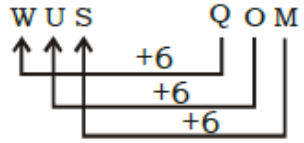
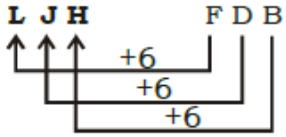
RAILWAY MOCK TEST – 2 (SOLUTION)

1. (B)
Family lives in a Home. Similarly,
Colleagues works in **office.**

2. (C)

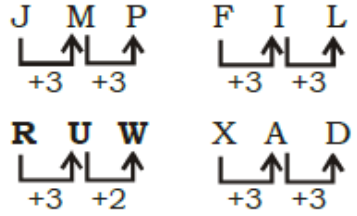


Similarly,



3. (D)
$.0625 = (0.25)^2$
Similarly, $0.4096 = (\mathbf{0.64})^2$

4. (C)



5. (C)
Except, **Automated Teller Machine,** in all other bankings, there is no special instrument for use.

6. (C)
Except **24**, all others are multiple of 17.

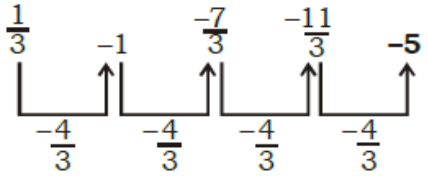
7. (B)
Pastel → Pebble → Postal → Pragmatic → Protect.

8. (B)
ATQ,
Required day
= (31 + 31 + 30 + 31 + 15) ÷ 7 = 5 days
Hence, B's birthday was on 5 days later of A's birthday
Hence, **Wednesday** is the required day.

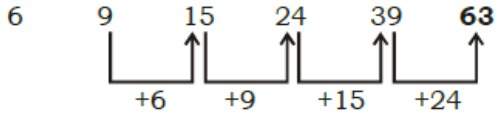
9. (B)
Option (A) ⇒ 10 + 7 + 5 + 9 = 31 kgs
Option (B) ⇒ 10 + 7 + 5 = 22 kgs ≠ 23 kgs
Option (C) ⇒ 7 + 5 + 9 = 21 kgs
Option (D) ⇒ 10 + 7 + 9 = 26 kgs
Hence, option B means **23 kgs** is the correct answer.

10. (B)
CLICK

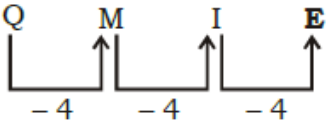
11. (B)



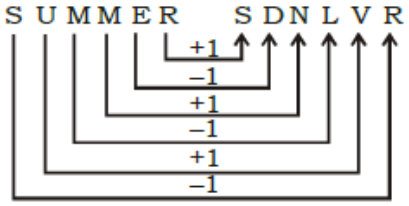
12. (B)



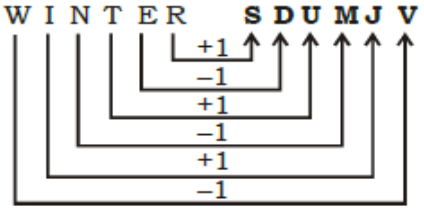
13. (B)



14. (A)



Similarly,

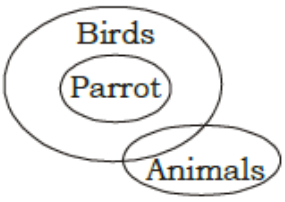


15. (C)
ATQ,
$3^3 \div 9 = 3$
$6^3 \div 12 = 18$
$8^3 \div 32 =$ **16**

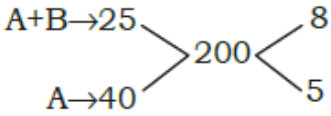
16. (A)
$(1 \times 2 \times 3 \times 5) + (1 + 2 + 3 + 5) = 41$
$(3 \times 4 \times 2 \times 6) + (3 + 4 + 2 + 6) = 159$
$(9 \times 8 \times 3 \times 4) + (9 + 8 + 3 + 4) =$ **888**

17. (B)
2232 ÷ 2 = 1116
1116 ÷ 3 = 372
372 ÷ 4 = **93**

18. (D)
5 × 6 + 5 + 6 = 41
7 × 8 + 7 + 8 = 71
5 × 9 + 5 + 9 = **59**
19. (B)
20. (C)



I. False
II. True
21. (B)
22. (C)
23. (A)
24. (D)
25. (D)
51. (C)
ATQ,
2765 = 57 × 48 + 29
Hence, quotient = **57**
52. (D)
ATQ,



Hence, Required days $= \frac{1}{2} \times \frac{200}{(8-5)}$

$= \frac{100}{3} days$

53. (B)
ATQ,
Other side of rectangle = $\sqrt{74^2 - 24^2}$
= 70 cm
Hence, required area = 70 × 24
= **1680 cm²**
54. (C)
Required S.P. = $8400 \times \frac{160}{100} \times \frac{90}{100}$
= Rs.**12096**
55. (B)
ATQ,

$$\frac{94+x}{24+x} = \frac{100+x}{26+x}$$

$94 \times 26 + 26x + 94x + x^2 = 24 \times 100 + x^2 + 100x + 24x$
$\Rightarrow 4x = 44$
$\Rightarrow x = 11$
Hence, Required number **11**
56. (C)
A.T.Q.

$$\frac{15x+81}{16} = x + 3$$

$\Rightarrow x = 33$
Hence, Required average = **33**
57. (A)
C.P. of one banana = $\frac{80}{16}$ = Rs.5
S.P. of one banana = $\frac{32}{5}$ = Rs.6.4
then, profit = $\frac{(6.4-5)}{5} \times 100$ = **28%**
58. (A)

A	B	
170	100	amount

then,

$$\text{B's share} = \frac{1620}{(100+170)} \times 100$$

= ₹600

59. (C)
Let the distance travelled by him on foot = x
ATQ,

$$\frac{x}{9} + \frac{126-x}{21} = 10$$

$\Rightarrow 21x + 126 \times 9 - 9x = 9 \times 21 \times 10$
$\Rightarrow 12x = 1890 - 1134$
$\Rightarrow x = \frac{756}{12} = 63$

Hence, Required distance = **63 kms**
60. (A)
A.T.Q.

$$P\left(1+\frac{15}{100}\right)^2 - P = 20640$$

$$\Rightarrow \quad P\frac{529}{400} - P = 20640$$

$$\Rightarrow \quad 129P = 20640 \times 400$$

$$\Rightarrow \quad P = \frac{20640 \times 400}{129} = 64000$$

Hence, Required amount = Rs.**64000**

61. (B)

ATQ,

$$\frac{\left[6\left(\frac{2x}{7}-\frac{3}{2}\right)\right]}{4} + \frac{9}{2} = \frac{37}{7}$$

$$\Rightarrow \quad \frac{3}{2}\left(\frac{2x}{7}-\frac{3}{2}\right) + \frac{9}{2} = \frac{37}{7}$$

$$\Rightarrow \quad \frac{6x}{14} - \frac{9}{4} + \frac{9}{2} = \frac{37}{7}$$

$$\frac{12x}{28} + \frac{63}{28} = \frac{148}{28}$$

$$\Rightarrow \quad 12x + 63 = 148$$

$$\Rightarrow \quad x = \mathbf{\frac{85}{12}}$$

62. (A)

ATQ,

$a^3 - b^3 = (a - b)\left((a - b)^2 + 3ab\right)$

$= 10\ (100 + 3\ (-24)]$

$=$ **280**

63. (C)

ATQ,

$$2x + \frac{4}{x} = \frac{33}{5}$$

$\Rightarrow 10x^2 + 20 - 33x = 0$

$\Rightarrow 10x^2 - 25x - 8x + 20 = 0$

$\Rightarrow 5x\ (2x - 5) - 4\ (2x - 5) = 0$

$\Rightarrow (5x - 4)\ (2x - 5) = 0$

$$\Rightarrow x = \mathbf{\frac{4}{5}}, \frac{5}{2}$$

64. (C)

ATQ,

$a + 10\ d - a - 55\ d = -25 - 200$

$\Rightarrow 45\ d = 225$

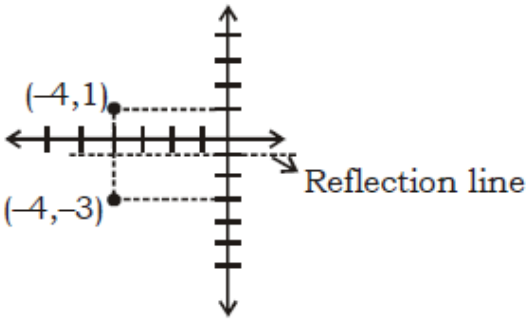
$\Rightarrow d = 5$

then, $a = -75$

Hence, $T_{100} = a + 99d = -75 + 99 \times 5$

$=$ **420**

65. (B)



Hence, Required points = **(–4, 1)**

66. (B)

ATQ,

$(k - 2)^2 + (7 - 19)^2 = (37)^2$

$\Rightarrow k^2 - 4k + 4 + 144 = 1369$

$\Rightarrow k^2 - 4k - 1221 = 0$

$\Rightarrow (k - 37)\ (k + 33) = 0$

$\Rightarrow k =$ **37**, –33

67. (A)

ATQ,

$\sin 2A = \cos (4A - 30°) = \sin (90° - 4\ A + 30°)$

$\Rightarrow 2A = 120 - 4A$

$\Rightarrow A = 20°$

Hence, $3A - 16° = 3 \times 20 - 16° =$ **44°**

68. (D)

ATQ,

$\tan 9° \times \tan 30° \times \tan 45° \times \tan 81°$

$$= \tan 9° \times \frac{1}{\sqrt{3}} \times 1 \times \cot 9° = \mathbf{\frac{1}{\sqrt{3}}}$$

69. (C)

ATQ,

$XY^2 = XA \times XB$

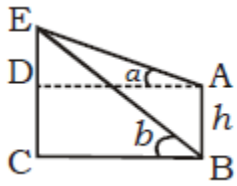
$\Rightarrow 6^2 = 3 \times (3 + x)$

$\Rightarrow 12 = 3 + x$

$\Rightarrow x =$ **9cm**

70. (C)

ATQ,



$\frac{EC}{CB} = \tan b$

$\Rightarrow$ CB = EC cot b ------(i) and

$\frac{ED}{CB} = \tan \alpha$

$\Rightarrow$ CB = ED cot α --------(ii)

by equations (i) and (ii),

EC cot b = ED cot α

(h + ED) cot b = ED cot α

$ED = \frac{h\cot b}{\cot\alpha - \cot b}$

Hence, height of building = h + ED

$= h + \frac{h\cot b}{\cot\alpha - \cot b} = \frac{\mathbf{h\cot\alpha}}{\mathbf{\cot\alpha + cotb}}$

71. (B)

ATQ,

$\sec\theta + \tan\theta = \frac{19}{2}$

then, $\sec\theta - \tan\theta = \frac{2}{19}$

then $\sec\theta = 2 \times \left[\frac{19}{2} + \frac{2}{19}\right] = \frac{365}{19}$

Hence, $\cos\theta = \mathbf{\frac{19}{365}}$

72. (A)

D

73. (B)

Required % = $\frac{(525-500)}{500} \times 100 = \mathbf{5\%}$

74. (D)

Total revenue in 2015 = 3 + 5 + 1 + 0.5
= 9.5 crore

Total revenue in 2016 = 3.3 + 5.25 + 1.2 + 1
= 10.75 crore

Hence, Required difference = 10.75 – 9.5
= **1.25 crore**

75. (B)

Total revenue in 2015 and 2016 = 9.50 + 10.75 = 20.25 crore

Total cost in 2015 and 2016 = 10 + 10
= 20 crore

Hence, Cumulative profit = 20.25 – 20
= 0.25 crore
= **25 lakh**

RAILWAY MOCK TEST – 2 (ANSWER)

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