

RRB MOCK TEST-8 (Solution)

1. (D) NOITUTITSNI has been written making opposite of INSTITUTION. So PERFECTION will be written NOITCEFREP
2. (C) The meat of fully grown sheep is called mutton. Similarly, the meat of deer is called Venison.

3. (D) Upper part
 $(5 - 5)^3 = 0$
 $(7 - 3)^3 = (4)^3 = 64$
 Lower part
 $11 - 8 = 3$
 $(3 \times 2)^2 = (6)^2 = 36$
 $8 - 2 = 6$

$(6 \times 2)^2 = (12)^2 = \boxed{144}$

4. (C) Home and House is not a complete set while another make a complete set.

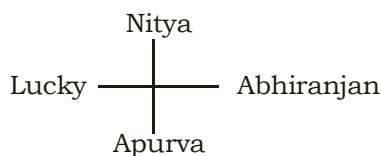
5. (A) 18Q12P4R5S6
 Putting the value of signs.
 $18 \times 12 \div 4 + 5 - 6$
 $= 18 \times 3 + 5 - 6 = 53$

6. (B) First Figure
 $30 + 40 - 20 = 50$
 Second Figure
 $60 + 30 - 40 = 50$
 Third Figure
 $80 + 70 - 50 = 100$

7. (D) $A^{(+)} \text{ --- } B^{(-)} \text{ --- } R^{(-)}$
 $\swarrow \text{Maternal Uncle} \quad \downarrow$
 $Q^{(+)}$
 \downarrow
 L

8. (C)
 Required distance
 $= 15 + 1 = 16 \text{ km.}$

9. (B) The Gateway of India is in Mumbai. Here, Mumbai has been called Dehradun.
10. (C)



Nitya is to the right of Abhiranjan.

11. (A) $A B C / G \quad B C D / J$

 $\therefore C D E / M \quad D E F / P$

12. (A) Planet Moon Star
 I. True
 II. False

13. (C)
 I. Doubt
 II. Doubt } or

14. (B)
 I. False
 II. True

15. (B) $(3)^2 = 9; (4)^2 = 16 \Rightarrow 916$
 $(2)^2 = 4; (3)^2 = 9 \Rightarrow 49$
 Therefore, $(1)^2 = 1; (5)^2 = 25 \Rightarrow 125$

16. (A) From first figure to second figure the square changes into circle and circles are converted into squares.
17. (A) Arrangement of words as per dictionary:

Diastole \rightarrow Dictate \rightarrow Dictionary \rightarrow Dictum \rightarrow Didactic

18. (D) $\boxed{\text{count}} \boxed{\text{me}} \text{ out} \rightarrow 8 \boxed{7} \boxed{4}$
you can $\boxed{\text{count}} \rightarrow \boxed{7} 1 \mathbf{9}$
you and $\boxed{\text{me}} \rightarrow \mathbf{9} 2 \boxed{4}$
 The code for 'and' is '2'.

19. (A) First figure
 $512 = 64 \times 8$
 Second figure
 $243 = 49 \times 7$
 Third figure
 $9 \times \mathbf{81} = 729$
20. (A) Sonam's grandfather's only son means the father of Sohan. So, the boys's mother is the mother of Aaliya.

21. (C) $w \boxed{a} x / w \boxed{a} / \boxed{w} a x / \boxed{w} a \boxed{x} / w a \boxed{x}$
22. (B)



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23. (B) The numbers 2, 3, 4 and 5 cannot be on the face opposite to 1. Therefore, 6 lies opposite 1.
24. (D) $(5 \times 6 \times 4) = 120$
 $(4 \times 9 \times 2) = 72$
 Therefore,
 $(2 \times 1 \times 8) = 16$
25. (A)
26. (B) 5 men = 10 women
- or, 1 man = $\frac{10}{5}$ women = 2 women
- $\therefore 4 \text{ men} + 6 \text{ women} = 8 \text{ women}$
- Now, 10 women can do the work in 20 days.
- $\therefore 8 \text{ women can do it in}$
- $\frac{20 \times 10}{8} = 25 \text{ days}$
27. (D)
$$\begin{array}{r} 2 \overline{) 32} \\ \underline{2} \\ 16 \\ \underline{16} \\ 0 \end{array}$$
- $\therefore 32 = 2^3 \times 2^2$
- To make 32 a perfect cube, it should be multiplied by 2.
28. (A) $AB = \sqrt{BD^2 - AD^2}$
 $= \sqrt{5^2 - 3^2} = \sqrt{16} = 4 \text{ cm}$
 $\therefore \text{Area of rectangle ABCD}$
 $= AB \times AD$
 $= 4 \times 3 = 12 \text{ cm}^2$
29. (D) Let the volume of water = 100 ml
 \therefore Volume of ice = 111 ml. If ice changes into water,
 Change in volume = $111 - 100 = 11 \text{ ml}$.
- \therefore Percentage decrease = $\frac{11}{111} \times 100$
- $= \frac{1100}{111} = 9 \frac{101}{111} \%$
30. (C) Let the last (third) quotient after successive division by 9, 11, 13 is k .
 Hence second quotient $x = 13k + 8$
 First quotient $y = 11(13k + 8)$
 $= 11 \times 13k + 88 + 9 = 11 \times 13k + 97$
 and the original number
 $z = 9(11 \times 13k + 97) + 8$
 $z = 9 \times 11 \times 13k + 9 \times 97 + 8$
 $= 9 \times 11 \times 13k + 881$
 Dividing 881 in reverse order
 Hence remainders are 10, 1, 6.
31. (D) According to question,
 Distance travelled by train :
- $= 1800 \left[1 - \left(\frac{2}{5} + \frac{1}{3} \right) \right]$

- $= 1800 \times \frac{4}{15} = 480 \text{ km}$
32. (C) Let speed of Boat = $x \text{ km/hr}$.
 and speed of stream = $y \text{ km/hr}$.
 \Rightarrow From question
- upstream speed = $x - y = \frac{1}{10/60} = 6 \dots (1)$
- downstream speed =
- $x + y = \frac{1}{6/60} = 10$
- adding (1) & (2) $\Rightarrow 2x = 16 \Rightarrow x = \frac{16}{2}$
- $= 8 \text{ km/hr}$.
- Also $y = 2 \text{ km/hr}$.
- \therefore Speed of boat in still water = $\frac{8+2}{2}$
- $= 5 \text{ km/hr}$.
33. (A)
34. (B)
35. (B)
36. (A)
37. (B) If radius of wheel is $r \text{ metre}$ then from question.
- $500 \times 2 \pi r - 44 \times 1000 \text{ metres}$
- $\Rightarrow r = \frac{44 \times 1000}{2 \times \frac{22}{7} \times 500} = 14 \text{ metres}$
38. (A) $47^{13/2} \div (47^{3/2} \times 47^2) = [47^{1/3}]^x$
- $\Rightarrow 47^{x/3} = 47^{13/2} + 47^{3/2+2}$
- $\Rightarrow 47^{x/3} = 47^{13/2} \times \frac{1}{47^{7/2}}$
- $\Rightarrow 47^{x/3} = 47^{13/2 - 7/2} = 47^{6/2} = 47^3$
- $\Rightarrow 47^{x/3} = 47^3$
- $\Rightarrow \frac{x}{3} = 3 \Rightarrow x = 9$
39. (C) $\frac{p+2x}{p-2x} + \frac{p+2y}{p-2y}$
- $= \frac{1}{(p-2x)(p-2y)} \times [p^2 + 2p(x-y) - 4xy + p^2$
 $- 2p(x-y) - 4xy]$
- $= \frac{3(p^2 - 4xy)}{(p-2x)(p-2y)}$
- Putting P = $\frac{4xy}{x+y}$

$$= \frac{2 \left[\frac{16x^2y^2}{(x+y)^2} - 4xy \right]}{\left[\frac{4xy}{x+y} - 2x \right] \left[\frac{4xy}{x+y} - 2y \right]}$$

$$= \frac{\frac{2 \times 4xy}{(x+y)^2} [4xy - (x+y)^2]}{\frac{2x}{(x+y)} [2y - (x+y)] \frac{2y}{(x+y)} [2x - (x+y)]}$$

$$= \frac{2[-x^2 - y^2 + 2xy]}{[-x+y][x-y]}$$

$$= \frac{-(x-y)^2}{-(x-y)^2} = 2$$

40. (D) For supplementary angles

$$\theta_1 + \theta_2 = 108^\circ \Rightarrow \theta_1 = \frac{\theta_2}{3}$$

$$\text{Hence } \theta_1 + 3\theta_1 = 180^\circ$$

$$\Rightarrow 4\theta_1 = 180^\circ \Rightarrow \theta_1 = \frac{180}{4} = 45^\circ$$

41. (C) $\left(2 - \frac{1}{3}\right) \left(2 - \frac{2}{3}\right) \left(2 - \frac{5}{7}\right) \dots \left(2 - \frac{997}{999}\right)$

$$= \frac{5}{3} \times \frac{7}{5} \times \frac{9}{7} \times \dots \times \frac{1001}{999} = \frac{1001}{3}$$

42. (C) Let the cost of 5kg tea = Rs. x
 \therefore Cost of 8 kg sugar = Rs. $(172 - x)$
 According to the question,

$$x \times \frac{120}{100} + (172 - x) \frac{110}{100} = 199.20$$

$$\Rightarrow 1.2x + 172 \times 1.1 - 1.1x = 199.20$$

$$\Rightarrow 0.1x = 199.20 - 189.20 = 10$$

$$\Rightarrow x = 100$$

$$\therefore \text{Cost of 5 kg tea} = ₹ 100$$

$$\therefore \text{Cost of tea per kg} = \frac{100}{5} = ₹ 20$$

43. (C)

44. (B) Let table's cost = x

$$\text{Chair's cost} = y$$

$$2x + 3y = 3500 \quad \dots(1)$$

$$3x + 2y = 4000 \quad \dots(2)$$

$$(1) \times 2 - (2) \times 3$$

$$4x - 9x = 3500 \times 2 - 4000 \times 3$$

$$\Rightarrow -5x = -5000$$

$$\Rightarrow x = ₹ 1000/\text{table}$$

45. (A) Number of pieces of rope

$$= \frac{51}{2} \div \frac{3}{2}$$

$$= \frac{51}{2} \times \frac{2}{3} = 17$$

46. (C) Average sales for state B

$$= \frac{45 + 39 + 50 + 48 + 53 + 55}{6}$$

$$= \frac{290}{6} \text{ million tones}$$

Average sales of state C

$$= \frac{38 + 40 + 43 + 44 + 46 + 49}{6} = \frac{260}{6}$$

$$\text{Required ratio} = \frac{\frac{290}{6}}{\frac{260}{6}} = 29 : 26$$

47. (A) Total sales in 1998
 $= 25 + 45 + 38 + 52 + 47 + 55 = 262$
 Total sales in 2003

$$= 43 + 55 + 49 + 63 + 42 + 62 = \frac{3}{4}$$

Required % increase

$$= \frac{314 - 262}{262} \times 100 = \frac{52}{262} \times 100$$

$$\approx 19.8. \text{ using given options (approximation).}$$

48. (C) Total sales of 2003 = 314 as above
 Total sales of 2000

$$= 41 + 50 + 43 + 57 + 39 + 64 = 294$$

$$\text{Required \%} = \frac{294}{314} \times 100 = 93.63 \%$$

49. (A) 2001

50. (B) Average sales of 1999

$$= \frac{32 + 39 + 40 + 55 + 46 + 67}{6}$$

$$= \frac{279}{6} = 46.5$$



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RRB MOCK TEST - 8 (ANSWER KEY)

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