SSC MOCK TEST – 150 (SOLUTION)

1. (C) As, Ampere is unit of Electric Current.
Similarly, Newton is unit of **Buoyancy**.

2. (B) As, B → 2 ⇒ $(2)^2 = 4$
K → 11 ⇒ $(11)^2 = 121$
L → 12 ⇒ $(12)^2 = 144$
Similarly, L → 12 ⇒ $(12)^2 = 144$
D → 4 ⇒ $(4)^2 = 16$
C → 3 ⇒ $(3)^2 = 9$
∴ LDC → **144169**

3. (C) As, (8 +4) ÷ 4 = 3
Similarly, **(7 + 9) ÷ 4 = 4**

4. (B) Except **'Cricket'**, all other games are played in Olympics.

5. (A) KOZ = 11 + 15 + 26 = **52** **(Composite number)**
CRZ = 3 + 18 + 26 = 47
GWK = 7 + 23 + 11 = 41
FHO = 6 + 8 + 15 = 29

6. (D) 1 + 2 + 2 = 5 ⇒ $(5)^2 = 25$
3 + 4 + 1 = 8 ⇒ $(8)^2 = 64$
2 + 5 + 2 = 9 ⇒ $(9)^2 = 81$
2 + 9 + 0 = 11 ⇒ $(11)^2 = 121 \neq 75$

7. (B) XANTHIC → XENONS → XENOPHOBIA → XEROX → XYLEM

8. (A)

L	O	Q	,	S	V	X	,	Z	C	E	,	G	J	L
	+3	+2	+2	+3	+2	+2	+3	+2	+2	+3	+2			

9. (C) 13 × 2 = 26
26 + 2 = 28
28 × 2 = 56
56 + 2 = 58
58 × 2 = **116**

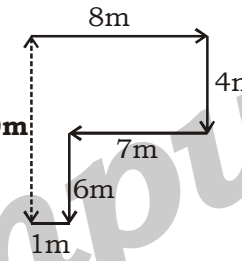
10. (D) Pawan —Brother→ Kumar
Pawan —Father→ Sanu
Kumar —Son→ Rocky
Rocky —wife→ Vinita
Vinita is wife of Sanu's cousin.
∴ Vinita is **sister-in-law** of Sanu.

11. (C) Moto ↑ Red ↑ Bull ↑ Energy ↑ Lion
∴ **'Red'** have second most caffeine content.

12. (D)

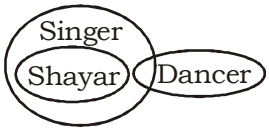
13. (C) As, N I G H T
+5 +4 +3 +2 +1
O D D G M
and D R E A M
+5 +4 +3 +2 +1
H W B P C
Similarly, G R E E N
+5 +4 +3 +2 +1
I A B P F

14. (C) By choosing option C,
13 C 13 A 13 B 13 D 13
After changing the signs, as per given details,
13 ÷ 13 – 13 + 13 × 13 = **157**

15. (A)


16. (D) (48 + 35) – (17 + 25) = 41
(28 + 46) – (37 + 15) = 22
(33 + 41) – (26 + 14) = **34**

17. (B) 7 × 2 × 8 + 3 = 115
3 × 1 × 4 + 3 = **15**
6 × 5 × 9 + 3 = 273

18. (B)


I. False II. True
Hence, only conclusion II follows.

19. (B) **37 Triangles**

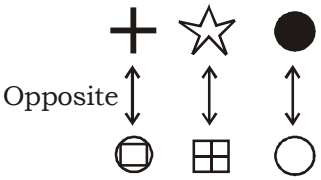
20. (C) a**a**b**c**/ab**b**c/ab**c**c

21. (D) Jan 1st, 2006 – Sunday
↓ + 1 day
Jan 1st, 2007 – Monday
↓ + 1 day
Jan 1st, 2008 – Tuesday
↓ + 2 days
Jan 1st, 2009 – Thursday
↓ + 1 day
Jan 1st, 2010 – Friday

22. (C)

23. (D)

24. (C)



On observing the figure, option (C) can't be possible.

25. (B)

26. (C) Significant coastal features formed due to marine erosion by sea waves and other currents and solution processes include cliffs, caves, indented coastline, stacks, chimneys, arch, inlets, wave-cut platforms etc.

- Cirque: A cirque is an amphitheater-like valley formed by glacial erosion.

27. (D) Centrioles play very important role in cell division. During cell division, they duplicate and a pair of centrioles moves to each pole of the cell. Each pair at opposite poles produces the spindle fibers, which radiate towards the equator of cell and then attach the chromosomes and help them migrate towards both poles of the cell.

28. (B) Connective tissues are the most abundant tissues of complex animals. They link and support other tissues/ organs of the body. The connective tissues include cartilage, bone, adipose, and blood. All connective tissues except blood secrete structural proteins which are called collagen or elastin.

29. (A) Ascaris is an intestinal parasite of humans. It is the most common human worm infection. The larvae and adult worms live in the small intestine and can cause intestinal disease.

30. (C) At the surface of the Earth, the acceleration due to gravity is roughly 9.8 m/s^2

31. (C) Mercury is an extremely unusual element, in many ways, both physical and chemical. It is the only metal that is liquid at room temperature. It has the lowest melting point and boiling point of any other metal.

32. (C) The Sundarbans is the largest mangrove forest in the world, located in the Ganges River delta in Bangladesh. Mangroves are salt-tolerant trees that are also called halophytes, and are adapted to life in harsh coastal conditions.

33. (D) In 1913, Harry Brearley of Sheffield, UK discovered 'rustless' steel. Although there had been many prior attempts, Brearley has been credited with inventing the first true stainless steel, which had 12.8% chromium content.

34. (D) Tour de France is the world's most prestigious and most difficult bicycle race. Of the three foremost races, the Tour de France attracts the world's best riders.

35. (C) The Maharana Mewar Award is a State Award. It is given in Rajasthan state of India.This award has been instituted to honour work of permanent value to those who consider it their duty, like the Diwan of Shri Eklingji still do, to benefit society through services in the field of education, literature, social services, philanthropy and character building activities.

36. (B) One caste, one religion, one God for mankind, were the famous words by Sree Narayana Guru.He was a great saint, scholar, philosopher, poet, and the forerunner of social renaissance in Kerala.

38. (D) Distillation is a procedure by which two liquids with different boiling points can be separated. Distillation is used for many commercial processes, such as the production of gasoline, distilled water, alcohol, paraffin, kerosene, and many other liquids.

39. (D) The Olympic motto is the hendiatris Citius, Altius, Fortius, which is Latin for "Faster, Higher, and Stronger". It was proposed by Pierre de Coubertin upon the creation of the International Olympic Committee in 1894.

41. (D) Each day, the earth rotates once on its axis, which equals 360 degrees. In 24 hours the Earth rotates 360 degrees (of longitude).

In 1 hour it will rotate 360/24=15 degree i.e. in 60 minutes it rotates 15 degrees. So, in 4 minutes it will rotate 1degrees.

42. (C) Bering Strait is connected to the Pacific Ocean by the Bering Strait and to the Atlantic Ocean through the Greenland Sea and Labrador Sea.

44. (A) The Constituent Assembly took almost three years (two years, eleven months and seventeen days to be precise) to complete its historic task of drafting the Constitution for Independent India.

45. (D) Underemployment : The condition in which people in a labour force are employed at less than full-time or at jobs below their level of training or their economic needs.

48. (C) Laptop keyboards, such as the 101-key US traditional keyboards or the 104-key Windows keyboards, include alphabetic characters, punctuation symbols, numbers and a variety of function keys.

50. (C) A physical quantity is a physical property of a phenomenon, body, or substance that can be quantified by measurement.

Base quantity	Symbol	SI base unit
Length	l	meter (m)
Mass	m	kilogram (kg)
Time	t	second (s)

51. (B) Let $x = 8+\cfrac{1}{8+\cfrac{1}{8+\cfrac{1}{8+\ldots\infty}}}$

So, $x = 8 + \frac{1}{x}$

$\Rightarrow x^2 = 8x + 1$

$\Rightarrow x^2 - 8x = 1$

Adding '16' to both sides,

$\Rightarrow x^2 - 8x + 16 = 1 + 16$

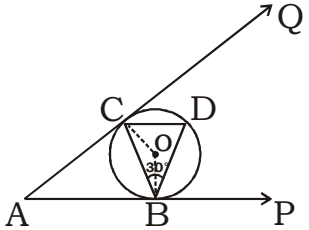
$\Rightarrow (x-4)^2 = 17$

$\Rightarrow x - 4 = \pm\sqrt{17} \Rightarrow x = 4 \pm \sqrt{17}$

But we can't take $x = 4 - \sqrt{17}$ because it gives negative value.

Hence, $x = 4 + \sqrt{17}$

52. (A)



$\angle DBP = \angle BCD$ **[Alternate segment theorm]**

and $\angle DBP = \angle BDC$ **[Alternate angle]**

$\therefore$ From the above two,

$\angle BCD = \angle BDC = x$ (Let)

In ΔBDC,

$\angle BCD + \angle BDC + \angle CBD = 180°$

$\Rightarrow x + x + 30° = 180°$

$\Rightarrow x = 75°$

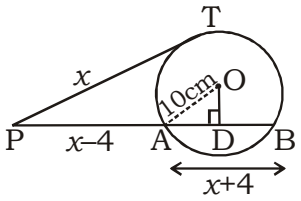
Now, $\angle BOC = 2\ \angle BDC = 2 \times 75° = 150°$

and $\angle BOC + \angle BAC = 180°$

$\Rightarrow 150° + \angle BAC = 180°$

$\Rightarrow \angle BAC = 180° - 150° =$ **30°**.

53. (C)



We know that,

$PT^2 = PA.\ PB$

$\Rightarrow x^2 = (x-4)\ 2x$

$\Rightarrow x = 2(x-4)$

$\Rightarrow x = 2x - 8$

$\Rightarrow x = 8$ cm

$\therefore$ AB = $x + 4 = 8 + 4 = 12$ cm

$\because$ OD $\perp$ AB and AB is a chord.

So, $AD = DB = \frac{AB}{2} = \frac{12}{2} = 6$cm

Now, $OD = \sqrt{OA^2 - AD^2}$

$OD = \sqrt{10^2 - 6^2} =$ **8 cm**

54. (C) $\dfrac{(x^2+5x+4)(x+2)}{(x^2-2x+8)(x+1)}$

$= \dfrac{(x+1)(x+4)(x+2)}{(x+4)(x-2)(x+1)} = \dfrac{\mathbf{(x+2)}}{\mathbf{(x-2)}}$

55. (D) A(2,–3) B(6,3)

Slope of line AB = $m_1 = \frac{3-(-3)}{6-2} = \frac{6}{4} = \frac{3}{2}$

For perpendicular lines,

$m_1 m_2 = -1$

$\therefore \frac{3}{2} \times m_2 = -1$

$\Rightarrow m_2 = \mathbf{\frac{-2}{3}}$

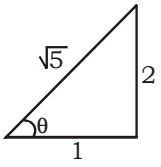
56. (A) $16\frac{2}{3}\% = \frac{1}{6}$

Principal		Amount
6	:	7
6	:	7
6	:	7
216		343

Difference = 127 unit = 3810 (given)

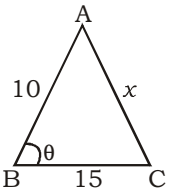
$\therefore$ 216 unit $= \frac{3810}{127} \times 216$
$= ₹\mathbf{6480}$

57.(C) ATQ,



$2\sec^2\theta + 3\tan^2\theta = 22$ ...(i)
and we know,
$\sec^2\theta - \tan^2\theta = 1$ ...(ii)
By solving (i) and (ii),
$\sec^2\theta = 5$
$\Rightarrow \sec\theta = \sqrt{5}$
$\therefore \text{cosec}\,\theta = \mathbf{\frac{\sqrt{5}}{2}}$

58. (A)



Area $(\Delta ABC) = \frac{1}{2} \times a \times b \times \sin\theta$

$\Rightarrow 60 = \frac{1}{2} \times 10 \times 15 \times \sin\theta$

$\Rightarrow \text{Sin}\,\theta = \frac{4}{5}$

$\therefore \cos\theta = \frac{3}{5}$

Now, we know that

$\cos\theta = \frac{a^2 + b^2 - c^2}{2ab}$

$\Rightarrow \frac{3}{5} = \frac{10^2 + 15^2 - x^2}{2 \times 10 \times 15}$
$\Rightarrow 180 = 325 - x^2$
$\Rightarrow x^2 = 145$
$\Rightarrow x = \mathbf{\sqrt{145}}$ **unit**

59. (D) $10^{105} = 2^{105} \times 5^{105}$

$\therefore \frac{2^{105} \times 5^{105}}{5^{85}}$
$= 2^{105} \times 5^{20}$
$= 2^{20} \times 2^{85} \times 5^{20}$
$= \mathbf{2^{85} \times 10^{20}}$

60. (C) Let the numbers be $5x$ and $4x$ respectively.
ATQ,
$(5x)^2 + (4x)^2 = 369$
$\Rightarrow 25x^2 + 16x^2 = 369$
$\Rightarrow 41x^2 = 369$
$\Rightarrow x^2 = 9$
$\Rightarrow x = 3$
$\therefore$ Numbers are $5x = 5 \times 3 = 15$
and $4x = 4 \times 3 = 12$
Hence, difference = 15 –12 = **3**

61. (D) $x(x-2) = -1$

$\Rightarrow x - 2 = -\frac{1}{x}$

$\Rightarrow x + \frac{1}{x} = 2$

$\therefore x = 1$

Now, $x^3(x^3 + 1) = 1^3(1^3 + 1) = 1(1 + 1) = \mathbf{2}$

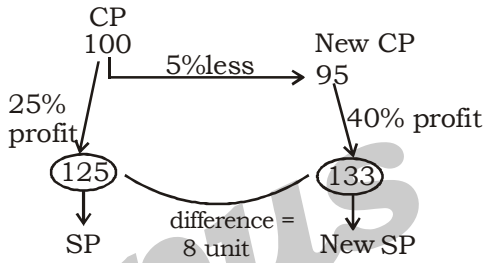
62. (A) 37.5% of x = 345

$\therefore x = \frac{345}{37.5} \times 100 = 920$

Now, 23 = z% of 920

$\therefore z = \frac{23}{920} \times 100 = \mathbf{2.5\%}$

63. (B) ATQ,



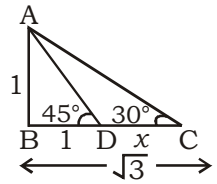
8 units = ₹ 48 (given)

$\therefore$ 100 units $= \frac{48}{8} \times 100 =$ ₹ 600

Therefore, CP of fan = **₹ 600**

64. (B) $\text{Cosec}^4\theta - \text{Cot}^4\theta = (\text{Cosec}^2\theta)^2 - (\text{Cot}^2\theta)^2$
$= (\text{Cosec}^2\theta - \text{Cot}^2\theta)(\text{Cosec}^2\theta + \text{Cot}^2\theta)$
$= 1 \times \sqrt{3} = \mathbf{\sqrt{3}}$

65. (C)



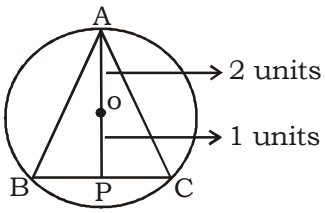
Let length of tower = AB = 1 unit
Diff. between shadow's length
$= x = BC - BD$
$= (\sqrt{3} - 1)$ unit
$\because$ 1 unit = 40 m
$\therefore (\sqrt{3} - 1)$ unit = $\mathbf{40\,(\sqrt{3} - 1)}$ **m**

66. (A) ATQ,

$15 = \frac{8 + 10 + 16 + x + 13 + 22 + 24}{7}$

$\Rightarrow 105 = 93 + x$
$\Rightarrow x = 105 - 93 = \mathbf{12}$

67. (A)



Given,
ΔABC is an equilateral Δ.
AO = circumradius = 2 units
OP = Inradius = 1 unit

$\therefore$ 2 units = $2\sqrt{3}$ (given)

$\therefore$ 1 unit = $\frac{2\sqrt{3}}{2} = \sqrt{3}$

$\therefore$ Height of triangle = AO + OP
$= 2\sqrt{3} + \sqrt{3}$
$= \mathbf{3\sqrt{3}\ cm}$

68. (D)

CP	:	MP
(100 – Discount%)	:	(100+ profit%)
100 –10	:	100 +20
90	:	120
⇓×10	:	⇓×10
900		1200 (given)

$\therefore$ Cost price of article = **₹900**

69. (B) $3x = \sec\theta$

$\Rightarrow x = \frac{\sec\theta}{3}$

and, $\frac{3}{x} = \tan\theta$

$\Rightarrow \frac{1}{x} = \frac{\tan\theta}{3}$

$\therefore 6\left(x^2 - \frac{1}{x^2}\right) = 6\left(\frac{\sec^2\theta}{9} - \frac{\tan^2\theta}{9}\right)$

$= \frac{6}{9}(\sec^2\theta - \tan^2\theta) = \mathbf{\frac{2}{3}}$

70. (C) Let breadth = x
$\therefore$ length = $2x$
ATQ,
$x \times 2x = 578$

$\Rightarrow x^2 = \frac{578}{2} = 289$

$\Rightarrow x = 17$
$\therefore$ breadth = 17 m
and length = $2x = 2 \times 17 = 34$ m
Hence, perimeter = 2 (l + b) = 2 (34 + 17) = **102 m**

71. (A) $x = 6^{\frac{2^n-1}{2^n}}$ where n = number of terms

$\Rightarrow x = 6^{\frac{2^5-1}{2^5}} = \mathbf{6^{\frac{31}{32}}}$

72. (D) Number of players in Archery

$= \frac{5}{100} \times 800 = 40$

Number of females = 40 – 12 = 28
Required ratio = 28 : 40 = **7 : 10**

73. (B) Number of players in wrestling

$= \frac{24}{100} \times 800 = 192$

$\therefore$ Required percentage = $\frac{165}{192} \times 100 = \mathbf{86\%}$

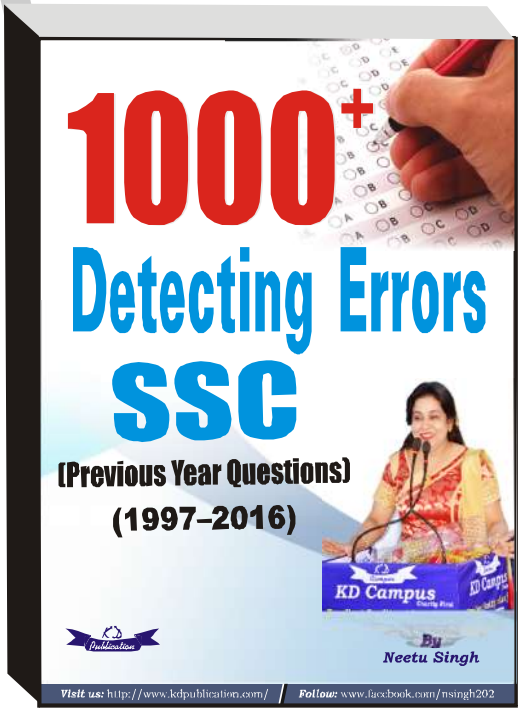
74. (A) Number of players in shooting

$= 800 \times \frac{20}{100} = 160$

Number of females = 160 – 74 = 86

$\therefore$ Required percentage = $\frac{86}{800} \times 100 = \mathbf{10.75\%}$

75. (C) Total players in wrestling = 192
Males = 165
Females = 192 – 165 = 27
$\therefore$ Required ratio = 165 : 27 = **55 : 9**



MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Opprobrium	harse criticism or censure	अपमान
Repugnance	intense disgust, extreme harder	घृणा
Reconnoiter	to go to a place in order to find out information about military enemy.	जाँच पड़ताल करना
Fugitive	running away to avoid being captured	भगोड़ा
Beguile	to trick, to deceive	गुमराह करना
Hirsute	having a lot of hair especially on the face or body	बालदार,
Humorous	causing laughter and amusement	विनोदपूर्ण
Horrible	causing horror	डरावना
Feud	a prolonged and bitter quarrel	झगड़ा
Debate	a discussion between people in which they express different opinions about something	वाद-विवाद
Piquant	having a pleasant, spicy taste	तीखा व स्वादिष्ट
Soothing	producing feelings of comfort or relief	सुखदायक
Sarcastic	using or showing sarcasm	कटु, व्यंग्यपूर्ण
Enviable	causing envy	ईष्या से
Halcyon	very happy and peaceful	शांत, खुशगवार
Robust	strong and healthy	मजबूत
Levitate	to make something rise into the air in a way that appears to be magical.	हवा में उठ जाना
Manoeuvre	a movement or series of moves requiring skill and care	कौशल
Spicy	flavoured with or fragrant with spice	तीखा
Racy	Lively, entertaining	मनोहर
Transcendent	going beyond the limits of ordinary experience	उत्कृष्ट
Complaisant	willing to please other people	शिष्ट, विनय-पूर्ण
Renaissance	a situation or period of time when there is a new interest in something that has not been popular for a long time	पुण:जागरण काल

SSC MOCK TEST - 150 (ANSWER KEY)

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

76. **(C)** Change 'is' into 'was'. 'In 2006' in the sentence indicates that sentence should be in the past tense.

77. **(A)** We sometimes use 'should' in the meaning of 'if'. According to the meaning of the sentence. Here 'should' means 'if' So change 'would' into 'should'.

86. **(C)** 'be known' is the correct option. According to the meaning of the sentence, sentence should be in passive voice.

87. **(A)** 'All the issues discussed during' is the correct option. Here, we need passive meaning of the verb 'discuss' so the verb 'discuss' should be in (V_3) form 'past participle' as the verb 'were' is given in the sentence for the subject 'All the issues'.

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

Note:- Whatsapp with Mock Test No. and Question No. at 7053606571 for any of the doubts. Join the group and you may also share your suggestions and experience of Sunday Mock Test.

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