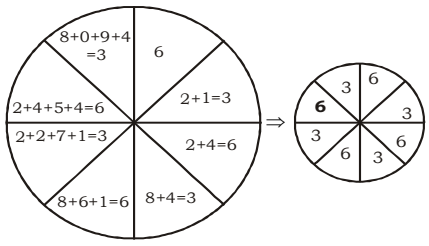
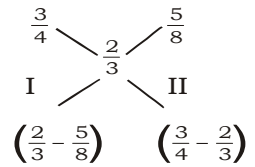
HARYANA SSC MOCK TEST-17 (Solutions)

1. (A) 8 * 3 : 2**4** : : 6 * 5 : 3**0**
2. (D) Cube formed by using square similarly sphere formed by using circle
3. (B) Paper made by tree similarly glass made by Sand.
4. (D) T R P N : L J H F :: Z X V T : R P N L
   -2 -2 -2 -2
5. (C) Except kerosene all are used in vehicle.
6. (B) A C F (+2, +3)
   I K N (+2, +3)
   M O R (+2, +3)
   so E G I (+2, +2)
7. (A)
8. (B) Perk 4, Pick 1, Pile 3, Pith 2, Pour 5
9. (D) b **a** t **d** a/ **d** a d d **a** d / b a **t** **d** a d
10. (B) G O N J R Q M U T P X W (-1 before each)
    +7 -4 +7 -4 +7 -4 +7
11. (C) STANDAIN**G**
12. (C) M A D R A S
    N B E S B T (+1)
    Similarly, B O M B A Y
    C P N C B Z (+1)
13. (C) Table and chair are known as Furniture
    F: C, T
14. (D) 6 × 5 + 2 = 32
    4 × 5 + 7 = 27
    Similarly,
    6 × 5 + 7 = **37**
15. (D)


    Alternate series of 3 and 6 follows
    8 + 0 + 9 + 4 ⇒ 2 + 1 = 3
    2 + 1 = 3
    2 + 4 = 6
    8 + 4 ⇒ 1 + 2 = 3
    8 + 6 + 1 ⇒ 1 + 5 = 6
    2 + 2 + 7 +1 ⇒ 1 + 2 = 3
    So next will be 6 from given options only (D) is satisfied - 2 + 4 + 5 + 4 ⇒ 1 + 5 = **6**
16. (C) R = $(r_1 + r_2)$ – divisor
    R is the remainder when sum of both the numbers is divided by divisior.
    [NOTE: If R becomes –ve, then remainder R = $(r_1 + r_2)$]
    R = 7
    r_1 = 15
    r_2 = 39
    7 = 39 + 15 – Divisor
    Divisor = 47
17. (A) $\frac{\sqrt{2}+\sqrt{3}}{3\sqrt{2}-2\sqrt{3}} \times \frac{3\sqrt{2}+2\sqrt{3}}{3\sqrt{2}+2\sqrt{3}}$
    $= \frac{6+3\sqrt{6}+2\sqrt{6}}{\left(3\sqrt{2}\right)^2-\left(2\sqrt{3}\right)^2} = \frac{12+5\sqrt{6}}{6}$
    $= 2+\frac{5}{6}\sqrt{6} = a+b\sqrt{6}$
    a = 2; b = $\frac{5}{6}$
18. (D) $a^2 + b^2 + c^2 - ab - bc - ca$
    $= \frac{1}{2}\left[(a-b)^2+(b-c)^2+(c-a)^2\right]$
    $= \frac{1}{2}\left[(-1)^2+(-1)^2+(2)^2\right] = \frac{1}{2}\times 6 = 3$
19. (C) Increase in amount due to price rise = 25% of ₹ 500.
    $= \frac{25}{100}\times 500$ = ₹ 125
    Increase price of 50 oranges = Rs. 125
    Increase price per dozen = $\frac{125}{50}\times 12$
    = ₹ 30
20. (C) Total earning for the week
    = 4 × 18 + 4 × 22 – 20 = ₹ 140
    Average earning = ₹ $\left(\frac{140}{7}\right)$ = ₹ 20
21. (A) Part of spirit in the first mixture = $\frac{3}{3+1} = \frac{3}{4}$
    Part of spirit in the second mixture = $\frac{5}{5+3} = \frac{5}{8}$
    Part of spirit in the new mixture = $\frac{2}{2+1} = \frac{2}{3}$



$$\frac{\text{Quantity of mixture I}}{\text{Quantity of mixture II}} = \frac{\frac{2}{3}-\frac{5}{8}}{\frac{3}{4}-\frac{2}{3}} = \frac{1}{2}$$

22. (C) S.P. of 12 articles = C.P. of 12 articles – S.P. of 3 articles
S.P. of 15 articles = C.P. of 12 articles
Let C.P. of 1 article be ₹ 1
S.P. of 15 articles = ₹ 12
C.P. of 15 articles = ₹ 15
Loss = ₹ 3
Loss % = $\frac{3}{15} \times 100 = 20\%$

23. (B) Let the CP be ₹ 100
Profit = 19%
Selling Price = ₹ 100 + 19 = ₹ 119
Discount = 15%
SP = 85% of MP
85% of MP = 119
$\Rightarrow$ MP = $\frac{119}{85} \times 20 = 140$
He must mark 40% above C.P.

24. (B) Let the share of A and B be x and y respectively.
R = 4%
A's share at end of 7 years = $x\left(1+\frac{4}{100}\right)^7$
B's share at end of 9 years = $y\left(1+\frac{4}{100}\right)^9$
According to question
$$x\left(1+\frac{4}{100}\right)^7 = y\left(1+\frac{4}{100}\right)^9$$
$$\Rightarrow \frac{x}{y} = \frac{676}{625}$$
Share of A = $\frac{676}{676+625} \times 39030$ = Rs. 20280

25. (A) $1 + \cfrac{1}{1 + \cfrac{2}{2 + \cfrac{3 \times 5}{5 + 4}}}$

$$= 1 + \cfrac{1}{1 + \cfrac{2}{2 + \cfrac{15}{9}}} = 1 + \cfrac{1}{1 + \cfrac{2}{2 + \cfrac{5}{3}}}$$

$$= 1 + \cfrac{1}{1 + \cfrac{2 \times 3}{6 + 5}} = 1 + \frac{1 \times 11}{11 + 6}$$

$$= 1 + \frac{11}{17} = 1\frac{11}{17}$$

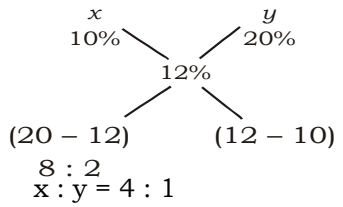
26. (B) Speed of current = y kmph
Speed of boat in still water = x kmph
Speed upstream (U) = x – y
Speed downstream (D) = x + y
$$\frac{30}{U} + \frac{44}{D} = 10$$
$$\frac{40}{U} + \frac{55}{D} = 13$$
Put $\frac{1}{U}$ = P and $\frac{1}{D}$ = Q
(30P + 44Q = 10) ..... (1)
(40P + 55Q = 13) ..... (2)
176Q - 165Q = 1 [Eqn. (1) × 4 – Eqn. (2) × 3]
Q = $\frac{1}{11} \Rightarrow$ D = 11 kmph = x + y ..... (3)
30P + $\frac{44}{11}$ = 10 $\Rightarrow$ P = $\frac{1}{5}$
$\Rightarrow$ U = 5 kmph = x – y ..... (4)
Adding equation (3) and (4)
$\Rightarrow$ x = 8 kmph (speed of boat in still water)

27. (D) $\frac{\text{Speed of } A}{\text{Speed of } B} = \sqrt{\frac{T_B}{T_A}} = 3:2$

28. (A) Suppose B joined after x months. Then B's money remained invested for (12 – x) months.
2100 × 12 = 3600 × (12 – x)
3600x = 43200 – 25200
x = $\frac{18000}{3600}$ = 5
B joined after 5 months.

29. (B) A, gains one complete round on C, in1760 ÷ (160 – 105) or 1760 ÷ 55 i.e. 32 minutes.
A, gains one complete round on B in 1760 ÷ (160 – 120) or 1760 ÷ 40 i.e. 44 minutes
A and C are together after every 32 mintues
A and B are together after every 44 minutes
A, B and C will be together the time which is LCM of 32 and 44.
i.e. 352 minutes

30. (B)



Quantity sold at 20% profit = $\frac{1}{4+1} \times 100 = 20$ kg

HARYANA SSC MOCK TEST - 17 (ANSWER KEY)

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