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|------|------|-------|-------|
| 1. B | 5. C | 9. A  | 13. A |
| 2. C | 6. B | 10. A | 14. C |
| 3. B | 7. C | 11. D | 15. B |
| 4. D | 8. B | 12. B | 16. B |

It is given that the total number of Math books in the library = 45. As the number of physics books are nine more than the number of Math books, the number of Physics books =  $45 + 9 = 54$ .

Also, the number of chemistry books are fifteen less than Math books. So, the number of Chemistry books =  $45 - 15 = 30$ .

Hence, the total number of books in library =  $45 + 54 + 30 = 129$ . Hence, option (b) is the correct answer

17. D

Total distance covered will always increase with time. Thus, options (a) and (b) are eliminated. In graph C, distance/time (i.e. speed) is constant. But, aeroplane's speed is varying with time. Hence, option (c) is also wrong.

Thus, option (d) must be the correct answer. We can also see that in graph D, distance travelled is increasing exponentially, then in second hour speed is constant and then in third hour speed is decreasing continuously.

18. A

It is given that the ratio of the number of students of Delhi Public School and Central School is 7:5. So, we can assume that number of students of Delhi Public School and Central School who were supposed to participate be  $7x$  and  $5x$  respectively. Two students of Delhi Public School did not turn up. Therefore, the number of students of Delhi Public School who actually participated =  $7x - 2$ .

Now, the ratio of students of Central School and Delhi Public School =  $5x : (7x - 2)$ . For,  $x = 1$ , the ratio turns out to be 5:5 = 1:1. Hence, option (a) is the correct answer.

19. B

Average of marks obtained in four subjects = 87 (Each paper has maximum marks = 100)

Total marks obtained in these four subjects =  $87 \times 4 = 348$ .

As the maximum marks in each of the papers is 100, the student may have obtained marks somewhere between 0 and 100 in the fifth paper.

Case I: If the student obtains 0 in the fifth paper,

Total marks obtained =  $348 + 0 = 348$ .

So, Total Percentage of marks obtained =  $348/5 = 69.6\%$

Case II: If the student obtains 100 in the fifth paper,

Total marks obtained =  $348 + 100 = 448$ .

So, Total Percentage of marks obtained =  $448/5 = 89.6\%$ .

Hence, the total marks obtained by the student can be in the range of 348 to 448 and hence the percentage of marks obtained in the five subjects has to be in the range of 69.6% to 89.6%.

Only option (b), i.e. 75% lies within this range. Hence, option (b) is the correct answer.

20. D

Milk contains 25% water and 75% milk. So, 1 liter milk contains only 750 ml of milk.

Cost of 750 ml milk =  $48 \times (750/1000) = \text{Rs. } 36$ .

This 750 ml of milk is diluted to one liter and sold at the rate of Rs. 50 per liter.

Selling price of 1 Liter milk = Rs. 50.

Profit per liter = Rs. 50 – Rs. 36 = Rs. 14. Hence, option (d) is the correct answer.

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|-------|-------|-------|-------|
| 21. C | 23. D | 25. D | 27. D |
| 22. C | 24. B | 26. B | 28. C |

From the point table it is clear that for all the matches played, there is either win or loss and no match is undecided or drawn/tied. (As number of wins + number of losses = total number of matches played by a team)

Total matches to be played in the tournament =  $4 + 3 + 2 + 1 = 10$

Every team needs to play a total of four matches in the tournament. Only team D has played all its four matches. Rest all four teams have played 3 matches only. It means that each of these four teams need to play one more match. Thus, there will be two more matches involving these four teams.

So, total number of matches played till 26th March =  $10 - 2 = 8$ . Hence, option (c) is correct

29. A

D has played against all the four teams. And E has not won any of its matches till 26th March. Means it must have lost against D. And D has won only one match so it must be against E. Hence, option (a) is the correct answer

30. B  
Let total runs = 1,000 Out of A, B, C and E, each team has played 3 matches, but percentage share of runs scored by E is the lowest as per the pie chart. Thus, out of these four teams, average runs scored by E is the lowest. Now we need to compare E with D.

Average of D =  $[\text{Total runs} \times (10/100)] \times 1/4 = (1000/10) \times 1/4 = 25$   
Average of E =  $[\text{Total runs} \times (5/100)] \times 1/3 = (1000/20) \times 1/3 = 50/3 = 16.67$   
Clearly, Average of E is the lowest. Hence, option (b) is correct

31. A  
The statement discusses that gamblers are losers. One justification is that quickly huge amounts can be lost on bets in gambling. Therefore, Option (a) is the correct answer. Option (b) is incorrect because gambling being illegal does not makes one lose money. Option (c) is incorrect because GDP is not even distantly related to the personal loss of a gambler. Option (d) is also incorrect because historical examples cannot be the justification for one loosing money.

32. B  
33. C  
34. C

Let the four number of the series be a, b, c and d.  
The product of first three numbers, i.e.  $a \times b \times c = 504$  .....(i)  
The product of last three numbers, i.e.  $b \times c \times d = 792$  .....(ii)  
Dividing (i) by (ii) we get,  $(a \times b \times c) / (b \times c \times d) = (504/792)$   
On solving we get,  $(a/d) = (7/11)$   
Thus,  $a = 7$  &  $d = 11$   
Their sum =  $7 + 11 = 18$  Hence, option (c) is the correct answer.

Explanation for Questions 34 and 35:  
Let the number of balls faced by Kohli be x.  
Kohli played  $(x/2)$  number of the balls for no runs. He hits four on 7 balls. He also hits 2 sixes - one on the straight and other on the square leg. He took singles in 4 balls and the last ball bowled him.  
Accordingly we get,  $(x/2) + 7 + 2 + 4 + 1 = x$  Or  $x = 20 + 8$  Or  $x - 20 = 8$   
On squaring both sides, we get:  $(x - 20)^2 = (8)^2$  Or  $x^2 + 400 - 40x = 64x$  Or  $x^2 - 104x + 400 = 0$   
Or  $(x - 100)(x - 4) = 0$   
Or  $x = 100, 4$ .  
So, Kohli must have played 100 balls.

35. A  
Thus, Kohli has faced total 100 balls.  
Out of this, on 50 balls no run was scored.  
On 7 balls 4 runs were scored. Total,  $7 \times 4 = 28$  runs  
On 2 balls 6 runs were scored. Total,  $2 \times 6 = 12$  runs  
On = 4 balls 1 runs were scored. Total,  $4 \times 1 = 40$  runs Finally he gets bowled.  
Thus, total runs =  $28 + 12 + 40 = 80$  runs

35. C  
36. A  
37. B  
Vashishtashines bright every night, Kashyapa shines bright every second night, Viswamitra shines bright every third night, Jamadagni shines bright every fourth night, Gautama shines bright every fifth night, Bharadwaja shines bright every sixth night and Atri shines bright every seventh night.

The time period in which they all will shine bright on the same day = LCM of 1, 2, 3, 4, 5, 6 and 7 = 420. Hence, the number of times that all the saptarishis will shine bright on the same day within 840 days =  $(840/420) = 2$  times

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|-------|-------|-------|-------|
| 38. B | 41. D | 44. D | 47. A |
| 39. B | 42. B | 45. C | 48. C |
| 40. B | 43. B | 46. B | 49. C |

50. D

51. A : From figures (x) and (y) we conclude that the number 1, 2, 3 and 4 appear adjacent to 6. Thus, the number 5 will appear on the face opposite to 6. Therefore, when six is at the bottom, 5 will be at the top. Hence, (a) is the correct answer

52. B

Merchant B computes his profit as a percentage of selling price. Thus, he makes a profit of 25% on selling price of Rs. 1,000, i.e. his profit = 25% of 1000 = Rs.250 Merchant A computes his profit as a percentage of cost price. Let the cost price be Rs. x.

So,  $1.25x = 1000$

or  $x = 1000/1.25 = \text{Rs. } 800$

So, profit made by Merchant A = S.P. – C.P. = 1000 – 800 = Rs. 200 Merchant B makes a profit of Rs.250 and Merchant A makes a profit of Rs.200. Hence, Merchant B makes Rs.50 more profit than Merchant A

53. D

56. C

59. C

62. C

54. B

57. D

60. C

63. B

55. D

58. C

61. B

64. B

Consider the time from 3:10 AM to 4 o'clock: During this time the hands of the clock will be at right angle to each other only 1 time.

However, from 4 to 5 they will make a right angle -2 times

Similarly, from 5 to 6 they will make a right angle -2 times

From 6 to 7 they will make a right angle -2 times

From 7 to 8 they will make a right angle -2 times

From 8 to 9 they will make a right angle -2 times (including 9 AM)

From 9 to 10 they will make a right angle - 1 time (excluding 9 AM)

From 10 to 11 they will make a right angle- 2 times

From 11 to 12 they will make a right angle -2 times

From 12 to 1 they will make a right angle -2 times

From 1 to 2 they will make a right angle -2 times

From 2 to 3 they will make a right angle -2 times (including 3 PM)

From 3 to 3:10 PM they will not be at a right angle to each other.

Therefore in a span of 12 hours the hands of a clock are at a right angle to each other 22 times.

Hence, the number of times that the hands of the clock will be at a right angle to each other in a span of 36 hours (from 3:10 AM on Friday to 3:10 PM on Saturday) =  $22 \times 3 = 66$  times.

65. A

Option (a) is the correct answer as this specifically mentions that the government is justified in banning anything that is bad for health. Hence, it provides legitimacy to the actions of government.

Option (b) is wrong as this provides for an extra factual information for government to take necessary action but is not a precondition for the government to take action.

Option (c) seems close but this does not justify the action of government. Here, government can go for awareness generation instead of banning the soft drinks and let the people decide.

Option (d) is incorrect as not applicable here as we have selected a correct assumption needed.

66. C

Option (a) is wrong as the question says that a bankrupt cannot be a member of Lok Sabha and gives example of Latinder Singh to further clarify this point. Option (b) is not supported anywhere in the question.

Option (c) is correct as the question first lists some qualifications to become Lok Sabha member then scrutinizes eligibility of Latinder Singh on these conditions and other conditions to become Lok Sabha Speaker.

Option (d) is wrong as only those who are above 25 years of age can become Lok Sabha member, then other conditions are checked.

67. A

Option (a) logically follows the given statement.

KSCSAPT507

Option (b) is incorrect as it is not coherent with the logic of the statement. It might be true only for people whose age is close to 100. Option (c) not supported anywhere in the question. Option (d) talks about future which is not mentioned anywhere in the question hence wrong

68. D

It's given that Mayur shirt is just above Ceylone shirt and just below Paris shirt. Aso, Elegant shirt is in between Khadi shirt and Ceylone shirt. Thus, we may arrange these 5 shirts as shown below:

Paris Shirt
Mayur Shirt
Ceylone Shirt
Elegant Shirt
Khadi Shirt

We still do not know which shirt is at the bottom or top of the stack. However, it's given that Khadi shirt is just above Bentex Shirt. Thus, the vertical arrangement of the 6 shirts in the stack is as follows:

Top	Paris Shirt
	Mayur Shirt
	Ceylone Shirt
	Elegant Shirt
	Khadi Shirt
Bottom	Bentex Shirt

69. C

The information given clearly establishes that when cyclone and landslides occur simultaneously, roads B, A, D and E are blocked. Also, when road A is blocked, road C has to be blocked too. Thus, in such a scenario five out of the six roads are blocked, i.e. A, B, C, D and E, i.e. all the roads except F are blocked. Thus, F may still be used.

70. B

72. C

74. C

71. A

73. C

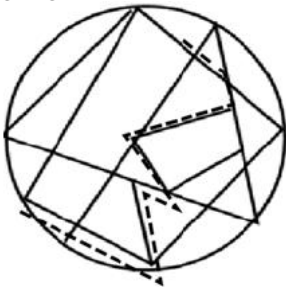
75. B

The numbers follow the following pattern: In the first row:  $2^2 + 3^2 + 1 = 14$

- In the second row:  $4^2 + 5^2 + 2 = 43$
- In the fourth row:  $1^2 + 9^2 + 4 = 86$
- Let the missing number be P.
- Similarly, in the third row:  $P = 3^2 + 7^2 + 3 = 61$ .
- Thus, 61 is the required number.

76. A

On careful observation it becomes obvious that the figure given under option (a) is embedded in the question figure, as highlighted below:



77. C

78. C

79. D

80. D