

# SSC PRE MOCK TEST – 7(SOLUTION)

1. (B)

As, the headquarters of World Bank is in Washington. Similarly, the headquarters of International Monetary Fund is in **Washington**.

2. (D)

As,

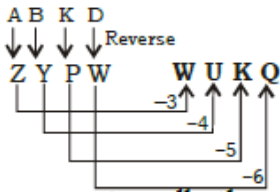
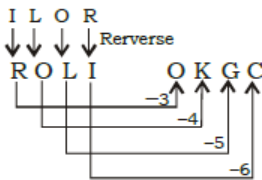
$$\begin{array}{cc} 26 & 65 \\ \downarrow & \downarrow \\ 5^2+1 & (5+3)^2+1 \end{array}$$

Similarly,

$$\begin{array}{cc} 170 & 257 \\ \downarrow & \downarrow \\ 13^2+1 & (13+3)^2+1 \end{array}$$

3. (D)

As,



4. (C)

**Thailand** is a country, all others are Capital.

5. (C)

$$9^2 - 2 = 79$$

$$13^2 - 2 = 167$$

$$17^2 - 1 = 288$$

$$15^2 - 2 = 223$$

6. (A)

Except CPA, all others have vowel in middle.

7. (C)

Admin → Adminiculum → **Administer** → Administracion → Admissible.

8. (D)

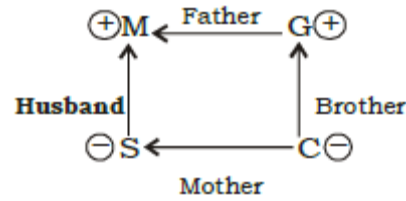
acbd cadb acbd ca db

9. (B)

ATQ,

$$\text{Required average age} = \frac{44-8}{2} = 18 \text{ years}$$

10. (B)



11. (D)

$$\begin{array}{cccc} 1000 & 600 & 700 & 1500 \\ \uparrow & \uparrow & \uparrow & \uparrow \\ \times \frac{1}{2} + 100 & \times 1 + 100 & \times 2 + 100 & \end{array}$$

12. (C)

$$\begin{array}{cccc} 1.125 & 4.25 & 10.5 & 23 \\ \uparrow & \uparrow & \uparrow & \uparrow \\ \times 2 + 2 & \times 2 + 2 & \times 2 + 2 & \end{array}$$

13. (D)

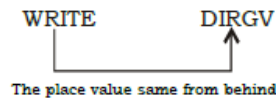
$$\begin{array}{cccc} 9 & 16 & 28 & 50 \\ \uparrow & \uparrow & \uparrow & \uparrow \\ \times 2 - 2 & \times 2 - 4 & \times 2 - 6 & \end{array}$$

14. (B)

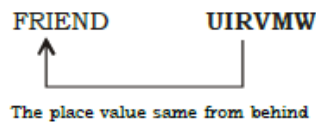
A > C > B > D > E

15. (A)

As,



Similarly,



16. (C)

$$4^2 \times 16 = 256$$

$$5^2 \times 30 = 750$$

$$7^2 \times 7 = \mathbf{343}$$

17. (B)

$$(4 \times 5)^2 = 400$$

$$(3 \times 6)^2 = 324$$

$$(13 \times 2)^2 = 676$$

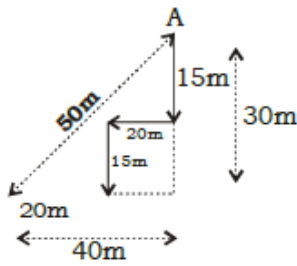
18. (D)

$$\text{HCF of } 35 \text{ and } 15 = 5$$

$$\text{HCF of } 49 \text{ and } 35 = 7$$

$$\text{HCF of } 53 \text{ and } 43 = \mathbf{1}$$

19. (A)



20. (D)

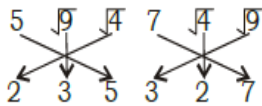


I. True

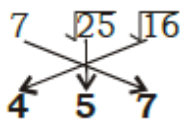
II. False

21. (A)

As,



Similarly,



22. (B)

23. (C)

24. (D)

25. (B)

51. (B)

ATQ,

$$\begin{array}{r} 9 \overline{) 9886 \overline{) 99}} \\ \underline{189 \ 81} \\ \times 9 \ 1786 \\ \underline{1701} \\ 85 \end{array}$$

Hence, Required number = **85**

52. (B)

ATQ,

$$\begin{aligned} \text{Required Quantity} &= \frac{112}{8} \times (31 + 28) \\ &= \mathbf{826 \text{ kgs}} \end{aligned}$$

53. (C)

ATQ,

This is a triplet of right angle triangle  
i.e.  $60^2 + 11^2 = 61^2$

$$\begin{aligned} \text{Hence, Required Area} &= 2 \times \frac{1}{2} \times 60 \times 11 \\ &= \mathbf{660 \text{ cm}^2} \end{aligned}$$

54. (D)

ATQ,

$$\begin{array}{l} A + B \rightarrow 30 \\ C + B \rightarrow 20 \\ A + C \rightarrow 20 \end{array} \rightarrow 60 \begin{array}{l} \rightarrow 2 \\ \rightarrow 3 \\ \rightarrow 5 \end{array}$$

$$\text{Hence, Required days} = \frac{60 \times 2}{8} = \mathbf{15 \text{ days}}$$

55. (A)

ATQ,

$$\frac{P \times r \times 10}{100} = 3P$$

$$\Rightarrow r = \mathbf{30\%}$$

56. (B)

ATQ,

C.P	S.P	M.P
100	115	$\frac{575}{4}$

$$\begin{aligned} \text{Hence, Required ratio} &= \frac{575}{4} : 100 \\ &= \mathbf{23 : 16} \end{aligned}$$

57. (A)

ATQ,

Let the initial price =  $8x$

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

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

$$\Rightarrow x = 0.5$$

Hence, Required price =  $0.5 \times 8 = \text{Rs. } \mathbf{4}$

58. (C)

ATQ,

$$\frac{x \times 27 + 17 \times 12}{x + 12} = 27 - 4 = 23$$

$$\Rightarrow 27x = 12 \times 06 + 23x$$

$$\Rightarrow x = 18$$

Hence, Required Student = **18**

59. (C)

ATQ,

$$x^2 + y^2 = xy$$

$$\Rightarrow x^2 + y^2 - xy = 0$$

$$\text{then, } x^3 + y^3 = (x + y)(x^2 + y^2 - xy) = \mathbf{0}$$

60. (B)

ATQ

$$\frac{x}{a+b} - \frac{x}{a-b} = \frac{a-b}{a+b} - 1$$

$$\Rightarrow x \left( \frac{a-b-a-b}{a^2-b^2} \right) = \frac{(a-b-a-b)}{a+b}$$

$$\Rightarrow x = \mathbf{a - b}$$

61. (B)

ATQ,

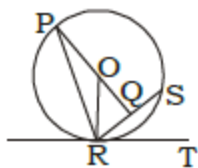
$$a + b + c = -11$$

$$\Rightarrow (a + 4) + (b + 5) + (c + 2) = 0$$

then,  $(a + 4)^3 + (b + 5)^3 + (c + 2)^3 - 3(a + 4)(b + 5)(c + 2) = 0$

62. (B)

ATQ,



$$QR = \frac{RS}{2} = 5\sqrt{2}$$

$$\angle ORQ = 90^\circ - 30^\circ = 60^\circ$$

$$\text{Then, } \cos 60^\circ = \frac{RQ}{OR} = \frac{5\sqrt{2}}{OR}$$

$$\Rightarrow OR = 10\sqrt{2} \quad \text{and} \quad \tan 60^\circ = \frac{OQ}{RQ}$$

$$\Rightarrow 5\sqrt{2} \times \sqrt{3} = OQ$$

$$\Rightarrow OQ = 5\sqrt{6}$$

$$\text{Then, } PQ = PO + OQ = 10\sqrt{2} + 5\sqrt{6}$$

$\Delta PQR$  is a right angle triangle, because

$$\angle PQR = 90^\circ$$

$$\Rightarrow PR^2 = PQ^2 + RQ^2$$

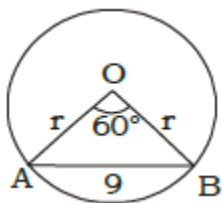
$$= (10\sqrt{2} + 5\sqrt{6})^2 + (5\sqrt{2})^2$$

$$= 200 + 150 + 200\sqrt{3} + 50$$

$$= 400 + 200\sqrt{3} = 200(2 + \sqrt{3})$$

63. (C)

ATQ,



OAB is an isosceles triangle

then,  $\angle OAB = \angle OBA$

now, in  $\Delta AOB$

$$\angle OAB + \angle OBA + 60^\circ = 180^\circ$$

$$\Rightarrow 2 \angle OAB = 120^\circ$$

$$\angle OAB = 60^\circ$$

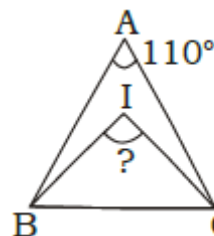
Thus, angles of  $\Delta$  are  $60^\circ$ ,  $60^\circ$  and  $60^\circ$ .

Hence, it is an equilateral triangle with sides 9cm

Hence, Radius = **9cm**

64. (B)

ATQ,



$$\angle BIC = 90^\circ + \frac{\sqrt{A}}{2} = 145^\circ$$

65. (B)

ATQ,

$$\tan \theta + \frac{1}{\tan \theta} = 7$$

Taking cube on both sides

$$\tan^3 \theta + \frac{1}{\tan^3 \theta} = 7^3 - 3 \times 7$$

$$\Rightarrow \tan^3 \theta + \cot^3 \theta = 322$$

66. (B)

ATQ,

$$\tan(2B) = \frac{2 \tan B}{1 - \tan^2 B} = \frac{2 \times \frac{2}{5}}{1 - \frac{4}{25}} = \frac{20}{21}$$

$$\tan(A + 2B) = \frac{\frac{1}{3} + \frac{20}{21}}{1 - \frac{1}{3} \times \frac{20}{21}} = \frac{\frac{27}{63}}{\frac{43}{63}} = \frac{27}{43} = \frac{81}{43}$$

67. (C)

ATQ,

$$\text{Required distance} = 2 \times \frac{22}{7} \times 28 \times 10 = 1760 \text{ cm}$$

68. (B)

ATQ,

Total surface area

$$= 2 \times \frac{22}{7} \times \frac{14}{2} \times \frac{14}{2} + 2 \times \frac{22}{7} \times \frac{14}{2} \times 15$$

$$= 308 + 660 = 968 \text{ cm}^2$$

69. (B)

ATQ,

$$\text{Required average} = 30 + \frac{63 - 23}{50} = 30.8$$

70. (B)

ATQ,

A	:	B
76000 x 12	:	57000 (12 - x)
16	:	(12 - x)

$$\text{Then, } \frac{16}{12 - x} = \frac{2}{1} \Rightarrow x = 4$$

Hence, Required time = **4 months**

71.

(A) ATQ,

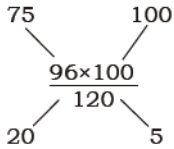
$$\frac{4x+8}{5x+8} = \frac{22}{27}$$

$$\Rightarrow x = 20$$

$$\text{The product of both number} = 4 \times 20 \times 5 \times 20 = 8000$$

72.

(A) ATQ,



Hence, Required ratio = 4 : 1

73.

(C) ATQ,

Total sale of Shirts

$$= (70 + 75 + 30 + 55 + 65) \times 100 = 204 \times 100$$

Total sale of Trousers

$$= (40 + 50 + 55 + 25 + 34) \times 100 = 204 \times 100$$

$$\text{Required percent} = \frac{(295 - 204) \times 100}{204 \times 100} \times 100$$

$$= 44.61$$

74.

(C) ATQ,

$$\text{Required Number} = 7000 - 5500 = 1500$$

75.

(A) ATQ,

$$\text{Required increment} = \frac{(50 - 40)}{40} \times 100$$

$$= 25\%$$

### SSC PRE MOCK TEST - 7(SOLUTION)

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