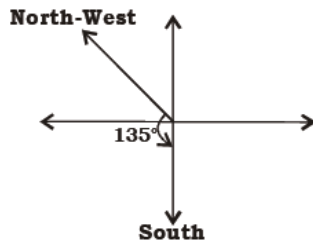
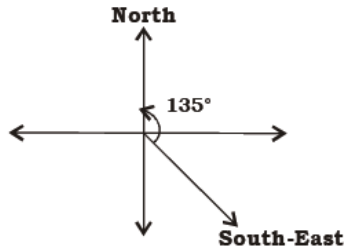


# SSC PRE MOCK TEST – 4 (SOLUTION)

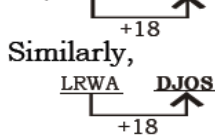
1. (B) As,



Similarly,



2. (B) As, AGLP SYDH



3. (B) Professor works in college. Similarly, **Doc**tor works in Hospital.

4. (B) As,  $841 = (25 + 4)^2$   
Similarly,  $1521 = (35 + 4)^2$

5. (D) Crane, Parrot and Cuckoos are birds while **Cow** is an animal.

6. (B)  $\begin{matrix} A & D & N & I \\ \uparrow & \uparrow & \uparrow & \uparrow \\ +3 & +10 & -5 & \end{matrix}$   $\begin{matrix} C & G & O & L \\ \uparrow & \uparrow & \uparrow & \uparrow \\ +4 & +10 & -5 & \end{matrix}$

$\begin{matrix} G & J & T & O \\ \uparrow & \uparrow & \uparrow & \uparrow \\ +3 & +10 & -5 & \end{matrix}$   $\begin{matrix} O & R & B & W \\ \uparrow & \uparrow & \uparrow & \uparrow \\ +3 & +10 & -5 & \end{matrix}$

7. (B) 72, 84 and 108 are multiple of 12 while **78** is multiple of 13.

8. (B) KP, IR and XC are opposite letters to each other in alphabet while **GS** are not opposite letter to each other

9. (\*) Banefic  $\rightarrow$  Benefic  $\rightarrow$  Benefica  $\rightarrow$  Beneficial.

10. (A)  $\frac{(15 \times 3) + 45 - 25}{(10 \div 2) \div 2 + 8 - 33}$

After changing the sign as per the given details,

$$\Rightarrow \frac{(15 \div 3) \times 45 + 25}{(10 - 2) - 2 \times 8 + 33} = 10$$

11. (D) As,  $106 = 9^2 + 5^2$ ,  $56 = 9^2 - 5^2$   
 $272 = 16^2 + 4^2$ ,  $240 = 16^2 - 4^2$

Similarly,  
 $841 = 20^2 + 21^2$ ,  $41 = 21^2 - 20^2$

12. (D)  $604 = 9^3 - 5^3$   $45 = 9 \times 5$   
 $504 = 8^3 - 2^3$   $16 = 8 \times 2$   
**6734**  $= 19^3 - 5^3$   $95 = 19 \times 5$

13. (A) As,  $13 - 6 = 7 \Rightarrow 7 \times 6 = 42$

$$17 - 8 = 9 \Rightarrow 9 \times 6 = 54$$

Similarly,

$$27 - 9 = 18 \Rightarrow 18 \times 6 = 108$$

14. (D)

15. (D) As, we can see 2 R's in the word **RIVER**, which is not present in the given word **ENVIRONMENT**.

16. (C)  $2 \times 1 + 3 = 5$

$$5 \times 2 + 6 = 16$$

$$16 \times 3 + 9 = 57$$

$$57 \times 4 + 12 = 240$$

17. (D)  $8 + \frac{8}{2} = 12$ ,  $12 + \frac{12}{2} = 18$ ,  $18 + \frac{18}{2} = 27$ ,

$$27 + \frac{27}{2} = 40.5$$

18. (A)  $\begin{matrix} 12 & 24 & 72 & 288 & 1440 \\ \uparrow & \uparrow & \uparrow & \uparrow \\ \times 2 & \times 3 & \times 4 & \times 5 \end{matrix}$

19. (B) 5, 2, 3, 1, 4

20. (D) PQRS/PSQR/PRSQ/PQSR

21. (B) After changing the signs, we have

$$\frac{52 - 8 \times 6 \div 2}{16 + 12 \div 6 \times 3 - 18} = \frac{52 - 8 \times 3}{16 + 6 - 18}$$

$$= \frac{52 - 24}{4} = \frac{28}{4} = 7$$

22. (B)

23. (A)

$$A = 1^2 + 1 = 2, B = 2^2 + 2 = 6, C = 3^2 + 3 = 12, D = 4^2 + 4 = 20, E = 5^2 + 5 = 30, F = 6^2 + 6 = 42 \text{ and } G = 7^2 + 7 = 56$$

$$\text{then, } F+B+G = 42+6+56 = 104$$

24. (C)

25. (B) 89, 33, 57, 43

F A R E

51. (A) ATQ,

Numbers that divisible by 3 = 51

Number that divisible by 7 = 22

Number that divisible by (3, 7) = 8

$$\text{Hence, total number} = 151 - (51 + 22 - 8) = 86$$

52. (C) ATQ,

$$\begin{matrix} A \rightarrow 30 & & 16 \\ & \searrow & / \\ & 480 & \\ & / & \searrow \\ A \rightarrow 32 & & 15 \end{matrix}$$

$$\text{Required percentage} = \frac{(16+15) \times 7}{480} \times 100 = 45.21\%$$

53. (B) ATQ,

$$\text{Total Area} = \frac{1}{2} \times (21 + 29) \times 35 = 875 \text{cm}^2$$

54. (C) ATQ,

$$\text{Required discount} = 56 + 14 - \frac{56 \times 14}{100}$$

$$= \mathbf{62.16\%}$$

55. (C) ATQ,  
Let the total capacity of vessel = LCM of (5, 11, 15) = 165  
then,

Milk	:	Water	
66 + 60 + 77	:	99 + 105 + 88	
<b>203</b>	:	<b>292</b>	

56. (A) ATQ,

$$\text{The age of servant} = \frac{30 \times 120}{100} \times 6 - 5 \times 30$$

$$= \mathbf{66 \text{ years}}$$

57. (C) ATQ,

$$\text{C.P.} = 100\%$$

$$\text{S.P.} = 270\%$$

Again,

$$\text{New C.P.} = 115$$

$$\text{then, Profit on S.P.} = \frac{(270 - 115)}{270} \times 100$$

$$= \mathbf{57.4\%}$$

58. (D) ATQ,

A	:	B	:	C
128	:	100	:	
85	:		:	100
$\Rightarrow$ 544	:	425	:	640

$$\text{then, C's marks} = \frac{340}{425} \times 640$$

$$= \mathbf{512}$$

59. (A) ATQ,

$$\text{Distance travelled by A till 11:00 am}$$

$$= 25 \times 2 = 50$$

$$\text{then, time taken to meet} = \frac{260 - 50}{25 + 10}$$

$$= \mathbf{6 \text{ hours}}$$

$$\text{Hence, Required time}$$

$$= 11 : 00 \text{ am} + 6 \text{ hours}$$

$$= \mathbf{5:00 \text{ pm}}$$

60. (B) ATQ,

$$2700 \times \left(1 + \frac{r}{100}\right)^2 = 3091.23$$

$$\Rightarrow \left(1 + \frac{r}{100}\right)^2 = \left(\frac{107}{100}\right)^2 \Rightarrow r = \mathbf{7\%}$$

61. (D) Required average =  $\left[\frac{510 \times 5 + 240 \times 25}{30}\right]$

$$= \frac{8550}{30} = \mathbf{285}$$

62. (C) Decrease %

$$= -20 - 10 + \frac{(-20)(-10)}{100} = -28\%$$

So, the required percentage decrease = **28%**

63. (A) Speed of the train relative to man

$$= \left[\frac{125}{10}\right] \text{m/sec} = \left[\frac{25}{2}\right] \text{m/sec}$$

$$= \left[\frac{25}{2} \times \frac{18}{5}\right] = 45 \text{ km/hr}$$

Let the speed of the train be  $x$  km/hr. then  
relative speed =  $(x - 5)$  km/hr

$$\therefore x - 5 = 45 \Rightarrow x = 50$$

$\therefore$  Speed of the train = **50 km/hr**

64. (C) Let man's rate upstream be  $x$  km/ph

Then, his rate downstream =  $2x$  km/ph

$\therefore$  (Speed in still water):

$$(\text{Speed of stream}) = \left[\frac{2x + x}{2}\right] : \left[\frac{2x - x}{2}\right]$$

$$= \frac{3x}{2} : \frac{x}{2} = \mathbf{3 : 1}$$

65. (D) Let the present ages of son and father be  $x$  and  $(60 - x)$  years respectively

Then,  $(60 - x) - 6 = 5(x - 6)$

$$\Rightarrow 54 - x = 5x - 30$$

$$\Rightarrow 6x = 84$$

$$\Rightarrow x = 14$$

$\therefore$  Son's age after 6 years =  $(x + 6) = \mathbf{20 \text{ years..}}$

66. (D) Let the numbers be  $x$  and  $y$ .

Then,  $x + y = 25$  and  $x - y = 13$

$$4xy = (x + y)^2 - (x - y)^2$$

$$= (25)^2 - (13)^2$$

$$= 625 - 169$$

$$= 456$$

$$\therefore xy = 114$$

$\therefore$  Required product = **114**

67. (B) Let P, Q and R represent their respective monthly income. Then, we have:

$$P + Q = (5050 \times 2) = 10100 \dots (i)$$

$$Q + R = (6250 \times 2) = 12500 \dots (ii)$$

$$P + R = (5200 \times 2) = 10400 \dots (iii)$$

Adding (i), (ii) and (iii),

$$\text{we get: } 2(P + Q + R) = 33000$$

$$\Rightarrow P + Q + R = 16500 \dots (iv)$$

Subtracting (ii) from (iv), we get  $P = 4000$

$\therefore$  P's monthly income = Rs = **4000**

68. (B) Let  $(17)^{3.5} \times (17)^{\sqrt{x}} = 17^8$

$$\text{Then, } (17)^{3.5 + \sqrt{x}} = 17^8$$

$$\therefore 3.5 + \sqrt{x} = 8$$

$$\Rightarrow \sqrt{x} = (8 - 3.5)$$

$$\Rightarrow \sqrt{x} = 4.5$$

$$\Rightarrow x = \mathbf{20.25}$$

69. (C) Then,  $y + 120\%$  of  $y = 550$

ATQ,

$$y + x = 550$$

$$\Rightarrow y + \frac{120}{100}y = 550$$

$$\Rightarrow \frac{11}{5}y = 550$$

$$\Rightarrow y = \left[ \frac{550 \times 5}{11} \right] = 250$$

$\therefore$  Y was paid ₹ **250 per week**

$$70. (B) \text{ C.P.} = \text{Rs} \left[ \frac{100}{122.5} \times 392 \right] = \text{Rs} \left[ \frac{1000}{1225} \times 392 \right]$$
$$= \text{Rs. } 320$$

$\therefore$  Required Profit = Rs  $(392 - 320) = \text{₹}72$

71. (C) Dividing the terms by  $\sin \theta$

$$\Rightarrow \frac{15 + 3 \cot \theta}{15 - 3 \cot \theta} = \frac{15 + 3 \times 4}{15 - 3 \times 4} = \frac{27}{3} = 9$$

72. (D)  $\angle A = 115^\circ - 45^\circ = 70^\circ$  and

$$\angle C = 180^\circ - 115^\circ = 65^\circ$$

$\therefore$  Required difference =  $70^\circ - 65^\circ = 5^\circ$

73. (D) Total exports of the three companies X, Y and Z together, during various years are:

In 1993 = Rs  $(30 + 80 + 60)$  crores = Rs 170 Cr

In 1994 = Rs  $(60 + 40 + 90)$  crores = Rs 190 Cr

In 1995 = Rs  $(40 + 60 + 120)$  crores = Rs 220 Cr

In 1996 = Rs  $(70 + 60 + 90)$  crores = Rs 220 Cr

In 1997 = Rs  $(100 + 80 + 60)$  crores = Rs 240 Cr

In 1998 = Rs  $(50 + 100 + 80)$  crores = Rs 230 Cr

In 1999 = Rs  $(120 + 140 + 100)$  crores = Rs 360 Cr

Clearly, the total exports of the three companies X, Y and Z together are same during the years **1995 and 1996**

74. (C) The difference between the exports from the companies X and Y during the various years are:

In 1993 = Rs  $(80 - 30)$  crores = Rs 50 Crores

In 1994 = Rs  $(60 - 40)$  crores = Rs 20 Crores

In 1995 = Rs  $(60 - 40)$  crores = Rs 20 Crores

In 1996 = Rs  $(70 - 60)$  crores = Rs 10 Crores

In 1997 = Rs  $(100 - 80)$  crores = Rs 20 Crores

In 1998 = Rs  $(100 - 50)$  crores = Rs 50 Crores

In 1999 = Rs  $(140 - 120)$  crores = Rs 20 Crores

Clearly, the difference is minimum in the **year 1996**

75. (A) Average annual exports of company Z during the given period

$$= \frac{1}{7} \times (60 + 90 + 120 + 90 + 60 + 80 + 100)$$

$$= \text{Rs.} \left[ \frac{600}{7} \right] \text{ crores}$$

$$= \text{Rs. } 85.71 \text{ crores}$$

So, In **4 years** which is 1994 (90 cr), 1995 (120 cr), 1996 (90 cr) and 1999 (100 cr), it is more than average.

### SSC PRE MOCK TEST - 4 (ANSWER)

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