

SSC MOCK TEST - 5 GENERAL INTELLIGENCE

1. (B) According to English Alphabet the ranking value of A = 1 and the

the ranking value of A N D

$$\begin{array}{ccc} \downarrow & \downarrow & \downarrow \\ 1 & +14 & +4 = 19 \end{array}$$

Similarly,

$$\begin{array}{ccc} B & A & T \\ \downarrow & \downarrow & \downarrow \\ 2 & +1 & +20 = 23 \end{array}$$

2. (B) S T A G H O R N

$\downarrow \downarrow \downarrow \downarrow$ and $\downarrow \downarrow \downarrow \downarrow$
H G Z T S L I M

Similarly,

N O R T H
 $\downarrow \downarrow \downarrow \downarrow \downarrow$
M L I G S

3. (D) INTERNAL

4. (C) After changing the signs according to the question, the correct equation will be

$$24 \div 12 \times 12 - 16 + 18 = 26$$

$$2 \times 12 - 16 + 18 = 26$$

$$24 - 16 + 18 = 26$$

$$24 + 18 - 16 = 26$$

$$42 - 16 = 26$$

$$26 = 26 \text{ (correct)}$$

5. (C) $7 \times 5 + 5 = 4 \times 10$

$$35 + 5 = 40$$

$$40 = 40$$

34 + 12	28 + 76	97 + 39
$\frac{2}{46}$	$\frac{2}{104}$	$\frac{2}{136}$
$= \frac{2}{2}$	$= \frac{2}{2}$	$= \frac{2}{2}$
= 23	= 52	= 68

Similarly,

$$\frac{37+73}{2} = \frac{110}{2} = 55$$

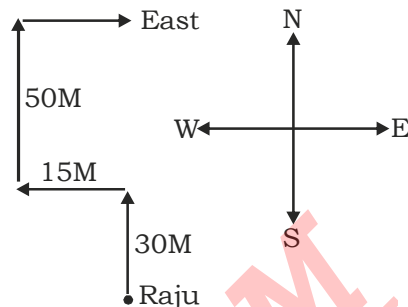
7. (B)

8. (D)

9. (D)

Today
 \uparrow
Wednesday Friday Sunday
 \downarrow \downarrow \downarrow
Thursday Saturday

10. (B)



11. (A) a c b d c e d f e

12. (A) $\frac{\text{Study}}{1} \quad \frac{\text{Examination}}{3} \quad \frac{\text{Appointment}}{5}$
 $\frac{\text{Job}}{2} \quad \frac{\text{Earn}}{4}$

13. (B) E H G I : L O N P :: H K J L : O R Q S

14. (D) $8 - 3 = 5 \rightarrow (5)^2 = 25$

Similarly,

$$9 - 2 = 7 \rightarrow (7)^2 = 49$$

15. (C)

16. (A) According to english Alphabet the ranking value of

C E : 70
 $\downarrow \downarrow$
3 5
 $\times 2$

Similarly, D E : 90
 $\downarrow \downarrow$
4 5
 $\times 2$

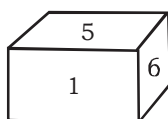
17. (B) Total age of 5 members 3 years ago = 80
So, average age = $80/5 = 16$ years

Today total age of 6 members if the average is same = $80 + 16 = 96$

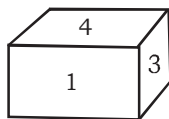
$$\text{So, age of the child} = (96 - (80 + 15)) \\ = (96 - 95) = 1 \text{ year}$$

18. (A) Universal rule = This rule can be applied to any dice (standard or ordinary). It is applicable when we have been given 2,3, or 4 situations of a dice. According to the rule identify any two situation in which we have only one digit common. In the given dice only one digit is common i.e. (1).

Now write the numbers as clockwise from the common number.



(i)



(II)

Here we have $1 \rightarrow 5 \rightarrow 6$ in figure (I) .

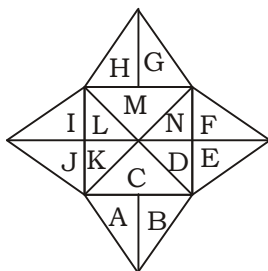
Now look at the second figure.

Here we have $1 \rightarrow 4 \rightarrow 3$.

Now write both of them one above the other as.

$1 \rightarrow 5 \rightarrow 6$
 $\uparrow \text{opp} \downarrow \text{opp} \uparrow \text{opp}$
 $2 \leftrightarrow 1 \rightarrow 4 \rightarrow 3$

19. (C)



Numbers of triangles = 28

A, B, C, D, E, F, G, H, I, J, K, L, M, N,

(A, B), (D, E), (E, F), (F, N), (D, N), (D, N, M),
(K, L), (K, L, M), (K, L, C), (C, D, N), (H, G),
(I, J), (I, L), (J, K)

20. (B) F I A S C O

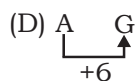
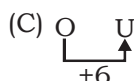
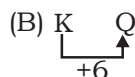
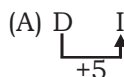
21. (C) M I S S I L E

22. (D) 23. (B) 24. (C) 25. (B)

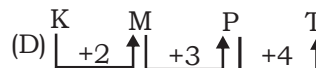
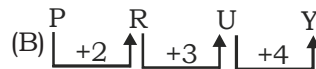
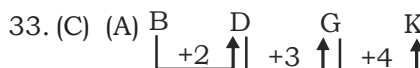
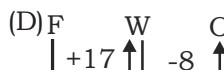
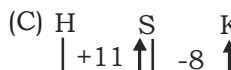
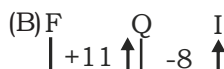
26. (C) 27. (A) 28. (B) 29. (D)

30. (A)

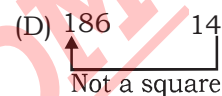
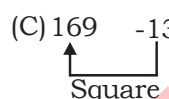
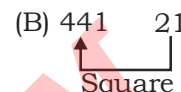
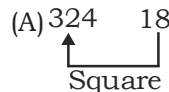
31. (A)



32. (D)



34. (D)



35. (D) Except Urdu, (Arabic Script) all are Deonagari Script.

36. (A) Let the age of the youngest child = x
According to the question the age of 5 children after 3 year intervals =
 $x + x + 3 + x + 6 + x + 9 + x + 12 = 50$
 $5x + 30 = 50$
 $5x = 20$
 $x = 4$
 $x = 4$ years

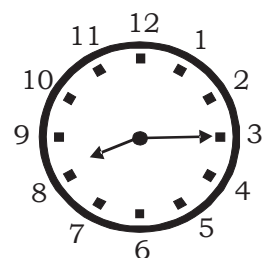
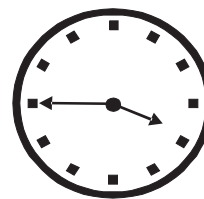
37. (D) We know that cube with no side painted is called Inner cube.

$$\begin{aligned} \text{Inner cube} &= (x - 2)^3 \quad [\text{Here } x = 4] \\ &= (4 - 2)^3 \\ &= (2)^3 \\ &= 8 \end{aligned}$$

38. (A)

Players Games	A	B	C	D	E
Football	✓	✓	✓	×	×
Baseball	✓	×	✓	×	✓
Basketball	×	✓	✓	✓	×
Throw ball	×	✓	×	✓	✓
Cricket	×	×	×	✓	✓

39. (C)

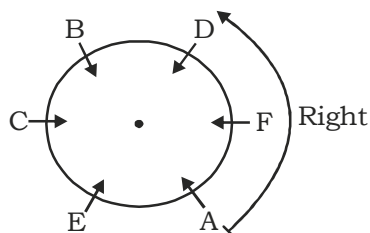


Mirror Image time

Actual Time Image

40. (A)

41. (A)



42. (C)

43. (C)

44. (C) B F J N R V Z D H L P
 $\begin{array}{cccccccccccc} \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +4 & +4 & +4 & +4 & +4 & +4 & +4 & +4 & +4 & +4 & +4 & +4 \end{array}$

45. (A) $\begin{array}{ccccccc} 2 & 6 & 12 & 20 & 30 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +4 & +6 & +8 & +10 & \end{array}$

46. (C) $\begin{array}{ccccccccc} & +1 & & +1 & & +1 & & +1 & & +1 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 2+2, & 6+3, & 12+4, & 20+5, & 30+6, & 42+7 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +4 & +6 & +8 & +10 & +12 \end{array}$

47. (D)

48. (D)

49. (C) $\begin{array}{ccccc} 0, & 7, & 26, & 63, & 124 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 1^3-1 & 2^3-1 & 3^3-1 & 4^3-1 & 5^3-1 \end{array}$

50. (B)



Conclusion I - ✗
II - ✓

ARITHMETIC

51. (D) Total Income = $20 + 12.5 + 15 + 10 + 5 + 20 + 17.5 \Rightarrow 100$

$$\% \text{ Expenditure} = \frac{20}{100} \times 100 = 20\%$$

52. (B) % Expenditure of clothings =

$$15 = \frac{15}{100} \times 100 = 45\%$$

$$\% \text{ Saving} = 12.5$$

$$= \frac{12.5}{100} \times 100 = 12.5\%$$

So $15 - 12.5 = 2.5\%$ more

53. (C) According to the question :-

$$100\% = 1,00,000$$

$$\text{So } 12.5\% = 12500/-$$

54. (C) Expenditure on transport is equal to expenditure on food.

55. (A) Saving is more than expenditure on housing
 $12.5\% > 10\%$

56. (B) According to the question :-

$$\text{LCM}(9, 6) = 18$$

So if number is divisible by 18 then it will be divisible by 9 and 6 both.

\therefore First number near to 100 divisible by 18 = 108 and last number near to 200 divisible by 18 = 198

$$\text{So total number} = 198 = 108 + (n-1) 18$$

$$(T_n = a + (n-1)d)$$

$$\Rightarrow 90 = (n-1) \times 18$$

$$n-1 = 5 \Rightarrow n = 6$$

57. (B)

$$\frac{(243)^{\frac{n}{5}} \cdot 3^{2n+1}}{9^n \cdot 3^{n-1}}$$

$$\Rightarrow \frac{(3)^{5 \times \frac{n}{5}} \cdot 3^{2n+1}}{3^{2n} \cdot 3^{n-1}}$$

$$\Rightarrow \frac{3^{n+2n+1}}{3^{2n+n-1}} = \frac{3^{3n+1}}{3^{3n-1}}$$

$$\Rightarrow 3^{(3n+1)-(3n-1)} = 3^2 = 9$$

58. (C) Total of 8 numbers = $8 \times 20 = 160$

$$\text{Sum of first 2 numbers} = 15 \frac{1}{2} \times 2 = 31$$

$$\text{Sum of next 3 numbers} = 21 \frac{1}{3} \times 3 = 64$$

According to question :-

$$x + x + 4 + x + 7 = 160 - (64 + 31)$$

$$\Rightarrow 3x + 11 = 96 - 31 \Rightarrow 3x = 54 \Rightarrow x = 18$$

So eighth number. $x + 7 = 25$

59. (A) According to the formula :-

$$M_1 D_1 T_1 = M_2 D_2 T_2$$

$$5 \times 8 \times 7 = 7 \times 4 \times T_2$$

$$T_2 = 10 \text{ hours}$$

60. (C) According to the question :-

$$4M + 6W + 8 \text{ days} \dots \dots \text{given}$$

$$\text{So, } 48W + 32M = 1 \text{ days} \dots \dots (1)$$

$$\Rightarrow 3M + 7W = 10 \text{ days}$$

$$30M + 70W = 1 \text{ day}$$

R.H.S of (1) & (2) are same then

$$48W + 32M = 30M + 70W$$

$$1M = 11W \text{ So } 3M + 7W = 40W = 10 \text{ days}$$

$$\text{So, 10 women can do the work in} = \frac{10 \times 40}{10}$$

$$= 40 \text{ days.}$$

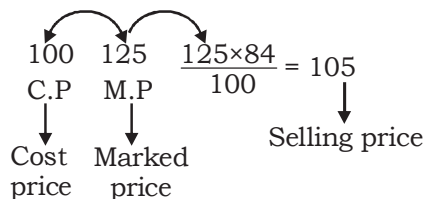
61. (D) According to the question :-

$$M_1 D_1 W_2 + M_2 D_2 W_1$$

$$4 \times 4 \times W_2 = 8 \times 8 \times 4$$

$$W_2 = 16$$

62. (A) Let the cost price = 100



$$\text{Actual Profit} = \frac{5}{100} \times 100 = 5\%$$

63. (C) Ratio of the Area

$$\frac{\Delta ABC}{\Delta ADE} = \frac{(1)^2}{(2)^2} = \frac{1}{4}$$

⇒ So rest part

DEBC will be $\frac{3}{4}$ of the area of ΔABC then

$$\Rightarrow \frac{\text{Area of } \Delta ABC}{\text{Area of BCED}} = \frac{1}{3/4} = \frac{4}{3} = \frac{100}{75} \Rightarrow 75\%$$

64. (D) Product of two irrational numbers can be rational or irrational

$$\sqrt{2} \times \sqrt{2} = 2 \rightarrow \text{rational No}$$

$$\text{Irrational} = \sqrt{3} \times \sqrt{2} = \sqrt{6} \rightarrow \text{irrational}$$

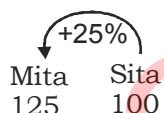
65. (C) According to the question :- given

$$\frac{a_1^2}{a_2^2} = \frac{225}{256} = \frac{a_1}{a_2} = \frac{15}{16}$$

So, ratio of their perimeters

$$\frac{4a_1}{4a_2} = \frac{60}{64} = \frac{15}{16}$$

66. (D)



So Sita's income is less than Mita's income by

$$\Rightarrow \frac{25}{125} \times 100 = 20\%$$

67. (C) A : B = 3 : 4

$$B : C = 6 : 5$$

$$A : B : C = 9 : 12 : 10$$

$$\text{So } A : (A+C) = 9 : (9 + 10) \Rightarrow 9 : 19$$

68. (A) A : B = $\frac{75}{100} : \frac{2}{3}$

$$A : B = 225 : 200 = 9 : 8$$

$$B : C : 0.6 : \frac{75}{100} : \frac{6}{10} : \frac{75}{100}$$

$$= \frac{3}{5} : \frac{3}{4} = 12 : 15$$

$$A : B : C = 27 : 24 : 30 = 9 : 8 : 10$$

69. (C) According to the question :-

Let the quantities are x and y

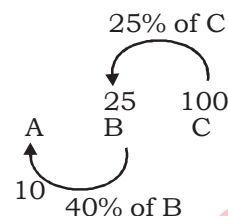
$$\text{So } x + y = 3(x - y)$$

$$\Rightarrow \frac{x+y}{x-y} = \frac{3}{1}$$

$$\Rightarrow x + y = 3x - 3y \Rightarrow 2x = 4y$$

$$\Rightarrow x : y = 2 : 1$$

70. (B)



A's salary is 10% of C's salary.

71. (A) According to the question 259 students failed which is equal to $(100-93) = 7\%$ of the total students

$$7\% = 259$$

$$100\% = 3700$$

72. (B) HCF \times LCM = first no. \times second no.

$$15 \times 300 = 60 \times \text{Second No.}$$

$$\text{Second no.} = \frac{15 \times 300}{60} = 75$$

73. (D) $(3 + 2\sqrt{2})^{-3} + (3 - 2\sqrt{2})^{-3}$

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

$$\Rightarrow \left(\frac{3-2\sqrt{2}}{9-8} \right)^3 + \left(\frac{3+2\sqrt{2}}{9-8} \right)^3$$

$$\Rightarrow 27 - 54\sqrt{2} + 72 + 27 + 54\sqrt{2} + 72 = 198$$

74. (A) $\frac{\sqrt{5}}{\sqrt{3} + \sqrt{2}} - \frac{3\sqrt{3}}{\sqrt{5} + \sqrt{2}} + \frac{2\sqrt{2}}{\sqrt{5} + \sqrt{3}}$

$$\left(\frac{\sqrt{5}(\sqrt{3}-\sqrt{2})}{(\sqrt{3}+\sqrt{2})(\sqrt{3}-\sqrt{2})} \right) + \left(\frac{2\sqrt{2}(\sqrt{5}-\sqrt{3})}{(\sqrt{5}+\sqrt{3})(\sqrt{5}-\sqrt{3})} \right)$$

$$- \left(\frac{3\sqrt{3}(\sqrt{5}-\sqrt{2})}{(\sqrt{5}+\sqrt{2})(\sqrt{5}-\sqrt{2})} \right)$$

$$\Rightarrow \frac{\sqrt{15}-\sqrt{10}}{3-2} + \frac{2\sqrt{10}-2\sqrt{6}}{5-3} - \frac{3\sqrt{15}+3\sqrt{6}}{5-2}$$

$$\Rightarrow \sqrt{15}-\sqrt{10}+\sqrt{10}-\sqrt{6}-\sqrt{15}+\sqrt{6}$$

$$\Rightarrow 0$$

75. (D) Total weight A, B, C = 45×3

$$= 135 \text{ kg}$$

$$\text{weight of A \& B} = 40 \times 2 = 80 \text{ kgs}$$

$$\text{weight of B \& C} = 43 \times 2 = 86 \text{ kgs}$$

$$\text{weight of B} = (80 + 86) - 135 = 31 \text{ kgs}$$

76. (A) When divided by 119 the remainder is 19
 $\Rightarrow 119$ is a multiple of 17. So when divided

$$\text{by } 17 \text{ the Remainder is } = \frac{19}{17} = R = 2$$

77. (C) $1^3 + 2^3 + 3^3 + 4^3 + 5^3 = 225$
 \Rightarrow So $2^3 + 4^3 + 6^3 + 8^3 + 10^3$
 $\Rightarrow 2^3 (1^3 + 2^3 + 3^3 + 4^3 + 5^3)$
 $= 2^3 \times 225$
 $\Rightarrow 1800$

78. (D) Greatest 6 digit number is = 999999
 When divided by 327 the remainder = 33
 \Rightarrow So least number added = $327 - 33 = 294$

79. (D) $\frac{\sqrt{7} + \sqrt{3}}{\sqrt{7} - \sqrt{3}} + \frac{\sqrt{7} - \sqrt{3}}{\sqrt{7} + \sqrt{3}} + \frac{\sqrt{3} - 1}{\sqrt{3} + 1} + \frac{\sqrt{3} + 1}{\sqrt{3} - 1}$

$$\Rightarrow \frac{7+3+2\sqrt{21}+7+3-2\sqrt{21}}{7-3} +$$

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

$$\Rightarrow \frac{20}{4} + \frac{8}{2} = 5 + 4 = 9$$

80. (A) $\frac{3.19 \times 3.19 - 1.81 \times 1.81}{3.19 - 1.81}$

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

$$\Rightarrow \frac{(3.19 + 1.81)(3.19 - 1.81)}{3.19 - 1.81}$$

$$\Rightarrow 5.0$$

81. (B) $4^{4x+1} \frac{1}{64}$

$$\Rightarrow 4^{4x+1} = (4)^{-3}$$

$$\Rightarrow 4x + 1 = -3$$

$$\Rightarrow x = \frac{-4}{4} = -1$$

$$x = -1$$

82. (C) Let the numbers = x, y
 then $x = 17a + 13$
 $\& y = 17b + 11$
 $x + y = 17(a + b) + 24$
 divided by 17 leaves remainder 7.

83. (B) $\sqrt{1 \frac{1}{4} \times \frac{64}{125} \times 1.44}$

$$\Rightarrow \sqrt{\frac{5}{4} \times \frac{64}{125} \times 1.44}$$

$$\Rightarrow \sqrt{\frac{16}{25} \times 1.44} = \frac{4}{5} \times 1.2$$

$$\Rightarrow \frac{48}{50} = \frac{24}{25}$$

84. (D) $3\sqrt{\sqrt{0.000064}}$

$$\Rightarrow 3\sqrt{0.008}$$

$$\Rightarrow 0.2$$

85. (A) $\frac{3\sqrt{2} + 2\sqrt{3}}{3\sqrt{2} - 2\sqrt{3}}$

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

$$\Rightarrow \frac{18 + 12 + 12\sqrt{6}}{18 - 12} = \frac{30 + 12\sqrt{6}}{6}$$

$$\Rightarrow 5 + 2\sqrt{6}$$

86. (A) Given fraction is $\frac{4^2}{9^2} = \frac{16}{81}$

Let x be added to both numerator & denominator \Rightarrow

$$\Rightarrow \frac{16+x}{81+x} = \frac{4}{9}$$

$$\Rightarrow 144 + 9x = 324 + 4x$$

$$\Rightarrow 5x = 180$$

$$\Rightarrow x = 36$$

87. (A) S.I of 1 year = 2300 - 2200

$$= 100$$

So Principle = 2200 - 100

$$= 2100$$

88. (A) According to the Question :-

$$\frac{500 \times x \times 3}{100} + \frac{700 \times (x+1) \times 3}{100} = 165$$

$$\Rightarrow 5 \times x \times 3 + 7 \times (x+1) \times 3 = 165$$

$$\Rightarrow 15x + 21x + 21 = 165$$

$$\Rightarrow 36x = 144$$

$$\Rightarrow x = 4\%$$

89. (D) Let the principle = 100

SI for 3 years at rate 10% = 30

CI for 3 years at rate 10% = 33.1

When difference $\Rightarrow 3.1$ then principle $\Rightarrow 100$

$$\text{When } \Rightarrow 15.50 \rightarrow \frac{100}{3.1} \times 15.50$$

$$\Rightarrow 500$$

90. (D) Let the length = l

& breadth = b

$$\Rightarrow \text{Initial area} = l \times b$$

$$\text{after increament} = \left(\frac{3l}{2} \times b\right) \times \frac{3lb}{2}$$

$$\% \text{ Increase} = \frac{3/2 lb - lb}{lb} \times 100$$

$$\Rightarrow 50\%$$

91. (C) Volume of the sphere = $\frac{4}{3}\pi(10.5)^3$

Volume of the cone = $\frac{1}{3}\pi(3.5)^2 \times 3$

Number of cones

$$\frac{4}{3}\pi(10.5)^3 = n \times \frac{1}{3}\pi(3.5)^2 \times 3$$

$$\frac{4(10.5)^3}{(3.5)^2 \times 3} = n \Rightarrow n = 126$$

92. (C) Lengths of the diagonals of a rhombus = 24 cms & 10 cms.

Side of the rhombus = $\sqrt{(12)^2 + (5)^2}$
 $= 13$

Perimeter = $4 \times 13 = 52$ cm.

93. (A) $r_1 : r_2 = 3 : 4$

$h_1 : h_2 = 4 : 3$

Volume = $2\pi r^2 h$

So Ratio of Volumes = $\frac{2\pi(r_1)^2 h_1}{2\pi(r_2)^2 h_2} = \frac{9 \times 4}{16 \times 3}$

$V_1 : V_2 = 3 : 4$

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

Let the Value of A = 60°

then $\cos A = \frac{1}{2}$ & $\tan A = \sqrt{3}$

$\Rightarrow (2 + 1)(2 - 1) - (\sqrt{3})^2 = 0$

95. (C) $\frac{\sqrt{7} - \sqrt{5}}{\sqrt{7} + \sqrt{5}} + \frac{\sqrt{7} + \sqrt{5}}{\sqrt{7} - \sqrt{5}}$

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

$\Rightarrow \frac{12}{2} = 6 \quad ((a+b)^2 + (a-b)^2 = a^2 + b^2)$

96. (C) $a^2 = by + cz$ (1)

$b^2 = cz + ax$ (2)

$c^2 = ax + by$ (3)

$\Rightarrow \frac{x}{a+x} + \frac{y}{b+y} + \frac{z}{c+z}$

$\Rightarrow \frac{ax}{a^2+ax} + \frac{by}{b^2+by} + \frac{cz}{c^2+cz}$

(Multiplied by a, b, c both in numerator & denominator)

$\Rightarrow \frac{ax}{by+cz+ax} + \frac{by}{cz+ax+by} + \frac{cz}{ax+by+cz}$

Putting the values)

$\Rightarrow \frac{ax+by+cz}{ax+by+cz} = 1$

97. (C) $x + \frac{9}{x} = 6$

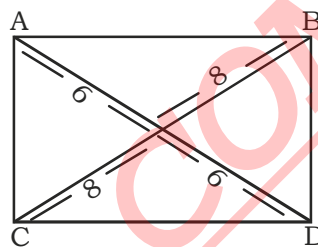
\Rightarrow Here $x = 3$ satisfies the equation

So Value of $x^2 + \frac{9}{x^2} = 9 + \frac{9}{9} = 9 + 1 = 10$

98. (A) $AB^2 = 6^2 + 8^2$

$= 100$

$AB = 10$ cm.

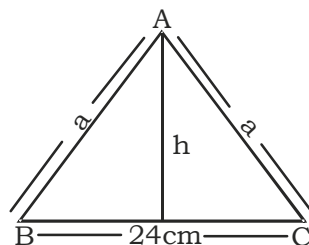


99. (D) Area =

$\frac{1}{2} \times 24 \times h = 192$

$h = \frac{192 \times 2}{24}$

$h = 16$ cm.



100. (B) According to the question :-

$2M + 3W = 20$

\Rightarrow So, $40M + 60W = 1$ (1)

& $\Rightarrow 4M = 20$

$80M + 1$ (2)

$\Rightarrow 40M + 60W = 80M$

$\Rightarrow 60W = 40M$

$2M = 3W$

So, $3M + 3W = 3M + 2M = 5M$

Now 5 M can do = $\frac{20 \times 4}{5} = 16$ days