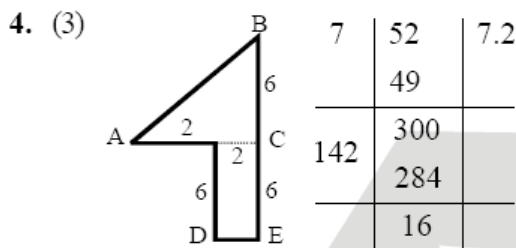


SSC PRE MOCK TEST – 6 (SOLUTION)

1. (2) $16 + 20 = \frac{36}{2} = 18$
 $18 + 22 = \frac{40}{2} = 20$
 $\frac{9+x}{2} = 8$
 $9+x = 16$
 $\therefore 9+x = 16$
 $x = 7$

2. (3) $2 + 3 + 1 = 6$
 $4 + 3 + 2 = 9$
 $9 - 6 = 3$
 Now,
 $5 + 6 + 1 = 12$
 $3 + 6 + 6 = 15$
 $15 - 12 = 3$

3. (1) |## + <> = **BOAST**



AC = 4
 BC = 6

$AB = \sqrt{(4)^2 + (6)^2}$
 $= \sqrt{16 + 36}$
 $= \sqrt{52} = 7.2 \text{ km}$

5. (3)

Country	Currency
Germany	Mark
Morocco	Morocoon Dirham

6. (3) $L \xrightarrow{-2} J \xrightarrow{-2} H \xrightarrow{-2} F$
 $U \xrightarrow{-2} S \xrightarrow{-2} Q \xrightarrow{-2} O$
 $Q \xrightarrow{-2} O \xrightarrow{-2} M \xrightarrow{-2} K$
 $V \xrightarrow{-2} T \xrightarrow{-2} R \xrightarrow{-2} P$
 = VTRP

7. (2) COUNTRY \rightarrow F R X Q W U B

EXAMINE \rightarrow H A D P L Q H

= HADPLQH

8. (3) $(3)^2 + 2 = 9 + 2 = 11$

$(7)^2 + 2 = 49 + 2 = \boxed{51}$

9. (3) $6 \times \frac{6}{2} = 6 \times 3 = 18$

$4 \times \frac{4}{2} = 4 \times 2 = \boxed{8}$

10. (2) House sparrow is common bird.

11. (4) Except "SUVY" all other are meaningful words.

12. (2) $J \xrightarrow{+2} L \xrightarrow{+3} O \xrightarrow{+4} S$

$G \xrightarrow{+1} H \xrightarrow{+1} I \xrightarrow{+4} M$

$H \xrightarrow{+2} J \xrightarrow{+3} M \xrightarrow{+4} Q$

$P \xrightarrow{+2} R \xrightarrow{+3} U \xrightarrow{+4} T$

13. (3) Except "42" all other are multiples of '4'.

14. (3) Meaningful order

(1) Crawling (2) Sitting (3) Standing (4) Walking (5) Running.

12453

15. (3) (1) Diagnosis (2) Operation, (3) Post operational care (4) Discharge

16. (4) $Z - 5 = U$
 $\begin{matrix} 26 & & 21 \end{matrix}$
 $U - 4 = Q$
 $\begin{matrix} 21 & & 17 \end{matrix}$
 $Q - 3 = N$
 $\begin{matrix} 26 & & 14 \end{matrix}$
 $N - 2 = L$
 $\begin{matrix} 14 & & 12 \end{matrix}$

17. (3) $3 \times 2 = 6$
 $8 \times 2 = 16$
 $18 \times 2 = 36$

18. (3) gfeei/ gfeii/geii/fgeee/ ifgie

19. (2) aab/aab/aab/aab/ baab

20. (1) From the cut pieces figure '1' can be formed.

21. (2) There are '32' cubes and it is clearly seen that '22' are visible so unseen cubes are $= 32 - 22 = 10$

22. (1) '7' lies in all the figures
 \therefore it represents
 Business Bopal educated with income more than 10,000 per month.

23. (4)

24. (2) 654/ 450

25. (1) $W = 58, A = 10, R = 67, D = 75$

26. (1) dictator

27. (1) On completion of

28. (1) Will you please give me a glass of warm water?

29. (2) Carnivorous

30. (2) Pseudonym

31. (2) Planning

32. (3) Ubiquitous

33. (2) Exonerate

34. (3) A

35. (2) The

36. (4) Under

37. (3) That

38. (1) Much

39. (3) Of

40. (1) become

41. (4) Because

42. (1) is

43. (2) Neglected

44. (4) Equilibrium Equality
 Ant Inequality

45. (3) Paucity only small or insufficient
 Ant Plethora.

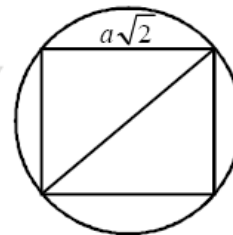
46. (1) Quicken
 Syn Accelerate

47. (1) Transient
 Syn Impermanent
 Temporary

48. (2) Compensate
 Syn Make up

49. (3) 50. (4)

51. (1)



When a square is inscribed in a circle then diagonal of square is the 'Diameter' of the circle

So,

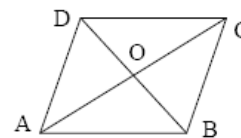
$$\text{Side} = a\sqrt{2}$$

$$\therefore \text{Diagonal} = \sqrt{2}a = \sqrt{2} \times a\sqrt{2} = 2a$$

$$\therefore \text{Circumference of circle}$$

$$= 2 \times \pi \times \frac{2a}{2} = 2\pi a$$

52. (1)



$$AB = BC = CD = DA = 10 \text{ cm}$$

$$AC = 16 \text{ cm}$$

In $\triangle OAB$

$$OA = 8$$

$$AB = 10$$

$$\& \angle AOB = 90^\circ$$

$$\therefore OB = \sqrt{AB^2 - OA^2}$$

$$= \sqrt{100 - 64}$$

$$= \sqrt{36} = 6$$

$$\therefore BD = 2 \times 6 = 12 \text{ cm}$$

$$\text{Area of Rhombus} = \frac{1}{2} \times d_1 \times d_2$$

$$= \frac{1}{2} \times 16 \times 12 = 96 \text{ cm}^2$$

53. (2) Perimeter of rectangle = $2(l+b)$
length = 12

$$2(l+b) = 40$$

$$l+b = \frac{40}{2}$$

$$l+b = 20$$

$$b = 20 - 12$$

$$b = 8 \text{ m}$$

54. (4) $(x-2)$ is factor so $x = 2$

$$x^2 + 3Qx - 2Q = 0$$

$$4 + 6Q - 2Q = 0$$

$$4 + 4Q = 0$$

$$4Q = -4$$

$$Q = -1$$

55. (4) $(a+b)^2 = a^2 + b^2 + 2ab$

$$(12)^2 = a^2 + b^2 + 2 \times 22$$

$$144 = a^2 + b^2 + 44$$

$$a^2 + b^2 = 144 - 44 = 100$$

56. (1) 

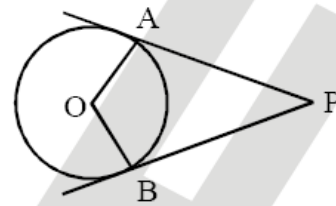
$$\angle RPT = 50$$

$$\angle RPT = 90^\circ \text{ (Angle of semicircle)}$$

$$\therefore \angle SPQ = 180 - (90 + 50)$$

$$= 180 - 140 = 40^\circ$$

57. (2)



$$\angle AOB = 110^\circ$$

$$\therefore \angle APB = 180 - 110 = 70^\circ$$

58. (1) $\frac{1}{2} \times \frac{2}{3} \times \frac{3}{4} \times \frac{4}{5} \dots \frac{(n-1)}{n} = \frac{1}{n}$

59. (3) $\frac{1}{1 \times 4} + \frac{1}{4 \times 7} + \frac{1}{7 \times 10} + \frac{1}{10 \times 13} + \frac{1}{13 \times 16}$

$$= \frac{1}{3} \left(1 - \frac{1}{4} \right) + \frac{1}{3} \left(\frac{1}{4} - \frac{1}{7} \right) + \dots + \frac{1}{3} \left(\frac{1}{13} - \frac{1}{16} \right)$$

$$= \frac{1}{3} \left(1 - \frac{1}{4} + \frac{1}{4} - \frac{1}{7} + \frac{1}{7} - \frac{1}{10} + \frac{1}{10} - \frac{1}{13} + \frac{1}{13} - \frac{1}{16} \right)$$

$$= \frac{1}{3} \left(1 - \frac{1}{16} \right) = \frac{1}{3} \times \frac{15}{16} = \frac{5}{16}$$

60. (3) Prime number between 80 to 90 is 83 and 89

$$\text{Required product} = 83 \times 89 = 7387$$

61. (2) Required number = HCF of $(729 - 9)$ and $(901 - 5) = 720$ and 896

$$\begin{array}{r} 720 \overline{) 896(1} \\ \underline{720} \\ 176 \overline{) 720(4} \\ \underline{704} \\ 16 \overline{) 176(11} \\ \underline{16} \\ 16 \\ \underline{16} \\ 0 \end{array}$$

$$= 16$$

62. (4) Let C.P. = 100

$$\therefore \text{Marked Price} = 110$$

Now 10% discount on Market price

$$= \frac{110 \times 90}{100} = 99$$

$$\therefore \text{Seller bear} = 100 - 99 = \text{Loss } 1\%$$

63. (2) If '2' ratio = 40

$$\text{then '5' ratio} = \frac{40}{2} \times 5 = 100 \text{ m}$$

$$64. (2) \frac{M_1 D_1 H_1}{w_1} = \frac{M_2 D_2 H_2}{w_2}$$

$$= \frac{7 \times 7 \times 7}{7} = \frac{5 \times 5 \times 5}{w}$$

$$w_2 = \frac{125}{49}$$

65. (2) SP : CP
Let C.P = ₹ 300
then S.P. = $300 \times \frac{4}{3} = 400$
 \therefore Gain % = $\frac{100}{300} \times 100$
 $= \frac{100}{3} = 33\frac{1}{3}\%$

66. (2) Pass percentage of 1st section 80%
 \therefore No. of students passed in 1st section
 $= \frac{20 \times 80}{100} = 16$
Similarly
Pass percentage of IInd section = 60%
 \therefore No. of students passed in IInd section
 $= \frac{30 \times 60}{100} = 18$
 \therefore Total no. of students passed
 $= 16 + 18 = 34$
Pass percentage of whole class
 $= \frac{34}{50} \times 100 = 68\%$

67. (4) Let my age - 16 yrs ago = x yrs
 \therefore My grandfather's age 16 yrs ago
 $= 9x$
My present age = $x + 16$
My grandfather present age = $9x + 16$
After 8 years my age will become
 $= x + 24$
& my grandfather age will become = $9x + 24$
 $3(x + 24) = (9x + 24)$
 $3x + 72 = 9x + 24$
 $3x - 9x = 24 - 72$
 $-6x = -48$
 $x = 8$
Present age of mine = 24 yrs
& yrs ago of mine = $24 - 8 = 16$ yrs
Present age of my grandfather

$$= 72 + 16 = 88 \text{ yrs}$$

8 yrs ago of my grandfather
 $= 88 - 8 = 80 \text{ yrs.}$
 \therefore Required ratio = $16 : 80 = 1 : 5$

68. (2) $a^3 + b^3 = (a+b)(a^2 - ab + b^2)$
 $\Rightarrow 9 = 3(a^2 + b^2 - ab)$
 $a^2 + b^2 - ab = \frac{9}{3} = 3$
 $(a+b)^2 - 2ab - ab = 3$
 $9 - 3ab = 3$
 $ab = 2$
 $\frac{1}{a} + \frac{1}{b} = \frac{a+b}{ab} = \frac{3}{2}$

69. (2) $x = \sqrt{3} - \frac{1}{\sqrt{3}}$
 $= \sqrt{3} - \frac{1}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{1} - \frac{\sqrt{3}}{3}$
 $\frac{3\sqrt{3} - \sqrt{3}}{3} = \frac{2\sqrt{3}}{3}$
 $y = \sqrt{3} + \frac{1}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}}$
 $= \sqrt{3} + \frac{\sqrt{3}}{3}$
 $= \frac{3\sqrt{3} + \sqrt{3}}{3} = \frac{4\sqrt{3}}{3}$

$$x^2 = \frac{12}{9} \quad y^2 = \frac{48}{9}$$

$$\frac{x^2}{y} = \frac{\frac{12}{9}}{\frac{4\sqrt{3}}{3}} = \frac{36}{36\sqrt{3}} = \frac{1}{\sqrt{3}}$$

$$\frac{y^2}{x} = \frac{\frac{48}{9}}{\frac{2\sqrt{3}}{3}} = \frac{144}{18\sqrt{3}} = \frac{8}{\sqrt{3}}$$

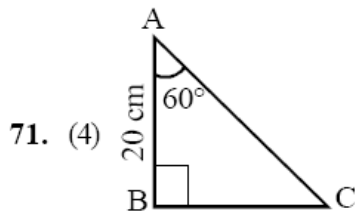
$$= \frac{1}{\sqrt{3}} + \frac{8}{\sqrt{3}} = \frac{9}{\sqrt{3}} = 3\sqrt{3}$$

70. (3) Let $A = 45^\circ$ & $B = 30^\circ$
 $\sin(45 + 30)$

$$= \sin 45 \cos 30 + \cos 45 \sin 30$$

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

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



$$\angle B = 90^\circ$$

$$\angle A = 60^\circ$$

$$\angle C = 180 - 150 = 30^\circ$$

$$\cos C = \frac{BC}{CA}$$

$$\cos 30^\circ = \frac{BC}{CA}$$

$$\frac{\sqrt{3}}{2} = \frac{BC}{CA} = \sqrt{3} : 2$$

72. (4) Number of children in 1988
 $= 146947 - 65104 - 60387 = 21456$
73. (2) Total population in 1989
 $= 146947 + 11630 = 158577$
74. (1) Number of children in 1989
 $= 158577 - 70391 - 62516 = 25670$
75. (1) Total population in 1991
 $= 153922 - 5337 = 1485885$
 \therefore Number of women
 $= 148585 - 69395 - 21560 = 57630$
76. (3) Molecular formulae of washing soda =
 $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$
77. (3)
78. (3) Kanchenzunga National Park is located in Sikkim
79. (1) Biosphere Reserve of India Nanda Devi (UNESCO) is located in Uttarakhand

80. (2) Hyderabad
81. (3) During the tenure of Miss Indira Gandhi in 1969 14 major private banks were nationalized.
82. (4) One Rupee Notes are issued by the Finance ministry, Govt. of India.
83. (4) The first "Shatabdi Express" train was started in 1988 to commemorate the centenary of Pandit Jawahar Lal Nehru.
84. (2) Rabi refers to the agricultural crops grown in winter whereas rice is Kharif crop.
85. (2) Delhi and Kolkata are connected through NH-2.
86. (3) The second plan between 1956-1961 was focussed on development of India by establishing heavy Industries.
87. (3) High Court shall be the authority for presentment of Election Petitions.
88. (3) 97
89. (3) Six Months
90. (2) Fundamental Duties were incorporated in the constitution during 42nd Amendment 1976.
91. (2) Soliloquy
92. (2) A rift valley is formed between two faults or highlands.
93. (3) Lake, Nassar
94. (3) 30
95. (3) During the region of Bindusara there was unrest at Taxila in the north-west province of Sindh.
96. (1) Most stems are positively phototropic.
97. (2) Isolation means solar radiation that reaches earth's surface.
98. (2) Red Terrain
99. (2) Momentum
100. (2) Lactometer is the instrument which is used to measure the density of milk.

SSC PRE MOCK TEST - 6(ANSWER)

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