



K.D Campus Pvt. Ltd

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

SSC MOCK TEST – 10 (SOLUTION)

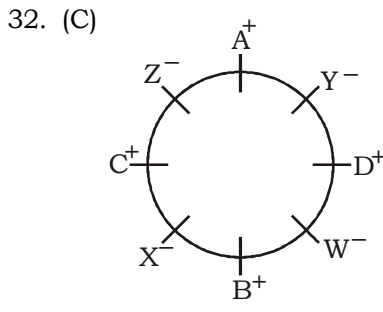
1. (D) Caffeine is found in coffee. Similarly Nicotin is found in Tobacco.
2. (D) $3265 = 3265 + 1111 = 4376$
 $4673 = 4673 + 1111 = 5784$
3. (B) $583 = 5 + 8 + 3 = 16 \rightarrow -2$
 $293 = 2 + 9 + 3 = 14 \rightarrow -2$
 $488 = 4 + 8 + 8 = 20 \rightarrow -2$
 $3 + 7 + 8 = 18 \rightarrow -2$
4. (A) Here the first word is the synonym of the second word.
5. (A) Jewellery is made of Gold. Similarly Furniture is made of Wood.
6. (C) Carbohydrate gives energy to human. Similarly, Petrol gives energy to Engine.
7. (A)

| | | | | | | | |
|---|---|---|---|----|---|---|---|
| Q | Y | G | O | S | A | I | Q |
| | | | | +2 | | | |
| | | | | +2 | | | |
| | | | | +2 | | | |
| | | | | +2 | | | |
| | | | | | | | |
| U | C | K | S | W | E | M | U |
| | | | | +2 | | | |
| | | | | +2 | | | |
| | | | | +2 | | | |
| | | | | +2 | | | |
8. (C) Here the 1st one is related to the other.
9. (A) The earth moves on its Axis. Similarly, the wheel moves on its Hub.
10. (B)

| | | | | | | | | | | | | | | | |
|---|---|---|---|----|---|---|---|---|---|---|---|----|---|---|---|
| A | Z | B | Y | C | X | D | W | E | V | F | U | G | T | H | S |
| | | | | +2 | | | | | | | | +2 | | | |
| | | | | -2 | | | | | | | | -2 | | | |
| | | | | +2 | | | | | | | | +2 | | | |
| | | | | -2 | | | | | | | | -2 | | | |
11. (C) Except (C), all are divisible by 4.
12. (A) Except (A), all are programming language of computer.
13. (B) Except (B), all are dependent on each other to run properly.
14. (D) Except (D) all are related to organs of sensation.
15. (D) Except (D), all are males
16. (B) Except (B), all are part of medical science
17. (D) Except (D), all are famous for temples whereas Ellora is famous for Caves.
18. (A) In Radiation things get reflected, whereas in rest of the three, things get concerted.
19. (C) 'Freedom at midnight' is written by 'Lorry Collins'.
20. (D) **78**

| | | | | |
|-----|----|-----|-----|-----|
| | 92 | 113 | 141 | 176 |
| +14 | | +21 | | +28 |
| | | +28 | | +35 |
| | | | | |
| | | +7 | | +7 |

23. (B) ANIMAL
24. (A) $9(-1) \Rightarrow 8(-1) = 7$
 $18(-2) \Rightarrow 16(-2) = 14$
 $36(-3) \Rightarrow 33(-3) = 30$
25. (B) $(14 \times 4) - (12 \times 3) = 56 - 36 = 20$
 $(9 \times 9) - (13 \times 3) = 81 - 39 = 42$
 $(12 \times 8) - (7 \times 11) = 96 - 77 = 19$
 $(20 \times 10) - (20 \times 8) = 200 - 160 = 40$
26. (B) V VIII XI XIV XVII XX
+3 +3 +3 +3 +3
27. (A) $3463 - 1245 = 2218$, $5324 - 3626 = 1698$
28. (A) 10 43 175 703 2815
x4+3 x4+3 x4+3 x4+3
29. (B)
30. (B) $18 \times 14 + 6 - 16 \div 4$
 $= 18 \times 14 + 6 - 4$
 $= 252 + 6 - 4$
 $= 258 - 4$
 $= 254$
31. (D) $8 - 7 = 8 \times 7 = 56$
 $4 - 7 = 4 \times 7 = 28$
 $13 - 6 = 13 \times 6 = 78$
 $18 - 9 = 18 \times 9 = 162$

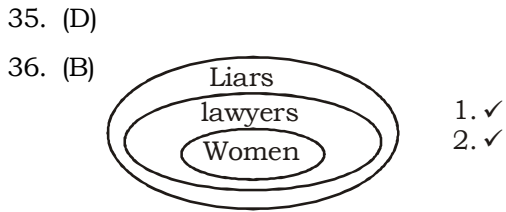


⊕ represents 'Men'.
⊖ represents 'Women'.
Here, W and Y are adjacent to D.

33. (C)
34. (C) From box (i) & (iii) we have,

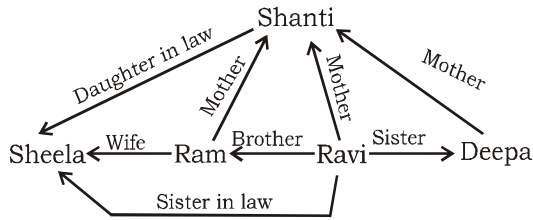
| | | |
|---|---|---|
| ÷ | × | o |
| ↓ | ↓ | ↓ |
| ÷ | + | Δ |

 [After moving in clockwise direction]



37. (D) Crime → Police → Judge → Judgement
(3) (1) (4) (5)
→ Punishment (2)

38. (A)



39. (B)

40. (D) $A_L \xleftarrow{9} \quad \xrightarrow{5} B_R$
 $A_L \rightarrow$ Left side
 $B_R \rightarrow$ Right side
 Total number of children = $A_L + B_R - 1$
 $= 18 + 5 - 1 = 22$

After interchanging their positions,

$$T = A_L + B_R - 1$$

$$22 = 9 + B_R - 1$$

$$\Rightarrow B_R = 14$$

41. (B) Here we have six layers and number of cubes in each layer is 24.

$$\text{So, total number of cubes in layers (I-VI)} \\ = 24 \times 6 = 144$$

42. (C) M a d a g a s c a r
 $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$
 ④ ⑦ ② 7 8 7 ⑨ 6 7 ⑩

Similarly,

M a d r a s
 $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$
 4 7 2 0 7 9

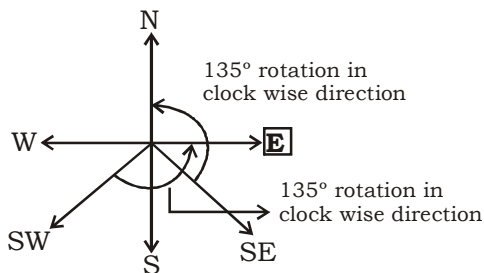
43. (A)

44. (D)

45. (C) SUBWAY

46. (D) Given $\rightarrow 45 + 9 - 3 \times 15 \div 2$
 After changing the sign we have,
 $45 \div 9 \times 3 + 15 - 2$
 $= 5 \times 3 + 15 - 2$
 $= 15 + 15 - 2$
 $= 28$

47. (C)



48. (D)

49. (C)

50. (C)

51. (A) $\sqrt{-\sqrt{3} + \sqrt{3 + 8\sqrt{(2 + \sqrt{3})^2}}}$

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

$$= \sqrt{-\sqrt{3} + \sqrt{3 + 16 + 8\sqrt{3}}}$$

$$= \sqrt{-\sqrt{3} + \sqrt{19 + 8\sqrt{3}}}$$

$$= \sqrt{-\sqrt{3} + \sqrt{(4 + \sqrt{3})^2}}$$

$$= \sqrt{-\sqrt{3} + (4 + \sqrt{3})}$$

$$= \sqrt{-\sqrt{3} + 4 + \sqrt{3}}$$

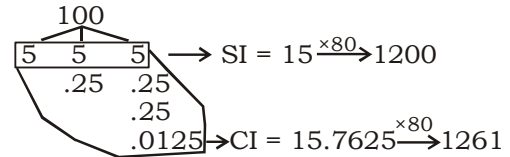
$$= \sqrt{4}$$

$$= 2$$

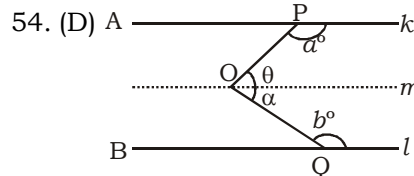
52. (C) Let the diagonals of the squares be $2x$ and $5x$.

$$\therefore \text{Ratio of their areas} = \frac{1}{2} \times (2x)^2 : \frac{1}{2} \times (5x)^2 \\ = 4x^2 : 25x^2 \\ = 4 : 25$$

53. (B) Let the principal amount be 100%.



So, CI will be ₹ 1261.



$$\angle APO = \angle POM \text{ (Alternate angle)}$$

$$\angle BQO = \angle QOM \text{ (Alternate angle)}$$

$$\angle BQO + \angle APO = \angle POQ$$

$$\alpha + \theta = 45^\circ \text{ (given)}$$

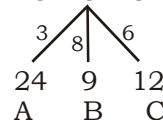
\therefore APK & BQl both are collinear

$$\text{So, } \alpha^\circ + \beta^\circ = 2 \times 180 - 45^\circ$$

$$= 360^\circ - 45^\circ$$

$$= 315^\circ$$

55. (C) $3 \times 8 \times 3$



The work completed by B & C in 3 days

$$= 3(8 + 6)$$

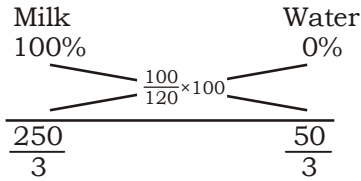
$$= 42 \text{ units}$$

$$\text{Remaining work} = 72 - 42$$

$$= 30 \text{ Units}$$

Required days = $\frac{30}{3} = 10$ days

56. (A) Let the CP of Milk be 100%



Ratio of Milk & Water 5 : 1
So, Ratio of Water and Milk = 1 : 5

57. (B) Let the height and radius be 'r'.
Ratio of volumes

$$= \frac{1}{3} \pi r^2 \times r : \frac{2}{3} \pi r^3 : \pi r^2 \times r$$

$$= 1 : 2 : 3$$

58. (C) $4x^2 + 8x$

$$\Rightarrow (2x)^2 + 2 \times 2x \times 2 + a^2$$

By putting the value $a^2 = 4$, expression becomes a perfect square.

59. (D) Let the income of x and y be $4a$ & $3a$ and their expenditure be $12b$ & $7b$ respectively.

Then, $4a - 12b = 6400$ (i)
 $3a - 7b = 6400$ (ii)
 $3a - 9b = 4800$(iii) [$3/4 \times$ (i)]

$$\begin{array}{r} - \quad + \quad - \\ 2b = 1600 \\ b = 800 \end{array}$$

$$4a = 6400 + 9600$$

$$a = 4000$$

\therefore Income of $x = 4a$
 $= 4 \times 4000$
 $= 16000$

60. (A) $\tan(x + y) = \sqrt{3} = \tan 60^\circ$

$n + y = 60^\circ$ (i)

$\sin(x - y) = \sin 30^\circ$

$x - y = 30^\circ$ (ii)

$x + y = 60^\circ$ (i)
 $x = 45^\circ$

61. (A) Let the CP of an article be 100%.

Then Profit = 20%
and S.P. = 120%

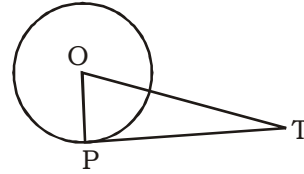
Profit on S.P. = $\frac{20}{120} \times 100$
 $= 16\frac{2}{3} \%$

62. (A) Let the number be 100%.
After decreasing it becomes 88%.

So, 88% \longrightarrow 110

100% \longrightarrow $\frac{100}{88} \times 100$
 $\Rightarrow 125$

63. (C)



$$PT = \sqrt{25^2 - 7^2}$$

$$= \sqrt{625 - 49}$$

$$= \sqrt{576}$$

$$= 24 \text{ cm}$$

64. (A) $a^3 + b^3 + c^3 = 3abc$

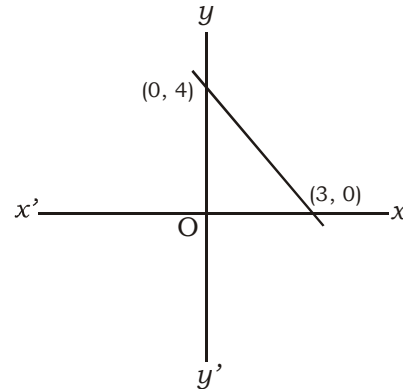
$$\Rightarrow a^3 + b^3 + c^3 - 3abc = \frac{1}{2}(a + b + c)\{(a - b)^2 + (b - c)^2 + (c - a)^2\}$$

$$\Rightarrow (a - b)^2 + (b - c)^2 + (c - a)^2 = 0$$

$$a = b, b = c, c = a$$

$$\text{So, } a = b = c$$

65. (C)



$$4x + 3y = 12$$

$$x = 0, y = 4$$

$$y = 0, x = 3$$

Length of B = $\sqrt{4^2 + 3^2}$
 $= 5$ unit

$$\Rightarrow \text{Perimeter of } \Delta = 4 + 3 + 5 = 12 \text{ unit}$$

66. (D) $\cos 10^\circ \cdot \cos 30^\circ \cdot \cos 50^\circ \cdot \cos 70^\circ$
 $= \cos(90 - 80) \cdot \cos 30^\circ \cdot \cos(90 - 40) \cdot \cos(90 - 20)$
 $= \sin 80 \cdot \cos 30^\circ \cdot \sin 40^\circ \cdot \sin 20^\circ$

$$= \frac{1}{4} \sin 3 \times 20^\circ \times \cos 30^\circ \left[\because \sin \theta \cdot \sin 2\theta \cdot \sin 4\theta \right]$$

$$= \frac{1}{4} \sin 60^\circ \times \cos 30^\circ$$

$$= \frac{1}{4} \sin 60^\circ \times \cos 30^\circ$$

$$= \frac{1}{4} \times \frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2}$$

$$= \frac{\sqrt{3} \times \sqrt{3}}{16} = \frac{3}{16}$$

67. (B) $(x + 2a)(x + 4a)(x + 10a)(x + 11a) + Ka^4$
 $(2a \times 4a \times 10a \times 11a) + Ka^4$
 $(880a^4) + Ka^4$
 $a^4(880 + K)$

By putting $K = 81$, the equation will be a perfect square.

68. (A) $a^2 + b^2 + c^2 - ab - bc - ca$

$$= \frac{1}{2} [(a-b)^2 + (b-c)^2 + (c-a)^2]$$

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

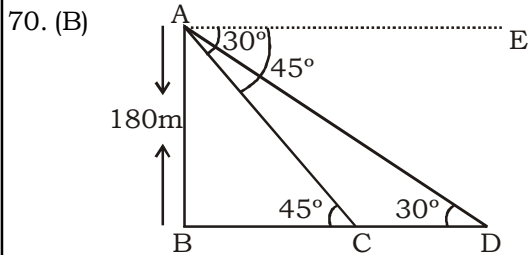
$$= \frac{1}{2} \times 6 = 3$$

Note:- If a, b & c are in continuous form then answer will be always 3.

69. (D) A : B = 5 : 2 : 2

B : C = 7 : 7 : 13
 35 : 14 : 26

Share of A = $\frac{35}{75} \times 60,000$
 $= ₹ 28000$



Let AB be the tower.

$\angle EAD = \angle ADB$ [Alternate angle]

$\angle EAC = \angle ACB$ [Alternate angle]

$$\tan 45^\circ = \frac{AB}{BC}$$

$$\Rightarrow 1 = \frac{180}{BC}$$

$$\Rightarrow BC = 180 \text{ m}$$

$$\Rightarrow \tan 30^\circ = \frac{AB}{BD}$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{180}{180 + CD}$$

$$\Rightarrow 180 + CD = 180\sqrt{3}$$

$$\therefore CD = 180(\sqrt{3} - 1) \text{ m}$$

71. (A) Let the number be x .

$$x \times \frac{80}{100} + 80 = x$$

$$\Rightarrow x - \frac{4}{5}x = 80$$

$$\Rightarrow \frac{x}{5} = 80$$

$$\Rightarrow x = 400$$

72. (C) $\frac{x + \sqrt{x^2 - 1}}{x - \sqrt{x^2 - 1}} + \frac{x - \sqrt{x^2 - 1}}{x + \sqrt{x^2 - 1}} = 14$

$$\Rightarrow \frac{(x + \sqrt{x^2 - 1})^2 + (x - \sqrt{x^2 - 1})^2}{(x - \sqrt{x^2 - 1})(x + \sqrt{x^2 - 1})} = 14$$

$$\Rightarrow \frac{2[x^2 + (\sqrt{x^2 - 1})^2]}{x^2 - (\sqrt{x^2 - 1})^2} = 14 \left[\begin{array}{l} (a+b)^2 + (a-b)^2 \\ = 2(a^2 + b^2) \end{array} \right]$$

$$\Rightarrow \frac{2[x^2 + x^2 - 1]}{x^2 - x^2 + 1} = 14$$

$$\Rightarrow 2[2x^2 - 1] = 14$$

$$\Rightarrow 2x^2 - 1 = 7$$

$$\Rightarrow 2x^2 = 8$$

$$\Rightarrow x^2 = 4$$

$$\Rightarrow x = \pm 2$$

73. (A) $(2\cos^2\theta - 1) \left(\frac{1 + \tan\theta}{1 - \tan\theta} + \frac{1 - \tan\theta}{1 + \tan\theta} \right)$

$$(\cos 2\theta) \left[\frac{(1 + \tan\theta)^2 + (1 - \tan\theta)^2}{(1 - \tan\theta)(1 + \tan\theta)} \right]$$

$$(\cos 2\theta) \left[\frac{2(1 + \tan^2\theta)}{1 - \tan^2\theta} \right]$$

$$\cos 2\theta \left[\frac{2 \times \sec^2\theta}{1 - \frac{\sin^2\theta}{\cos^2\theta}} \right]$$

$$\cos 2\theta \left[\frac{2 \times \sec^2\theta \times \cos^2\theta}{\cos^2\theta - \sin^2\theta} \right]$$

$$= \cos 2\theta \left[\frac{2 \times 1}{\cos 2\theta} \right]$$

$$\Rightarrow 2 \times 1 = 2$$

74. (B) Clearly $a * b = \sqrt{a^2 + b^2}$

$$\therefore 5 * 12 = \sqrt{5^2 + 12^2}$$



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$$= \sqrt{169}$$

$$= 13$$

75. (B) Sum of present age of husband, wife and child = $(27 \times 3 + 3 \times 3)$ years = 90 years.
 \Rightarrow Sum of present age of wife and child = $(20 \times 2 + 5 \times 2)$ years = 50 years
 \Rightarrow Present age of husband = $90 - 50 = 40$ years

76. (C) Let the original weight be 100%
 Weight of container = 25%, then fluid = 75%
 New weight of fluid = $50\% - 25\% = 25\%$

$$\therefore \text{Required fraction} = \frac{75\% - 25\%}{75\%}$$

$$= \frac{50\%}{75\%} = \frac{2}{3}$$

77. (A) $\sin \theta = 1 - \sin^2 \theta = \cos^2 \theta$
 $\cos^2 \theta + \cos^4 \theta$
 $\Rightarrow \sin \theta + (\sin \theta)^2$
 $\Rightarrow \sin \theta + \sin^2 \theta$
 $\Rightarrow 1$ (given)

78. (C) Let the C.P. of retailer be 100%.
 Marked Price = 150%
 $S.P = 150 \times \frac{75}{100} = \frac{225}{2} \%$
 Actual profit = $\frac{225}{2} \% - 100\%$
 $= \frac{25}{2} \% = 12\frac{1}{2} \%$

79. (A) Let the first number be x .
 $x + x + 1 + x + 2 + x + 3 + x + 4 = 5 \times a$
 $5x = 5a - 10$
 $x = a - 2$ (i)
 $\Rightarrow 5x + 10 + x + 5 + x + 6 + x + 7 + x + 8$
 $= 9x + 36$
 Average of 9 numbers
 $= \frac{9(x + 4)}{9} = x + 4$
 So, average of 9 numbers
 $\Rightarrow x + 4 = a - 2 + 4 = a + 2$ or 2 more.

80. (C) Let the number be x and $(184 - x)$ then,
 $\frac{x}{3} - \frac{(184 - x)}{7} = 8$
 $\Rightarrow 7x - 3(184 - x) = 168$
 $\Rightarrow 10x = 720$
 $x = 72$
 $\Rightarrow (184 - x) = 184 - 72 = 112$
 \therefore Smaller number is 72.

81. (B) Work done by the leak in one hour

$$= \frac{1}{3} - \frac{1}{7} \text{ unit}$$

$$= \frac{7 - 6}{21} \text{ unit}$$

$$= \frac{1}{21} \text{ unit}$$

So, leakage will take 21 hours to empty tank.

82. (D) Monday to Wednesday = 37×3
Tuesday to Thursday = 34×3
 Monday - Thursday = $3(37 - 34)$
 Monday - Thursday = 9°C

$$\text{Monday} - \frac{4}{5} \text{ Monday} = 9^\circ\text{C}$$

$$\text{Monday} = 45^\circ$$

$$\text{Thursday} = 45 - 9 = 36^\circ\text{C}$$

83. (A) Let the C.P. be 100%.
 then, SP = 80% [$100\% - 20\%$]
 Actual C.P. = $100\% - 40\% = 60\%$

$$\text{Profit \%} = \frac{80 - 60}{60} \times 100$$

$$= \frac{20}{60} \times 100$$

$$= 33\frac{1}{3} \%$$

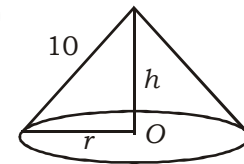
84. (C) Area of regular pentagon = $5a^2 \frac{\sqrt{3}}{4}$

$$5a^2 \times \frac{\sqrt{3}}{4} = 125\sqrt{3}$$

$$a^2 = \frac{125\sqrt{3} \times 4}{5\sqrt{3}} = 100$$

Each side = $a = 10$ cm.

85. (D)



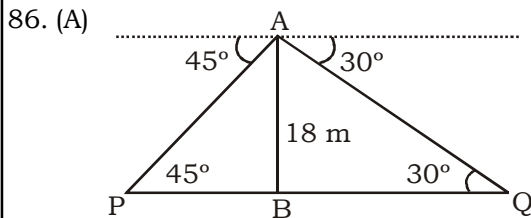
$$\text{Volume} = \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \pi r^2 (\sqrt{l^2 - r^2})$$

$$= \frac{1}{3} \times \frac{22}{7} \times 7 \times 7 \sqrt{100 - 49}$$

$$= \frac{1}{3} \times 22 \times 7 \times \sqrt{51}$$

$$= \frac{154}{3} \sqrt{51} \text{ m}^3$$



Let the width of the river = PQ

In ΔABQ ,

$$\tan 30^\circ = \frac{AB}{BQ}$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{18}{BQ}$$

$$\Rightarrow BQ = 18\sqrt{3} \text{ m}$$

In ΔABP ,

$$\Rightarrow \tan 45^\circ = \frac{AB}{BP}$$

$$\Rightarrow 1 = \frac{18}{BP}$$

$$BP = 18 \text{ m}$$

So, width of the river = PQ = BP + BQ

$$= 18\sqrt{3} + 18$$

$$= 18(\sqrt{3} + 1) \text{ m}$$

87. (B) Since, one root = $2 + \sqrt{5}$, then another root

$$= 2 - \sqrt{5}$$

$$\text{sum of roots} = (2 + \sqrt{5}) + (2 - \sqrt{5}) = 4$$

Multiplication of the roots

$$= (2 + \sqrt{5})(2 - \sqrt{5})$$

$$= 4 - 5 = -1$$

Then, required quadratic equation is $x^2 - (\text{sum of roots})x + (\text{Multiplication of roots}) = 0$

$$\Rightarrow x^2 - 4x + (-1) = 0$$

$$\Rightarrow x^2 - 4x - 1 = 0$$

88. (A) Let the C.P of article be 100%
then, marked price = 100% + 20%
= 120%

$$\text{S.P} = 120\% \times \frac{95}{100} = 114\%$$

$$\text{Then Profit} = 114\% - 100\% = 14\%$$

89. (A) Volume of the tank = $20 \times 15 \times 6$

$$= 1800 \text{ m}^3$$

$$= 1800 \times 1000 \text{ L}$$

$$\text{One day requirement} = 4000 \times 150 \text{ L}$$

$$\therefore \text{Number of days} = \frac{1800 \times 1000}{600 \times 1000}$$

$$= 3 \text{ days}$$

90. (A) Let C.P of watch = 100%

Then, marked price = 140%

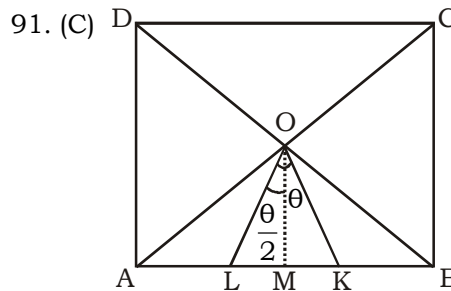
$$\text{Then, S.P} = 140 \times \frac{90}{100} = 126\%$$

Gross Profit = 26%

$$\text{Net profit} = 26\% \times \frac{90}{100} = \frac{117}{5} \%$$

$$\frac{117}{5} \% = ₹ 468 \text{ (Given)}$$

$$100\% = ₹ 2000$$



Let sides of square be a .

$$AO = \frac{\sqrt{2}a}{2} = \frac{a}{\sqrt{2}} = AK = BL$$

$$LM = \frac{a}{\sqrt{2}} - \frac{a}{2} [BL - BM]$$

$$OM = \frac{a}{2}$$

In ΔLOM ,

$$\tan \frac{\theta}{2} = \frac{LM}{OM} = \frac{\frac{a}{\sqrt{2}} - \frac{a}{2}}{\frac{a}{2}}$$

$$= \frac{a \left(\frac{2 - \sqrt{2}}{2\sqrt{2}} \right)}{\frac{a}{2}}$$

$$= \frac{2 - \sqrt{2}}{2\sqrt{2}} \times 2$$

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

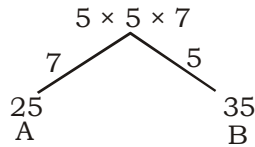
$$\tan \theta = \frac{2 \tan \frac{\theta}{2}}{1 - \tan^2 \frac{\theta}{2}} = \frac{2(\sqrt{2} - 1)}{1 - (2 + 1 - 2\sqrt{2})}$$

$$= \frac{2(\sqrt{2} - 1)}{1 - 3 + 2\sqrt{2}} = \frac{2(\sqrt{2} - 1)}{2(\sqrt{2} - 1)} = 1$$

$$\tan \theta = 1 = \tan 45^\circ$$

$$\theta = 45^\circ$$

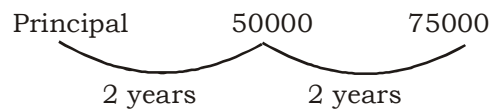
92. (D)



Ratio of wages = 7 : 5

$$A = \frac{7}{12} \times 48132 = ₹ 28077$$

93. (C)



Ratio = 50,000 : 75,000
= 2 : 3

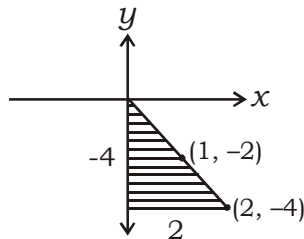
∴ P : IInd year amount must also be in the ratio of 2 : 3.

$$\frac{P}{50000} = \frac{2}{3}$$

$$P = \frac{100000}{3}$$

$$= ₹ 33333.33$$

94. (D)



$$\therefore \text{Area of shaded part} = \frac{1}{2} \times 2 \times 4 = 4 \text{ units}$$

95. (A)

$$AB = \sqrt{(3-1)^2 + (4+2)^2}$$

$$= 2\sqrt{10} \text{ units}$$

$$BC = \sqrt{(4-3)^2 + (7-4)^2}$$

$$= \sqrt{10} \text{ units}$$

$$AC = \sqrt{(4-1)^2 + (7+2)^2}$$

$$= 3\sqrt{10} \text{ units}$$

$$AB + BC = AC$$

So, A, B and C are points on straight line,

96. (A) Girls in college R and S = 1500 + 3000
= 4500

Boys in college R and S = 2500 + 4500
= 7000

Ratio of Girls & Boys = 4500 : 7000
= 9 : 14

97. (A) Required Percentage = $\frac{4500}{3500} \times 100$

$$= 128.57\%$$

$$= 129\%$$

98. (C) Boys = 5500 + 3500 + 2500 + 4500 + 4000
Average of boys = 20000

$$\text{Average of boys} = \frac{20000}{5}$$

$$= 4000$$

99. (B) Girls in college R & S

$$= 1500 + 3000 = 4500$$

Girls in College P and T = 2500 + 1500
= 4000

Required ratio = 4500 : 4000 ⇒ 9 : 8

100. (C) Total number of students from College S = 4500 + 3000
= 7500

Total number of students from college P = 5500 + 2500

$$= 8000$$

Respective Ratio = 7500 : 8000
= 15 : 16

102. (C) The Pancreas maintains the body's blood glucose (sugar) balance. Primary hormones of the pancreas include insulin and glucagon and both regulate blood glucose. Diabetes is the most common disorder associated with it. Pancreas is both an endocrine and exocrine gland i.e. it has a dual function of secreting hormones into blood (endocrine) and secreting enzymes through ducts (exocrine).

103. (C) The Jet plane engine works on the principal of conservation of linear momentum. This law states that when no net external force acts on a system consisting of several particles, the total linear momentum of the system is conserved and is the vector sum of each

particle in the system. It can be deduced from Newton's third law of motion i.e every action has equal and opposite reaction. When the fuel of rocket and Jet plane is exploded, gases escape with a large velocity and hence a large momentum. The escaping gases in turn, impart an equal and opposite momentum to the rocket and Jet planes.

104. (B) Cooperative Societies is a State subject under entry 32 State List of the Seventh schedule of the Indian Constitution. The state list is a list of 61 items (initially there were 66 items) into the Constitution of India.
105. (B) Trygve Halvdan Lie (16 July, 1896- 30 Dec, 1968) was a Norwegian politician, labour leader, government official and author. From 1946 to 1952, he was the First Secretary-General of the United Nations.
107. (A) Anthracite coal is almost made entirely of Carbon. It is harder than other forms of coal such as bituminous and is found in areas surrounding mountains or deep valleys. It burns much cleaner than other forms of coal due to its low pollutant content. It contains 91% to 98% pure carbon which burns with a blue, smokeless flame.
108. (B) The Battle of Buxar was fought on 23 October, 1764 between the forces of the British East India Company led by Hector Munro and combined army of Mughal rulers. The Mughal forces were drawn from three princely states, whose rulers were Mir Qasim, the Nawab of Bengal, Shuja-ud-Daulah, the Nawab of Awadh and the Mughal king Shah Alam II. The Battle was fought at Buxar and Mughal forces lost the battle.
110. (C) Temperature, pressure and volume are regulated in a complex system. Refrigerators contain gas, which is drawn through a long line at low pressure and low temperature. Then, gas is condensed or compressed using electricity. Next, it is converted to a higher pressure, which in turn causes internal temperatures to rise. Heat and electricity are then transferred to a unit called a condenser, which removes excess heat. As a result, gas begins to cool, and ultimately condenses into a liquid form.

111. (C) The Balwant Rai Mehta Committee was appointed by the GOI in January 1957 to examine the working of the Community Development Programme (1952) and the National Extension Service (1953), to suggest measures for their better working. The chairman of this Committee was Balwant Rai G Mehta who submitted the report in November 1957 and recommended the establishment of the scheme of 'Democratic Decentralisation' which finally came to be known as Panchayati Raj. The main aim is to settle the local problems locally and to make the people politically conscious.
113. (D) The Upanishads form the core of Indian Philosophy, They are an amazing collection of writings from original oral transmission. All the fundamental teachings are found here which are central to Hinduism-the concepts of Karma (action), Sansara (reincarnation), Moksha (nirvana), the atman (soul) and the Brahman (Absolute Almighty).
115. (C) The brain is one of the most metabolically active organ in the body. Together with the heart, liver and kidneys, it consumes about 60% of the body's energy requirements. The heart and kidney are more metabolically active than the brain, but as the brain is large, it takes a higher proportion of the body's energy needs. At rest, it uses approx 20% to 23% of the body's total energy requirements despite accounting for only 2% of the body's mass. Almost all of the oxygen is used to oxidize glucose to carbon dioxide and water.
116. (A) Thyroid gland regulates metabolism, helps in breaking down the food and convert it to energy. Main thyroid hormones are T3 and T4. Thyroid disorders are common, and they include goiters, hyperthyroidism and hypothyroidism.
117. (D) Part III of the Constitution consists of Fundamental Rights from Article 13 to 35. Following are the Fundamental Rights in India - Right to equality, Right to Freedom, Right against exploitation, Right to Freedom of religion, Cultural and Educational rights, Right to Constitutional Remedies.

118. (C) Gandhi's economic ideas were part of his general crusade against poverty, exploitation against socio-economic injustice, and deteriorating moral standards. His approach was rooted in human dignity. Gandhi's efforts towards 'spiritualizing economics' are truly reflected in his concept of trusteeship according to which one is asked to dedicate everything to God and then use it only to the required extent.
119. (C) The beaufort scale is a scale for measuring wind speeds. It is based on observation rather than accurate measurement. The scale was developed in 1805 by Sir Francis Beaufort.
120. (D) Buran is a wind which blows across Eastern Asia, specifically Injiang, Siberia and Kazakhstan. It takes two forms; in summer, it is a hot, dry wind and in winter, it is bitterly cold and often accompanied by blizzards.
Chinook wind are Foehn winds in the interior west of North America where the Canadian Prairies and Great Plains meet various mountain ranges and is wet, warm coastal winds in the Pacific Northwest.
Foehn wind is a type of dry, warm, downslope wind that occurs in the lee (down wind side) of a mountain range. Central Europe enjoys a warmer climate due to Foehn.
Sirocco wind is a mediterranean wind that comes from the Sahara and reaches hurricane speeds in North Africa and Southern Europe. Therefore, it is warm, dry wind.
 So, Answer will be Buran wind (D)
121. (B) Mahatma Jyotirao Govindrao Phule was an Indian activist, social reformer, writer and theologian from Maharashtra. In September 1873, he along with his followers, formed Satyashodhak Samaj (Society of Seekers of Truth) to attain equal rights for peasants, lower caste and his contributions to the field of education.
122. (D) Kakori Conspiracy was an armed robbery on August 9, 1925 of a train in Central Uttar Pradesh State. A movement against British Indian Government. The robbery was organized by the Hindustan Republican Association (HRA). It was concerned by Ram Prasad Bismil and Ashfaqullah Khan who belonged to HRA which later became Hindustan Socialist Republican Association (HSRA).
124. (B) Thigmonastic or seimonastic movements in Touch-me-not (*Mimosa Pudica*) plant is done by pulvinus which shows elastic properties and induced movements of the petiole.
126. (B) On 9 December, 1946, the Assembly began its first session with 208 members attending it. By early 1947, Muslim League and princely States joined and Assembly approved the draft Constitution on 26th November 1949. On 26th January, 1950, the Constitution took effect and Rajendra Prasad was first elected as a chairman of Constituent Assembly.
127. (D) The Government of India Act 1935 introduced the provincial autonomy and provided for all India Federation. This Act introduced diarchy at the central level. This Act had 321 sections and 10 schedules. It made a provision for establishment of a Federal court. It divided the subjects in 3 lists. The Indian Council was abolished and advisory body was introduced. Also, this Act introduced direct elections for the first time and increased the franchise and have bicameral legislature at the Centre.
128. (D) The Maikal Hills are range of hills located in the state of Chhattisgarh in India. The Maikal Hills are an eastern part of the Satpuras in Kawardha District of Chhattisgarh forested and thinly populated range and it gives rise to several streams and rivers including the tributaries of Narmada and Wainganga rivers. Two tribal peoples, the Baigas and the Gonds are inhabited in these hills.
129. (D) Factors which influence the climate of India are Location and Latitudinal Extent, Distance from the sea, The Northern Mountain Ranges, Physiography, Monsoon winds, Upper Air circulation, Tropical Cyclones and Western Disturbances, El-Nino Effect, La Nina and Southern Oscillation.
132. (C) The right Auricle or Atrium is one of the four hollow chambers in the interior of the heart. It is located in the upper right



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corner of the heart superior to the right ventricle. Deoxygenated or impure blood entering the heart through veins from the tissues of the body first enters the heart through the right Auricle before being pumped into the right Ventricle.

133. (D) When cells between the columns of vascular tissue connect the cambia inside the columns of vascular tissue to form a complete cylinder around the stem. The cells formed toward the inside are called secondary xylem or wood and those formed toward the outside of the cambium are called secondary phloem.
136. (C) The rice fruit is a caryopsis with a single seed fused to the ripened ovary wall, pericarp. Lemma and palea enclose the caryopsis and constitute the husk. The rice grain is also known as rough rice.
137. (B) The State Finance Commission have been set up in various states of the country and laid down in the constitution of India, under Article 243 (1). It helps in improving the financial condition of the various local bodies such as Panchayati Raj institutions and Municipal bodies that are there in the states.
138. (D) Balchandra Nemade became the fourth Marathi writer to win the Jnapith award, the highest literary award. He is famous for his books named 'Hindu' and 'Kosala'. He is also known for his novel 'Hindu Jagnyachi Samrudha Adgal'.
146. (B) The Earth Summit in Rio in June 2012 will take stock of sustainable development priorities globally, The Durban meeting in December 2011 has

set some directions for appropriate response to climate change. And the Twelfth five year plan, commenced in April 2012, setting out India's priorities for a sustainable and inclusive, lower carbon development path. So, answer will be (B).

147. (B) Virtual clusters an initiative of the Ministry of Micro, Small and Medium Enterprises. It is a dedicated Web Portal which will enable Businesses located anywhere in the country and the other stakeholders like banks, other financial institutions, various government bodies NGOs etc.
148. (D) On 30th March 2015, the magnetic observatory was inaugurated at Port Blair by the Union Minister of Science and Technology and Earth Sciences, Dr. Harsh Vardhan. The observatory has been set up by the Indian Institute of Geomagnetism (IIG) under MPGO (Multi-Parametric Geophysical Observatories). The first MPGO was set up at Guttu in Uttarakhand.
150. (A) The ministry of Micro, Small and Medium Enterprises (MSME) has modeled the 'Udyami Helpline' call center in such a way that a single toll free number across the country will give details about business possibilities and loan facilities to the entrepreneurs.

MEANINGS IN ALPHABETICAL ORDER

| Word | Meaning in English | Meaning in Hindi |
|--------------|--|---------------------------|
| Virtue | A good and moral quality | अच्छाई |
| Fastidious | Finicky / Hard to please | नखरेबाज |
| Curious | Having a desire to learn or know more about something | उत्सुक |
| Cynicism | Beliefs that people are generally selfish and dishonest | निराशावाद |
| Detest | To dislike | नफरत करना |
| Despise | To dislike | घृणा करना |
| Isolated | Separate from others | अकेला |
| Obstruct | To block / To hinder | रोक लगाना |
| Mercurial | Changing moods quickly and often | अस्थिर |
| Occult | To shut off from view or exposure | गुप्त |
| Profuse | Abundant | बहुतायत |
| Lain | Past participle of 'Lie' which means 'to be in horizontal position' | लेटा हुआ |
| Bent upon | Wish greatly | इच्छा करना/ तुल जाना |
| Accountable | Required to be responsible/ Answerable | जिम्मेदार/ जवाबदेह |
| Oblique | Not stated directly | तिरछा |
| Malignity | Intense ill-will | द्वेष |
| Malodorous | Having a bad smell | बदबूदार |
| Malfeasance | Illegal or dishonest activity especially by a public official or a corporation | अपराध |
| Malevolent | Evil-minded | बुरा चाहने वाला |
| Incendiary | A person who excites factions/inflammatory | आग लगाने वाला |
| Incantation | A series of words used to make something magical happen | मंत्र, मंत्रोच्चार |
| Incandescent | White or glowing because of great heat | अत्यधिक चमकीला |
| Prelude | Beginning | आरम्भ करना |
| Postnatal | Relating to the period of time following the birth of a child | जन्म पश्चात |
| Perplexed | Unable to understand something clearly/ confused | उलझा हुआ |
| Quandary | A situation in which you are confused what to do | असमंजस |
| Miff | A trivial quarrel | मनमुटाव |
| Jolt | To surprise or shock someone | अघात पहुँचाना |
| Ballad | Folk song | गाथागीत |
| Dirge | A slow song that expresses sadness or sorrow | शोक-गीत |
| Ode | A poem in which a person expresses a strong feeling of love or respect for someone | प्रम गीत |
| Lyric | The words of a song | गीत के शब्द |
| Bough | A main branch of a tree | टहनी |
| Slough | A place of deep mud or mire | दलदल |
| Peeling | A peeled-off piece or strip | छाल |
| Borough | Part of a large city that has its own government | स्वयं शासित नगर |
| Soliloquy | An act of speaking one's thoughts aloud to oneself | स्ववाद |
| Solemnize | Celebrate /to perform with ceremony | उत्सव मनाना/ सम्पन्न करना |
| Bestow | To give something as a gift or honour | नवाजना |
| Perpetual | Happening all the time or very often | लगातार |
| Dwindling | To gradually become smaller or weak | घटना |
| Repel | To keep something out or away | पीछे हटाना/विकर्षण करना |
| Waft | To move lightly through the air | झोंका |
| Repulsive | Causing strong dislike or disgust | घिनौना |



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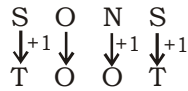
SSC MOCK TEST - 10 (ANSWER KEY)

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

151. (A) Replace 'has' either by 'is' or by 'has always been'. 'Has' a helping verb must be followed by a main verb.
152. (B) 'Slow and Steady' (Adjective) should be replaced by 'Slowly and Steadily' (Adverb). 'Work' a verb must be followed by an adverb.
153. (C) Use 'completely' before 'fine'.
154. (B) Use 'looking forward to' in place of 'looking forward for'. 'Look forward to' means 'to anticipate with pleasure or satisfaction'.
(खुशी के साथ इंतजार करना)
155. (C) Use 'for' in place of 'since'. In case of 'period', for is used.

CORRECTION OF MOCK TEST-9

36. (B) One more logic can be applied here. 'Vowels remains the same and the consonant exceeds by 1'. So, the word S O N S can be coded as T O O T.



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