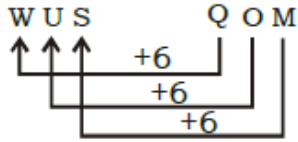


SSC PRE MOCK TEST – 13 (SOLUTION)

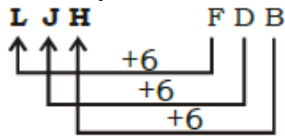
1. (B)

Family lives in a Home. Similarly, Colleagues works in **office**.

2. (C)



Similarly,

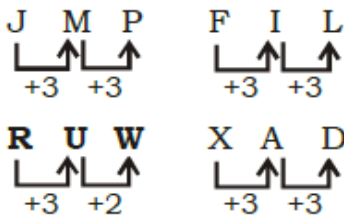


3. (D)

$$.0625 = (0.25)^2$$

Similarly, $0.4096 = (0.64)^2$

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

$$= (31 + 31 + 30 + 31 + 15) \div 7 = 5 \text{ days}$$

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

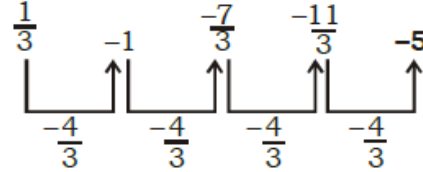
Hence, option B means **23 kgs** is the correct

answer.

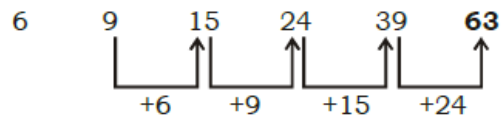
10. (B)

CLICK

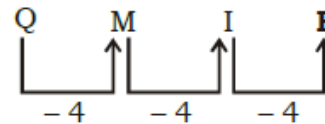
11. (B)



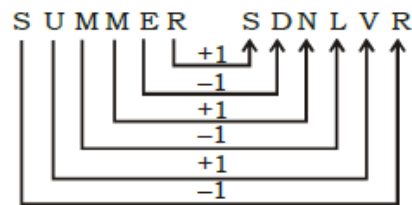
12. (B)



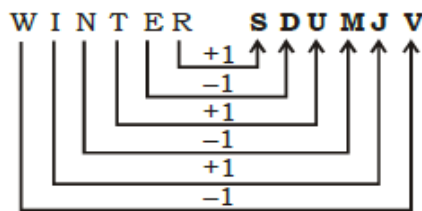
13. (B)



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)

$$2232 \div 2 = 1116$$

$$1116 \div 3 = 372$$

$$372 \div 4 = 93$$

18. (D)

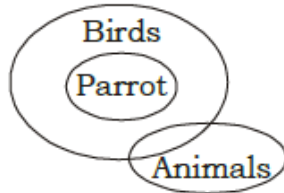
$$5 \times 6 + 5 + 6 = 41$$

$$7 \times 8 + 7 + 8 = 71$$

$$5 \times 9 + 5 + 9 = \mathbf{59}$$

19. (B)

20. (C)



I. False

II. True

21. (B)

22. (C)

23. (A)

24. (D)

25. (D)

51. (C)

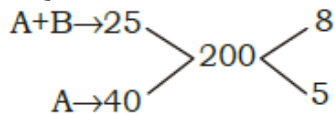
ATQ,

$$2765 = 57 \times 48 + 29$$

Hence, quotient = **57**

52. (D)

ATQ,



$$\begin{aligned} \text{Hence, Required days} &= \frac{1}{2} \times \frac{200}{(8-5)} \\ &= \frac{100}{3} \text{ days} \end{aligned}$$

53. (B)

ATQ,

$$\begin{aligned} \text{Other side of rectangle} &= \sqrt{74^2 - 24^2} \\ &= 70 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{Hence, required area} &= 70 \times 24 \\ &= \mathbf{1680 \text{ cm}^2} \end{aligned}$$

54. (C)

$$\begin{aligned} \text{Required S.P.} &= 8400 \times \frac{160}{100} \times \frac{90}{100} \\ &= \mathbf{Rs.12096} \end{aligned}$$

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)

$$\text{C.P. of one banana} = \frac{80}{16} = \text{Rs.5}$$

$$\text{S.P. of one banana} = \frac{32}{5} = \text{Rs.6.4}$$

$$\text{then, profit} = \frac{(6.4-5)}{5} \times 100 = \mathbf{28\%}$$

58. (A)

A	B	
170	100	amount
then,		

$$\begin{aligned} \text{B's share} &= \frac{1620}{(100+170)} \times 100 \\ &= \mathbf{₹600} \end{aligned}$$

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.

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

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

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

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

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

61. (B)

ATQ,

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

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

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

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

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

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

62. (A)

ATQ,

$$\begin{aligned} a^3 - b^3 &= (a - b)((a - b)^2 + 3ab) \\ &= 10(100 + 3(-24)) \\ &= \mathbf{280} \end{aligned}$$

63. (C)

ATQ,

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

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

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

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

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

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

64. (C)

ATQ,

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

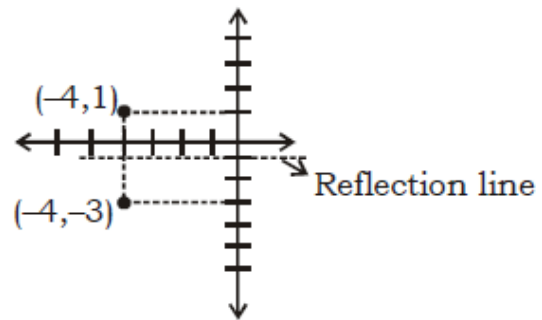
$$\Rightarrow 45d = 225$$

$$\Rightarrow d = 5$$

$$\text{then, } a = -75$$

$$\text{Hence, } T_{100} = a + 99d = -75 + 99 \times 5 = \mathbf{420}$$

65. (B)



Hence, Required points = **(-4, 1)**

66. (B)

ATQ,

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

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

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

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

$$\Rightarrow k = \mathbf{37, -33}$$

67. (A)

ATQ,

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

$$\Rightarrow 2A = 120 - 4A$$

$$\Rightarrow A = 20^\circ$$

$$\text{Hence, } 3A - 16^\circ = 3 \times 20 - 16^\circ = \mathbf{44^\circ}$$

68. (D)

ATQ,

$$\tan 9^\circ \times \tan 30^\circ \times \tan 45^\circ \times \tan 81^\circ$$

$$= \tan 9^\circ \times \frac{1}{\sqrt{3}} \times 1 \times \cot 9^\circ = \frac{1}{\sqrt{3}}$$

69. (C)

ATQ,

$$XY^2 = XA \times XB$$

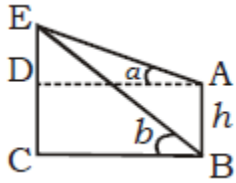
$$\Rightarrow 6^2 = 3 \times (3 + x)$$

$$\Rightarrow 12 = 3 + x$$

$$\Rightarrow x = \mathbf{9\text{cm}}$$

70. (C)

ATQ,



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

$$\Rightarrow CB = EC \cot b \text{ -----(i)} \quad \text{and}$$

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

$$\Rightarrow CB = ED \cot \alpha \text{ -----(ii)}$$

by equations (i) and (ii),

$$EC \cot b = ED \cot \alpha$$

$$(h + ED) \cot b = ED \cot \alpha$$

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

Hence, height of building = $h + ED$

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

71. (B)

ATQ,

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

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

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

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

72. (A)

D

73. (B)

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

74. (D)

$$\begin{aligned} \text{Total revenue in 2015} &= 3 + 5 + 1 + 0.5 \\ &= 9.5 \text{ crore} \end{aligned}$$

$$\begin{aligned} \text{Total revenue in 2016} &= 3.3 + 5.25 + 1.2 + 1 \\ &= 10.75 \text{ crore} \end{aligned}$$

$$\begin{aligned} \text{Hence, Required difference} &= 10.75 - 9.5 \\ &= \mathbf{1.25 \text{ crore}} \end{aligned}$$

75. (B)

$$\begin{aligned} \text{Total revenue in 2015 and 2016} &= 9.50 \\ &+ 10.75 = 20.25 \text{ crore} \end{aligned}$$

$$\begin{aligned} \text{Total cost in 2015 and 2016} &= 10 + 10 \\ &= 20 \text{ crore} \end{aligned}$$

$$\begin{aligned} \text{Hence, Cumulative profit} &= 20.25 - 20 \\ &= 0.25 \text{ crore} \\ &= \mathbf{25 \text{ lakh}} \end{aligned}$$

SSC PRE MOCK TEST – 13 (ANSWER)

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