

SOLUTIONS MOCK-I RRB

1. (d)
 Conclusions : I. $H > L \rightarrow$ True
 II. $K > T \rightarrow$ False

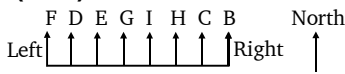
2. (d)
 Conclusions : I. $V < U \rightarrow$ True
 II. $Z < F \rightarrow$ False

3. (b)
 Conclusions : I. $Y < M \rightarrow$ False
 II. $O > S \rightarrow$ False

4. (b)
 Statement : $O \leq R < P > Q$
 Conclusions : I. $Q > R \rightarrow$ False
 II. $Q < R \rightarrow$ False

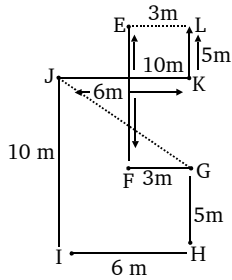
5. (b)
 Statement : $T = R > P \leq Q$
 I. $T < Q \rightarrow$ False
 II. $Q \geq T \rightarrow$ False

Ans. (6-10) :



6.(d) ; 7.(b) ; 8.(b) ; 9. (a) ; 10(e) ;

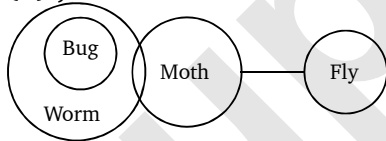
Ans. (11-12) :



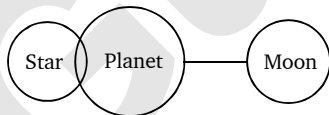
11. (a) ; 12.(d) ;

Ans. (13-17) :

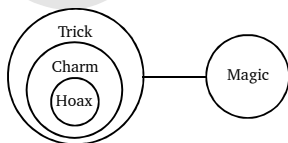
13. (d) ;



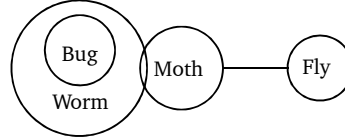
14. (a) ;



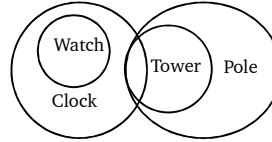
15. (b) ;



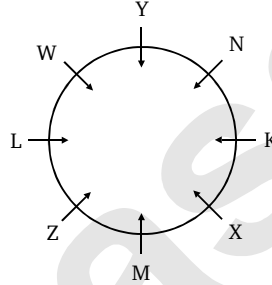
16. (c) ;



17. (b) ;



Ans. (18-22) :



18. (d) ; Z, X

19. (e) ; ZW

20. (b) ; K

21. (d) ;

22. (a) ; 3

23 (e) ;

- 346 \Rightarrow 445
- 815 \Rightarrow 914
- 428 \Rightarrow 527
- 271 \Rightarrow 370
- 732 \Rightarrow 831

24. (b) ;

Ascending order of the numbers
 $271 < 346 < 428 < 732 < 815$
 Second from the right = 732
 \therefore Required resultant = $7 \times 2 = 14$

25. (a) ;

- 346 \Rightarrow 366
- 815 \Rightarrow 715
- 428 \Rightarrow 448
- 271 \Rightarrow 171
- 732 \Rightarrow 752

26. (d) ;

- 346 \Rightarrow 643
- 815 \Rightarrow 851
- 428 \Rightarrow 842
- 271 \Rightarrow 721
- 732 \Rightarrow 732

27. (d) ;

- 346 \Rightarrow 643
- 815 \Rightarrow 518

428 ⇒ 824
 271 ⇒ 172
 732 ⇒ 237

Highest number = 824
 Its first digit = 8
 Lowest number = 172
 Its third digit = 2

∴ Required resultant = $\frac{8}{2} = 4$

28. (e);

As, H E R S U N
 +3 ↓ -1 ↓ +3 ↓ +3 ↓ -1 ↓ +3 ↓
 ^ R G 6 H T

Similarly,

P A T
 +3 ↓ -1 ↓ +3 ↓
 W + Y

29. (c);

30. (e);

R $\xrightarrow{+2}$ 8 $\xrightarrow{-3}$ Z
 Y $\xrightarrow{+2}$ @ $\xrightarrow{-3}$ &
 5 $\xrightarrow{+2}$ 7 $\xrightarrow{-3}$ U
 3 $\xrightarrow{+2}$ + $\xrightarrow{-3}$ #
 G $\xrightarrow{+3}$ S $\xrightarrow{-2}$ 2

31. (a);

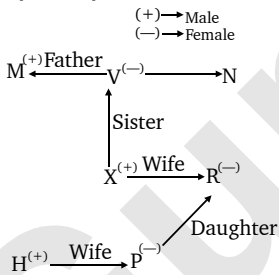
32. (a);

D $\xrightarrow{+5}$ P $\xrightarrow{+6}$ E $\xrightarrow{+7}$ T $\xrightarrow{+}$ H
 # $\xrightarrow{+5}$ W $\xrightarrow{+6}$ 2 $\xrightarrow{+7}$ Y $\xrightarrow{+8}$ ^
 L $\xrightarrow{+5}$ + $\xrightarrow{+6}$ 8 $\xrightarrow{+7}$ 6 $\xrightarrow{+8}$ U

33. (a); Alphabetical order of word JUNKYARD will be :

A D J K N R U Y
 +1 ↓ +1 ↓
 B V

Ans. (34-35) :



34. (e); 35. (d);

36. (e);

avoid (going) out → 3 ① 9
 (going) for party → 6 ① 2
 out for party → 3 6 2

37. (a);

5 7 2 8 3 9 2 7 3 8 5 7
 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
 D % \$ Q G F \$ % G Q D %

38. (a);

8 6 3 1 2 7 4 9
 1 2 3 4 6 7 8 9 → Ascending order

39. (d); As,

As, B L U N T
 -1 ↓ -1 ↓ -2 ↓ +1 ↓ +1 ↓
 A K S O U

and

C O I N S
 -1 ↓ -1 ↓ -2 ↓ +1 ↓ +1 ↓
 B N G O T

Similarly,

T R U S T
 -1 ↓ -1 ↓ -2 ↓ +1 ↓ +1 ↓
 S Q S T U

40. (b); Arranging 'HALFTIME' in alphabetical order,

A E F H I L M T

now, replacing the vowel by next alphabet,

B F F H J L M T

41. (e);

Let the five consecutive odd numbers be $x, x + 2, x + 4, x + 6$ and $x + 8$.

According to question,

Average = 95

∴ $\frac{x + x + 2 + x + 4 + x + 6 + x + 8}{5} = 95$

$5x + 20 = 95 \times 5$

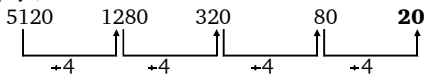
$5x = 475 - 20$

$x = \frac{455}{5} = 91$

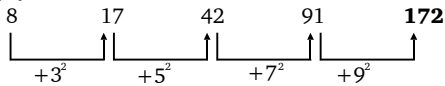
∴ Fourth number in descending order

$= x + 2 = 93$

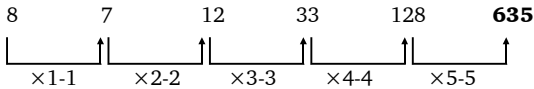
42. (b) ;



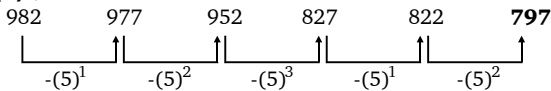
43. (d) ;



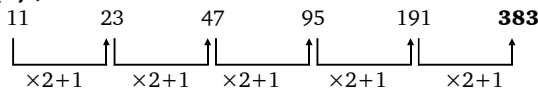
44. (a) ;



45. (e) ;



46. (d) ;



47. (c) ;

Mixture = 120 litre, Water = 25%

$$\therefore \text{Water} = \frac{25}{100} \times 120 = 30 \text{ litre}$$

$$\text{And milk} = 120 - 30 \\ = 90 \text{ litre}$$

After selling 20 litre of mixture, remaining mixture = 100 litre

In 100 litre of mixture, amount of milk and water will remain in same percent

$$\therefore \text{water} = \frac{25}{100} \times 100 = 25 \text{ litre}$$

$$\text{And milk} = 75 \text{ litre}$$

Now, he added 16.2 litre of milk and 3.8 litre of water.

$$\therefore \text{Milk} = 75 + 16.2 = 91.2 \text{ litre}$$

$$\text{And water} = 25 + 3.8 = 28.8 \text{ litre}$$

Total new mixture = 120 litre

$$\therefore \text{Required percentage} = \left(\frac{28.8}{120} \times 100 \right) \% = 24\%$$

48. (e) ; Let the speed of boat B be $x + 2$ km/hr \therefore The speed of boat A is x km/hr.

$$\text{Speed of the current} = \frac{1}{3} \times x \\ = \frac{x}{3} \text{ km/hr}$$

According to question,

$$\frac{20}{x + \frac{x}{3}} - \frac{20}{(x+2) + \frac{x}{3}} = \frac{30}{60}$$

$$\frac{20 \times 3}{4x} - \frac{20 \times 3}{4x+6} = \frac{1}{2}$$

$$\frac{4x+6-4x}{4x(4x+6)} = \frac{1}{120}$$

$$\frac{6}{16x^2 + 24x} = \frac{1}{120}$$

$$\therefore 16x^2 + 24x - 720 = 0$$

$$2x^2 + 3x - 90 = 0$$

$$2x^2 + 15x - 12x - 90 = 0$$

$$x(2x+15) - 6(2x+15) = 0$$

$$(x-6)(2x+15) = 0$$

$$x \neq -\frac{15}{2} = -7.5$$

Hence, the speed of boat B = $x + 2$
= $6 + 2 = 8$ km/hr

49. (d) ; According to question,

Share of A : Share of B : Share of C

$$= 18000 \times 12 : 8 + 24000 \times 2$$

$$: 15000 \times 4 + 18000 \times 4$$

$$= 18 \times 12 : 24 \times 8 + 24 \times 2 : 15 \times 4 + 18 \times 4$$

$$= 18 : 20 : 11$$

$$\therefore \text{B's share of profit} = \frac{20}{49} \times 12005$$

$$= \text{Rs. } 4,900 / -$$

50. (a) ; Let the monthly salary be Rs. x ,

According to question,

$$x \times \frac{70}{100} \times \frac{70}{100} = 18963$$

$$x = \text{Rs. } 38,700 / -$$

51. (e) ; Let the price of one trousers be Rs. x and the price of one shirt be Rs. y .

According to question,

$$5y + 6x = 2340 \quad \dots(i)$$

$$7y - 3x = 540 \quad \dots(ii)$$

On multiplying equation (ii) by 2 and adding in equation (i), we get

$$19y = 3420$$

$$\therefore y = 180$$

 \therefore The price of 4 shirts = $4 \times 180 = \text{Rs. } 720/-$

52. (b) ;

Villagers belong to lower economic class = 6860

Villagers belong to middle economic class

$$= \frac{3}{2} \times 6860 = 10290$$

Let the population of village be x .

According to question,

$$\frac{30}{100}x + 10290 + 6860 = x$$

$$17150 = x - \frac{3}{10}x$$

$$\frac{17150 \times 10}{7} = x$$

$$\therefore x = 24500$$

53. (d) ; If the tank is $\frac{3}{5}$ th full, then remaining empty tank

$$\text{will be} = 1 - \frac{3}{5} = \frac{2}{5} \text{ th}$$

A and B can fill the empty tank in = $\frac{5 \times 8}{8 - 5}$

$$= \frac{40}{3} \text{ hour}$$

$$\begin{aligned} \text{Then } \frac{2}{5} \text{th tank fill in} &= \frac{40}{3} \times \frac{2}{5} \\ &= 5\frac{1}{3} \text{ hour} \end{aligned}$$

54. (b) ; Let the length of rectangle be l m and breadth be b m.

According to question,

$$l - b = 5$$

Perimeter of rectangle = $2(l + b)$... (i)

$$\therefore 2(l + b) = 86$$

$$l + b = 43$$

On solving equation (i) and (ii) we get,

$$l = 24 \text{ m}$$

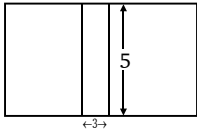
$$\therefore b = 19 \text{ m}$$

Height of triangle = Length of rectangle = 24 m

and base of triangle = Breadth of rectangle = 19 m

$$\therefore \text{Area of triangle} = \frac{1}{2} \times 19 \times 24 = 228 \text{ m}^2$$

55. (a) ;



$$\text{Area of path} = L \times B = 5 \times 3 = 15 \text{ m}^2$$

$$\begin{aligned} \text{Total area of plot} &= 240 + 15 \\ &= 255 \text{ m}^2 \end{aligned}$$

56. (e) ; Let the four consecutive even numbers be $x, x + 2, x + 4$ and $x + 6$

According to question,

Average = 91

$$\therefore \frac{x + x + 2 + x + 4 + x + 6}{4} = 91$$

$$4x + 12 = 91 \times 4$$

$$4x = 364 - 12$$

$$x = \frac{352}{4} = 88$$

\therefore Lowest number = $x = 88$

57. (a) ; The average number of pendants sold by store M

$$\text{in all months} = \frac{156 + 179 + 211 + 259 + 230}{5}$$

$$= \frac{1035}{5} = 207$$

58. (c) ;

Total number of pendants sold by store N in March,

April and May = $215 + 181 + 163 = 559$

Ratio of gold and silver pendants = 7 : 6

$$\text{Number of silver pendants} = 559 \times \frac{6}{13}$$

$$= 258$$

59. (d) ;

$$\text{Increased percentage} = \frac{231 - 180}{180} \times 100$$

$$= \frac{51}{180} \times 100$$

$$= 28\frac{1}{3} \%$$

60. (c) ; Total number of pendants sold by store O in September

$$= 250 \times \frac{108}{100} \times \frac{120}{100} = 324$$

61. (d) ;

Total number of pendants sold by all stores in

August = $\frac{7}{9} \times$ (Total number of pendants sold in June)

$$= \frac{7}{9} \times 1008 = 784$$

62. (e) ;

$$9^2 \times 7^2 \div \sqrt{441} = 5^?$$

$$\Rightarrow 81 \times 49 \div 21 - 64 = 5^?$$

$$\Rightarrow 3969 \div 21 - 64 = 5^?$$

$$\Rightarrow 189 - 64 = 5^?$$

$$\Rightarrow 125 = 5^?$$

$$\Rightarrow 5^3 = 5^?$$

$$\Rightarrow ? = 3$$

63. (d) ;

$$\left(\frac{4}{5} + 1\frac{7}{8} + \frac{5}{8}\right) \text{ of } ? = 759$$

$$\Rightarrow \left(\frac{4}{5} + \frac{15}{8} + \frac{5}{8}\right) \times ? = 759$$

$$\Rightarrow \left(\frac{32 + 75 + 25}{40}\right) \times ? = 759$$

$$\Rightarrow \frac{132}{40} \times ? = 759$$

$$\Rightarrow ? = \frac{7590}{33}$$

$$\Rightarrow ? = 230$$

64. (a) ;

$$(0.6 \times 450) \div 5 = 2 \times 3^?$$

$$\Rightarrow 270 \div 5 = 2 \times 3^?$$

$$\Rightarrow 27 = 3^?$$

$$\Rightarrow 3^3 = 3^?$$

$$\Rightarrow ? = 3$$

65. (a) ;

$$\sqrt{2601} + \sqrt{169} = 8^{12-?}$$

$$\Rightarrow 51 + 13 = 8^{12-?}$$

$$\Rightarrow 64 = 8^{12-?}$$

$$\Rightarrow (8)^2 = 8^{12-?}$$

$$\Rightarrow 2 = 12 - ?$$

$$\Rightarrow ? = 10$$

66. (a) ;

$$(125.5 + 242.75 + ?) \times \frac{6}{7} = 480$$

$$\Rightarrow 368.25 + ? = 80 \times 7$$

$$\Rightarrow ? = 560 - 368.25$$

$$\Rightarrow ? = 191.75$$

67. (e) ;

$$\begin{aligned} &\sqrt{121 \times 5 + 133 - 657} = ? \\ \Rightarrow &\sqrt{605 + 133 - 657} = ? \\ \Rightarrow &\sqrt{738 - 657} = ? \\ \Rightarrow &\sqrt{81} = ? \\ \Rightarrow &9 = ? \end{aligned}$$

68. (b) ;

$$\begin{aligned} &45\% \text{ of } 360 + 288 = ?\% \text{ of } 750 \\ \Rightarrow &\frac{45}{100} \times 360 + 288 = \frac{?}{100} \times 750 \\ \Rightarrow &162 + 288 = ? \times \frac{15}{2} \\ \Rightarrow &450 = ? \times \frac{15}{2} \\ \Rightarrow &? = 60 \end{aligned}$$

69. (e) ;

$$\begin{aligned} &? + \left(8\frac{1}{7} \times 6\frac{5}{19}\right) = 5^3 \\ \Rightarrow &? + \left(\frac{57}{7} \times \frac{119}{19}\right) = 5^3 \\ &? + 17 \times 3 = 125 \\ &? = 125 - 51 \\ &? = 74 \end{aligned}$$

70. (b) ; 35% of 580 + 70% of ? = 441

$$\begin{aligned} \Rightarrow &\frac{35}{100} \times 580 + \frac{70}{100} \times ? = 441 \\ \Rightarrow &203 + \frac{7}{10} \times ? = 441 \\ \Rightarrow &\frac{7}{10} \times ? = 238 \\ \Rightarrow &? = 34 \times 10 \\ \Rightarrow &? = 340 \end{aligned}$$

71. (b) ; (11) (10.4) = ?

$$\therefore ? = 114.4$$

72. (d) ;

$$\begin{aligned} &? = 74 + 9 - 6 \\ &= 77 \end{aligned}$$

73. (d) ;

$$\begin{aligned} &? = \frac{2432}{\sqrt{23104}} \\ &= \frac{2432}{152} \\ &= 16 \end{aligned}$$

74. (a) ;

$$\begin{aligned} &? = 8888 + 848 - 7337 - 737 \\ &= 1750 \end{aligned}$$

75. (a) ;

$$\begin{aligned} &? = 515.15 - 15.51 - 1.51 - 5.11 - 1.11 \\ &= 491.91 \end{aligned}$$

76. (c) ;

$$(?)^2 = (246)^2 - (99)^2 - 2462 - (123)^2$$

$$\begin{aligned} &= (250 - 4)^2 - (100 - 1)^2 \\ &= 2462 - (100 + 23)^2 \\ &= 62500 + 16 - 2000 - 10000 - 1 \\ &+ 200 - 2462 \\ &- 10000 - 529 - 4600 \\ &= 33124 \end{aligned}$$

$$\Rightarrow ? = 182$$

77. (a) ; Suppose, A left the work after x days.

According to question,

$$\begin{aligned} &\frac{x}{36} + \frac{x+36}{45} = 1 \\ \Rightarrow &\frac{5x + 4x + 144}{180} = 1 \\ \Rightarrow &\frac{5x + 4x + 144}{180} = 1 \\ \Rightarrow &9x + 144 = 180 \\ \Rightarrow &9x = 180 - 144 \\ \Rightarrow &9x = 36 \\ \Rightarrow &x = 4 \text{ days} \end{aligned}$$

78. (b) ;

Let the side of the triangle = 9x metre

Side of the square = 5x metre

According to question,

$$\begin{aligned} &3 \times 9x - 4 \times 5x = 21 \\ \Rightarrow &27x - 20x = 21 \\ \Rightarrow &7x = 21 \\ \Rightarrow &x = 3 \\ \therefore &\text{Area of the square} = (5x)^2 = 25x^2 \\ &= 25 \times (3)^2 \\ &= 25 \times 9 \\ &= 225 \text{ m}^2 \end{aligned}$$

79. (e) ; Let the breadth of the rectangle = x cm

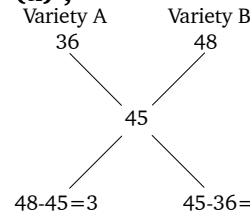
Length of the rectangle = (x + 26) cm

According to question,

$$\begin{aligned} &2 \times \pi \times 35 = 2(x + x + 26) \\ \Rightarrow &2 \times \frac{22}{7} \times 35 = 2(2x + 26) \\ \Rightarrow &110 = 2x + 26 \\ \Rightarrow &2x = 84 \\ \Rightarrow &x = 42 \end{aligned}$$

 \therefore Length of the rectangle = 42 + 26 = 68 cm

80. (a) ;

 \therefore Required ratio = 3 : 9 = 1 : 3