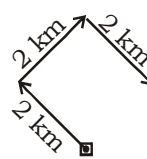


HARYANA SSC MOCK TEST - 52 (SOLUTION)

- | | | | |
|---------|---------|---------|----------|
| 1. (A) | 26. (D) | 51. (A) | 76. (B) |
| 2. (C) | 27. (C) | 52. (C) | 77. (A) |
| 3. (B) | 28. (D) | 53. (C) | 78. (C) |
| 4. (A) | 29. (B) | 54. (C) | 79. (B) |
| 5. (A) | 30. (A) | 55. (A) | 80. (A) |
| 6. (A) | 31. (D) | 56. (C) | 81. (A) |
| 7. (C) | 32. (A) | 57. (B) | 82. (B) |
| 8. (A) | 33. (B) | 58. (D) | 83. (B) |
| 9. (B) | 34. (C) | 59. (A) | 84. (C) |
| 10. (C) | 35. (A) | 60. (D) | 85. (C) |
| 11. (B) | 36. (D) | 61. (B) | 86. (C) |
| 12. (D) | 37. (A) | 62. (B) | 87. (D) |
| 13. (B) | 38. (B) | 63. (B) | 88. (B) |
| 14. (B) | 39. (B) | 64. (B) | 89. (B) |
| 15. (C) | 40. (B) | 65. (D) | 90. (A) |
| 16. (A) | 41. (C) | 66. (D) | 91. (A) |
| 17. (C) | 42. (C) | 67. (D) | 92. (B) |
| 18. (D) | 43. (D) | 68. (A) | 93. (B) |
| 19. (A) | 44. (A) | 69. (A) | 94. (A) |
| 20. (C) | 45. (A) | 70. (B) | 95. (C) |
| 21. (C) | 46. (A) | 71. (B) | 96. (B) |
| 22. (B) | 47. (A) | 72. (C) | 97. (B) |
| 23. (D) | 48. (B) | 73. (A) | 98. (C) |
| 24. (A) | 49. (B) | 74. (A) | 99. (B) |
| 25. (D) | 50. (B) | 75. (D) | 100. (A) |

Explanation:

41. (C) The other three States/UTs are near sea beach or an island(s) in the sea.
42. (C) $5 \quad 7 \quad 11 \quad 19 \quad 35 \quad 67 \quad 131 \quad 259$
 $\uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow$
 $+2 \quad +4 \quad +8 \quad +16 \quad +32 \quad +64 \quad +128$
 $\times 2 \quad \times 2 \quad \times 2 \quad \times 2 \quad \times 2 \quad \times 2 \quad \times 2$
43. (D) $\begin{matrix} F & I & G & U & R \\ & \searrow & \swarrow & \swarrow & \searrow \\ & F & G & I & R \\ & & \swarrow & \swarrow & \swarrow \\ & & R & U & R \\ & & & & U \end{matrix}$
- Similarly,
 $\begin{matrix} S & T & R & E & S \\ & \searrow & \swarrow & \swarrow & \searrow \\ & S & R & T & S \\ & & \swarrow & \swarrow & \swarrow \\ & & R & T & S \\ & & & & E \end{matrix}$
44. (A) **MEDIATE**
45. (A) $\frac{12}{3} = 4$ and $4 + 9 = 13$
 $\frac{6}{2} = 3$ and $3 + 10 = 13$
 $\frac{8}{1} = 8$ and $8 + 5 = 13$
46. (A)

47. (A) acb/ bca/ aab/ baa/ aab/ baa
48. (B) $6 \times 4 - 9 = 15$
49. (B) 
50. (B)
51. (A) Let the number be x & y
then, $y + \frac{20x}{100} = \frac{150}{100}y$
 $\frac{x}{5} = \left(\frac{3}{2}y - y\right) = \frac{y}{2}$
 $2x = 5y$
 $\frac{x}{y} = \frac{5}{2}$
 $x : y = 5 : 2$
52. (C) 60 men working 12hr a days complete a work in 30 days

1 Man work in 1 hr a day complete a work in
= $30 \times 60 \times 12 = 21600$ days
 \therefore 90 men working 8hr a day can complete

$$\begin{aligned} \text{the same work in} &= \frac{21600}{90 \times 8} \\ &= 30 \text{ days} \end{aligned}$$

53. (C) In 15 days $\frac{4}{5}$ work is done by 12 men

$$\therefore \text{1 day work is done by } 12 \times 15 \times \frac{5}{4}$$

$$\begin{aligned} \therefore \text{In 25 days 1 work is done by} &= \frac{3 \times 15 \times 5}{25} \\ &= 9 \text{ days} \end{aligned}$$

54. (C) The salary of Pavan = $20,000 + 2,000$
= ₹ 22,000

$$\begin{aligned} \text{Required ratio} &= \frac{20,000}{22,000} = \frac{10}{11} \\ &= 10 : 11 \end{aligned}$$

55. (A) Total decrease = (3×11) months
= 33 months
= 2 yrs 9 months

$$\begin{aligned} \text{Total age of two new players} &= (17 + 20) \text{ yrs} - (2 \text{ yrs } 9 \text{ months}) \\ &= 34 \text{ yrs } 3 \text{ months} \end{aligned}$$

$$\begin{aligned} \text{Average age of the two new players} &= \frac{1}{2} (34 \text{ yrs } 3 \text{ months}) \\ &= 17 \text{ yrs } 1 \text{ month } 15 \text{ days} \end{aligned}$$

56. (C) 40% of A = $30\% \times \frac{4}{5} B$

$$40A = 30 \times \frac{4}{5} B$$

$$B = 4500 \text{ (Given)}$$

$$\therefore 40A = 24 \times 4500$$

$$A = ₹ 2700$$

57. (B) Since $(x + 1)$ & $(x - 1)$ are the factor of the Polynomial.

\therefore it satisfy the polynomial $f(x)$

$$f(x) = x^4 + 10x^3 + 6x^2 + mx + n$$

$$(-1)^4 + 10(-1)^3 + 6(-1)^2 + m(-1) + n = 0$$

$$1 - 10 + 6 - m + n = 0$$

$$n - m = 3 \quad \text{_____ (i)}$$

$$(1)^4 + 10(1)^3 + 6 + m + n = 0$$

$$m + n = -17 \quad \text{_____ (ii)}$$

from (i) & (ii)

$$2n = -14$$

$$n = -7$$

$$\therefore m = -10$$

$$m = -10$$

$$n = -7$$

58. (D) $x + \frac{1}{x} = 6$

$$\begin{aligned} x^3 + \frac{1}{x^3} &= (6)^3 - 3(6) \\ &= 216 - 18 \\ &= 198 \end{aligned}$$

$$x^2 + \frac{1}{x^2} = 36 - 2 = 34$$

$$\left(x^3 + \frac{1}{x^3}\right) \left(x^2 + \frac{1}{x^2}\right) = 198 \times 34$$

$$x^5 + \frac{1}{x^5} + x + \frac{1}{x} = 6732$$

$$\begin{aligned} x^5 + \frac{1}{x^5} &= 6732 - 6 \\ &= 6726 \end{aligned}$$

59. (A) $A = \frac{2500}{1 + \frac{30}{100}} + \frac{2500}{\left(1 + \frac{30}{100}\right)^2}$

$$= 2500 \left[\frac{100}{130} + \frac{10,000}{16,900} \right]$$

$$= 2500 \times 10 \left[\frac{13 + 10}{169} \right]$$

$$= \frac{25000 \times 23}{169}$$

$$A = 3402.36$$

60. (D) Speed = $\frac{\text{Distance}}{\text{Time}}$ { Let the time = x }

$$(40 + 50) \text{ km/hr.} = \frac{140 + 160}{x}$$

$$x = \frac{300}{90 \times \frac{5}{18}} \quad \left\{ \begin{array}{l} 1 \text{ km} = \frac{5}{18} \text{ m/s} \\ \therefore 90 \text{ km/h} = 25 \text{ m/s} \end{array} \right.$$

$$x = \frac{300}{25} = 12 \text{ sec}$$