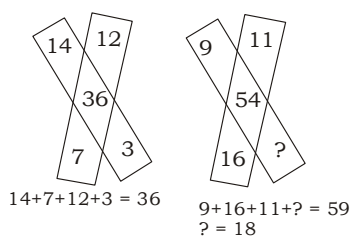


**SSC MOCK TEST - 15 (SOLUTION)**

- 1.(D) 
$$\begin{array}{ccccc} M & O & U & S & E \\ +3 & +3 & +0 & -2 & -2 \\ \hline P & R & U & Q & C \end{array}$$
- Similarly,
- $$\begin{array}{ccccc} S & H & I & F & T \\ +3 & +3 & +0 & -2 & -2 \\ \hline V & K & I & D & R \end{array}$$
- 2.(D) Number (1) indicates the doctors who are not married.
- 3.(C)
- 4.(B) P and K is nothing but R.
- 5.(D)
- 6.(C)
- 7.(D)
- 8.(B)  $6 + 0 + 2 + 3 = 11,$   
 $5 + 0 + 6 + 1 = 12,$   
 $7 + 2 + 0 + 2 = 11,$   
 $4 + 0 + 2 + 5 = 11$
- 9.(B)  $104 : 78 = 4 : 3, 64 : 48 = 4 : 3$   
 and  $80 : 60 = 4 : 3$   
 but,  $96 : 80 = 6 : 5 \neq 4 : 3$
- 10.(C) Morning, Evening and Night are three phases in a particular day.  
 Hence option(C) is different.
- 11.(C)
- 12.(B) 
$$\begin{array}{ccccccccc} C & B & E & F & G & F & H & J & I & H & K & L & E & D & G & H \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +1 & +1 & +1 & +2 & +1 & +1 & +1 & +1 & +1 & +1 & +1 & +1 & +1 & +1 & +1 & +1 \end{array}$$
- 13.(B) 
$$\begin{array}{ccccccccc} K & Q & N & N & D & W & F & U & H & S & K & P & E & V & H & S \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +3 & +3 & +2 & +2 & +3 & +3 & +3 & +3 & +3 & +3 & +3 & +3 & +3 & +3 & +3 & +3 \end{array}$$
- 14.(C) By applying the BODMAS Rule and Changing the Signs  
 We have,  
 $46 \times 6 \div 4 + 5 - 3 = 71$   
 $= 46 \times 1.5 + 5 - 3$   
 $= 69 + 5 - 3$   
 $= 74 - 3$   
 $= 71$
- 15.(B) After applying BOADMAS rule and Changing the signs we have,  
 $18 \times 6 \div 4 + 2 - 3 = 26$
- 16.(D) Going towards right, the difference is of 2.
- 17.(C)



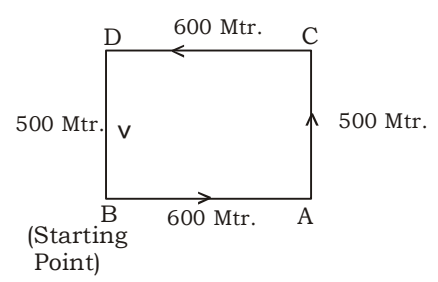
- 18.(D) 
$$\begin{array}{ccc} 7 & 5 & 3 \\ 8 & 4 & 9 \\ \hline 2 & 8 & ? \\ \hline 112 & 160 & 162 \end{array}$$
- ↓      ↓      ↓
- $7 \times 8 \times 2 \quad 5 \times 4 \times 8 \quad 3 \times 9 \times ?$
- $? = \frac{162}{9 \times 3} = 6$
- 19.(B) 
$$\begin{array}{ccc} ( ? ) & & \\ ( 137 ) & ( 8 ) & ( 2 ) \\ & & ( 17 ) \end{array}$$
- $2 \times 8 + 1 = 17$   
 $17 \times 8 + 1 = 137$   
 $137 \times 8 + 1 = 1097$
- 20.(A) 
$$\begin{array}{|c|c|} \hline 3 & 2 \\ \hline 4 & 24 \\ \hline \end{array} \quad \begin{array}{|c|c|} \hline 2 & -1 \\ \hline -2 & 4 \\ \hline \end{array}$$
- $3 \times 2 \times 4 = 24 \quad 2 \times (-1) \times (-2) = 4$
- $$\begin{array}{|c|c|} \hline 6 & 5 \\ \hline 0 & ? \\ \hline \end{array} \rightarrow 0$$
- $6 \times 5 \times 0 = 0$
- 21.(B) 
$$\begin{array}{cccccc} M & A & N & W & A & N \\ \downarrow +3 & \downarrow +3 & \downarrow +3 & \downarrow +3 & \downarrow +3 & \downarrow +3 \\ P & D & Q & Z & D & Q \end{array}$$
- 22.(A) 
$$\begin{array}{cccc} A & E & F & J \\ \downarrow +10 & \downarrow +10 & \downarrow +10 & \downarrow +10 \\ K & O & P & T \end{array}$$
- Similarly,
- $$\begin{array}{cccc} G & K & L & P \\ \downarrow +10 & \downarrow +10 & \downarrow +10 & \downarrow +10 \\ Q & U & V & Z \end{array}$$
- 23.(C) A group of cats is called a 'Clowder'.
- 24.(B)  $2 : 32 :: 3 : ?$   
 $(2)^5 = 32$   
 Similarly,  $(3)^5 = 243$
- 25.(D) 'Phycology' is the study of 'Algae'.
- 26.(D)  $D \times H : 4 \times 8 \quad M \times Q : ?$
- ↓      ↓
- 13    17
- Therefore,  $M \times Q = 13 \times 17$  as per alphabetical order.



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27.(C)



Pinky is back to point B. Hence distance between starting and ending point is zero.

28.(B)

29.(\*). Consider a\_\_d/ba\_\_ /bcad/ \_\_da/ \_\_cd as question.

Now, (C) is the right answer.  
ab c d / ba c d / b c ad / b c d a / a b cd  
 ccba / bbca / aabc / ccbab

30.(C)

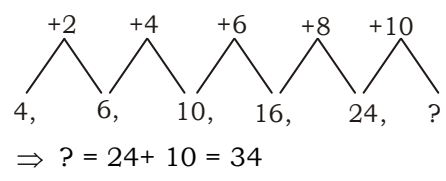
31.(B)

32.(D) Mosquito, Cat, Tiger, Elephant, Whale

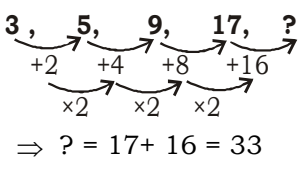
(3)        (2)    (4)        (1)        (5)

33.(A) After prefixing the letter 'S' in the given words, entirely new words (still, stable, spile, stab, spring) can be obtained.

34.(B)



35.(C)



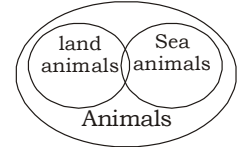
36.(D)

Only I follows.  
 Conclusion I: It is mentioned in the statement.  
 Conclusion II: It is talking about no influence which is not mentioned in statement.

37.(A)

Neither I nor II follows.  
 Conclusion I: It is about 'trained' dog aggressiveness which is not mentioned in the statement.  
 Conclusion II: In this the word 'always' is mentioned but nothing such is mentioned in the statement.  
 Here animals are divided into two categories i.e. 'aggressive and non aggressive'.

38.(B)



39.(A)

Given:  
 $S_1 = 40$ ,         $S_2 = 30$ ,  
 $L_1 = 15$  min,  $L_2 = 24$  min,  
 Using formula we have,

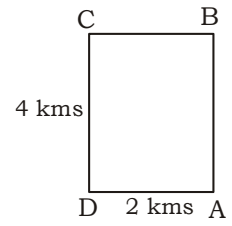
$$\left( \frac{S_1 S_2}{S_1 - S_2} \right) (t_2 - t_1)$$

$$\left( \frac{40 \times 30}{10} \right) \left( \frac{20 - 15}{60} \right) = 18 \text{ kms}$$

40.(B)

UNSCRAMBLE

41.(C)



We have to find out the distance between A to B, which is same as the the distance between C and D which is 4kms.

42.(C)

The position of each person which satisfies the above statements is-  
G D E F B C A  
 Hence, it's clear that 'G' is on extreme left.

43.(C)

(1), (3) and (4) is the right option.

44.(A)

00, 55, 22, 11, 96  
 (P E A R L)

45.(C)

46.(D)

**Coded Word:**  
 Z B Y X M N Q B  
 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

Keys: s t r a i g h t

47.(C)

Words: Lily Daisy Datura Jasmine  
 Number 4 5 6 7  
 of letters

48.(D)

Manoj's new position = 35th from right and 20th from the left.  
 Then, total number of men in row  
 = 35 + 20 - 1 = 54

49.(A)

MERCY cannot be formed from CUMBERSOME

50.(C)

253 → books are old (i)  
 546 → man is old (ii)  
 378 → buy good books (iii)  
 compare (i) and (ii) ⇒ '5' means old.  
 compare (i) and (iii) ⇒ '3' means books.  
 ⇒ 'are' in the code stands for '2'.

51.(C)

$$\frac{m-a^2}{b^2+c^2} + \frac{m-b^2}{c^2+a^2} + \frac{m-c^2}{a^2+b^2} = 3$$

$$\frac{m-a^2}{b^2+c^2} - 1 + \frac{m-b^2}{c^2+a^2} - 1 + \frac{m-c^2}{a^2+b^2} - 1 = 0$$

$$\frac{m-a^2-b^2-c^2}{b^2+c^2} + \frac{m-b^2-c^2-a^2}{c^2+a^2} +$$

$$\frac{m - c^2 - a^2 - b^2}{a^2 + b^2} = 0$$

$$m - a^2 - b^2 - c^2 \left( \frac{1}{b^2 + c^2} + \frac{1}{c^2 + a^2} + \frac{1}{a^2 + b^2} \right) = 0$$

$$m - a^2 - b^2 - c^2 = 0$$

$$m = a^2 + b^2 + c^2$$

52. (A) Let the second discount be  $x\%$

$$550.80 = 720 \times \frac{100 - 10}{100} \times \frac{100 - x}{100}$$

$$550.80 = 720 \times \frac{90}{100} \times \frac{100 - x}{100}$$

$$100 - x = \frac{550.80 \times 100}{72 \times 9}$$

$$100 - x = 85$$

$$x = 15\%$$

53. (C) Let the sides of the triangle be  $3x$ ,  $4x$  &  $5x$   
So, it is a right angle triangle.

$$\frac{1}{2} \times 3x + 4x = 7776$$

$$x^2 = \frac{7776}{6} = 1296$$

$$x = 36$$

Perimeter of triangle

$$= 3x + 4x + 5x$$

$$= 12x$$

$$= 12 \times 36$$

$$= 432 \text{ cm}$$

54. (B)  $\sin \theta + \sin^2 \theta = 1$

$$\sin \theta = 1 - \sin^2 \theta$$

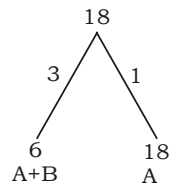
$$= \cos^2 \theta \quad \text{---(i)}$$

$$\cos^2 \theta + \cos^4 \theta$$

$$\Rightarrow \sin \theta + (\sin)^2$$

$$\Rightarrow \sin \theta + \sin^2 \theta = 1 \text{ (given)}$$

55. (B)



$$B = \frac{18}{3-1} = \frac{18}{2} = 9 \text{ days}$$

56. (C)  $5\% \Rightarrow \frac{5}{100} = \frac{1}{20}$

$$20 \rightarrow 21$$

$$20 \rightarrow 21$$

$$\underline{20} \rightarrow \underline{21}$$

$$\xrightarrow{\times 1} 800 \quad 9261 \quad \xrightarrow{\times 1} 9261$$

57. (B) Less amount =  $11486 - 9695$

$$= 1791 \text{ crores}$$

Required percentage

$$= \frac{1791}{29952} \times 100$$

$$= 5.98\% \text{ or } 6\%$$

58. (A) Required amount

$$= 4910 \times \frac{110}{100}$$

$$= ₹ 5401 \text{ crores}$$

59. (C) Required angle

$$= \frac{29952}{57600} \times 360 = 187.2$$

$$60. \text{ (C) T.V} = \frac{6000 + 9000 + 13000 + 1100}{4}$$

$$= \frac{39000}{4} = 9750$$

$$\text{LCD} = \frac{7000 + 9400 + 9000 + 10000}{4}$$

$$= \frac{35400}{4}$$

$$= 8850$$

Required difference

$$= 9750 - 8850$$

$$= 900$$

61. (C) Total production of T.V in year 2009 = 6000

Total production of T.V in year 2010 = 9000

Required ratio

$$= 6000 : 9000$$

$$= 2 : 3$$

62. (D) In 2011 total number of production of electronic items =  $13000 + 9000$

$$= 22000$$

63. (D) Total production of LCDs in year 2011 = 9000

$$= 9000$$

Total production of LCDs in year 2013 = 12000

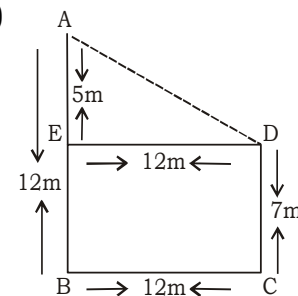
$$= 12000$$

Required ratio

$$= 9000 : 12000$$

$$= 3 : 4$$

64. (C)



Required distance = AD

$$= \sqrt{AE^2 + ED^2} \text{ cm}$$

$$= \sqrt{5^2 + 12^2} \text{ cm}$$

$$= \sqrt{25 + 144} \text{ cm}$$

$$= \sqrt{169} \text{ cm}$$

$$= \sqrt{13} \text{ cm}$$

65. (C) Required discount

$$= (100 - 100 \times \frac{90}{100} \times \frac{80}{100})\%$$

$$= 100 - 72$$

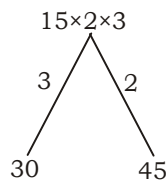
$$= 28\%$$

66. (D) Let the required year be  $y$  and principal be  $P$ .

$$P = \frac{P \times 25 \times y}{4 \times 100}$$

$$y = 16 \text{ years}$$

67. (C)



$$\text{Required time} = \frac{15 \times 2 \times 3}{3 + 2} \text{ mins.}$$

$$= \frac{15 \times 6}{5} = 18 \text{ mins.}$$

68. (A) Maximum value of  $\sin^4 \theta + \cos^4 \theta = 1$

69. (A) Let the time be 't' hours in which farmer travelled on foot.

$$4t + (9 - t) \times 9 = 61$$

$$4t + 81 - 9t = 61$$

$$5t = 20$$

$$t = 4 \text{ hours}$$

$$\text{So, required distance} = 4 \times 4 = 16 \text{ km.}$$

70. (B) Let the percent age of A and B be  $5x$  and  $7x$  respectively.

$$\text{ATQ, } \frac{5x - 18}{7x - 18} = \frac{8}{13}$$

$$65x - 234 = 56x - 144$$

$$9x = 90$$

$$x = 10$$

$$\text{So, percent age of A} = 5x$$

$$= 5 \times 10 \text{ yrs}$$

$$= 50 \text{ yrs.}$$

$$71. (B) 2 + x\sqrt{3} = \frac{1}{2 + \sqrt{3}} \times \left( \frac{2 - \sqrt{3}}{2 - \sqrt{3}} \right)$$

$$\Rightarrow 2 + x\sqrt{3} = \frac{(2 - \sqrt{3})}{2^2 - (\sqrt{3})^2}$$

$$\Rightarrow 2 + x\sqrt{3} = \frac{2 - \sqrt{3}}{4 - 3}$$

$$= \frac{2 - \sqrt{3}}{1}$$

$$\Rightarrow 2 + x\sqrt{3} = 2 - \sqrt{3}$$

$$\text{So, } x = -1$$

72. (A)  $m^3 - 3m^2 + 3m + 3n + 3n^2 + n^3$

$$\Rightarrow m^3 + 3(n^2 - m^2 + m + n) + n^3$$

$$\Rightarrow (-4)^3 + 3[(-2)^2 - (-4)^2 + (-4) + (-2)] + (-2)^3$$

$$\Rightarrow (-64) + 3[(+4) - (+16) - 4 - 2] + (-8)$$

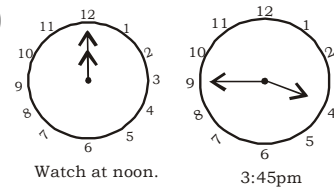
$$\Rightarrow (-64) + 3[4 - 16 - 6] + (-8)$$

$$\Rightarrow (-64) + 3[-18] + (-8)$$

$$\Rightarrow -64 - 54 - 8$$

$$\Rightarrow -126$$

73. (D)



So, required angle

$$= 90^\circ + \frac{45}{60} \times 30^\circ$$

$$= 90^\circ + 22\frac{1}{2} = 112\frac{1}{2}$$

74. (B)  $x^3 + y^3 + z^3 - 3xyz = \frac{1}{2} (x+y+z) [(x-y)^2 + (y-z)^2 + (z-x)^2]$

$$= \frac{1}{2} (332 + 333 + 335) [(332 - 333)^2 + (333 - 335)^2 + (335 - 332)^2]$$

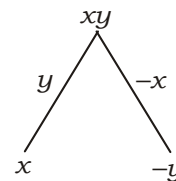
$$= \frac{1}{2} \times 1000 [(-1)^2 + (-2)^2 + (3)^2]$$

$$= \frac{1}{2} \times 1000 [1 + 4 + 9]$$

$$= 500 \times 14$$

$$= 7000$$

75. (D)



$$\text{Required time} = \frac{xy}{y - x}$$

76. (D) From option

Let first number be 6, second be 10, third be 14 and fourth be 18.

ATQ,

$$6 + 5 = 10 + 1 = 14 - 3 = 18 - 7 = 11$$

So, all are equal

77. (B) Quantity of milk

$$\Rightarrow 729 \times \frac{7}{9} \text{ ml} = 567 \text{ ml}$$

& Water = 162 ml

Let  $x$  ml water should be added.

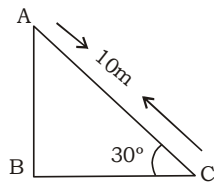
ATQ,

$$\frac{567}{162 + x} = \frac{7}{3}$$

$$162 + x = 243$$

$$x = 81 \text{ ml}$$

78. (A)



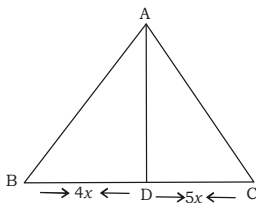
Required distance (BC)

$$\Rightarrow \cos 30^\circ = \frac{BC}{AC}$$

$$\frac{\sqrt{3}}{2} = \frac{BC}{10}$$

$$BC = 8.66m$$

79. (B)

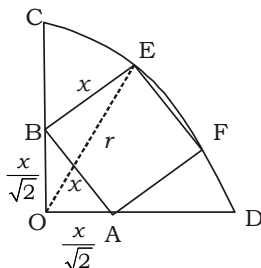


Area of  $\triangle ADC$

$$= \left( \frac{5}{4} \times 60 \right) \text{sq. cm}$$

$$= 75 \text{ sq. cm}$$

80. (D)



Radius = OE

$$\Rightarrow OB = OA = \frac{x}{\sqrt{2}}$$

$$\angle EBO = 90^\circ + 45^\circ$$

$$\Rightarrow \cos \angle EBO = \cos (90+45^\circ)$$

$$\Rightarrow \cos (90+45^\circ) = \frac{BE^2 + OB^2 - OE^2}{2 \times BE \times OB}$$

$$\Rightarrow -\sin 45^\circ$$

$$= \frac{x^2 + \left( \frac{x}{\sqrt{2}} \right)^2 - OE^2}{2 \times x \times \frac{x}{\sqrt{2}}}$$

$$\Rightarrow -\frac{1}{\sqrt{2}} = \frac{x^2 + \frac{x^2}{2} - OE^2}{\sqrt{2} \times x^2}$$

$$\Rightarrow OE^2 = \frac{5x}{2}$$

$$\Rightarrow OE = \sqrt{\frac{5}{2}} x$$

81. (B) Total C.P

$$= 30 \times 70 + 20 \times 70.75$$

$$= 2100 + 1415$$

$$= ₹ 3515$$

$$\text{Total S.P} = 50 \times 80.50$$

$$= ₹ 4025$$

$$\text{So, profit} = 4025 - 3515$$

$$= ₹ 510$$

82. (C)  $\tan 4^\circ \cdot \tan 43^\circ \cdot \tan 47^\circ \cdot \tan 86^\circ$

$$\Rightarrow \tan(90-86) \cdot \tan(90-47) \cdot \tan 47^\circ \cdot \tan 86^\circ$$

$$\Rightarrow \cot 86^\circ \cdot \cot 47^\circ \cdot \tan 47^\circ \cdot \tan 86^\circ$$

$$\Rightarrow 1$$

83. (A)  $x \cos \theta - \sin \theta = 1$

$$\text{Let } \theta = 0^\circ$$

$$\Rightarrow x \cos 0^\circ - \sin 0^\circ$$

$$\Rightarrow x \times 1 - 0 = 1$$

$$\Rightarrow x = 1 \text{ (i)}$$

$$\Rightarrow x^2 + (1 + x^2) \sin \theta^\circ$$

$$\Rightarrow x^2 + (1 + x^2) \sin 0^\circ$$

$$\Rightarrow x^2 + (1 + x^2) \times 0$$

$$\Rightarrow x^2 + 0$$

$$\Rightarrow x^2 \text{ or } (1)^2$$

$$\Rightarrow 1$$

84. (A) Area =  $\pi r^2$  (i)

$$C = 2 \pi r \text{ (ii)}$$

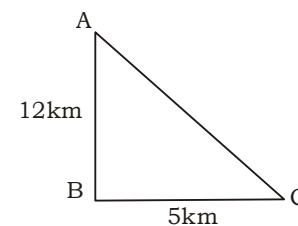
$$(i) \div (ii)$$

$$\frac{A}{C} = \frac{\pi r^2}{2r^2}$$

$$\frac{A}{C} = \frac{r}{2}$$

$$2A = Cr$$

85. (D)

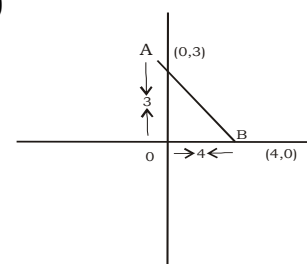


$$AC = \sqrt{12^2 + 5^2}$$

$$= \sqrt{144 + 25}$$

$$= \sqrt{169} = 13 \text{ km}$$

86. (B)



$$AB = \sqrt{3^2 + 4^2} = \sqrt{9 + 16} = \sqrt{25} = 5 \text{ units}$$

87. (C)  $\frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{3-\sqrt{8}}$

$$\Rightarrow \frac{1}{\sqrt{7}-\sqrt{6}} \times \frac{\sqrt{7}+\sqrt{6}}{\sqrt{7}+\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} \times \frac{\sqrt{6}+\sqrt{5}}{\sqrt{6}+\sqrt{5}} +$$

$$\frac{1}{\sqrt{5}-2} \times \frac{\sqrt{5}+2}{\sqrt{5}+2} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{\sqrt{8}+\sqrt{7}}{\sqrt{8}+\sqrt{7}} + \frac{1}{3-\sqrt{8}}$$

$$\times \frac{3+\sqrt{8}}{3+\sqrt{8}}$$

$$\Rightarrow \frac{\sqrt{7}+\sqrt{6}}{(\sqrt{7})^2-(\sqrt{6})^2} - \frac{\sqrt{6}+\sqrt{5}}{(\sqrt{6})^2-(\sqrt{5})^2}$$

$$+ \frac{\sqrt{5}+2}{(\sqrt{5})^2-2^2} - \frac{\sqrt{8}+\sqrt{7}}{(\sqrt{8})^2-(\sqrt{7})^2} +$$

$$\frac{3+\sqrt{8}}{3^2-(\sqrt{8})^2}$$

$$\Rightarrow \sqrt{7}+\sqrt{6}-\sqrt{6}-\sqrt{5} + \sqrt{5} + 2 - \sqrt{8}-\sqrt{7}+3$$

$$+\sqrt{8}$$

$$\Rightarrow 5$$

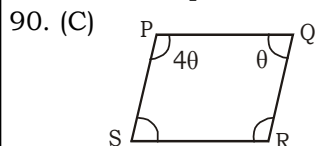
88. (A) Let the angle be  $\theta$ .

$$\begin{aligned} \theta + 3\theta &= 180^\circ \\ 4\theta &= 180 \\ \theta &= 45^\circ \end{aligned}$$

89. (A)  $27 \sqrt{2055} \{ 77$

$$\begin{array}{r} 189 \\ 165 \\ \hline 189 \\ -24 \end{array}$$

So, required number = 24



Let  $\angle Q$  be  $\theta$

$$\begin{aligned} \theta + 4\theta &= 180^\circ \\ 5\theta &= 180^\circ \\ \theta &= 36^\circ \end{aligned}$$

$$\angle Q = 36$$

$$\angle Q + \angle R = 180^\circ$$

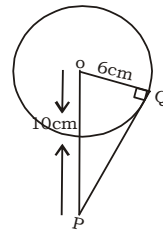
(corresponding angle)

$$\begin{aligned} \angle R &= 180 - 36 \\ &= 144^\circ \end{aligned}$$

91. (A) Weight of new man

$$\begin{aligned} &= 42 + 15 \times 16 \\ &= 42 + 240 \\ &= 66.0 \text{ kg} \end{aligned}$$

92. (B)



$$\begin{aligned} PQ &= \sqrt{10^2 - 6^2} \\ &= \sqrt{100 - 36} \\ &= \sqrt{64} = 8 \text{ cm} \end{aligned}$$

93. (A) Required marked price

$$\begin{aligned} &= 3060 \times \frac{100}{80} \times \frac{100}{85} \\ &= ₹ 4500 \end{aligned}$$

94. (C)  $\frac{\cos^2 45^\circ}{\sin^2 60^\circ} + \frac{\cos^2 60^\circ}{\sin^2 45^\circ} - \frac{\tan^2 30^\circ}{\cot^2 45^\circ} - \frac{\sin^2 30^\circ}{\cot^2 30^\circ}$

$$\begin{aligned} &\Rightarrow \frac{\left(\frac{1}{\sqrt{2}}\right)^2}{\left(\frac{\sqrt{3}}{2}\right)^2} + \frac{\left(\frac{1}{2}\right)^2}{\left(\frac{1}{\sqrt{2}}\right)^2} - \frac{\left(\frac{1}{\sqrt{3}}\right)^2}{(1)^2} - \frac{\left(\frac{1}{2}\right)^2}{(\sqrt{3})^2} \end{aligned}$$

$$\Rightarrow \frac{1}{\frac{3}{4}} + \frac{1}{\frac{1}{2}} - \frac{1}{1} - \frac{1}{3}$$

$$\begin{aligned} &\Rightarrow \frac{2}{3} + \frac{1}{2} - \frac{1}{3} - \frac{1}{12} \\ &\Rightarrow \frac{8+6-4-1}{12} \end{aligned}$$

$$\Rightarrow \frac{14-5}{12} \Rightarrow \frac{9}{12} = \frac{3}{4}$$

95. (D) If equations have no solution, then,

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$$

$$\Rightarrow \frac{2}{6} = \frac{-k}{-12} \neq \frac{15}{15}$$

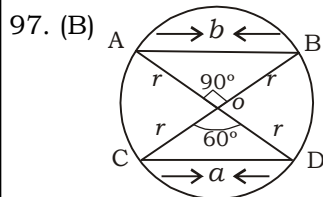
$$\Rightarrow 6k = 24$$

$$\Rightarrow k = 4$$

96. (C) Required time

$$\begin{aligned} &4 \times \frac{165}{60} \text{ hours.} \\ &= \frac{4 \times 165}{16.5} \end{aligned}$$

$$\begin{aligned} &= \frac{4 \times 165}{16.5 \times 60} \times 60 \text{ mins.} \\ &= 40 \text{ mins.} \end{aligned}$$



$\therefore \Delta COD$  is an equilateral triangle.

$$\therefore a = r$$

$\therefore \Delta AOB$  is an isosceles triangle.

$$\text{So, } \angle OBA = 45^\circ$$

$$\sin 45^\circ = \frac{r}{b}$$

$$\frac{1}{\sqrt{2}} = \frac{r}{b}$$

$$b = \sqrt{2} r \text{ or } \sqrt{2} a$$

98. (B) Arithmetic mean of first  $n$  natural number

$$= \frac{n+1}{2}$$

99. (A) One side of cube =  $\frac{20}{4}$  cm  
= 5 cm

$$\text{Area of cube} = 5^3 \text{ cm}^3 \\ = 125 \text{ cm}^3$$

100. (D)  $[\sqrt{6} + \sqrt{2}]^2 < [\sqrt{5} + \sqrt{3}]^2$   
 $\Rightarrow (\sqrt{6})^2 + (\sqrt{2})^2 + 2\sqrt{6} \times \sqrt{2} < (\sqrt{5})^2 +$

$$(\sqrt{3})^2 + 2 \times \sqrt{5} \times \sqrt{3}$$

$$\Rightarrow 6+2+2\sqrt{12} < 5+3+2\sqrt{15}$$

$$8 + 2\sqrt{12} < 8 + 2 + 2\sqrt{15}$$

So, Statement (i) and (iii) are incorrect.

101. (D) The South-East trade winds are attracted towards the Indian sub-continent in the rainy season due to the presence of low atmospheric pressure over North-West Asia. The high temperature and the consequent low pressure takes the North-West in its grip from the middle of April. No rain starts in northern India till the middle of June. North-West India comprising mainly Rajasthan has very high temperature due to feature like sandy soil, direct insulation and lack of cloud cover.

102. (C) X rays are frequently used to check the defects in Diamonds and other precious stones.

103. (D) Although most DNA is packaged in chromosomes within the nucleus, mitochondria also have a small amount of their own DNA. This genetic material is known as mitochondrial DNA.

104. (D) The Ship building yard Mazgaon Dock Limited (MDL) is located in Mumbai (Maharashtra). It is India's prime shipyard. It manufactures warships and submarines for the Indian Navy and offshore platforms and associated support vessels for offshore oil drilling.

105. (C) Haliotis belongs to Mollusca.

106. (D) Nagaland is a state in Northeast India. The state capital is Kohima. Nagaland became the 16th state of India from 1<sup>st</sup> December 1963.

108. (C) A parliamentary system is a system of democratic governance of a state in which the executive branch derives its democratic legitimacy from, and is held accountable to the legislature (parliament).

109. (D) Net National Product (NNP) refers to Gross National Product (GNP), i.e. the total market value of all final goods and services produced by the factors of production of a country during a given time period, minus depreciation.  $NNP = GNP - \text{Depreciation}$

110. (B) Alpha particles are the least penetrating as they are the most densely ionized. The penetrating power of nuclear radiation depends upon the ionizing power of the radiation. The more localised the ionization the less penetrating power it will possess.

111. (D) A parity bit, or check bit is a bit added to the end of a string of binary code that indicates whether the number of bits in the string with the value one is even or odd. Parity bits are used as the simplest form of error detecting code.

112. (D) The correct match is as follows:  
Ascorbic acid- Vitamin C  
Chlorophyll- Photosynthetic pigment  
Carotenoid- Quencher  
Superoxide dismutase- Enzyme

113. (D) Kerala is famous for the cultivation of coconut, tea, coffee, cashew and spices.

114. (A) Hydrogen- peroxide is an effective sterilizing agent. Water is formed when it readily loses active oxygen.



116. (B) The Jallianwala Bagh Massacre took place in Amritsar, in 1919. It is named after the Jallianwala Bagh (Garden) at Amritsar. On April 13, 1919, British, Indian Army soldiers shot an unarmed gathering of men, women and children in this park.
117. (C) Zila Parishad is the apex body of the Panchayati Raj system located at the district level. Chairpersons/ Presidents of Panchayat Samitis come within its jurisdiction. (NOTE-SSC has considered The Gram Sabhas And Gram Panchayats)
118. (C) Endymion is a poem, written by John Keats. It begins with the line "A thing of beauty is a joy forever". The poem tells about how nature and its wonder mesmerize us and take away all the sorrow that surrounds us from time to time.
119. (C) The Bretton Woods Institutions are the World Bank and the International Monetary Fund (IMF). They were set up at a meeting of 43 countries in Bretton Woods, New Hampshire, USA in July 1944.
120. (A) The Trans-Siberian Railway is the longest railway line in the world. It has a length of 9,289 km which connects Moscow to Vladivostok.
121. (A) A river profile is a curve which shows the slope of a river from source to mouth. A stream flowing over irregular terrain may have waterfalls, rapids and lakes along its course, though the stream will wear away the irregularities to leave a smoothly curving profile called a graded profile.
122. (A) First class proteins contain all the essential amino acids in sufficient amounts. Animal proteins obtained from milk, egg, fish, meat etc are first class proteins. These are also called adequate proteins.
123. (B) Allantois is a part of a developing amniote's concepts which are primarily involved in nutrition and excretion, and is webbed with blood vessels.
124. (A) The maximum fixation of solar energy is done by green plants. The energy is stored in the plants as carbohydrates for their metabolic activities as growth, respiration etc.
125. (A) A bleaching agent is a material that lightens or whitens a substrate through chemical reaction. The most common bleaching agents generally fall into two categories: chlorine and its related compounds (such as sodium hypochlorite) and the peroxygen bleaching agents, such as Hydrogen Peroxide and Sodium Perborate.
126. (B) The speed of sound is greater in moist air than in dry air because the moist air has less density than dry air
127. (D) Internal economies arise within the firm because of the expansion of the size of a particular firm. They are called the economies of scale.
128. (B) Karst is a landscape formed from the dissolution of soluble rocks including limestone, dolomite and gypsum. It is characterized by sinkholes, caves, and underground drainage systems.
129. (C) Peroxyacetyl Nitrate is a secondary pollutant present in photochemical smog. It is thermally unstable and decomposes into peroxyethanoyl radicals and nitrogen dioxide gas.
130. (D) The birthday of Sarvepalli Radhakrishnan is celebrated as Teacher's Day. The day commemorates the birthday of Dr. Sarvepalli Radhakrishnan, a philosopher and a teacher par excellence, and his contribution towards Indian education system. As a tribute to this great teacher, his birthday is observed as Teacher's Day across India on 5th September.
131. (D) Photoperiodism is the physiological reaction of organisms to the length of day or night. It occurs in plants and animals. It affects flowering, vegetative growth and fruiting in plants. (SSC has Considered Only Flowering.)
132. (A) Electric current is measured using a device called an ammeter.
133. (D) The first summit was held in Dhaka, Bangladesh on 7-8 December 1985 and was attended by president of Bangladesh, Maldives, Pakistan and Sri Lanka, the Kings of Bhutan and Nepal, and the Prime Minister of India.
134. (C) One of the Major objectives and advantages of rainwater harvesting is to reduce run-off loss.
135. (D) Brahmaputra is one of the largest rivers in the world. The origin of Brahmaputra is in south-western Tibet.
136. (C) Public opinion is important in a democracy because the people are the ultimate source of political power. The legislature in a democratic country can



- influence public opinion by focusing attention on Public issues.
137. (C) Mihir-Bhoj was a ruler of the Gurjara Pratihara dynasty of India. Bhoja's empire extended to Narmada River in the South, Sutlej River in the northwest, and up to Bengal in the east.
138. (D) The Arjuna Awards are given by the Ministry of Youth Affairs and Sports, government of India to recognize outstanding achievement in National sports.
139. (D) When a drop of Glycerol is added to crushed  $\text{KMnO}_4$  spread on a paper then the paper produces crackling sound.
- 140 (D) Memory management is the process of controlling and coordinating computer memory and assigning portions called blocks to various running programs to optimize overall system performance. It involves components that physically store data, such as RAM (Random Access Memory) chips, memory caches, and flash-based SSDs (Solid-State Drives).
141. (D) The term 'brown air' is used for photochemical smog. The brown colour is due to the presence of various Nitrous Oxides.
142. (D) When ice is kept on saw dust then it does not melt quickly as it's an insulator of heat. So, it prevents ice from melting quickly.
143. (C) "Place of the Thunderbolt" is associated with Darjeeling (West Bengal). The word Darjeeling is a combination of two words 'dorje,' which means 'thunderbolt' and 'ling', which means 'place'. Hence the word Darjeeling means 'the Land of Thunderbolt'.
144. (C) Bahlol Lodi was the founder of the Lodi dynasty. He ruled for thirty-nine years (1451-1489). He was the governor of Lahore and Sirhind during the rule of Muhammad Shah of Sayyid dynasty.
145. (B) In a free market economy, there is a freedom of choice for the consumers to buy goods and services which suit their tastes and preferences. This is generally called the principle of consumer sovereignty. This means in a market economy the consumers are just like a king or sovereign who dictate what goods and services and what quantities of them are produced.
146. (A) Bose appeared at the 1939 Congress meeting and was elected president over Gandhi's preferred candidate Pattabhi Sitaramayya.
147. (C) The price and output under monopoly are determined by equality between marginal cost and marginal revenue and not by the intersection of demand and supply curves.
148. (B) Aga Khan Cup is related to Hockey while Aga Khan Gold Cup is associated with football. ( NOTE-SSC has considered football)
149. (D) Needle exerts more pressure than nail on the balloon. ( NOTE-SSC has considered that nail exerts more pressure than needle of the balloon which is totally wrong.)
150. (B) Article 56 of the Indian Constitution says that the President shall hold office for a term of five years from the date he takes up his post. He may resign from his office by tendering his resignation to the Vice-President of India.

**MEANINGS IN ALPHABETICAL ORDER**

<b>Word</b>	<b>Meaning in English</b>	<b>Meaning in Hindi</b>
Aberration	a type of behaviour that is unusual or unexpected	असाधारण
All thumbs	very awkward and clumsy	अनाड़ी/फूहड़
Allegory	a story in which the characters and events are symbols that stand for ideas about human life or for a political or historical situation	रूपक कथा
At wit's end	at the limits of one's mental resources/confused	असमंजस
Bureaucracy	ruled by government servants	नौकरशाही
Burglar	a person who illegally enters a building in order to steal things	चोर
Clatter	to make a quick series of short loud sounds	खड़खड़ाहट
Clumsy	doing things in a very awkward way and tending to drop or break things	अनाड़ी
Contaminate	make something impure by addition of a polluting substance	दूषित करना
Defamation	the act of saying false things in order to make people have a bad opinion of someone	निन्दा
Dermatology	the scientific study of the skin and its diseases	त्वचा-विज्ञान
Devout	pious, religious	धार्मिक
Disconsolate	very unhappy or sad	निराश
Effigy	a dummy/statue	पुतला
Endocrinology	the branch of physiology and medicine concerned with endocrine glands and hormones	अंत-स्त्रतविका
Fable	a moral story with animal characters	नैतिक कहानी जिसमें जानवर
Facsimile	an exact copy	नकल
Inedible	not suitable or safe to eat	जो खाने योग्य ना हो
Infuriate	to make someone very angry	क्रोधित करना
Ingestion	is the consumption of a substance by an organism	अंतर्गहण
Insomnia	the condition of not being able to sleep	नींद न आने का रोग
Instinct	a way of behaving, thinking, or feeling that is not learned	प्रवृत्ति
Intruder	one who enters without permission	घुसपैठिया
Kleptomania	a mental illness in which one has a strong desire to steal things	चोरी करने की बीमारी
Legend	a story, the truth about which is uncertain	पात्र हो कहानी जिसकी सत्यता प्रमाणित ना हो
Nepotism	the unfair practice by a powerful person of giving jobs and other favours to relatives	भाई-भतीजावाद
Nymphomania	excessive sexual desire by a female	स्त्रियों में उत्कट कामुकता
Orchestration	the arrangement of a musical composition for performance by an orchestra	आयोजन
Orthopaedics	Bone specialist	हड्डी रोग विशेषज्ञ
Parable	moral story	नैतिक कहानी
Pneumonia	a serious disease that affects the lungs and makes it difficult to breathe	निमोनिया
Predilection	a natural liking for something	झुकाव
Prominent	important and well-known	प्रसिद्ध/ मुख्य
Red tape	a series of actions or complicated tasks that seem unnecessary but that a government or organization requires you to do in order to get or do something	दफ्तरशाही
Seamstress	a woman who sews clothes, curtains, etc., as a job	दर्ज़िन
Spindle	something shaped like a long, thin rod	छड़ी
Surge	to move very quickly and suddenly in a particular direction	उमड़ पड़ना
Tremulous	shaking slightly especially because of nervousness, weakness, or illness	कांपता हुआ
Vandal	A person who deliberately destroys or damages property	विध्वंसक
Whim	a sudden wish or desire	मरजी
Wild goose chase	A hopeless search or pursuit	असंभव वस्तु के पीछे भागना
With the lark	get out of bed very early in the morning	सुबह जल्दी जगना



# K D Campus Pvt. Ltd

2007, OUTRAM LINES, 1ST FLOOR, OPPOSITE MUKHERJEE NAGAR POLICE STATION, DELHI-110009

## SSC MOCK TEST - 15 (ANSWER KEY)

- |         |         |         |          |          |          |          |          |
|---------|---------|---------|----------|----------|----------|----------|----------|
| 1. (D)  | 26. (D) | 51. (C) | 76. (D)  | 101. (D) | 126. (B) | 151. (A) | 176. (A) |
| 2. (D)  | 27. (C) | 52. (A) | 77. (B)  | 102. (C) | 127. (D) | 152. (B) | 177. (D) |
| 3. (C)  | 28. (B) | 53. (C) | 78. (A)  | 103. (D) | 128. (A) | 153. (C) | 178. (D) |
| 4. (B)  | 29. (*) | 54. (B) | 79. (B)  | 104. (D) | 129. (C) | 154. (C) | 179. (A) |
| 5. (D)  | 30. (C) | 55. (B) | 80. (D)  | 105. (C) | 130. (D) | 155. (C) | 180. (C) |
| 6. (C)  | 31. (B) | 56. (C) | 81. (B)  | 106. (D) | 131. (A) | 156. (D) | 181. (D) |
| 7. (D)  | 32. (D) | 57. (B) | 82. (C)  | 107. (C) | 132. (A) | 157. (C) | 182. (D) |
| 8. (B)  | 33. (A) | 58. (A) | 83. (A)  | 108. (C) | 133. (D) | 158. (A) | 183. (C) |
| 9. (B)  | 34. (B) | 59. (C) | 84. (A)  | 109. (D) | 134. (C) | 159. (D) | 184. (B) |
| 10. (C) | 35. (C) | 60. (C) | 85. (D)  | 110. (B) | 135. (D) | 160. (D) | 185. (B) |
| 11. (C) | 36. (D) | 61. (C) | 86. (B)  | 111. (D) | 136. (C) | 161. (B) | 186. (A) |
| 12. (B) | 37. (A) | 62. (D) | 87. (C)  | 112. (D) | 137. (C) | 162. (B) | 187. (B) |
| 13. (B) | 38. (B) | 63. (D) | 88. (A)  | 113. (D) | 138. (D) | 163. (B) | 188. (B) |
| 14. (C) | 39. (A) | 64. (C) | 89. (A)  | 114. (A) | 139. (D) | 164. (B) | 189. (A) |
| 15. (B) | 40. (B) | 65. (C) | 90. (C)  | 115. (D) | 140. (D) | 165. (D) | 190. (D) |
| 16. (D) | 41. (C) | 66. (D) | 91. (A)  | 116. (B) | 141. (D) | 166. (C) | 191. (A) |
| 17. (C) | 42. (C) | 67. (C) | 92. (B)  | 117. (C) | 142. (D) | 167. (C) | 192. (B) |
| 18. (D) | 43. (C) | 68. (A) | 93. (A)  | 118. (C) | 143. (C) | 168. (A) | 193. (D) |
| 19. (B) | 44. (A) | 69. (A) | 94. (C)  | 119. (C) | 144. (C) | 169. (B) | 194. (D) |
| 20. (A) | 45. (C) | 70. (B) | 95. (D)  | 120. (A) | 145. (B) | 170. (A) | 195. (A) |
| 21. (B) | 46. (D) | 71. (B) | 96. (C)  | 121. (A) | 146. (A) | 171. (C) | 196. (A) |
| 22. (A) | 47. (C) | 72. (A) | 97. (B)  | 122. (A) | 147. (C) | 172. (C) | 197. (B) |
| 23. (C) | 48. (D) | 73. (D) | 98. (B)  | 123. (B) | 148. (B) | 173. (B) | 198. (A) |
| 24. (B) | 49. (A) | 74. (B) | 99. (A)  | 124. (A) | 149. (D) | 174. (D) | 199. (C) |
| 25. (D) | 50. (C) | 75. (D) | 100. (D) | 125. (A) | 150. (B) | 175. (A) | 200. (A) |

- 176 (A); Change 'practice' into 'practise'. 'To' needs a verb and not a noun.
- 177 (D); No error
- 178 (D); 'I shall have been working in this college' is the correct structure because the point of time given is of future.
- 179 (A); No error
- 180 (C); The formation here must be passive. Here the correct structure is 'those who were injured in the fire accident'.

**Note:- If you face any problem regarding result or marks scored, please contact 9313111777**

**Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003**