

RRB MOCK TEST – 08 (SOLUTION)

1. (D) Salma's monthly salary

$$= ₹ \left(\frac{2170 \times 100}{7} \right) = ₹ 31000$$

Percentage monthly investment by Sujata

$$= 7 + 18 + 6 = 31\%$$

Salma's annual investment

$$= 12 \times \frac{31}{100} \times 31000 = ₹ 1,15,320$$

2. (B) Amount = Principal
- $\left(1 + \frac{\text{Rate}}{100}\right)^{\text{Time}}$

$$= 20000 \left(1 + \frac{10}{100}\right)^2 \left(1 + \frac{20}{100}\right)$$

(Rate of interest for the first year = 10%, Time = 2 half years)

$$= ₹ \left(20000 \times \frac{11}{10} \times \frac{11}{10} \times \frac{6}{5} \right) = ₹ 29040$$

$$\therefore \text{C.I.} = ₹ (29040 - 20000) = ₹ 9040$$

3. (B) Clearly,

$$9 \times 360 \text{ children} = 18 \times 72 \text{ men}$$

$$= 12 \times 162 \text{ women}$$

$$\Rightarrow 45 \text{ children} = 18 \text{ men} = 27 \text{ women}$$

$$\Rightarrow 5 \text{ children} = 2 \text{ men} = 3 \text{ women}$$

Now, 4 men + 12 women + 10 children

$$= 4 \text{ men} + 8 \text{ men} + 4 \text{ men} = 16 \text{ men}$$

\therefore 18 men can complete the work in 72 days.

\therefore 16 men can complete the same work

$$= \frac{18 \times 72}{16} = 81 \text{ days}$$

4. (D) Ratio of the earned profit = Ratio of the equivalent capitate of Alka and Priti

$$= 45000 \times 12 : 52000 \times 4$$

$$= 45 \times 3 : 52$$

$$= 135 : 52$$

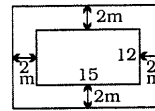
$$\text{Sum of ratios} = 135 + 52 = 187$$

\therefore Priti's share

$$= ₹ \left(\frac{52}{187} \times 56165 \right) = ₹ 15618.07$$

5. (A) Given that

$$\text{Area of outer rectangle} = 19 \times 16 = 304 \text{ m}^2$$



$$\text{Area of inner rectangle} = 15 \times 12 = 180 \text{ m}^2$$

$$\therefore \text{Required area} = (304 - 180) = 124 \text{ m}^2$$

6. (B) Required total score of the team

$$= 84 \times 8 - 92 + 85 = 665$$

7. (B)
- $SI = \frac{15000 \times 9 \times 2}{100} = ₹ 2700$

$$CI = 12000 \left[\left(1 + \frac{8}{100}\right)^2 - 1 \right]$$

$$= 12000 \left[\left(\frac{27}{25}\right)^2 - 1 \right]$$

$$= 12000 \left[\frac{729 - 625}{625} \right]$$

$$= 12000 \times \frac{104}{625} = ₹ 1996.8$$

\therefore Total interest earned

$$= ₹ (2700 + 1996.8) = ₹ 4696.8$$

8. (C) Total marked Price of article

$$= 25 \times 45 = ₹ 1125$$

Selling Price (Giving 10% discount)

$$= \frac{90}{100} \text{ of } 1125 = ₹ 1012.5$$

$$CP = \frac{1012.50}{150} \times 100 = ₹ 675$$

Now the selling price is ₹1125 then profit

$$= 1125 - 675 = ₹ 450$$

$$\% \text{ profit} = \frac{450}{675} \times 100 = 66 \frac{2}{3}\%$$

9. (B) Time taken in walking one way + riding other way

$$= 6 \text{ hours } 35 \text{ minutes} \quad \dots (i)$$

Time taken in riding both ways

$$= 4 \text{ hours } 35 \text{ minutes} \quad \dots (ii)$$

By equation (i) $\times 2$ - (ii),

$$2 \times \text{Time taken in walking one way}$$

$$= 13 \text{ hours } 10 \text{ minutes} - 4 \text{ hours } 35 \text{ minutes}$$

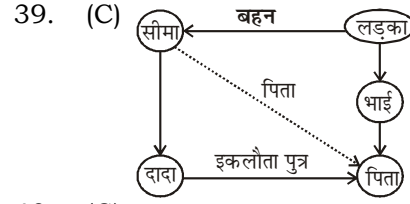
$$= 8 \text{ hours } 35 \text{ minutes}$$

10. (B) Number of balls = $6 + 5 + 8 = 19$
Exhaustive number of cases = Ways of selecting 4 balls out of 19
- $$= {}^{19}C_4 = \frac{19 \times 18 \times 17 \times 16}{1 \times 2 \times 3 \times 4} = 3876$$
- Favourable number of cases = Selecting 4 red balls or any two green balls out of the four = $6c_4 + 5c_2 \times 14c_2$
- $$= \frac{6 \times 5 \times 4 \times 3}{1 \times 2 \times 3 \times 4} + \frac{5 \times 4}{2} \times \frac{14 \times 13}{2}$$
- $$= 15 + 910 = 925$$
- \therefore Required probability = $\frac{925}{3876}$
11. (A) Books on Economics are to be kept together. Hence, we are to arrange 3 books on management, 4 books on Statistics and one book on Economics. These can be arranged in $8!$ ways. Again, 4 books on Economics can be arranged together in $4!$ ways.
- \therefore Total number of arrangements = $8! \times 4! = 967680$
- [$n! = 1.2.3.4 \dots (n-1)(n)$]
12. (B) Let the production cost of article = ₹ x A.T.Q,
- $$\frac{x \times 110 \times 115 \times 125}{100 \times 100 \times 100} = 1265$$
- $$\Rightarrow x = 800$$
- So, the cost price of article = ₹800
13. (D) Initially, let x g of water and Acid was taken. Initially 1st process
- First test tube = $(x - 20)$ g
Second test tube = $(x + 20)$ g
- 2nd process
- First test tube = $(x - 20) + (x + 20) \times \frac{2}{3}$
- Second test tube = $(x + 20) \times \frac{1}{3}$
- A/Q, $(x - 20) + \frac{2}{3}(x + 20) = 4 \times \frac{1}{3}(x + 20)$
- $$\Rightarrow x - 20 = \frac{2}{3}(x + 20)$$
- $$\Rightarrow 3x - 60 = 2x - 40$$
- $$\Rightarrow x = 100 \text{ gm}$$
14. (A) Largest side of the right angle triangle = $\sqrt{6^2 + 8^2} = 10$ cm
Side of square = $10 \times 3 = 30$ cm
 \therefore Diagonal of the square = $30\sqrt{2}$ cm
15. (B) If total maximum marks be x , then,
- $$\frac{x \times 64}{100} = 2240 - 128 = 2112$$
- $$\Rightarrow ? = \frac{2112 \times 100}{64} = 3300$$
- Marks obtained by 54 unite = $2240 - 907 = 1333$
Required percentage = $\frac{1333}{3300} \times 100 \approx 40\%$
16. (C) If the number of ₹ 2 coins be x , then number of ₹ 5 coins = $x - 5$
- $$\therefore 2x + 5(x - 5) = 50 - 26$$
- $$\Rightarrow 2x + 5x - 25 = 24$$
- $$\Rightarrow 7x = 24 + 25 = 49$$
- $$\Rightarrow x = \frac{49}{7} = 7$$
17. (C) According to question,
CP of 20 articles = SP of x articles = 1 (let)
- $$\therefore \text{CP of 1 articles} = \frac{1}{20}$$
- $$\text{SP of 1 articles} = \frac{1}{x}$$
- $$\text{Profit per cent} = \frac{\frac{1}{x} - \frac{1}{20}}{\frac{1}{20}} = \frac{25}{100}$$
- $$\Rightarrow \frac{20 - x}{x} = \frac{1}{4}$$
- $$\Rightarrow 80 - 4x = x$$
- $$\Rightarrow 5x = 80$$
- $$\Rightarrow x = 16$$
18. (A) Total runs in the first 10 overs = $10 \times 3.2 = 32$
Runs rate in the remaining 40 overs = $\frac{282 - 32}{40} = \frac{250}{40} = 6.25$
19. (A) Actual weight of 75 girls = $\frac{75 \times 47 - 20}{75} = 46.73$ kg

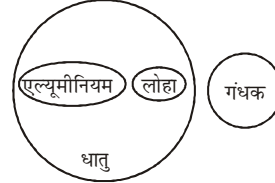
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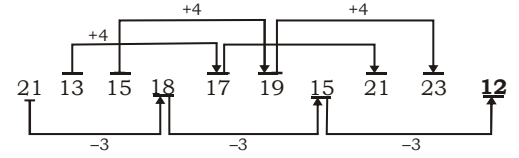
31. (D) रोने के अलावा, अन्य सभी भावनात्मक स्थिति है।
32. (D) $(123, 36) \Rightarrow (1 + 2 + 3)^2 = 36$
 $(243, 81) \Rightarrow (2 + 4 + 3)^2 = 81$
 $(768, 441) \Rightarrow (7 + 6 + 8)^2 = 441$
 $(622, 144) \Rightarrow (6 + 2 + 2)^2 = 100 \neq 144$
33. (D) $8 \times 4 - 8 = 24$
 $7 \times 5 - 7 = 28$
 $9 \times 6 - 9 = 45$
34. (A) $B \quad C \quad Y$
 $\downarrow \quad \downarrow \quad \downarrow$
 $2 + 3 \downarrow (5)^2 = 25$
- $A \quad B \quad I$
 $\downarrow \quad \downarrow \quad \downarrow$
 $1 + 2 \downarrow (3)^2 = 9$
- $B \quad B \quad P$
 $\downarrow \quad \downarrow \quad \downarrow$
 $2 + 2 \downarrow (4)^2 = 16$
35. (B) 7, 14, 56, 448, **7168**
 $\times 2 \quad \times 4 \quad \times 8 \quad \times 16$
36. (D) $256 \div 64 \times 41 - 76 = 88$
 $\Rightarrow 4 \times 41 - 76 = 88$
 $\Rightarrow 164 - 76 = 88$
 $\Rightarrow 88 = 88$
37. (B) $18 \$ 6 \Rightarrow (18 + 6) \times (18 - 6) = 288$
 $17 \$ 7 \Rightarrow (17 + 7) \times (17 - 7) = 240$
 $27 \$ 23 \Rightarrow (27 + 23) \times (27 - 23) = 200$
38. (D) वर्णमाल के अनुसार विपरीत स्थिति
- | | | | | | |
|----|---|----|----|----|----|
| B | W | I | F | H | O |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 25 | 4 | 18 | 21 | 19 | 12 |
- जिस प्रकार, WIFI = 4 + 18 + 21 + 18 = 61
उसी प्रकार, HOW = 19 + 12 + 4 = **35**



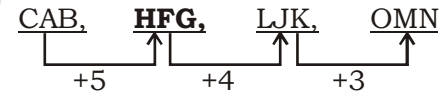
40. (C)
41. (D)



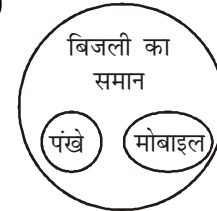
42. (C)



43. (C)



44. (C)
45. (D)
46. (B)
47. (B)
48. (C)
49. (B)
50. (D)



- I. ×
II. ×

अतः, न तो निष्कर्ष I न ही निष्कर्ष II सही है।

Answer key

1. (D)	11. (A)	21. (B)	31. (D)	41. (D)	51. (C)	61. (B)	71. (A)
2. (B)	12. (B)	22. (B)	32. (D)	42. (C)	52. (D)	62. (C)	72. (B)
3. (B)	13. (D)	23. (C)	33. (D)	43. (C)	53. (B)	63. (D)	73. (B)
4. (D)	14. (A)	24. (B)	34. (A)	44. (C)	54. (A)	64. (B)	74. (B)
5. (A)	15. (B)	25. (D)	35. (B)	45. (D)	55. (C)	65. (D)	75. (A)
6. (B)	16. (C)	26. (D)	36. (D)	46. (B)	56. (B)	66. (A)	
7. (B)	17. (C)	27. (D)	37. (B)	47. (B)	57. (D)	67. (D)	
8. (C)	18. (A)	28. (C)	38. (D)	48. (C)	58. (A)	68. (D)	
9. (B)	19. (A)	29. (A)	39. (C)	49. (B)	59. (A)	69. (A)	
10. (B)	20. (A)	30. (D)	40. (C)	50. (D)	60. (C)	70. (D)	