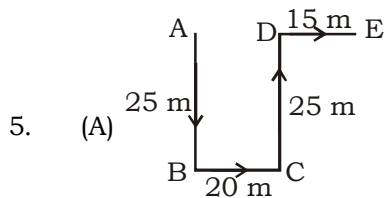


RRB MOCK TEST-4 (Solution)

1. (D) A window is made up of panes, and a book is made up of pages.
2. (B) $9^3 + 9 = 738$
Similarly,
 $11^3 + 11 = 1342$
3. (A) In this series, the third letter is repeated as the first letter of the next segment. The middle letter, A, remains static. The third letters are in alphabetical order, beginning with R.
4. (D) Devotion is characteristic of a monk; wanderlust is characteristic of a rover.



Required distance = AE
= 20 + 15
= 35 m towards East

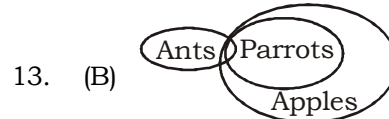
6. (C) All except Rice are rabi crops.
7. (D) Arrangement of words as per dictionary :
4. Plead
↓
3. Pleasant
↓
1. Please
↓
2. Pleasure
8. (A)
9. (C)
10. (B) Each day of the week is repeated after 7 days.
So, after 63 days, it will be Monday.
After 61 days, it will be Saturday.



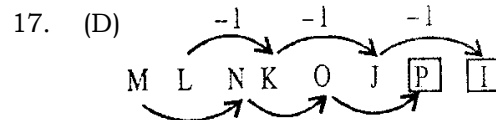
- I. True
II. False



- I. False
II. True



- I. False
II. True
14. (C) In row first,
 $6^3 + 6^2 + 6 = 258$
Similarly, in row two, three and four
In row four,
 $9^3 + 9^2 + 9 = 819$
15. (C) Rank from bottom $30 - 16 + 1 = 15$ th.
16. (A) Wheat is a rabi crop whereas others are kharif crops.



18. (B) Keeping 4 at top 1, 2, 3, 6 have come on sides in all three positions hence the bottom digits will be 5, 5, 5.
19. (D) 38
20. (C)
- ```

 C(+)
 |
 A(+)
 |
 B

```

B may be son or daughter of A.

21. (C) P R O J E C T I O N  
↓ ↓ ↓ ↓  
3rd 5th 7th 10th  
⇒ OETN  
⇒ NOTE and TONE Two words can be formed.  
So 'M' will be the answer.

22. (B) Angle traced by hour hand in  $\frac{13}{3}$  hrs

$$= \left( \frac{360}{12} \times \frac{13}{3} \right)^\circ = 130^\circ$$

Angle traced by min. hand in 20 min.

$$= \left( \frac{360}{60} \times 20 \right)^\circ = 120^\circ$$

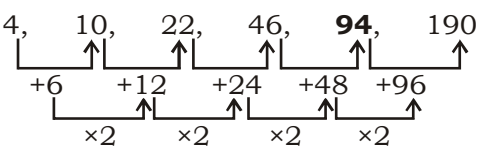
- ∴ Required angle =  $(130 - 120)^\circ = 10^\circ$ .
23. (D)  
 $A = 2 \Rightarrow \text{Position Number} \times 2$   
 Therefore,  

|   |   |    |      |
|---|---|----|------|
| B | A | B  | Y    |
| ↓ | ↓ | ↓  | ↓    |
| 2 | + | 1  | +    |
| 2 |   | 2  |      |
|   |   | +  |      |
|   |   | 25 |      |
|   |   |    | = 30 |

 Required answer =  $30 \times 2 = 60$
24. (C) The colour of the human blood is 'red' and as given, 'red' is called 'yellow'.  
 So, the colour of human blood is 'yellow'.
25. (D) Son of A is the brother of C and D.  
 Therefore, B is the uncle of C.
26. (B) Suppose the number  
 $= 10x + y$   
 $x + y = 11 \quad \dots\dots (i)$   
 $(10x + y) + 27 = 10y + x$   
 $\Rightarrow 10x - x + y - 10y = -27$   
 $\Rightarrow 9x - 9y = -27$   
 $\Rightarrow x - y = -3 \quad \dots\dots(ii)$   
 $\Rightarrow x = 4$  and  $y = 7$   
 $= 10x + y = 40 + 7 = 47$
27. (B) Suppose  $x$  men are required  
 $18 \times 5 \times 8 = x \times 8 \times 6$   
 $\Rightarrow x = \frac{18 \times 5 \times 8}{8 \times 6} = 15$  men
28. (A)  $8x = 48$   
 $\Rightarrow x = 6$   
 $\Rightarrow 21x = 21 \times 6 = 126$
29. (B) Required percentage increase  
 $= \left(10 + 10 + \frac{10 \times 10}{100}\right)\% = 21\%$   
 $\therefore \text{Increase} = ₹ 21$
30. (A) If the number of successful candidates be  $x$ , then  
 $x \times 39 + (120 - x) 15 = 120 \times 35$   
 $\Rightarrow 39x + 1800 - 15x = 4200$   
 $\Rightarrow 24x = 4200 - 1800 = 2400$   
 $\Rightarrow x = 100$
31. (A) Required value  
 $= 196000 \times \left(1 - \frac{100}{7 \times 100}\right)^2$   
 $= 196000 \times \left(\frac{6}{7}\right)^2$   
 $= ₹ 144000$
32. (C) Ratio of the equivalent capitals of A and B for 1 month

- $= 3x \times 2t : x \times t = 6 : 1$   
 B's share = Rs. 4000  
 $\Rightarrow \frac{1}{7} \times \text{Total profit} = ₹ 4000$   
 $\Rightarrow \text{Total profit} = (7 \times 4000) = ₹ 28000$
33. (C) Ratio of the numbers of 25 paise, 10 paise and 5 paise coins = 1 : 2 : 3  
 Ratio of their value =  $\frac{1}{4} : \frac{2}{10} : \frac{3}{20}$   
 $= 5 : 4 : 3$   
 $\therefore$  Value of the 5 paise coins  
 $= \frac{3}{12} \times 30 = ₹ 7.5$   
 $\therefore$  Number of 5 paise coins  
 $= 7.5 \times 20 = 150$
34. (D) Required increase  
 $= \left(25 + 25 + \frac{25 \times 25}{100}\right)\%$   
 $= 56.25\%$
35. (B) Relative speed of train  
 $= (50 - 30) \text{ kmph} = 20 \text{ kmph}$   
 $= 20 \times \frac{5}{18} = \frac{50}{9} \text{ m/sec.}$   
 $\therefore$  Required length of train  
 $= \frac{50}{9} \times 18 = 100 \text{ metre}$
36. (B) Expression =  $\frac{1}{2^{\frac{2}{3}} + 2^{\frac{1}{3}} + 1}$   
 $= \frac{2^{\frac{1}{3}} - 1}{\left(2^{\frac{2}{3}} - 1\right)\left(2^{\frac{2}{3}} + 2^{\frac{1}{3}} + 1\right)}$   
 $= \frac{2^{\frac{1}{3}} - 1}{\left(2^{\frac{1}{3}}\right)^2 - 1} = 2^{\frac{1}{3}} - 1 = \sqrt[3]{2} - 1$   
 $[\therefore (a - b)(a^2 + ab + b^2) = a^3 - b^3]$
37. (D) Circumference of circle  
 $= 2 \times \frac{22}{7} \times 14$   
 $= 88 \text{ cm}$   
 Circumference of semi-circle =  $\pi r + D$

- $= \left( \frac{22}{7} \times 14 + 28 \right) \text{ cm}$   
 $= 72 \text{ cm}$   
 $\therefore$  Required ratio = 88 : 72 = 11 : 9
38. (A) By division method,
- $$\begin{array}{r} 68 \\ \underline{6) 4750} \\ 36 \\ \underline{128) 1150} \\ 1024 \\ \underline{\phantom{128) 1150} 126} \end{array}$$
- So 126 is to be subtracted from 4750 to get a perfect square number.
39. (B) First Number  $\times$  Second Number = HCF  $\times$  LCM  
 $275 \times$  Second Number =  $11 \times 7700$   
 $\Rightarrow$  Second Number =  $\frac{11 \times 7700}{275} = 308$
40. (C) Let the CP of each table = ₹ 1  
 $\therefore$  CP of 16 tables = ₹ 16  
 SP of 16 tables = ₹ 12  
 $\therefore$  Loss% =  $\frac{4}{16} \times 100 = 25\%$
41. (D) Let listed Price = ₹ 100  
 Total discounted price after successive discounts of 10%, 20% & 25%
- $$= 100 \times \frac{100-10}{100} \times \frac{100-20}{100} \times \frac{100-25}{100}$$
- $$= 100 \times \frac{90}{100} \times \frac{80}{100} \times \frac{75}{100}$$
- $$= \frac{5400}{100} = ₹ 54$$
- Single discount equivalent =  $100 - 54 = 46\%$
42. (A) Quantity of water in original mixture = 20%  
 $= 70 \times \frac{20}{100} = 14$  litres  
 Now let, adding  $x$  litre of water will give 30% mixture.  
 $\Rightarrow \frac{14+x}{70+x} = \frac{30}{100} = \frac{3}{10}$   
 $\Rightarrow 140 + 10x = 210 + 3x$   
 $\Rightarrow 7x = 70$   
 $\Rightarrow x = \frac{70}{7} = 10$  litres

43. (A) Let  $0.89 = a$  and  $0.64 = b$ .  
 $\therefore$  Expression =  $\frac{a^3 - b^3}{a^2 + ab + b^2}$   
 $= \frac{(a-b)(a^2 + ab + b^2)}{a^2 + ab + b^2}$   
 $= a - b = 0.89 - 0.64 = 0.25$
44. (D)  $4, 10, 22, 46, 94, 190$   

45. (D) The smallest 5-digit number = 10000  
 On dividing 10000 by 476, remainder = 4  
 $\therefore$  Required number =  $10000 + (476 - 4) = 10472$
46. (D) Ratio of time taken by A, B and C = A : B : C = 1 : 2 : 6  
 $\therefore$  Time taken by A =  $\frac{42}{6} = 7$  minutes
47. (D) Area of rhombus =  $\frac{1}{2} d_1 d_2$   
 $= \frac{1}{2} \times 8 \times 16$   
 $= 64 \text{ sq.cm.}$
48. (A) Total number of employees in all the departments of all the organisations together =  $4933 + 4751 + 6631 + 7787 + 3867 + 221 = 28190$
49. (D) Required ratio =  $\frac{5825}{5625} = \frac{233}{225}$   
 $= 233 : 225$
50. (B) Difference =  $\frac{1}{5} \{ (1542 - 1382) + (1545 - 1384) + (1550 - 1275) + (1570 - 1300) + (1580 - 1290) \}$   
 $= \frac{1}{5} \{ 160 + 161 + 275 + 270 + 290 \}$   
 $= \frac{1}{5} \times 1156 = 231.2 \approx 231$

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**RRB MOCK TEST-4 (ANSWER KEY)**

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