS

1. The total number of ways in which letters of the world ACCOST can be arranged so that the two C's never come together will be:
(a) 120
(b) 240
(c) 360
(d) 720
2. There are two vessels A and B in which the ratio of milk and water are as 5:2 and 8:7 respectively. 14 gallons are drawn from vessel A and 15 gallons from vessel B, and are mixed in another empty vessel. What is the ratio of milk and water in it?
(a) 13 : 9
(b) 13 : 11
(c) 2 : 1
(d) 18 : 11
3. What is the average of all the multiples of 5 from 1 to 55, including 55?
(a) 25
(b) 35
(c) 30
(d) 27.5
4. By selling 12 marbles for a rupee, a shopkeeper loses 20%. If he now decides to gain 20% in further transactions; he should sell the marbles at the rate of how many marbles for a rupee?
(a) 8
(b) 6
(c) 4
(d) 3
5. A person has to travel distances of 66km, 88km, and 110km on three consecutive days. If he travels with the greatest possible constant speed (in km/hr) on all three days so that he covers the respective distances in integer number of hours on each day, how many hours will it take him to complete the journey.
(a) 8
(b) 12
(c) 22
(d) 24
6. How many times will the digit '7' be written when listing the integers from 1 to 1000?
(a) 271
(b) 300
(c) 252
(d) 304
7. Instructions for the following 4 (four) items: Read the following

information and answer the questions that follow -

Forty one students took three exams each in Algebra, Biology, and Chemistry. We have the following data:

- (1) twelve students failed the Algebra exam,
- (2) five students failed the Biology exam,
- (3) eight students failed the Chemistry exam,
- (4) two students failed both Algebra and Biology,
- (5) six students failed both Algebra and Chemistry,
- (6) three failed both Biology and Chemistry and
- (7) one student failed all three exams

How many passed all three subjects?

- (a) 27
 - (b) 26
 - (c) 25
 - (d) 24
8. How many students passed m at least two of the three exams?
- (a) 22
 - (b) 32
 - (c) 13
 - (d) 9
9. How many students failed in Algebra or Biology?

- (a) 17
- (b) 16
- (c) 13
- (d) 15

10. How many students passed in exactly two exams?
- (a) 8
 - (b) 7
 - (c) 6
 - (d) 5
11. A, B and C are situated at the bank of river which is flowing at a constant rate. B is at an equal distance with A and C. A swimmer Avinash takes 10 h to swim from A to B and B to A. Also, he takes 4 h to swim from A to C. What is the ratio of speed of Avinash in still water and speed of stream?
- (a) 5 : 3
 - (b) 3 : 5
 - (c) 2 : 5
 - (d) 1 : 2
12. How many pairs of natural numbers are there so that difference of their squares is 60?
- (a) 4
 - (b) 3
 - (c) 2
 - (d) 1

13. The cost of a diamond varies directly as the square of its weight. While showing to the customer, this diamond broke into four pieces with weights in the ratio 1:2:3:4. When the pieces were sold, the merchant got Rs 70,000 less. Find the original price of the diamond.
- (a) Rs 1.4 lakh
(b) Rs 2 lakh
(c) Rs 1 lakh
(d) Rs 2.1 lakh
14. A bought 5 cars, 7 tractors and 4 buses. B bought 6 cars, 8 buses and 14 tractors for an amount which was half more than what A had paid. What per cent of the total amount paid by A was paid for the cars?
- (a) 37.5%
(b) 62.5%
(c) 50%
(d) None of these
15. Each odd digit in the number 5263187 is substituted by the next higher digit and each even digit is substituted by the previous lower digit and the digit so obtained are rearranged in ascending order. which of the following will be the third digit from the left end after the rearrangement?
- (a) 2
(b) 4
(c) 8
(d) 5
16. "For if it were accepted as a result of argument, the refutation of the argument might shake the solidity of the conviction; but when it rests solely on feeling, worse it fares in argumentative contest, the more persuaded adherents are that their feeling must have some deeper ground, which the arguments do not reach; and while the feeling remains, it is always throwing up fresh entrenchments of argument to repair any breach made in the old."
- With reference to the above passage, which of the following best captures the central idea of the passage?
- (a) People who can distinguish their arguments from their emotions are generally more fervent in defending them.
(b) We should only accept arguments that incorporate both emotion and logic.
(c) While beliefs based on logical reasoning can be corrected, it is very difficult to change beliefs founded on emotion.

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- (d) People who argue from an emotional basis rarely change the opinions of those who make logical arguments.
17. What is the Smallest Number that should be added (or subtracted) to 89355 to make it divisible by 9?
(a) 3
(b) 4
(c) 5
(d) 6
18. Which of the following numbers is largest?
(a) 2^{300}
(b) 3^{200}
(c) 9^{60}
(d) 4^{100}
19. How many five digit prime numbers can be formed by using the digits 1, 2, 3, 4 and 5 without repetition of digits?
(a) Zero
(b) One
(c) Two
(d) Three
20. A is twice as good in fencing a garden as B and takes 8 hours less than B takes. Find the time B would take for fencing the garden.
(a) 10 hours
(b) 16 hours
(c) 12 hours
(d) 18 hours
21. Clearly the development of a nation is intimately linked with understanding and application of science and technology by its people. It has sometimes been argued that the application of technology by itself can contribute to growth. This is certainly true as an abstract proposition, but fails in practice. Witness the state of development and social structure of countries of the Middle East, where for decades resources of oil have been exploited with the most sophisticated technology. History has demonstrated that the real social and economic fruits of technology go to those who apply them through understanding. Therefore, a significant number of citizens of every developing country must understand the ways of modern science and of the technology that flows from it. With reference to the above passage, which of the following can be inferred?
(a) Countries of Middle East couldn't use their national resources for their economic and social development as they

lacked understanding of technology.

(b) Those countries where due attention is paid on research and development will be at the forefront to lead the world.

(c) Science and technology has been the bedrock of growth of civilization and those who lead in science and technology lead the world.

(d) Different countries choose different models of development and for this they use different tools.

22. The world has witnessed myriad scientific and technological advancements in its journey of development. However, in this pursuit, it is often forgotten that no development is sustainable if it does not respect and honour the human rights of the people. The question is, "What are human rights?" To be precise, human rights are the rights which are possessed by every human being, irrespective of his or her nationality, race, religion, sex, etc, simply by virtue of being a human. They are inherent in our nature and without them we cannot live as human beings. Human rights and

fundamental freedom allow us to fully develop and use our human qualities, our intelligence, our talents, and our conscience

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

(a) The definition of human rights is not fixed and it keeps evolving with time.

(b) It is the purpose of the State to ensure that everyone gets freedom to enjoy their human rights.

(c) Enabling human rights help the people to become more human and achieve their full potential.

(d) Science and technology can be used to ensure development thereby, bestowing human rights to everyone.

23. How many zeros are there at end of the following product?
 $1^1 \times 2^2 \times 3^3 \times 4^4 \times 5^5 \times 6^6 \times 7^7 \times 8^8 \times 9^9 = ?$
(a) 3
(b) 4
(c) 5
(d) 6
24. If x is a positive integer such that $2x + 12$ is perfectly divisible by x , then the number of possible values of x is

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- (a) 2
(b) 5
(c) 6
(d) 12
25. An outgoing batch of students wants to construct an auditorium worth Rs 42,00,000 for their college. If the teachers offer to pay 50% more than the student's contribution and an external benefactor give three times the teachers contribution, how much should the teachers donate?
- (a) 9,00,000 Rs
(b) 7,35,000 Rs
(c) 8,40,000 Rs
(d) 6,50,000 Rs
26. The distribution of the benefits and costs of innovation has been the subject of a reasonably large number of articles within the agricultural economics literature. Beginning with Cochrane (1958, 1993), some economists have argued that agricultural innovation is a treadmill for farmers with an implicit (sometimes explicit) notion that technological change in agriculture has made farmers worse off. In Cochrane's analysis, only the earliest

adopters could benefit from new technology, and their benefits were fleeting. Eventually, the price-depressing effects of increased output would offset the gains. Those who were slow to adopt or did not adopt would lose. He characterized the process as a treadmill that farmers must tread to survive but that involved unhappy consequences for agriculture. Which of the following is/are the most rational and logical Inference/Inferences that can be made from the passage?

1. The traditional methods of farming were better than new technological methods.
2. Balancing the demand and supply of agricultural products may protect farmers from losses.

Select the correct answer using the code given below.

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

27. Which one of the following statements best implies the suggestion given by the author of the passage?
- (a) Focus on the distribution of technology and better price

protection would help tackle the challenges posed by innovation.

(b) Innovation in agriculture should not be encouraged as it causes losses to farmers.

(c) New set of studies is required to re-evaluate the impact of technology on agriculture.

(d) Giving up on technological innovation would save agriculture from negative consequences.

28. One of the major shifts facing business organizations today involves the growing importance of experiential consumption. Alvin Toffler, in his book Future Shock, was the first to envision experience industries as emerging sectors of the future economy. Pine and Gilmore extended this notion by describing a progression of economic value from commodities to goods to services to experiences. The authors argued that this transition, from a service economy to an experience economy, means that as services become more commoditized, perceptions of competitive advantage diminish. Therefore, all actions

of the organization must contribute to delivering experiential offerings that engage customers in unique and memorable ways.

Which of the following is/are the most rational and logical Inference/Inferences that can be made from the passage?

1. The companies should not focus on the quality of the product, but the quality of the experience related to the product.

2. Organizations now need to invest more in creativity for providing a unique memorable experience to customers.

Select the correct answer using the code given below.

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

29. Which one of the following statements best reflects the crux of the passage?

(a) Market offers a space for companies exclusively for experience-based adventure trips.

(b) Governments need to develop mechanisms for calculating the share of experience industry in GDP.

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- (c) Organizations should realign their products based on the demands of the market.
- (d) Experience industry will soon beat service and goods industry in terms of contribution to GDP.
30. If $\frac{2}{3}$ of the air in a tank is removed with each stroke of a vacuum pump, how many strokes does it take before less than 1 % of the original amount of air in the tank remains?
- (a) 2
(b) 3
(c) 4
(d) 5
31. The total number of ways in which letters of the word ACCOST can be arranged so that the two C's never come together will be:
- (a) 120
(b) 240
(c) 360
(d) 720
32. There are two vessels A and B in which the ratio of milk and water are as 5:2 and 8:7 respectively. 14 gallons are drawn from vessel A and 15 gallons from vessel B, and are mixed in another empty vessel.
- What is the ratio of milk and water in it?
- (a) 13 : 9
(b) 13 : 11
(c) 2 : 1
(d) 18 : 11
33. What is the average of all the multiples of 5 from 1 to 55, including 55?
- (a) 25
(b) 35
(c) 30
(d) 27.5
34. By selling 12 marbles for a rupee, a shopkeeper loses 20%. If he now decides to gain 20% in further transactions; he should sell the marbles at the rate of how many marbles for a rupee?
- (a) 8
(b) 6
(c) 4
(d) 3
35. A person has to travel distances of 66km, 88km, and 110km on three consecutive days. If he travels with the greatest possible constant speed (in km/hr) on all three days so that he covers the respective distances in integer number of hours on each day,

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- how many hours will it take him to complete the journey.
- (a) 8
(b) 12
(c) 22
(d) 24
36. A departmental store receives a shipment of 1,000 shirts, for which it pays Rs. 900000. The store sells the shirts at a price 80 per cent above the cost for one month, after which it reduces the price of the shirts to 20 per cent above the cost. The store sells 750 shirts in the first month, and 50 per cent of the remaining shirts afterwards. How much gross income did the sales of the shirts generate?
- (a) Rs. 1000000
(b) Rs. 1080000
(c) Rs. 1215000
(d) Rs. 1350000
37. Two friends Ajit and Lalit made investments in a business in the ratio 60:40. Lalit had borrowed his entire invested amount as personal loan at an annual interest rate of 5%. He repaid this loan after one year. After 5 years of investment, they got a profit of 30% on the total investment they had made. What is the ratio of actual profit made by Ajit and Lalit?
- (a) 3 : 2
(b) 2 : 3
(c) 9 : 5
(d) 11 : 18
38. A dairyman pays Rs. 6.4 per litre for milk. He adds water and sells the mixture at Rs. 8 per liter, thereby making 37.5% profit. The ratio of water to milk received by the customer is:
- (a) 1:5
(b) 1:10
(c) 1:20
(d) 1:12
39. A person deposited Rs. 13,200 in a bank, which pays 14% simple interest. If he rather had invested in Rs. 110 stocks which pay a dividend of 15% on the face value of Rs. 100, how much would he had lost or gained?
- (a) Loses Rs. 48
(b) Gains Rs. 48
(c) Loses Rs. 132
(d) Gains Rs. 132
40. A manufacturer sells a pair of glasses to a wholesale dealer at a profit of 18%. The wholesaler sells the same to a retailer at a profit of 20%. The retailer in

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- turn sells them to a customer at 25% profit. If the cost price for the customer is Rs. 30.09, then the cost price for the manufacturer must have been:
- (a) Rs. 15
(b) Rs. 16
(c) Rs. 17
(d) Rs. 18
41. Amit started a business by investing Rs.30,000. Rahul joined the business after some time and invested Rs.20,000. At the end of the year, profit was divided in the ratio of 2 : 1. After how many months did Rahul join the business?
- (a) 2
(b) 3
(c) 4
(d) 5
42. When the time in the wall-clock is 3.25 p.m., the acute angle between the hours-hand and the minutes-hand is
- (a) 60°
(b) 52.5°
(c) 47.5°
(d) 42°
43. A man arranges to pay off a debt of Rs.3600 in 40 annual instalments which form an arithmetic progression, when 30 of the instalments are paid, he dies leaving 1 / 3rd of debt unpaid. What is then the value of the first instalment?
- (a) 51
(b) 50
(c) 52
(d) 53
44. Lead contamination poses a serious threat to the safety of drinking water in Pennsylvania. This colourless, odourless, and tasteless metal can go undetected in water. Excessive amounts of lead place adults at higher risk for cancer, stroke, kidney disease, memory problems and high blood pressure. Lead in excessive amounts in the drinking water that mainly comes from industrial pollution and has been the major cause of lung cancer. Economy of Akira Island is based completely on either tourism or subsistence level of agriculture, has little or no industry. But inhabitants of the island have shown high incidence of lung Cancer in the last 10 years. Which of the following can be inferred from the above statements?

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- (a) Lead in drinking water in Akira is absolutely within safe limit
- (b) Lung cancer of the inhabitants of the island must have causes other than lead in drinking water
- (c) Lead in drinking water in the water of the island must have come from various natural sources
- (d) Medical science is yet to be sure about exact reason of cancer of inhabitants of the island
45. If $1 \leq n \leq 99$, what is the probability that $n(n + 1)$ is divisible by 3 ?
- (a) $1/9$
- (b) $1/3$
- (c) $1/2$
- (d) $2/3$
46. The framers of the Indian Constitution have thought well in advance and ensured to provide adequate and mandatory provisions in the Constitution of India to provide justice in all aspects of life, equality in status, social security and economic/ financial safeguards to the weaker sections of the society. The successive governments have recognised the social and

economic imperatives for broader financial inclusion and have made significant policy changes from time to time by finding innovative ways to bring the poor at par with the rest of the society. The successive Governments in India have also made essential amendments to the constitution and brought legislative framework to ensure social and economic safeguards to the deprived sections of the society.

In the context of India, which of the following best reflects the critical message of the passage?

- (a) Establishment of social justice is an unfinished agenda and government is working continuously for it.
- (b) Considering the kind of diversity in India, the idea of social justice is an elusive dream for the government.
- (c) Social justice cannot be implemented as the definition keeps on changing and government has to make changes continuously.
- (d) Governments lack political will to implement strong policy initiatives to ensure social justice in India.

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47. Three containers (equal in measurements) are filled with a mixture of spirit and water in the ratio 2: 1, 3: 1 and 1: 1 respectively. The contents of the three containers are emptied into a single empty vessel. What is the proportion of spirit in final solution?
- (a) 23 : 13
(b) 23 : 39
(c) 39: 52
(d) 52: 39
48. The total number of ways in which letters of the word ACCOST can be arranged so that the two C's never come together will be:
- (a) 120
(b) 240
(c) 360
(d) 720
49. There are two vessels A and B in which the ratio of milk and water are as 5:2 and 8:7 respectively. 14 gallons are drawn from vessel A and 15 gallons from vessel B, and are mixed in another empty vessel. What is the ratio of milk and water in it?
- (a) 13 : 9
(b) 13 : 11
(c) 2 : 1
(d) 18 : 11
50. What is the average of all the multiples of 5 from 1 to 55, including 55?
- (a) 25
(b) 35
(c) 30
(d) 27.5
51. A beats B by 15 sec in a 200 m race, B beats C by 25 sec in a 500 m race, C beats D by 32 sec in 800 m race and D beats E by 35 sec in a 1 km race. What must be the speed of A in order to beat E by 800 min a 2 km race?
- (a) 2.5 m/s
(b) 3.33 m/s
(c) 5 m/s
(d) 6.66 m/s
52. Consider the following statements:
1. The minimum number of points of intersection of a rectangle and a triangle is 2
 2. The maximum number of points of intersection of a rectangle and a triangle is 6.
- Which of the statements given above is/ are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

53. Ravindra organised a party, where he arranged only 3 drinks counters. Every second guest used a soft drink bottle, every third guest used a cocktail bottle, and every fourth guest used a plain water bottle. If there were a total of 78 bottles, then how many guests were present at the party?

- (a) 72
- (b) 70
- (c) 62
- (d) 60

54. The average weight of 15 students in a class is decreased by 1.2 kg, when one of the student with weight 55 kg is replaced by a new student. The weight of new student must be

- (a) 47 kg
- (b) 35 kg
- (c) 37 kg
- (d) 40 kg

55. Attitudes can be learned in a variety of ways. Consider how advertisers use classical conditioning to influence your attitude toward a particular product. In a television commercial, you see young, beautiful people having fun on a tropical beach while enjoying

a sports drink. This attractive and appealing imagery causes you to develop a positive association with this particular beverage.

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

- (a) Attitude influences our life choices and marketing could exploit this aspect of our personality.
- (b) Classical conditioning is the best way to persuade people to change their attitude.
- (c) For marketing, there should be a detailed survey to study the attitudes of the people.
- (d) Real-life experience challenging the core beliefs can change the attitude of a person.

56. A, B and C are situated at the bank of river which is flowing at a constant rate. B is at an equal distance with A and C. A swimmer Avinash takes 10 h to swim from A to B and B to A. Also, he takes 4 h to swim from A to C. What is the ratio of speed of Avinash in still water and speed of stream?

- (a) 5 : 3
- (b) 3 : 5
- (c) 2 : 5
- (d) 1 : 2

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57. How many pairs of natural numbers are there so that difference of their squares is 60?

- (a) 4
- (b) 3
- (c) 2
- (d) 1

58. The ratio in which two sugar solutions of concentration 35% and 50% should be mixed to get a solution of concentration 45% is:

- (a) 1 : 2
- (b) 2 : 3
- (c) 1: 3
- (d) 2: 5

59. In Urban systems, solid waste is generated on a day-to day basis and needs to be administered daily. Solid waste management is an essential practice adopted by the local authorities to maintain hygienic surroundings in residential areas. The role of these local bodies becomes much more critical in natural disasters such as hurricanes, earthquakes, floods, pandemics, etc. Due to the accumulation of waste or water stagnation, the risk associated with the prevalence

of pathogens in the drinking water supply and waste disposal may amplify many folds.

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

- (a) Poor solid waste management exacerbates the burden of diseases during disasters in residential areas.
- (b) There is a need for solid waste management rules for handling waste during disasters.
- (c) Urban local bodies lack resources and technology to adequately treat solid waste which causes diseases.
- (d) Proper protocol of waste generation and collection could reduce the burden of local authorities.

60. Invasive species pose considerable harm to native ecosystems and biodiversity and frustrate and at times fascinate the invasive species management and scientific communities. Of the numerous non-native species established around the world, only a minority of them are invasive and noxious, whereas the majority are either benign or beneficial. Agriculture in

North America, for example, would look dramatically different if only native plants were grown as food crops and without the services of the European honeybee as a pollinator. Yet the minority of invasive species, negatively alter ecosystems and reduce the services they provide, costing governments, industries, and private citizens billions of dollars annually.

Which one of the following statements best implies the suggestion given by the author of the passage?

- (a) Invasive species need to be eliminated to protect the native species of the land.
- (b) Pollinators help in the spread and growth of non-native invasive species around the world.
- (c) European honeybee pollinators should be deployed to improve agricultural diversity in India.
- (d) There is a need to check on the growth of invasive species and promote the growth of benign species.

61. Statements:

- Some cows are crows.
- Some crows are elephants.

Conclusions:

- 1. Some cows are elephants.
- 2. All crows are elephants.
- (a) Only (1) follows
- (b) Only (2) follows
- (c) Both (1) & (2) follows
- (d) Neither (1) nor (2) follows

62. Statements:

- All the actors are girls.
- All the girls are beautiful.

Conclusions:

- 1. All the actors are beautiful.
- 2. Some girls are actors.
- (a) Only (1) follows
- (b) Only (2) follows
- (c) Both (1) & (2) follows
- (d) Neither (1) nor (2) follows

63. Farming is no longer attractive among village youths. The mindset of farmers is not easily changed to win confidence for natural farming. The labour-intensive and time-consuming nature of Zero Budget Natural Farming (ZBNF) prove to be an obstacle for making the transition to natural farming. Small farmers can afford increased labour using their family labour, but it is difficult for big farmers to get adequate labour for big farms. Some big farmers, however, innovatively use locally developed solutions to make ZBNF less labour-intensive but the

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implementation of such technology needs initial investment, which poses an obstacle.

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

1. Natural farming makes sense environmentally, but may not be that viable economically.
2. Affordable machinery and adequate finance could encourage village youth to take up natural farming.

Which of the above assumptions is/are valid?

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

64. Internationally, the end of the Cold War and the collapse of the USSR have had profound security implications for India. The cumulative impact has been to make India feel more secure and thus more willing to be innovative in its foreign policy. During the four decades after independence, India structured its foreign policy around security concerns related to threats from Pakistan and China. Since the end of the Cold War, relations

with China have improved, surviving the brief chill of mid-1998 when Indian officials, including the defense minister, referred to alleged dangers from China to justify its 1998 nuclear tests. The improvement of Chinese relations with Russia that followed the ending of the Cold War removed a major impediment to better Sino-Indian ties.

What is the most logical, rational and critical inference that can be drawn from the passage above?

- (a) India played a significant role in the collapse of the USSR
- (b) India's perceived security increased after the end of the Cold War
- (c) Pakistan and China have perpetually posed a security threat to India
- (d) China and Russia have become close allies in several sectors

65. Which of the following assumptions are implied in the passage above?

I. Russia played an important part in the improvement of ties between India and China.

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- II. India's feeling of security has a direct impact on innovation in its foreign policy.
- (a) Only I
(b) Only II
(c) Both I & II
(d) Neither I nor II
66. What began as a health crisis has soon turned into a devastating disrupter for trade and commerce wiping away millions of jobs due to varying degrees of lockdowns, which were announced in an attempt to control the spread of the virus. With the passage of time the trade-off between saving lives and saving livelihoods has grown starker. A milestone in the recent history of human civilisation, the pandemic is here to stay and we have no other option but to equip our healthcare systems to fight this massive battle, and vaccinate as much as we can. As per the above passage, which of the following assumption(s) can be made?
1. Economy of a country is closely connected with the health of its citizens.
 2. Government has not invested enough in the health infrastructure in the past.

Choose the correct answer using the code given below:

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
67. The adoption of the market economy heralded a new era in which States came to occupy a strategic position in India's market led economy. The Centre has even gone to the extent of encouraging states to negotiate loans / FDI with overseas banks / institutions directly since the 1990s. With the Centre's grants in aid no longer being seen as the only source for financing their expenditure, States compete to attract FDI. And positively so, the Centre is not being seen as an obstacle but as a facilitator. Still, approval for FDI's are centralized with the DPIIT being the nodal Ministry at the centre for FDI approvals. In many cases, the DPIIT has to transfer the proposal for FDI licensing to the other central Ministries in whose Rules of Business the subject matter of proposal may fall. In proposals where land border issues or security issues arise, the

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concurrency of other nodal ministries may also be sought. As per the above passage, which of the following assumption(s) can be made?

1. Opportunities for states to attract the FDI in India are limited.
2. Opening up of financial opportunities for states has improved fiscal federalism in India.

Choose the correct answer using the code given below:

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

68. India is a land of literature. It has always been so since times immemorial. When one takes stock of the history of human societies and civilizations, this is one area where India will be on top by some distance over other civilizations and societies. One hallmark of Indian literature over the past 3000 years or so is diversity. One will be surprised to see the variety of works of literature that have been produced in the sub-continent. The key to this diversity is the linguistic density of the Indian sub-continent and the willingness

to absorb all wonderful things from any language or culture that people came across.

Which of the following best reflects the critical idea of the passage?

- (a) The literature legacy of India is much bigger and wider than any other country/ civilization.
- (b) The reason for vastness of literature in India is accommodative nature of the country.
- (c) People of India have always been well educated and this has led to vastness in our literature.
- (d) India's linguistic diversity is rooted in the influence it has received from all corners of the world.

69. Consider the following statements:

1. Only those who have either a doctorate or an award of merit can be part of the think tank.
 2. Some of the members of the think tank have studied abroad.
 3. Those who have studied abroad can become ministers.
- Which of the following conclusions can be drawn from the above statements?

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- (a) All the members of the think tank have either a doctorate or an award of merit or both.
- (b) All those who have studied abroad are the members of the think tank.
- (c) All the ministers have received education from abroad.
- (d) Some of those who have studied abroad have either a doctorate or an award of merit.
70. When Vladimir Putin came to power in his first term as the President of Russia a leading political leader who opposed his policies died of mysterious illness in prison/captivity. Hardly any observers of the regime were surprised by this. A cartoonist aptly depicted this situation by showing a policeman informing journalist, "We are trying figure out whether he committed suicide or died of illness." Which of the conclusions can be drawn from the information given in the passage?
- (a) The opposition leader did not get right medical facilities in the prison.
- (b) The opposition leader committed suicide.
- (c) The policeman is not clear about the reasons of the death of the opposition leader.
- (d) Vladimir Putin's regime was responsible for the death of the opposition leader.
71. Find the largest four digit natural number N which when divided by 45, 60 and 72 leaves a remainder of 33, 48 and 60 respectively.
- (a) 9348
- (b) 9528
- (c) 9708
- (d) 9888
72. The difference between a two-digit number and the number obtained by interchanging the digits is 36. What is the difference between the sum and the difference of the digits of the number if the ratio between the digits of the number is 1:2?
- (a) 4
- (b) 8
- (c) 16
- (d) None of these
73. Read the following information and answer the following question/s : In a cricket season, India defeated

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- Australia twice, Pakistan defeated India twice, Australia defeated Pakistan twice, India defeated New Zealand twice and Pakistan defeated New Zealand twice.
- Which country has lost maximum number of times?
- (a) India
(b) Australia
(c) New Zealand
(d) Pakistan
74. A lady has a total of Rs. 75 in her purse. If the total amount she has is in denominations of 10 paisa, 25 paisa and 50 paisa coins, and the ratio of 10 paisa and 25 paisa coins is 5:3 and that of 25 paisa and 50 paisa coins is 6:5; what is the total number of 25 and 50 paisa coins?
- (a) 75
(b) 90
(c) 150
(d) 165
75. Which sequence of letters when placed at the blanks one after another will complete the given letter series?
aab - cc - daa - bbb - cdddd
- (a) bdbd
(b) ddca
(c) dbbc
(d) bdac
76. When the price of a radio was reduced by 20%, its sale increased by 80%. What was the net effect on the sales revenue?
- (a) 44% Increase
(b) 44% Decrease
(c) 66% Increase
(d) 75% Decrease
77. Read the following information and answer the following question/ s:
Six students A, B, C, D, E and F are sitting in the field. A and B are from Pune while the rest are from Mysore.
D and F are tall while others are short.
A, C and D are girls while others are boys.
Which is the tall girl from Mysore?
- (a) C
(b) D
(c) E
(d) F
78. Which is the wrong number in the series
4 2 0 -5 -12 -21?
- (a) 0
(b) 4
(c) 2
(d) -5

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79. A clock gains 20 seconds for every 3 hours of time. If a clock is set at a correct time of 2 am on Friday, what would it indicate at 6:30 pm, Saturday
- (a) 6.32.00 pm
(b) 6.32.46 pm
(c) 6.34.30 pm
(d) 6.38.56 pm
80. In the years since the National Capital Territory of Delhi imposed strict air-pollution regulations on local industry, the number of bird species seen in and around Delhi (and New Delhi) has increased dramatically. Similar air-pollution rules should be imposed in other major cities. With reference to the above passage, the following assumptions has not been made:
- (a) In most major cities, air-pollution problems are caused almost entirely by local industry.
(b) Air-pollution regulations on industry have a significant impact on the quality of the air.
(c) The air-pollution problems of other major cities are basically similar to those once suffered by London.
(d) An increase in the number of bird species in and around a city is desirable.
81. 14 November 2020 is Saturday, What will be the day of 26 January 2026?
- (a) Tuesday
(b) Monday
(c) Sunday
(d) Wednesday
82. Achievement of national food security has been a major goal of development policy in India for half a century, since the country became Independent. This was to be achieved by attaining self-sufficiency in the availability of food; raising the purchasing power of the poor through the endowment of land and non-land assets and by generating employment opportunities. In the process of ensuring availability of food, an important step is the food distribution through public intervention for stabilising consumption. In India, the achievements have been substantial in terms of reaching near self-sufficiency in food and overcoming transient food insecurity through public procurement and distribution of food grains.

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What is the most logical, rational and crucial message conveyed by the passage above?

- (a) India has made significant gains in attaining its goal of national food security
(b) India has a multi-pronged development policy
(c) It is impossible to be self-sufficient when it comes to food
(d) India's food security problem is transient in nature
83. Which of the following statements are correct based on the passage above?
I. All procurement of food in India is conducted through public channels.
II. There was no food security problem in India before Independence.
(a) Only I
(b) Only II
(c) Both I & II
(d) Neither I nor II
84. Kavita was going to Mumbai from Delhi by car. If she covers 60% of the journey at 80 km/hr and 25% of the journey at 100 km/hr, and rest part at 60 km/hr, then find the average speed of the car during the entire journey?

- (a) 80 km/hr
(b) 75 km/hr
(c) 90 km/hr
(d) Can't be determined

85. By selling smartphones at Rs. 10000 per unit, Anuj was earning a profit of 10%. If the prices of these smartphones are increased by 20%, then by what percentage should the new price be reduced to bring it back to the original level?
(a) 20/3%
(b) 50/3%
(c) 25%
(d) 30%
86. How many times will the digit '7' be written when listing the integers from 1 to 1000?
(a) 271
(b) 300
(c) 252
(d) 304
87. Forty one students took three exams each in Algebra, Biology, and Chemistry. We have the following data:
(1) twelve students failed the Algebra exam,
(2) five students failed the Biology exam,
(3) eight students failed the Chemistry exam,

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- (4) two students failed both Algebra and Biology,
(5) six students failed both Algebra and Chemistry,
(6) three failed both Biology and Chemistry and
(7) one student failed all three exams
How many passed all three subjects?
(a) 27
(b) 26
(c) 25
(d) 24
88. How many students passed m at least two of the three exams?
(a) 22
(b) 32
(c) 13
(d) 9
89. How many students failed in Algebra or Biology?
(a) 17
(b) 16
(c) 13
(d) 15
90. How many students passed in exactly two exams?
(a) 8
(b) 7
(c) 6
(d) 5
91. What is the least four-digit number when divided by 3, 4, 5, 6 leaves remainder 2 in each case?
(a) 1012
(b) 1022
(c) 1122
(d) 1222
92. Seeta and Geeta go for a swim after a gap of every 2 days and every 3 days respectively. If on 1st January both of them went to swim together, when will they go together next?
(a) 7 January
(b) 8 January
(c) 12 January
(d) 13 January
93. Find the side of the largest possible squares slabs which can be paved on the floor of a room 2m50cm long and 1 m 50 cm broad. Also find the number of such slabs to pave the floor.
(a) 25,20
(b) 30,15
(c) 50,15
(d) 55,10
94. A 330 meters long train crosses a 300 meters long

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platform in 18 seconds. What is the speed of the train in kmph?

- (a) 90
- (b) 108
- (c) 126
- (d) 144

95. Clearly the development of a nation is intimately linked with understanding and application of science and technology by its people. It has sometimes been argued that the application of technology by itself can contribute to growth. This is certainly true as an abstract proposition, but fails in practice. Witness the state of development and social structure of countries of the Middle East, where for decades resources of oil have been exploited with the most sophisticated technology. History has demonstrated that the real social and economic fruits of technology go to those who apply them through understanding. Therefore, a significant number of citizens of every developing country must understand the ways of modern science and of the technology that flows from it.

With reference to the above passage, which of the following can be inferred?

- (a) Countries of Middle East couldn't use their national resources for their economic and social development as they lacked understanding of technology.
- (b) Those countries where due attention is paid on research and development will be at the forefront to lead the world.
- (c) Science and technology has been the bedrock of growth of civilization and those who lead in science and technology lead the world.
- (d) Different countries choose different models of development and for this they use different tools.

This Explanation

96. A is twice as good in fencing a garden as B and takes 8 hours less than B takes. Find the time B would take for fencing the garden.
- (a) 10 hours
 - (b) 16 hours
 - (c) 12 hours
 - (d) 18 hours
97. A beats B by 15 sec in a 200 m race, B beats C by 25 sec in a

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- 500 m race, C beats D by 32 sec in 800 m race and D beats E by 35 sec in a 1 km race. What must be the speed of A in order to beat E by 800 min a 2 km race?
- (a) 2.5 m/s
(b) 3.33 m/s
(c) 5 m/s
(d) 6.66 m/s
98. Consider the following statements:
1. The minimum number of points of interaction of a rectangle and a triangle is 2
 2. The maximum number of points of interaction of a rectangle and a triangle is 6.
- Which of the statements given above is/ are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
99. A, B and C are situated at the bank of river which is flowing at a constant rate. B is at an equal distance with A and C. A swimmer Avinash takes 10 h to swim from A to B and B to A. Also, he takes 4 h to swim from A to C. What is the ratio of speed of Avinash in still water and speed of stream?
- (a) 5 : 3
(b) 3 : 5
(c) 2 : 5
(d) 1 : 2
100. How many pairs of natural numbers are there so that difference of their squares is 60?
- (a) 4
(b) 3
(c) 2
(d) 1
101. A person has to travel distances of 66km, 88km, and 110km on three consecutive days. If he travels with the greatest possible constant speed (in km/hr) on all three days so that he covers the respective distances in integer number of hours on each day, how many hours will it take him to complete the journey.
- (a) 8
(b) 12
(c) 22
(d) 24
102. The following table gives the percentage distribution of population of five states, P, Q, R, S and T on the basis of poverty line and also on the basis of sex.

State	Percentage of Population below the Poverty Line	Proportion of Males and Females	
		Below Poverty Line	Above Poverty Line
		M : F	M : F
P	35	5 : 6	6 : 7
Q	25	3 : 5	4 : 5
R	24	1 : 2	2 : 3
S	19	3 : 2	4 : 3
T	15	5 : 3	3 : 2

If the male population above poverty line for State R is 1.9 million, then the total population of State R is?

- (a) 4.5 million
 (b) 4.85 million
 (c) 5.35 million
 (d) 6.25 million
103. What will be the number of females above the poverty line in the State S if it is known that the population of State S is 7 million?
 (a) 3 million
 (b) 2.43 million
 (c) 1.33 million
 (d) 5.7 million
104. What will be the male population above poverty line for State P if the female population below poverty line for State P is 2.1 million?
 (a) 2.1 million
 (b) 2.3 million
 (c) 2.7 million
 (d) 3.3 million

105. If the population of males below poverty line for State Q is 2.4 million and that for State T is 6 million, then the total populations of States Q and T are in the ratio?
 (a) 1 : 3
 (b) 2 : 5
 (c) 3 : 7
 (d) 4 : 9
106. A grocer professes to sell item at a profit of 10 % & uses weight which are 20% less than the market weight, the total gain earned by him will be?
 (a) 30%
 (b) 35%
 (c) 37.5%
 (d) None of these
107. If 5% more is gained by selling an article for Rs 350 than by selling it for 340, the cost of the article is?
 (a) 50
 (b) 160
 (c) 200
 (d) 225
108. On a book rack seven books one each on Psychology, Hindi, English, Sociology, Economics, Finance and Accountancy are placed one above the other.

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1. On top is the book on Sociology.
2. Finance is immediately below Sociology.
3. Finance is immediately above Accountancy.
4. Economics is immediately above Psychology but is not in the middle.
5. Psychology is immediately above Hindi.

Economics is between which of the following books?

- (a) Accountancy and Finance
 - (b) Psychology and Hindi
 - (c) English and Psychology
 - (d) Psychology and Sociology
109. Which books are between Hindi and Accountancy?
- (a) English, Economics and Psychology
 - (b) Economics, Psychology and Finance
 - (c) Economics, Psychology and Hindi
 - (d) Can't be determined
110. Which book will be between Psychology and Sociology, if Sociology and English, Accountancy and Hindi and, Finance and Psychology interchange their positions?
- (a) Accountancy

- (b) Psychology
- (c) Hindi
- (d) Economics

111. Rent of a room is Rs. 9600, which is shared among Kallu, Malkhan, Ramu and Shyam. If contribution ratio of Kallu & Malkhan, Malkhan & Ramu and Ramu & Shyam is 1:2, 2:3 and 5:6 respectively, then what is the contribution of Malkhan in the rent?

- (a) Rs. 1400
- (b) Rs. 2000
- (c) Rs. 1000
- (d) Rs. 1600

112. Roshan is a perfume seller. One small bottle of French perfume costs him Rs. 12. In what ratio should he mix Rs. 8.50 per bottle synthetic perfume into this to sell the mixture at Rs. 9.25 and make no profit or loss?

- (a) 8:5
- (b) 11:3
- (c) 10:3
- (d) None of the above

113. Two statements are given followed by two conclusions:

Statements:

- All numbers are divisible by 5
All numbers are divisible by 11

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Conclusion-I: All numbers are divisible by 10

Conclusion-II: All numbers are divisible by 55

Which of the above conclusions logically follow/ follows from the above given statement?

- (a) Only conclusion I
 - (b) Only conclusion II
 - (c) Neither conclusion I nor conclusion II
 - (d) Both conclusions I and conclusion II
114. When the time in the wall-clock is 3.25 p.m., the acute angle between the hours-hand and the minutes-hand is
- (a) 60°
 - (b) 52.5°
 - (c) 47.5°
 - (d) 42°
115. The age of a man is three times the sum of the ages of his two sons. Five years hence, his age will be double of the sum of the ages of his sons. The father's present age is
- (a) 40 years
 - (b) 45 years
 - (c) 50 years
 - (d) 55 years
116. Management is a set of processes that can keep a

complicated system of people and technology running smoothly. The most important aspects of management include planning, budgeting, organizing, staffing, controlling, and problem-solving. Leadership is a set of processes that create organisations in the first place or adapts them to significantly changing circumstances. Leadership defines what the future should look like, aligns people with that vision, and inspires them to make it happen despite the obstacles. This distinction is absolutely crucial for our purposes here: Successful transformation is 70 to 90 per cent leadership and only 10 to 30 per cent management.

Why, according to the author, is a distinction between management and leadership crucial?

- (a) Leaders are reactive whereas managers are proactive.
- (b) Organisations are facing problems of not getting good managers.
- (c) Organisations are pursuing the strategy of status quo.
- (d) In today's context, organizations need leaders as

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- well as managers in transforming them.
117. In a queue, Sadiq is 14th from the front end and Joseph is 17th from the back end, while Jane is in between Sadiq and Joseph. If Sadiq be ahead of Joseph and there are 48 persons in the queue, how many persons are between Sadiq and Jane?
- (a) 5
(b) 6
(c) 7
(d) 8
118. A dice is thrown. If an even number comes, then a coin is tossed once, but if a prime number comes, then two coins are tossed. What is the probability of getting exactly one head?
- (a) $\frac{2}{7}$
(b) $\frac{1}{5}$
(c) $\frac{5}{8}$
(d) $\frac{3}{8}$
119. How many 9's are followed by and preceded by numbers divisible by 2?
- 8 9 6 5 3 5 9 6 8 3 4 9 6 5 2 6
9 7 3 7 2 9 4 1
3 7 9 4 1 7 3 4 9 8 4 5 3 9 7 6
1 5 3 1 9 5 7 4
2 9 6 8 5 3 2 9 5 7 4 8 9 4 5 1
- (a) 12
(b) 6
(c) 8
(d) 10
120. In a group of 20 children, two children have hundred marbles each and three do not possess any marbles. The average number of marbles with the rest of the children is 40. What is the average number of marbles with the group of children?
- (a) 35
(b) 30
(c) 40
(d) 37
121. Arun and Shivam have certain amount of money with them. If Arun gives Rs. 40 to Shivam, then Shivam will have three times the money that is left with Arun. But if Shivam gives Rs. 10 to Arun, then Arun will have two times the money that is left with Shivam. How much money did Arun have initially?
- (a) Rs. 170
(b) Rs. 80
(c) Rs. 70
(d) Rs. 90
122. In a regular week, there are 5 working days and for each day, the working hours are 8. A

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- man gets Rs. 2.40 per hour for regular work and Rs. 3.20 per hours for overtime. If he earns Rs. 432 in 4 weeks, then how many hours does he work for?
- (a) 172
(b) 165
(c) 175
(d) 162
123. Harsh, Shiva and Krishna participated in a 400 m race. Harsh can defeat Shiva by 50 m and Shiva can defeat Krishna by 24 m. In the same race Harsh can defeat Krishna by what distance?
- (a) 76 m
(b) 26 m
(c) 71 m
(d) 24 m
124. We inherited an agrarian economy from the British with the agriculture and allied sector contributing to around three-fourths of the Gross Domestic Product (GDP) and providing employment to more than four-fifths of the population. The food shortages faced during the mid-1960s pushed India to reform its agricultural policy and accordingly India adopted significant policy reforms focused on the goal of

achieving food grain self-sufficiency. A series of institutional reforms were undertaken to boost agricultural production and to modernize farming practices.

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

1. Food Shortages were fulfilled by the import of food grains from foreign nations.
2. Contribution of agriculture to GDP does not ensure food self-sufficiency.

Which of the above assumptions is/are valid?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
125. A major shift occurred when India embarked upon economic liberalisation and reforms program in 1991 aiming to raise its growth potential and integrate with the world economy. Industrial policy reforms slowly but surely removed restrictions on investment projects and business expansion on the one hand and allowed increased access to foreign technology and funding on the other.

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Which one of the following is the most logical and rational inference to the above passage?

- (a) 1991 reforms ensured that the Indian economy opens up and receives finance to spur economic growth.
- (b) To handle the balance of payment crisis, 1991 reforms were inevitable.
- (c) There was a rapid implementation of policy leading to the growth of the Industrial sector, post-1991 reforms.
- (d) 1991 reforms disproportionately favoured a few primary sectors over the others in economic growth.

126. An algorithm that is constructed on the back of an envelope is often good enough to compete with an optimally weighted formula, and certainly good enough to outdo expert judgment. This logic can be applied in various domains, ranging from the selection of stocks by portfolio managers to the choices of medical treatment by doctors or patients.

Which of the following assumptions

falsifies/invalidates the argument made above?

- (a) Algorithms are the most scientific of methods to elaborate details in a case study
 - (b) Algorithms function in a step by step manner, therefore, ruling out any possibility of an error
 - (c) Algorithms are designed not as a formula but as a system, a system has a better practical competence, than a formula
 - (d) Algorithms depend on variables, and it is impossible to factor in all the variables of an activity
127. There is growing recognition of „digitalization“ and the so-called „new technologies“ spanning all available approaches, systems, tools and innovations, including a suite of biotechnologies such as genome editing, in particular CRISPR-Cas or synthetic biology, where the genetic material of an organism can be synthesized. Advances in food and medicine research in the area of genomics, food processing, and drug design/formulation, may increasingly lead to „personalized foods“ to

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address specific health conditions. This is an area in rapid evolution where regulatory guidance and oversight would be needed.

What is the most logical and appropriate conclusion that we can infer from this passage?

- (a) Growing digitalization and advent of new technologies will help in boosting innovation and the manufacturing sector.
- (b) Rising use of synthetic biology from food to medicine should be coupled with greater regulation by appropriate regulatory bodies.
- (c) Despite growing digitalization and innovation in cutting edge technology India has not yet made the desired progress in synthetic biology.
- (d) Synthetic biology induced area of genomics and drug design formulation has made great advancement in India's biotechnology sector.
128. In a box we have twice as many red balls as green balls. Also, 3 lesser white balls than the red balls. And there are 10 green balls in the box. If Arun has to take one ball at a time randomly from the box blindfolded, how many balls he has to take to ensure he had

taken at least one from each colour?

- (a) 38
- (b) 29
- (c) 31
- (d) Cannot be determined
129. Three men including a senior citizen, board a train where 6 seats are vacant. Two of these 6 seats are reserved, one for women and one for senior citizens. A senior citizen may or may not sit on reserve seat. In how many different ways can the 6 seats be occupied by these three passengers?
- (a) 36
- (b) 60
- (c) 72
- (d) 120
130. A longest rod is placed in a room of length 15m and breadth 6m. What can be the height of the room if length of the rod is 19m?
- (a) 11m
- (b) 15m
- (c) 10m
- (d) None of these
131. A full bottle contains 40% oil, 20% vinegar, and 40% water. The bottle is poured into a larger bottle, four times as big as original. The remaining

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- space in the larger bottle is then filled with water. If there was 8 ml of oil in the original bottle, how much of water is in the final mixture?
- (a) 68 ml
(b) 48 ml
(c) 38 ml
(d) 58 ml
132. Thirty members are standing in a row. How many persons are between Ramu and Mohan?
- (i) 13 persons are standing to the right of Mohan and 15 persons are standing to the left of Ramu.
(ii) 18 persons are standing to the left of Mohan and 13 persons are standing to the right of Ramu.
(iii) 17 persons are standing to the right of Ramu and 26 persons are standing to the right of Mohan.
- Which of the above statements are sufficient to answer the question?
- (a) Only I
(b) Only I and II
(c) Only II and III
(d) Each statement alone is sufficient
133. Ramarao has a toy shop. By mistake he calculated profit percentage on a toy's selling price (rather than the cost price), which came out to be 50%. What is the actual profit percentage ?
- (a) 200%
(b) 50%
(c) 100%
(d) 25%
134. How many such pairs of letters are there in the word ARCHITECTURE, each of which has as many letters between them as they have between them in the English alphabet?
- (a) 6
(b) 5
(c) 3
(d) None of the above
135. Study the following information carefully and answer the question that follows:
Point T is 5 m south of point U.
Point U is 5 m east of point V.
Point V is 3 m south of point W.
Point W is 5 m west of point X.
Point X is 5 m south of point Y.
Point Z is 10 m east of point Y.
How far and in which direction is point U from point Z?

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- (a) 25 m, South-East
(b) 18 m, North
(c) 15 m, North-East
(d) 12.8 m, South-West
136. Read the following information and answer the following question/s:
A team of five is to be selected from amongst five boys Vinod, Krishna, Raman, Prem and Harry and four girls Rita, Sita, Mita and Gita according to the following selection criteria:
1. Gita and Vinod have to be together.
2. Rita cannot be put with Mita.
3. Sita and Prem cannot be together.
4. Raman and Harry have to be together.
5. Mita cannot be put with Krishna.
If two of the members have to be boys, the team will consist of:
(a) Vinod, Krishna, Gita, Rita, Sita
(b) Vinod, Prem, Gita, Sita, Mita
(c) Krishna, Prem, Gita, Mita, Sita
(d) Raman, Harry, Gita, Rita, Sita
137. If Mita be one of the members, the other members of the team are
(a) Rita, Gita, Vinod, Prem
(b) Sita, Gita, Vinod, Prem
(c) Sita, Gita, Raman, Harry
(d) Gita; Vinod, Raman, Harry
138. If two of the members are girls and Prem is one of the members, the members of the team other than Prem are:
(a) Rita, Sita, Krishna, Raman
(b) Rita, Sita, Raman, Harry
(c) Rita, Gita, Vinod, Krishna
(d) Rita, Gita, Raman, Harry
139. If Vinod and Raman are members, which among the following is not a feasible combination of the other team members:
(a) Krishna, Harry, Gita
(b) Prem, Harry, Gita
(c) Harry, Gita, Rita
(d) Rita, Sita, Harry
140. If including Rita at least three members are girls, the members of the team other than Rita are:
(a) Sita, Gita, Vinod, Krishna
(b) Sita, Gita, Krishna, Prem
(c) Sita, Gita, Raman, Harry
(d) Mita, Gita, Vinod, Prem

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141. Sustainability is driving the future of luxury with an inclination towards softer aspects like building emotional connections and relishing the sense of doing good for the environment as opposed to hard factors like price. With a more conscious attitude, buyers want more in the form of amenities that emphasise holistic health as well as environmental stewardship. This essentially captures energy efficiency, water conservation, fresh air and buildings that are accredited with the highest level of eco-friendly certifications. What is the most logical, rational and crucial message conveyed by the passage above?

(a) Price is the main consideration for luxury accommodations

(b) Water conservation is the most important factor that buyers consider when making purchasing decisions

(c) Sustainability is gaining importance with buyers instead of having a mere focus on price

(d) Energy efficiency will be the sole determinant of buying

decisions for luxury accommodation in the future

142. In a group of 20 children, two children have hundred marbles each and three do not possess any marbles. The average number of marbles with the rest of the children is 40. What is the average number of marbles with the group of children?
- (a) 35
- (b) 30
- (c) 40
- (d) 37
143. Two trains start from stations A and B travel towards each other at speeds of 50 km/hour and 60 km/hour respectively. At the time of their meeting, the second train has travelled 180 km more than the first. The distance between A and B is
- (a) 1980 km
- (b) 1200 km
- (c) 1320 km
- (d) 1440 km
144. Find the largest four digit natural number N which when divided by 45, 60 and 72 leaves a remainder of 33, 48 and 60 respectively.
- (a) 9348

- (b) 9528
- (c) 9708
- (d) 9888

145. If Rs. 1 is charged for each temple in state A, Rs. 2 for each temple in state B and so

on, a person has to pay how much money to visit all the temples of A, B, C and D?

- (a) Rs. 345
- (b) Rs. 385
- (c) Rs. 455
- (d) Rs. 165

SI	ANS	EXPLANATION
1.	B	Number of arrangements of all letters such that the two C's are never together = $360 - 120 = 240$
2.	D	Vessel A contains: 10 gallons milk + 4 gallons water
3.	C	All multiples of 5 are 5, 10, 15, 20, 25, 50, 55 Average = $(5 + 10 + 15 + 20 + 25 + 50 + 55) / 11 = 330 / 11 = 30$.
4.	A	80% of CP = Rs 1 120% of CP = $120 / 80 = 6 / 4 = 1.5$ Therefore, he should sell 12 marbles for Rs 1.5 or 8 marbles for Rs 1.
5.	B	Explanation: To cover the respective distances in integer number of hours, the maximum equal distance covered each hour is the HCF of 66 88 and 110 which is 22km. So, the maximum speed of travel is 22km/hr; Total time taken to complete the journey = $(66/22) + (88/22) + (110/22)$; = $3+4+5 = 12$ hours
6.	B	From 1-100, 7 occurs 20 times; From 1-1000 7 occurs $2 \times 10 + 100 = 300$
7.	B	Students who passed in all three subjects = students who failed in none of the three subjects = $41 - (5 + 1 + 1 + 5 + 1 + 2 + 0) = 26$

8.	B	Students who passed in at least two of the three exams = students who fail in at most one exam = $26 + 5 + 1 + 0 = 32$
9.	D	Students who failed in Algebra or Biology = $12 + 5 - 2 = 15$
10.	C	Students who passed in exactly two exams = students who fail in exactly one exam $5+1+0 = 6$
11.	A	$\Rightarrow a + b = 4a - 4b$ $\Rightarrow 3a = 5b$ $\Rightarrow a : b = 5:3$
12.	C	We go for even pairs (2, 30) and (6, 10) since even-odd pair won't satisfy condition (2) checking even pairs in condition(l)
13.	C	Let the original weight of the diamond be 10k gm. So, after breaking into 4 pieces, the parts of the diamond weigh k gram, 2k gram, 3k gram, and 4k gram respectively. The price of the diamond varies directly in proportion to the weight. Let us assume, $P = C \cdot W^2$ where C is a constant and W is the weight of the diamond. Therefore, the original price is $C \cdot 10k \cdot 10k = 100k^2 \cdot C$ The new weight is $Ck^2 + C(2k)^2 + C(3k)^2 + C(4k)^2 = 30k^2C$ The decrease in the price is 70,000 Rs. So, $100k^2C - 30k^2C = 70,000$ Or, $k^2C = 1,000$ Therefore, the original price = $100 k^2C = 1,00,000$ Rs
14.	B	Let the cost of car, tractor and bus be x, y, and z respectively. $5x+7y+4z = A$ (1) $6x+8z+14y = 3A/2$ $4x + 16/3 z + 28/3 y = A$ (2) Comparing two equations $5x+7y+4z = 4x+16/3 z + 28/3 y$ $x = 7/3 y + 4/3 z$ $3x = 7y+4z$

		Now required percentage = $[5x/(5x+7y+4z)]*100 = 5x/(5x+3x) = 62.5\%$ Hence, option b is correct.
15.	B	On replacing the digits as per the question, we will get 6154278 Now on rearranging this, we get 1245678 So, the third digit from the left is 4, which is option b.
16.	C	Option (c) is the best choice. It is saying in brief what we noted above in our two points above.
17.	A	We know that a number is divisible by 9 only when all the number sum up to be multiple of 9; Now let's add all the number to check whether this number is divisible by 9 or not; $8 + 9 + 3 + 5 + 5 = 30$
18.	B	$4100 = 2200$ Thus, it is less than option (a). So, discarded. Similarly, $960 = 3120$. It is less than 3200. So, discarded. We can write option (b) as $3200 = 9100$ and option (a) as $2300 = 8100$. On comparing, we find option (b) to be the largest.
19.	A	The digit sum of numbers made by using the digits will be $1 + 2 + 3 + 4 + 5 = 15$. So, if the digits are not repeated then such number will always be divisible by 3. Hence, there will be no such prime number.
20.	B	Let B takes t hours to fence the garden Since A is twice as efficient, he will take t/2 hours to fence the garden $t - t/2 = 8$; $t = 16$ hours Hence, option (b)
21.	A	Option (a) is the best choice as it captures the essence of the passage as highlighted by the example of Middle East countries in the passage.
22.	C	Option (c) looks like the best option as it highlights the role of human rights in the life of an individual.
23.	C	In order to make 10, we require 2×5 . There are many 2s ($2^2, 4^4, 6^6, 8^8$) in the series but 5 are only $5(5^5)$. So, the number of zeros will be only 5.

24.	C	<p>If $2x+12$ is perfectly divisible by x, then 12 must be divisible by x. Hence, there are six possible values of x : (1,2,3,4,6,12) If $x = 1$ then $2*1+12 = 14$ is divisible by 1 If $x = 2$ then $2*2+12 = 18$ is divisible by 2 If $x = 3$ then $2*3+12 = 18$ is divisible by 3 If $x = 4$ then $2*4+12 = 20$ is divisible by 4 If $x = 6$ then $2*6+12 = 24$ is divisible by 6 If $x = 12$ then $2*12+12 = 36$ is divisible by 12</p>
25.	A	<p>Let's assume the students contributed X Rs; So, the teachers contributed $3X/2$ Rs And external benefactor contributed $9X/2$ Rs; Summation of all contribution = 42,00,000 = $7X$; Or, $X = 6,00,000$ Rs; Hence, teachers contributed 9,00,000 Rs</p>
26.	B	Inference 1 is incorrect and Inference 2 is correct.
27.	A	Option (a) is correct.
28.	B	Inference 1 is incorrect and Inference 2 is correct.
29.	C	Option (c) is correct.
30.	D	<p>$2/3$ of the air in a tank is removed with each stroke means that $1/3$ of the air is left after one stroke, $1/3 * 1/3$ after two strokes and so on. Basically, after n strokes there will be $(1/3)^n$ of the air left in the tank. The question asks about such n for which $(1/3)^n < 1/100 \rightarrow 3^n > 100 \rightarrow n=S$.</p>
31.	B	<p>Number of arrangements of all letters such that the two C's are never together = $360-120 = 240$</p>
32.	D	<p>Vessel A contains: 10 gallons milk + 4 gallons water</p>
33.	C	All multiples of 5 are 5, 10, 15, 20, 25, 50, 55

		Average = $(5 + 10 + 15 + 20 + 25 + \dots + 50 + 55)/11 = 330/11 = 30$.
34.	A	80% of CP = Rs 1 120% of CP = $120/80 = 6/4 = 1.5$ Therefore, he should sell 12 marbles for Rs 1.5 or 8 marbles for Rs 1.
35.	B	Explanation: To cover the respective distances in integer number of hours, the maximum equal distance covered each hour is the HCF of 66 88 and 110 which is 22km. So, the maximum speed of travel is 22km/hr; Total time taken to complete the journey $= (66/22) + (88/22) + (110/22); = 3+4+5 = 12$ hours
36.	D	Cost price of 1,000 shirts = Rs. 900000; So, Cost price of one shirt = $900000/1000 = \text{Rs. } 900$; The store sells 750 shirts in the first month at a price 80 per cent above the cost price, and 50 per cent of the remaining shirts, i.e. 125 shirts, afterwards at 20 per cent above the cost price. Gross income generated by selling the shirts = $750 \times (180\% \text{ of Rs. } 900) + 125 \times (120\% \text{ of Rs. } 900) = 750 \times 1620 + 125 \times 1080 = 1215000 + 135000 = \text{Rs. } 1350000$
37.	C	their investment ratio is 60:40 i.e. 3:2) Profit after 5 years of investment = $30\% \text{ of } 5x = (30/100) 5x = 1.5x$ Profit share of Ajit in ratio (60:40) of their investment = $3/5$ th of $1.5x = 0.9x$ Profit share of Lalit = $1.5x - 0.9x = 0.6x$ Interest paid by Lalit for one year of borrowing = $5\% \text{ of } 2x = 0.1x$ Hence, actual profit of Lalit = $0.6x - 0.1x = 0.5x$ Hence, ratio of their profits = $(0.9x) : (0.5x) = 9 : 5$
38.	B	Let the quantity of milk purchased be x litres and quantity of water added to it be y litres. Then ratio of water to milk will be y:x. Now, CP of x litres milk = Rs. $6.4x$ and S.P of the mixture when y litres of water is added to x litres of milk = Rs. $8(x + y)$

		And profit percent = 37.5%; Now, $SP = CP \times (100 + \text{Profit}\%)$; So, $8(x + y) = 6.4x \times (100 + 37.5)/100$; Or $8x + 8y = 8.8x$; Or $8y = 0.8x$; Or $x/y = 80/8 = 10/1$; Or $y:x = 1:10$
39.	B	Interest earned on Rs. 13200 at a rate of 14% = Rs. 1848 Number of shares purchased = $13200/110 = 120$ Dividend earned by him on 120 shares which pays a dividend of 15% per share = $120 \times [(15/100) \times 100]$ = Rs. 1800 Therefore, net profit = $1848 \pm 1800 = \text{Rs. } 48$
40.	C	Let the C.P for the manufacturer be Rs. 100. Then C.P for the wholesaler = Rs. 118 C.P for the retailer = $118 \times (120/100) = \text{Rs. } 141.60$ C.P for the customer = $141.60 \times (125/100) = \text{Rs. } 177$ If the C.P for the customer is Rs. 177, then the C.P for the manufacturer is 100. Therefore, if the C.P for the customer is Rs. 30.09, then the C.P for the manufacturer = $(100/177) \times 30.09 = \text{Rs. } 17$
41.	B	Let after 't' months Rahul joined the business. Hence Amit does business for 1 year and Rahul for (12 - t) months. They will share the profit in ratio $30000 \times 12 : 20000 \times (12 - t) = 2 : 1$ $t = 3$ months
42.	C	In a clock, the angle between two successive numbers is $360^\circ/12 = 30^\circ$. When the time is 3.25 pm, the minute hand will be on 5 and will have moved 60° from 3 and hour hand would be between 3 and 4 and as it moves 30° in 60 minutes, So, in 25 minutes, it would move 12.50. So, the difference between two hands will be $= 60^\circ - 12.5^\circ = 47.5^\circ$
43.	A	Eqn. 1 - eqn. 2 $20 = T_{40} - T_{30}$ nth term of AP $T_n = a + (n-1)d$

		$20 = a + 39d - (a + 29d)$ $20 = 10d$ where d is the common difference of AP $2 = d$; $a = 51$.
44.	B	If "lead" in excessive amounts in the drinking water has been the major cause lung cancer but the source of lead is missing then the cause of cancer of inhabitants of the island must be something else.
45.	D	-> $n(n+ 1)$ is divisible by 3 when either n is divisible by 3 or $(n+ 1)$ is divisible by 3. -> n is divisible by 3 in $99 / 3=33$ cases -> $n+ 1$ is divisible by 3 in $99 / 3=33$ cases -> $33+33=66$ -> $66/99=2/3$
46.	A	The critical message of the passage is that the successive governments of India are working continuously to establish social justice in India. As the things progressed, the governments are making necessary changes well.
47.	B	Take capacity of each container = LCM $(2 + 1, 3 + 1, 1 + 1) = \text{LCM}(3, 4, 2) = 12$ Contents container 1: Spirit = 8 liters water = 4 liters Contents container 2: Spirit = 9 liters water = 3 liters Contents container 3: Spirit = 6 liters water = 6 liters Final Mixture: Spirit = 23 liters water = 13 liters Ratio (Spirit: Water) = 23 : 13; Ratio (Spirit: Total Solution) "" 23 : 39 Option (b).
48.	B	Number of arrangements of all letters such that the two C's are always together = arrangements of A, (C, C), O, S, T = $5! = 120$ Number of arrangements of all letters such that the two C's are never together = $360-120 = 240$.

CSAT PAPER – Practice Questions & Answers

MARCH 2024

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49.	D	Contents in the final Vessel: 18 gallons milk + 11 gallons of water. Option (d).
50.	C	All multiples of 5 are 5, 10, 15, 20, 25, 50, 55; Average = $(5 + 10 + 15 + 20 + 25 + \dots + 50 + 55)/11 = 330/11 = 30$.
51.	B	A beats B by 150 sec, B beats C by 100 sec, C beats D by 80 sec, D beats E by 70 sec, => E would finish the race 400 sec after A. Now, if A has to beat E by 800 m then we can say that E will cover the remaining 800m in 400sec, and cover 2000m in 1000 sec. A has to reach 400s earlier i.e. in 600 sec.
52.	A	
53.	A	According to the question, $x/2 + x/3 + x/4 = 78$ Or $13x/12 = 78$ Or $x = (78 \times 12)/13$ Or $x = 72$ Thus, 72 guests were present at the party.
54.	C	Given: Decrease in average weight of 15 students = 1.2 kg \therefore Total decrease in weight of 15 students = $15 \times 1.2 = 18$ kg So, weight of new student = weight of student who left – reduction in total weight = $55 - 18 = 37$ kg
55.	A	Option (a) is correct. Here, the product of soft drink reflects our life choices and marketing about it through TV commercials considering your favorable attitude towards such scenes works for the company and its products. So, this option reflects the best central idea of the passage.
56.	A	Explanation: Let speed of Avinash in still water and speed of stream b km/h
57.	C	We go for even pairs (2, 30) and (6, 10) since even-odd pair won't satisfy condition (2) checking even pairs in condition (1) $X - y = 2, X + y = 30 \Rightarrow X = 16, y = 14$ & $-y = 6, X + y = 10 - X = 8, y = 2$
58.	A	The required ratio of two sugar solution is 1 : 2.

59.	A	Option (a) is correct. The lines “Solid waste management is an essential practice adopted by the local authorities to maintain hygienic surroundings in residential areas. The role of these local bodies becomes much more critical in natural disasters such as hurricanes, earthquakes, floods, pandemics, etc. Due to the accumulation of waste or water stagnation, the risk associated with the prevalence of pathogens in drinking water supply and waste disposal may amplify many folds”, support the crux mentioned in this option. So, this is the best-implied crux of the passage.
60.	D	Option (d) is correct.
61.	D	Both the conclusions are wrong.
62.	C	Both 1 and 2 follows
63.	C	Both assumptions are correct
64.	B	The author states that after the end of the Cold War, ‘The cumulative impact has been to make India feel more secure’.
65.	C	The author highlights that ‘The improvement of Chinese relations with Russia that followed the ending of the Cold War removed a major impediment to better Sino-Indian ties’ and also that ‘The cumulative impact has been to make India feel more secure and thus more willing to be innovative in its foreign policy’.
66.	A	In the first line, author highlights that health crisis became a disrupter of trade and commerce and wiped millions of jobs. So, statement 1 is an assumption. Statement-2 cannot be the assumption from the information given in the passage. The passage highlights that investment in the health care is required as we have to fight the problems posed by the pandemic. Hence, we can't assume that government didn't invest enough in the past on health infrastructure.
67.	D	We have to identify the assumptions based on the passage. Statement 1 cannot be assumed as there is no such inclination. In the passage,

		it has been highlighted that since 1990s government has been improving the opportunities for the states. However, there is no hint to assume that opportunities are limited. Statement 2 is beyond the scope of the passage. As fiscal federalism is a situation in which equal opportunities prevail for the states and the union. So, statement 2 is also not an assumption. Hence, option d is the best answer.
68.	B	The passage focusses on the linguistic diversity of India. Option (a) is incorrect as it compares with the literature of other countries with the literature of Indian sub-continent. Option (b) is the correct answer as it aptly identified the reason of India's linguistic richness. Option (c) is incorrect as it is beyond the scope of the passage. Option (d) is incorrect as it does not highlight the central idea which is accommodative nature of Indian culture.
69.	D	<p>Answer: (d) Explanation:</p> <pre> graph TD A[] --> B[Studied Abroad] A --> C[Award of Merit] A --> D[Think-Tank] A --> E[Doctorate] </pre>
70.	D	The question statement highlights two things first mysterious illness and second no one was surprised. This should make you think why a political adversary of Mr. Putin goes to jail and dies due to a mysterious disease. In this situation the cartoon shows that the police have eliminated the possibility of murder. They are trying to pass it as suicide or medical condition. This implies that the author wants to say that Putin's regime is responsible for the death.
71.	C	LCM (45, 60, 72) = 360; $N + 12 = 360k$ (k-integer); $N = 360k - 12$; Largest four digit number = 9999; Largest four digit number of the form $360k = 9720$ Required number $N = 9720 - 12 = 9708$ Hence, option (c).
72.	B	$9x = 36$

		$X = 4.$ Required difference = $(2x + x) - (2x - x)$
73.	C	New Zealand was defeated twice by India and twice by Pakistan i.e. 4 times in all. Answer is (c).
74.	D	Let x, y, z be the number of 10, 25 and 50 paise coins, $10x + 25y + 50z = 7500$ and $x = 5y/3z = 5y/6$ solving for y, we get =90 SO, $Z = 5 \times 90 / 6 = 75$ $y + z = 90 + 75 = 165$ Hence, option (d).
75.	D	The sequence order of above series is given as - aa bb cc dd/ aaa bbb ccc ddd Hence, required answer will be bdac.
76.	A	Suppose Radio 1s priced at Rs 100 and earlier sale was 100 units. New Price = Rs 80; New Sales= 180; Old Revenue = 10,000. New Revenue = 14,400. % Decrease in Sale Revenue
77.	B	Clearly, Dis the tall girl from Mysore. Answer is (b).
78.	C	2 should be replaced by 3.
79.	C	Time shown = 6.30 pm + 4.5 minutes = 6.34.30 pm
80.	A	The passage highlights that the problem of air pollution is (also) caused by local industry but not entirely. Moreover, it does not say that pollution has been removed. So, we have to keep this statement moderate. So, option (a) is the best answer. Options (b), (c) and (d) are assumptions of the passage.
81.	B	26 January 2026 = Saturday+ 2 = Monday

82.	A	The author concludes that 'In India, the achievements have been substantial in terms of reaching near self-sufficiency in food'.
83.	D	Neither does the passage indicate that all food procurement in India takes place through public channels
84.	A	Average speed = $100 \times \left(\frac{60}{80} \right) + \left(\frac{25}{100} \right) + \left(\frac{15}{60} \right) = 100 \times \frac{5}{4} + \frac{1}{4} + \frac{1}{4} = 400/5 = 80$ km/hr. Hence, option (a) is the correct answer.
85.	B	Percentage Reduction = $(20 \times 100) / 120 = 100/6\% = 50/3\%$. Hence, option (b) is the correct answer.
86.	B	From 1-100, 7 occurs 20 times From 1-1000 7 occurs $20 \times 10 + 100 = 300$ Hence, option (b).
87.	B	Students who passed in all three subjects = students who failed in none of the three subjects = $41 - (5 + 1 + 1 + 5 + 1 + 2 + 0) = 26$ Hence, option (b).
88.	B	Students who passed in at least two of the three exams = students who fail in at most one exam = $26 + 5 + 1 + 0 = 32$
89.	D	Students who failed in Algebra or Biology = $12 + 5 - 2 = 15$
90.	C	Students who passed in exactly two exams = students who fail in exactly one exam $5 + 1 + 0 = 6$
91.	B	LCM of 3, 4, 5 and 6 is 60. The least 4-digit number divisible by 60 is 1020. So with remainder 2 it will be $1020 + 2 = 1022$.
92.	D	Similarly, Geeta's dates in January would be: 1st, 5th, 9th, 13th, and so on (Between 1st and 5th, there is a gap of 3 days)
93.	C	Number of slabs required = $37500 / 50^2 = 15$ Therefore, the side of the largest possible square slabs that can be paved on the floor is 50cm and the number of such slabs to pave the floor is 15.

		Hence, the correct answer is option (c) 50cm, 15.
94.	C	Total distance travelled = 330m + 300m = 630mts Time taken = 18s Speed = Distance / Time = 630m/18s = 35m/s The formula for converting m/s to kmph = speed in m/s * 18/5 Therefore, speed of train in kmph = 35m/s*18/5 = 126kmph.
95.	A	Option (a) is the best choice as it captures the essence of the passage as highlighted by the example of Middle East countries in the passage.
96.	B	t = 16 hours Hence, option (b)
97.	B	A beats B by 150 sec, B beats C by 100 sec, C beats D by 80 sec, D beats E by 70 sec, => E would finish the race 400 sec after A. Now, if A has to beat E by 800 m then we can say that E will cover the remaining 800m in 400sec, and cover 2000m in 1000 sec. A has to reach 400s earlier i.e. in 600 sec,
98.	A	
99.	A	
100.	C	Explanation: Let the numbers be x and y then $x^2 - y^2 = 60 \Rightarrow (1)$ or $(x - y)(x + y) = 60 \Rightarrow (2)$ Factors of 60
101.	B	To cover the respective distances in integer number of hours, the maximum equal distance covered each hour is the HCF of 66 88 and 110 which is 22km. So, the maximum speed of travel is 22km/hr Total time taken to complete the journey $= (66/22) + (88/22) + (110/22); = 3+4+5 = 12$ hours
102.	D	Total population of State R = 6.25 million
103.	B	Total population of State S = 7 million. Population above poverty line

104.	D	3.3 million.
105.	B	Total population below poverty line = $(2.4 + 4) = 6.4$ million.
106.	C	Suppose he bought 1000g at Rs 1000. Now when he sells he says makes Rs 1100 against 800 grams; Now Cost of 800g = Rs 800; So, Profit= Rs 300; % Profit $(300/800)*100 = 37.5\%$
107.	C	5% of CP Rs 10 = 100% of CP = Rs 200.
108.	C	Sociology is on top of all books, Finance is below Sociology. Accountancy is below Finance. Economics is above Psychology and Psychology is above Hindi. Economics is not in the middle. So, in the middle lies the seventh book i.e. English.
109.	A	The sequence from top to bottom is: Sociology, Finance, Accountancy, English, Economics, Psychology and Hindi. There are three books between Accountancy and Hindi - English, Economics and Psychology. Answer is (a).
110.	C	Clearly, Hindi is between Psychology and Sociology. Answer is (c).
111.	B	Contribution ratio of Kallu, Malkhan, Ramu and Shyam = 5:10:15:18 Required contribution of Malkhan = $9600 \times 10/(5+10+15+18) = \text{Rs. } 2000$
112.	B	Required ratio = $2.75/0.75 = 11/3 = 11 : 3$.
113.	B	The divisibility rule of 10 needs 5 as well as 2. Similarly, the divisibility rule of 55 needs 5 and 11. So, by this logic, we can understand if there are numbers which are divisible by 5 and 11 then in these set of numbers, we cannot find numbers which has 2 as a factor. So, conclusion-I is not correct. Conclusion-II is possible as 55 has both 5 and 11 as factors.

114.	C	In a clock, the angle between two successive numbers is $360^\circ/12 = 30^\circ$. When the time is 3.25 pm, the minute hand will be on 5 and will have moved 60° from 3 and hour hand would be between 3 and 4 and as it moves 30° in 60 minutes, So, in 25 minutes, it would move 12.50. So, the difference between two hands will be $= 60^\circ - 12.5^\circ = 47.5^\circ$
115.	B	
116.	D	In the passage it is mentioned that Successful transformation is 70 to 90 per cent leadership and only 10 to 30 per cent management imply that "In today's context, organizations need leaders as well as managers in transforming them."
117.	D	Sadiq's position from last $= (48 - 14) + 1 = 35$ th Number of persons between Sadiq and Joseph $= (35 - 17) - 1 = 17$; Since, Jane is in between Sadiq and Joseph, therefore position of Jane $= (35 + 17) / 2 = 26$ th Therefore, Jane is at 9th position from both the boys. Hence, the total number of persons between Sadiq and Jane $= (35 - 26) - 1 = 8$
118.	C	Probability of getting exactly one head $= (1/2 \times 1/2 + 1/2 \times 3/4) = 1/4 + 3/8 = 5/8$ Hence, option (c) is the correct answer.
119.	B	The correct answer is 6
120.	C	Total number of marbles with the children $= (100 \times 2) + (40 \times 15) + (3 \times 0) = 800$. Average number of marbles with the children $= \text{Total number of marbles} / \text{Total number of children} = 800/20 = 40$
121.	C	$3(x - 40) = (y + 40)$ Or $3x - y = 160$(i); And, $(x + 10) = 2(y - 10)$ Or $x - 2y = -30$(ii); On solving eq. (i) and eq. (ii), we get: $x = 70$ and $y = 50$ Therefore, Arun initially had Rs. 70 with him

122.	C	Let us assume the man works overtime for t hours. Now, working hours in 4 weeks = $(5 \times 8 \times 4) = 160$. Hence, total hours of work = $(160 + 15) = 175$.
123.	C	Harsh: Shiva = 400 : 350 & Shiva : Krishna = 400 : 376 \therefore Harsh : Krishna = $(400/350) \times (400/376) = 400/329$ So, Harsh can defeat Krishna by $(400 - 329)$, i.e. 71m.
124.	B	Assumption 1 is incorrect. Assumption 2 is correct.
125.	A	Option (a) is correct.
126.	D	The argument made in the statement is enforcing the view that algorithms are a better way of constructing judgments than others mentioned therein. Options A, B and C are all reinforcing the main argument of the statement, only option D is not reinforcing but in fact is in contradiction to the argument made in the statement, since the correct answer is supposed to falsify/invalidate the main argument, Option D is correct.
127.	B	<u>Option (b) is correct.</u> The passage mentions "Advances in food and medicine research in the area of genomics, food processing, and drug design/formulation, may increasingly lead to 'personalized foods' to address specific health conditions. This is an area in rapid evolution where regulatory guidance and oversight would be needed". So, it can be concluded that through genomics, edited genes or modified genes can fulfil nutritional food requirements among patients by serving personalised foods. And as this field is in an evolutionary stage, so more regulations and oversight mechanisms are needed.
128.	A	Green balls = 10; Red balls = $2(\text{green}) = 20$; White balls = Red balls - 3 $= 20 - 3 = 17$ To ensure he had taken at least one, Arun has to take balls in worst case possible mode. That is in descending order with respect to the number of balls. i.e., Worst case scenario = $20 + 17 + 1 = 38$

129.	A	There is no woman in the group. So, one seat out of 6 seats cannot be used by them. Therefore, there are 5 seats out of which 1 seat is reserved for senior citizens. If senior citizen sits on reserved seat, then – 2 other men can occupy 4 vacant seats in 4, P2 ways, i.e. 12 ways.
130.	C	The longest rod in the room is its diagonal. So, $L^2 + B^2 + H^2 = D^2$ $15^2 + 6^2 + H^2 = 19^2$ $H^2 = 361 - (225 + 36) = 100$ $H = 10$.
131.	A	As per the question there was 8 ml of oil in the original bottle = 20% hence total = 20 ml (8 ml oil , 8 ml water and 4 ml vinegar). larger bottle is 4 times the older one = $4 * 20 = 80$ now this 80 includes 60 ml of water + 20 ml of solution that we pour from the old bottle hence total water - $60 + 8 = 68$ ml.
132.	D	Any one of the statement alone is sufficient to answer the question.
133.	C	option (c) is the correct answer
134.	B	A _ C, H _ I, T _ U, R _ T and E _ C are five such pairs.
135.	D	option (d) is the correct answer
136.	A	If Vinod is selected, Gita has to be selected. If Krishna is selected, Mita cannot be selected. If Prem is selected, Sita cannot be selected. So, option (b) (Vinod Prem Gita Sita Mita) and option (c) (Krishna Prem Gita Mita Sita) are not possible. Option (d) (Raman Harry Gita Rita Sita) is not possible because Gita has to be accompanied with Vinod. Hence answer is option (a).
137.	D	If Mita is selected, Rita cannot be selected. So, option (a) (Rita Gita Vinod Prem) is wrong: Prem and Sita cannot go together. So, option (b) (Sita Gita Vinod Prem) is wrong. Gita and Vinod have to be together, so, option (c) (Sita Gita Raman Harry) is wrong. Answer is option (d).

138.	C	If Prem is selected, Sita cannot be selected. So, option (a) (Rita Sita Krishna Raman) and option (b) (Rita Sita Raman Harry) are not correct. Gita and Vinod have to be together. So, option (c) (Rita Gita Raman Harry) is also wrong. Answer is option (c).
139.	D	If Vinod and Raman are members, Gita and Harry have must also to be selected. So, option (d) (Rita Sita Harry) is not the correct combination because this combination does not have Gita. Answer is option (d).
140.	A	Rita and Mita cannot be together. So, option (d) (Mita Gita Vinod Prem) is wrong. Gita and Vinod have to be together. So, option (b) (Sita Gita Krishna Prem) and option (c) (Sita Gita Raman Harry) are incorrect. Answer is option (a).
141.	C	The author highlights that 'Sustainability is driving the future of luxury' and that 'With a more conscious attitude, buyers want more in the form of amenities that emphasise holistic health as well as environmental stewardship'.
142.	C	Total number of marbles with the children = $(100 \times 2) + (40 \times 15) + (3 \times 0) = 800$. Average number of marbles with the children = Total number of marbles/Total number of children = $800/20 = 40$.
143.	A	Let the distance travelled by the first train be x km. Distance travelled by the second train = $x + 180$ km As the time taken by them is same, $x/50 = (x + 180)/60$ which gives $x = 900$ km Distance between A and B = $x + x + 180 = 900 + 900 + 180 = 1980$ km.
144.	C	When N is divided by 45, 60 and 72, respective remainders of 33, 48 and 60 are left or a negative remainder of (-12) is left in each case. This means $N + 12$ is completely divisible by 45, 60 and 72 So, $N + 12$ should be the multiple of 45, 60 and 72 $LCM(45, 60, 72) = 360$

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MARCH 2024

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		$N + 12 = 360k$ (k-integer) $N = 360k - 12$ Largest four digit number = 9999 Largest four digit number of the form $360k = 9720$ Required number $N = 9720 - 12 = 9708$
145.	A	Total cost = $1(A) + 2(B) + 3(C) + 4(D) = 1(20) + 2(30) + 3(15) + 4(55) = 345$