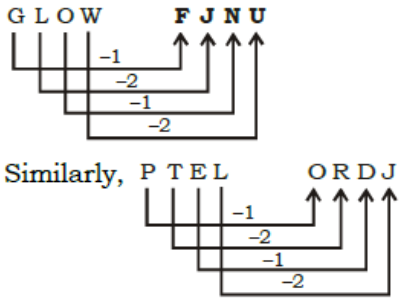
SSC PRE MOCK TEST – 11 (SOLUTION)

1. (B)
Ship travels on Water. Similarly, **Car** travels on Road.

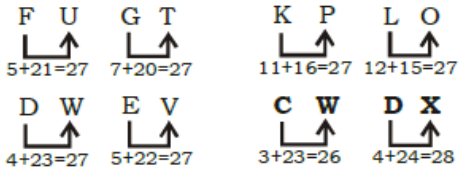
2. (B)



3. (B)
$5^3 - 1 = 624$
Similarly, $6^3 - 1 =$ **1295**

4. (B)
Except **Careless : Casual**, in all others terms, 1st term is opposite of the second term .

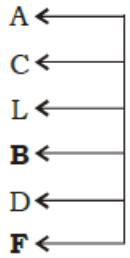
5. (D)



6. (D)
$11^3 - 1 = 1330$
$17^3 - 1 = 4912$
$21^3 - 1 = 9260$
$\mathbf{12^3 + 1 = 1729}$

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

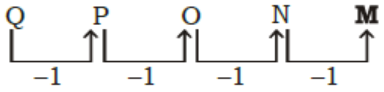
8. (B)



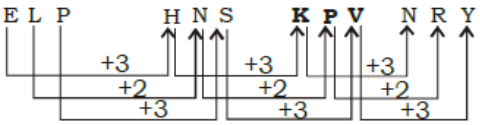
9. (C)
ATQ,
$y + 9 = x$
$\Rightarrow x + 3 + y - 4 = 76$
$\Rightarrow y + 9 + 3 + y - 4 = 76$
$\Rightarrow y = 34$
Hence, C's age = $\frac{34}{2} + 10 =$ **27years**

10. (C)
BANE

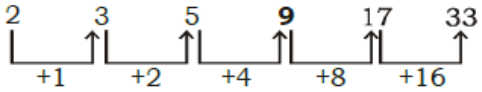
11. (B)



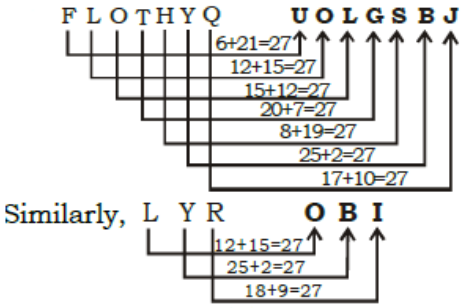
12. (A)



13. (C)



14. (C)



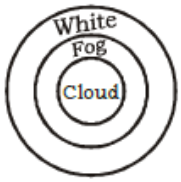
15. (A)
$234 \times 9 - 12 + 4$
Changing the sign, as per given details,
$234 \div 9 + 12 \times 4 = 26 + 48 =$ **74**

16. (A)
2 + 3 + 3 + 5 = 13
3 + 5 = 8
4 + 1 + 3 = **8**

17. (C)
$28 \times 27 = 756$
$17 \times 23 = 391$
$16 \times 21 =$ **336**

18. (D)

19. (A)

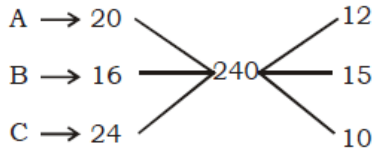


I True
II True

20. (C)
21. (C)
22. (C)
23. (A)
24. (C)
25. (C)

51. (D)
ATQ,
600 = 2 × 2 × 2 × 3 × 5 × 5
To make a perfect square, 600 is multiplied by 2 and 3 i.e. 6
Hence, Required number = **6**

52. (C)
ATQ,



Work done by A = 4 ×12 = 48
Then, workdone by B and C = 240 – 48 + 3 × 15 = 237

Hence, Required days = $\frac{237}{10+15} = \mathbf{9\frac{12}{25}}$ **Days**

53. (C)
ATQ,
Effective increment in area

$= 2 \times 3\pi r^2 - 4\pi r^2$

$= 2 \times \frac{22}{7} \times \frac{21}{4} \times \frac{21}{4} = \mathbf{173.25\ cm^2}$

54. (B)
ATQ,

Marked price of article = $\frac{1828.75}{(100-23)} \times 100$

= Rs.**2375**

55. (C)
ATQ,

$\frac{7}{6}P = \frac{3}{5}Q = \frac{8}{5}R$

$\Rightarrow \frac{P}{Q} = \frac{3}{5} \times \frac{6}{7} = \frac{18}{35}$ and

$\Rightarrow \frac{Q}{R} = \frac{8}{5} \times \frac{5}{3} = \frac{8}{3}$

Then, P : Q : R
18 : 35
8 : 3

$\Rightarrow$ **144 : 280 : 105**

56. (B)
ATQ,

Required average = $\frac{83(83+1)}{2\times83} = \mathbf{42}$

57. (A)
ATQ,

C.P of 1st article = $\frac{600}{(100-20)} \times 100$ = Rs.750

C.P of 2nd article = $\frac{600}{(100+20)} \times 100$= Rs.500

then, Loss = 2 × 600 – 750 – 500 = – 50
Hence Required Loss = Rs.**50**

58. (B)
ATQ,
Let number = x
then, $\frac{30\times x}{100} - \frac{24\times x}{100} = 45$

$\Rightarrow 6x = 4500 \quad \Rightarrow x = \mathbf{750}$

59. (C)
Time taken to cover the distance between 1st to 13th tree = 16 sec.
Then, time taken to cover another 13th tree to 52th tree = 16 × 3 = **48 sec**

60. (A)
ATQ,

$\frac{P \times r \times \frac{20}{3}}{100} = P$

$\Rightarrow r = 15\%$

Hence, Required rate = **15%**

61.

(B) ATQ,

$$\frac{\sin^2 A}{\cos^2 A} - \sin^2 A = \frac{\sin^2 A(\sec^2 A - 1)}{\sec^2 A}$$

$$= \frac{\sin^2 A \tan^2 A}{\sec^2 A} = \mathbf{\sin^4 A}$$

62.

(B) ATQ,

$$\text{Required Quantity} = \frac{112}{8} \times (31 + 28)$$

$$= \mathbf{826\ kgs}$$

63.

(A) ATQ,

Let the initial price = $8x$

then, $\frac{180}{9x} - \frac{180}{8x} = 5$

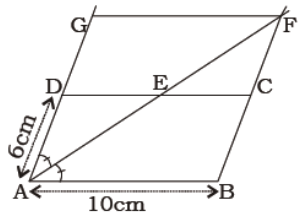
$$\frac{180 \times 1}{72x} = 5$$

$\Rightarrow x = 0.5$

Hence, Required price = 0.5 × 8 = **₹4**

64.

(A) ATQ,



Produce AD to G such that AG||BF and GF || CD

then, In ΔAGF and ΔABF

AF is common side and

$\angle GAF = \angle BAF$

then, $\Delta AGF \cong \Delta ABF$

now , AG = AB

$\Rightarrow$ AG = CD + DG = 10

$\Rightarrow$ DG = CF = 10 – 6 = 4 [$\because$ AG = BF]

Hence, CF = **4 cm**

65.

(B) ATQ,

$$\frac{p}{q} = \frac{a+4}{a-4}$$

Squaring on both sides

$$= \frac{p^2}{q^2} = \frac{(a+4)^2}{(a-4)^2}$$

Apply componendo and dividendo rule

$$\frac{p^2+q^2}{p^2-q^2} = \frac{(a+4)^2+(a-4)^2}{(a+4)^2-(a-4)^2} = \frac{2(a^2+4^2)}{4 \times a \times 4}$$

$$= \mathbf{\frac{a^2+16}{8a}}$$

66.

(C) ATQ,

$$\frac{h_1}{h_2} = \sqrt{\frac{\text{Area of 1st triangle}}{\text{Area 2nd triangle}}}$$

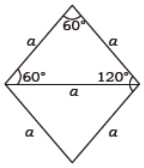
$$\Rightarrow \left(\frac{\sqrt[3]{7}}{\sqrt[3]{5}}\right)^2 = \frac{\text{Area of 1st triangle}}{\text{Area 2nd triangle}}$$

$$\Rightarrow \frac{(7)^{\frac{2}{3}}}{(5)^{\frac{2}{3}}} = \frac{\text{Area of 1st triangle}}{\text{Area 2nd triangle}}$$

67.

(B) ATQ,

Angles are 60°, 120°, 60° and 120° opposite angles are equal so it is a parallelogram but these angles fulfill the conditions of a rhombus.



Hence, it is a **rhombus**

68.

(C) ATQ,

	A	B
efficient	13	10
time	10	13
	20	26

Hence, Required days = **20 days**

69.

(C) ATQ,

$\sin(4x - y) = 1 = \sin 90°$

$\Rightarrow 4x - y = 90°$ ------(i) and

$\cos(2x + y) = \frac{1}{2} = \cos 60°$

$\Rightarrow 2x + y = 60°$ -------(ii)

from equation (i) and (ii),

$x = 25°$ $y = 10°$

then, $\tan(25° + 2 \times 10°) = \tan 45° =$ **1**

70.

(C) ATQ,

Let the larger diagonal = $100x$

then, square of larger diagonal : area of rhombus

$(100x)^2 : \frac{100x \times 35x}{2}$

$40 : 7$

Hence, Ratio of those = **40 : 7**

71.

$$\text{Required value} = \frac{90 \times 100}{(100 - 25)} = \mathbf{120}$$

72.

(B) ATQ,

Total present age = $30 \times 3 + 6 \times 3$

= 108 years

then, Required age = $108 - (46 \times 2 + 3 \times 2)$

= **10 years**

73.

(B) ATQ,

$$\text{Required percent} = \frac{(750 - 500)}{500} \times 100 = \mathbf{50}$$

74.

(D) ATQ,

$$\text{Required percent} = \frac{(600 - 500)}{600} \times 100$$

$$= \mathbf{16.66}$$

75.

(A) ATQ,

$$\text{Required Number} = \frac{(410 + 490 + 300)}{3}$$

= 400

SSC PRE MOCK TEST – 11 (ANSWER)

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