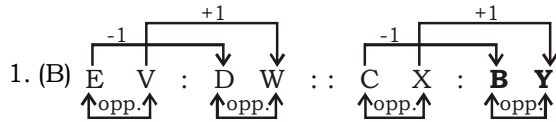


HARYANA SSC MOCK TEST-14 (Solutions)

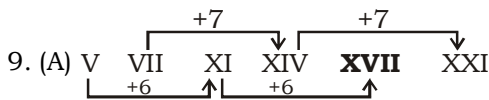
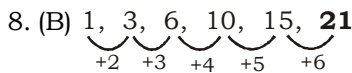


2. (D)
3. (C) $5 @ 6 = 61 \Rightarrow 5^2 + 6^2 = 61$
 $8 @ 10 = 164 \Rightarrow 8^2 + 10^2 = 164$
Similarly,
 $7 @ 9 = 7^2 + 9^2 = 130$

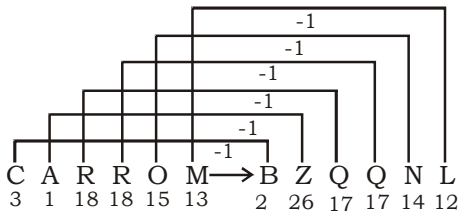
4. (B)
5. (C) Rest are spices
6. (B) Except option (B), all are made from milk.

7. (A)

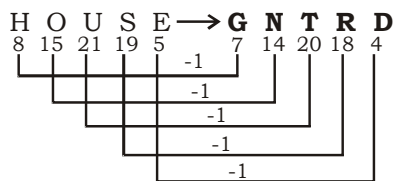
Education	Job	Income	Status	Wellbeing
3	5	1	2	2



10. (C) Mother's mother = Grandmother(Nani)
Grandmother's(Nani's) only son = Uncle
11. (B)



Similarly,



12. (A)
13. (D) If the day after tomorrow is Friday so today is Wednesday
So day before yesterday in Monday.

13. (A) $72 @ 9 \text{ b } 12 \text{ a } 18 \text{ c } 25 \text{ d } 13 \text{ b } 16 \text{ c } 32$
 $\Rightarrow 72 \div 9 \times 12 \div 18 + 25 - 13 \times 16 + 32$
 $\Rightarrow \frac{72}{9} \times \frac{12}{18} + 25 - 208 + 32$
 $\Rightarrow \frac{16}{3} + 57 - 208$
 $= \frac{16}{3} - 151$

$= -\frac{437}{3}$

15. (D) BRAIN

16. (D) $2\sqrt{3} - \sqrt{3} - 3\sqrt{3} + 2\sqrt{3}$
 $= 4\sqrt{3} - 4\sqrt{3} = 0$

17. (C) \therefore Option (C) is correct because 2.625, 2.75, 2.875 lie between 2.5 & 3.

18. (C) $\therefore (a + b) : (b + c) : (c + a) = 6 : 7 : 8$
 $\Rightarrow (14 - c) : (14 - a) : (14 - b) = 6 : 7 : 8$
On comparing, we have
 $c = 8, a = 7, b = 6$

19. (B) SP = Rs. x (say)

Profit = 26% of x = ₹ 0.26x

Now,

CP = x - 0.26 = ₹ 0.74x

ATQ,

$k\% \text{ of } x = 34\% \text{ of } 0.74x$

$k = \frac{34 \times 0.74}{1}$
 $= 25.16\%$

20. (B) CP of Ist mixer = Rs. x (say)

CP of 2nd mixer = Rs. (1500 - x)

By question:-

$109\% \text{ of } x + 94\% \text{ of } (1500 - x) = 1500$

$\Rightarrow 1.09x - 0.94x = 1500 - 0.94 \times 1500$

$\Rightarrow 0.15x = 1500 - 1410$

$\Rightarrow x = \frac{90}{0.15} = 600$

Required Ratio = 600 : 900 = 2 : 3

21. (C) Let the 2nd discount be K%.

Then,

$(100 - k)\% \text{ of } 87.5\% \text{ of } 150 = 105$

$\Rightarrow \frac{100 - K}{100} \times \frac{8.75 \times 150}{100} = 105$

$\Rightarrow (100 - k) = \frac{105 \times 100 \times 100}{87.5 \times 150} = 80$

$\therefore k = 20\%$

22. (A) Let the CP of the object be ₹ x.

Then,

$90\% \text{ of } x + 30 = 95\% \text{ of } x$

$\Rightarrow 0.90x + 30 = 0.95x$

$\Rightarrow 30 = 0.05x$

$\Rightarrow x = \frac{30}{0.05} = \text{Rs. } 600$

23. (C) Let the two numbers be 5x and 3x.

Then,

$$25x^2 - 9x^2 = 144$$

$$\Rightarrow 16x^2 = 144$$

$$\therefore x = 3$$

\therefore Numbers are 15, 9.

$$24. (C) \sqrt[4]{(81)^{-2}} = \left[\left(\frac{1}{81} \right)^2 \right]^{\frac{1}{4}}$$

$$= \left[\left(\frac{1}{3^4} \right)^2 \right]^{\frac{1}{4}} = \frac{1}{3^{4 \times 2 \times \frac{1}{4}}} = \frac{1}{3^2} = \frac{1}{9}$$

$$25. (B) (x + y + z)^2 = x^2 + y^2 + z^2 + 2(xy + yz + zx)$$

$$12^2 = 62 + 2(xy + yz + zx)$$

$$\frac{144 - 62}{2} = xy + yz + zx$$

$$41 = xy + yz + zx$$

Now,

$$x^3 + y^3 + z^3 - 3xyz = (x + y + z)[x^2 + y^2 + z^2 - (xy + yz + zx)]$$

$$= 12 \times [62 - 41] = 12 \times 21 = 252$$

$$26. (B) \left(x - \frac{1}{x} \right)^2 = 5^2$$

$$\Rightarrow x^2 + \frac{1}{x^2} - 2 \cdot x \cdot \frac{1}{x} = 25$$

$$\Rightarrow x^2 + \frac{1}{x^2} = 27$$

27. (C) Let the principal be 'p' and 'r' be the rate of interest.

Then,

CASE I:-

$$13380 = P \left[1 + \frac{r}{100} \right]^3 \quad \dots (i)$$

CASE II:-

$$20070 = P \left[1 + \frac{r}{100} \right]^6 \quad \dots (ii)$$

On dividing (ii) by (i), we have

$$\frac{20070}{13380} = \left(1 + \frac{r}{100} \right)^{6-3} = \left(1 + \frac{r}{100} \right)^3$$

$$\Rightarrow \left(1 + \frac{r}{100} \right)^3 = \frac{3}{2}$$

From (i)

$$13380 = P \times \frac{3}{2}$$

$$\Rightarrow P = \frac{13380 \times 2}{3}$$

$$= ₹ 8,920$$

28. (B) Total students = 100 (say)

Passed in Maths = $n(M) = 60$

Passed in English = $n(E) = 70$

Passed in both = $n(M \cap E) = 80$

$n(M \cup E) = n(M) + n(E) - n(M \cap E)$

$$\therefore = 60 + 70 - 80$$

$$= 50$$

\therefore 50% passed in both.

29. (B) Let the two numbers be $2x$ and x .

Then,

$$2x \times x = 1800$$

$$x^2 = 900$$

$$x = 30$$

Greater number = $2 \times 30 = 60$.

30. (A) $x^3 + 3x^2 - x - 3$

$$= x^2(x + 3) - 1(x + 3)$$

$$= (x^2 - 1)(x + 3)$$

$$= (x + 1)(x - 1)(x + 3)$$

$$= x^3 + 4x^2 + x - 6$$

$$= (x - 1)(x^2 + 5x + 6)$$

$$= (x - 1)(x + 2)(x + 3)$$

$$\text{HCF} = (x - 1)(x + 3)$$

$$= x^2 + 2x - 3$$



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HARYANA SSC MOCK TEST - 14 (ANSWER KEY)

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