SSC MOCK TEST – 58 (SOLUTION)

1. (C) As, Z ¾ ³⁸⁄₄ R ¾ ³⁷⁄₄ Y ¾ ³⁸⁄₄ Q
K ¾ ³⁸⁄₄ C ¾ ³⁷⁄₄ J ¾ ³⁸⁄₄ B

Similarly, P ¾ ³⁷⁄₄ W ¾ ³⁸⁄₄ O ¾ ³⁷⁄₄ V
E ¾ ³⁷⁄₄ L ¾ ³⁸⁄₄ D ¾ ³⁷⁄₄ K

2. (C) As, $68 = (4)^3 + 4$
$130 = (5)^3 + 5$
and $350 = (7)^3 + 7$
Therefore, $? = (6)^3 + 6 = 222$

3. (C) As, $12\mathbf{3} + 3^2 = 123 + 9 = 132$
So, $23\mathbf{5} + 5^2 = 235 + 25 = \mathbf{260}$

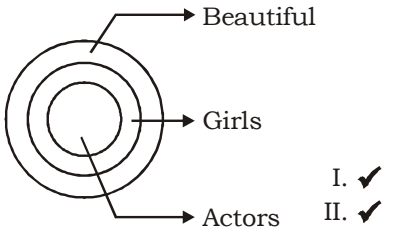
4. (B) Second is the process of gradual disappearances of the first.

5. (D) All except Park are halting places of various transport means.

6. (C) All except New York are capital cities.

7. (D) 12306 Þ 1 × 2 × 3 = 06
23212 Þ 2 × 3 × 2 = 12
32424 Þ 3 × 2 × 4 = 24
41206 Þ 4 × 1 × 2 = 08 ¹ 06

8. (D)



I. ✔
II. ✔

Both I and II follows.

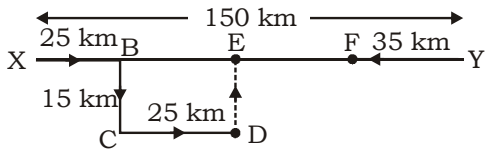
9. (B) The correct order is :

Skull	Face	Neck	Shoulder	Hand
3	9	4	2	10
Chest	Stomach		Thigh	Knee
6	8		7	5
Heel				
1				

10. (C) Required no. of people = 6 + 7 = 13

11. (D) No one can speak all the languages.

12. (A)



Required distance = EF
= 150 – (25 + 25 + 35)
= 150 – 85
= 65 kms

13. (B) 

All the thieves are criminals while judge is different from these.

14. (D) Q $ R ® Q is the father of R
R @ T ® R is the brother of T
Hence, ® Q is the father of T
T * M ® T is the daughter of M
Hence, ® M is the mother of T
Hence, M is the wife of Q.

15. (A) 361324 Þ $\sqrt{361} = 19$ and $\sqrt{324} = 18$
Þ $19^2 - 18^2 = (19 + 18) \times (19 - 18)$
$= 37 \times 1 = 37$

484169 Þ $\sqrt{484} = 22$ and $\sqrt{169} = 13$
Þ $22^2 - 13^2 = (22 + 13) \times (22 - 13)$
$= 35 \times 9 = 315$

625196 Þ $\sqrt{625} = 25$ and $\sqrt{196} = 14$
Þ $25^2 - 14^2 = (25 + 14) \times (25 - 14)$
$= 39 \times 11 = \mathbf{429}$

16. (C) Here the common faces with 4 dots are in same positions.
Hence 2 will be opposite to 5.

17. (B) . . . . .
Bindu Seema Rani Reeta Mary

18. (C)

19. (D) Let salary = ₹ x. Then tips = ₹ $\frac{5}{4}x$

Total income = ₹ $x + \frac{5}{4}x$ = ₹ $\frac{9x}{4}$

\ Required fraction = $\frac{5x}{4} \div \frac{4}{9x} = \frac{5}{9}$

20. (D) Except the figure in option (D), all other figures can be rotated into each other.

21. (C) T (2 lines) + V (2 lines) = Π (4 lines)
Z (3 lines) + Y (2 lines) = R (5 lines)
| (1 line) + L (2 lines) = U (3 lines)

22. (C)

23. (D)

24. (A) As the colour of the milk is white and it is given that 'red means white'. So, the colour of milk is red.

25. (C)

28. (B) Tilaiya project is a 3,960 Megawatt (MW) Ultra Mega Power Project (UMPP) in Jharkhand. It was to be commissioned in 2012 but got delayed due to array of reasons.
29. (A) Abanindranath Tagore had founded Indian Society of Oriental Art in Kolkata to revive the ancient art traditions of India. He was the principal of government school of art and a great artist of modern India.
30. (A) IBM-1401, CDC-1604 is second generation computer. ICL-2900 is a fourth generation computer. EDSAC is important in the development of computer since it was the first computer to use John von. Neumann's Stored Program Concept. It used 3000 vacuum tubes and computers with vacuum tubes are of first generation computers.
31. (B) As an ambassador of Emperor James -I, Sir Thomas Roe reached in the court of Mughal Emperor Jehandri at Agra in 1615. Jehangir presented him the Mansab of 400.
32. (B) Sarkaria Commission was set up in June 1983 by the central government of India. The Sarkaria Commission's charter was to examine the relationship and balance of power between state and central governments in the country and suggest changes within the framework of Constitution of India. The Commission was so named as it was headed by Justice Rajinder Singh Sarkaria, a retired judge of the Supreme Court of India. The other two members of the committee were Shri B. Sivaraman and Dr. S.R Sen. The Commission after conducting several studies, eliciting information, holding discussions and after detailed deliberations submitted its 1600 page final report in January 1988. The Commission recommended, by and large, status quo in the Centre-State relations, especially in the areas, relating to legislative matters, role of Governors and use of Article 356.
33. (C) The Rhine, which flows in Switzerland, Liechtenstein, Austria, Germany, France and Netherlands, is the most important and busiest waterway in Europe. Other busy waterways include Seine and Loire rivers of France, Danube river of eastern Europe and Volga river of Russia.
38. (A) Syphilis is (STD) Sexually transmitted diseases caused by treponema pallidum bacteria.
39. (A) India has been ranked 110th out of 149 nations in the 2016 Sustainable Development Goal Index. The new index is launched by the Sustainable Development Solutions Network (SDSN) and the Bertelsmann to provide a report card for tracking Sustainable Development Goals (SDG) progress and ensuring accountability. The index is topped by Sweden, followed by Denmark and Norway. The index helps countries to identify priorities for early actions and shows that every country faces major challenges in achieving the SDGs.
40. (A) World Milk Day, established by the Food and Agriculture Organization (FAO) of the United Nations is observed annually on 1st June to recognise the importance of milk as a global food. It has been observed on June 1st each year since 2001. In India, the National Milk Day is observed on November 26th.
41. (D) In 1861, from Calcutta the newspaper 'Indian mirror' was edited and published by Manmohan Ghosh and Debendranath Tagore.
43. (B) According to the provisions of article 312, the Parliament can create a new all India service, if resolution to that effect in national interest is passed by the council of states.
44. (A) The Strait of Dover is the strait at the narrowest part of the English Channel and marks a boundary between the Channel and North Sea, separating Great Britain from continental Europe (United Kingdom and France.
45. (B) The Turkish President Recep Tayyip Erdogan has recently declared a 3-month state of emergency in the aftermath of coup attempt. As per Article 121 of the Turkish constitution, the state of emergency allows the president and cabinet to bypass parliament when drafting new laws and to restrict or suspend rights and freedoms.
46. (B) No. of orbital Þ n^2 Þ $(4)^2 = 16$
    No. of electron Þ $2n^2$ Þ $2(4)^2 = 32$
47. (B) Central dogma of molecular biology describes the flow of genetic information in cells from DNA to messenger RNA (mRNA) to protein.
48. (A) Turgid : Hypotonic solution has lower solute concentration than cell cytoplasm, so by osmosis water will enter inside the cell.
49. (A) Michelle Kakade from Pune has become the first person to complete the Indian Golden Quadrilateral on foot. She took 193 days, 1 hour & 9 minutes to cover 5968.4 kms of the Golden Quadrilateral that connects the 4-major metros of India. With this, she booked her name in the Guinness Book of World Records for "Fastest time to travel the Indian Golden Quadrilateral on foot (female)" across 57 major cities in India and on the India' most valuable and largest highway project.

51. (B) Area of circular field = πr^2
= 3850 sq. m.
$\Rightarrow \pi r^2 = 3850$
$r^2 = \frac{3850}{22} \times 7$
$r^2 = 1225$
$r = 35$ m
Now, circumference of circle = $2\pi r$
$= 2 \times \frac{22}{7} \times 35 = 44 \times 5 = 220$ m
Side of the square field = $\frac{220}{4} = 55$ m
Area of square = 55×55 m^2 = 3025 m^2

52. (D)

Pay/hour	×	Number of hours	=	Wages
5 (Increase by 40%)		6 (Decrease by $16\frac{2}{3}$%)	=	30
7		5	=	35

Wages increased by = $\frac{5}{30} \times 100 = 16\frac{2}{3}$%

53. (C)

		Efficiency
A	20 days	3
B	60 days	1
C	30 days	2

60 ↓ Total work

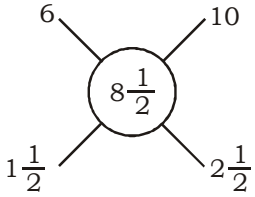
According to the question →
5 days work of (A + B + C) = 6 × 5 = 30
Now C left the work. So next 3 days A and B will work
Work done by A and B = 4 × 3 = 12 units
Remaining work = (60 – 42) = 18 units
Required time for A to complete the rest of the work = $\frac{18}{3}$ = 6 days

54. (D) $n + \frac{2n}{3} + \frac{n}{2} + \frac{n}{7} = 97$
$\Rightarrow \frac{42n + 28n + 21n + 6n}{42} = 97$
$\Rightarrow \frac{97n}{42} = 97$
$\Rightarrow n = \frac{97 \times 42}{97} = 42$

55. (D) If $x = 7$
$x^5 - 8x^4 + 8x^3 - 9x^2 + 7x + 5$
split it in form of x
$x^5 - 7x^4 - x^4 + 7x^3 + x^3 - 7x^2 - 2x^2 + 7x + 5$
Put x in the place of 7
then $x^5 - x^5 - x^4 + x^4 + x^3 - x^3 - x^2 - x^2 + x^2 + 5 - x^2 + 5$
$-49 + 5 = -44$

56. (C) Let the distance of the place from the starting point be x km
∴ The speed of the man along the stream = 10 + 3 = 13 kms/hr
Speed of man against the stream = 10 – 3 = 7 kms/hr
$\therefore \frac{x}{13} + \frac{x}{7} = 1$
or $20x = 13 \times 7$
$\therefore x = \frac{91}{20}$
x = 4.55 km

57. (D) From the rule of alligation



∴ Ratio between 1st and 2nd sum = 3 : 5
$\therefore$ 2nd sum = $\frac{5}{3} \times 7500$ = ₹ 12500

58. (C) Let the C.P. of each article be ₹ x
$\therefore \frac{50x \times 120}{100} + \frac{50x \times 140}{100} - \frac{100x \times 125}{100} = 100$
$\Rightarrow 60x + 70x - 125x = 100$
$\therefore 5x = 100$
$x =$ ₹ 20

59. (C) 25% (stolen) + 10% (Dropped) $\Rightarrow 35\% = \frac{7}{20}$,
$50\% = \frac{1}{2}$

Sum	–	Remain
20	–	13
2	–	1
40	–	13
↓ ×130		↓ ×130
5200		1690

60. (C) $\frac{M_1 D_1 T_1}{W_1} = \frac{M_2 D_2 T_2}{W_2}$
$\frac{16 \times 6 \times 25}{150 \times 20 \times 12} = \frac{12 \times 8 \times D}{800 \times 15 \times 6}$
After solving this D_2 = 50 days

61. (A) Sum of temperatures on 1st, 2nd, 3rd and 4th days = (58 × 4) = 232 degrees
Sum of tempratures on 2nd, 3rd, 4th and 5th days = (60 × 4) = 240 degrees
Temprature on 5th day – temprature on 1st day = 8 degrees
Let the temprature on 1st and 5th days be $7x$ and $8x$ degrees respectively
Then, $8x - 7x = 8$
$\therefore 8 \times 8 - 7 \times 8$
$x = 8$
$\therefore$ Temprature on 5th day = $8 \times 8 = 64°$

62. (A) In ΔORS, OR = OS = Radii
$\therefore \angle ORS = y^o$
$\angle POR = y^o + y^o = 2y^o$ [external angle property]
In ΔPOR,
$\angle OPR + \angle POR + \angle PRO = 180°$
$x^o + 2y^o + 90° = 180°$
$x^o + 2y^o = 90°$

63. (B) $(x + 1)$ and $(x - 2)$ are factors of
$x^3 + (a+1)x^2 - (b-2)x - 6$
At $x = -1$,
$(-1)^3 + (a+1)(-1)^2 - (b-2)(-1) - 6 = 0$
$-1 + a + 1 + b - 2 - 6 = 0$
$a + b = 8$ ..... (i)
At $x = 2$,
$2^3 + (a + 1)2^2 - (b - 2) \times 2 - 6 = 0$
$8 + 4a + 4 - 2b + 4 - 6 = 0$
$2a - b = -5$ ..... (ii)
On adding (i) and (ii)
$3a = 3$
$a = 1$
$b = 7$

64. (A) $\tan(x + y)\tan(x - y) = 1$

$\Rightarrow \tan(x + y) = \frac{1}{\tan(x - y)} = \cot(x - y)$

$\Rightarrow \tan(x + y) = \tan(90° - (x - y))$
$= x + y = 90° - (x - y)$

$\Rightarrow 2x = 90° \Rightarrow \frac{2x}{3} = 30°$

$\therefore \tan\frac{2x}{3} = \tan 30° = \frac{1}{\sqrt{3}}$

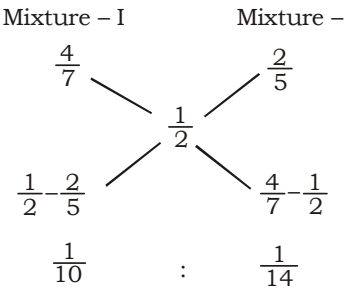
65. (D) $\angle AOC = \angle BOD$
$\therefore \angle AOC = 40°$
ATQ,
$\angle BOE = 30°$
$\therefore \angle COD + \angle DOB + \angle BOE =$ Reflexive $\angle COE$
$\therefore 180° + 40° + 30° =$ Reflexive $\angle COE$
$\therefore \angle COE = 250°$

66. (C) Let the numbers be $3x$ and $3y$.
$\therefore 3x + 3y = 36$
$\Rightarrow x + y = 12$ ..... (i)
and $3xy = 105$ .....(ii)
Dividing equation (i) and (ii)

$$\frac{x}{3xy} + \frac{y}{3xy} = \frac{12}{105}$$

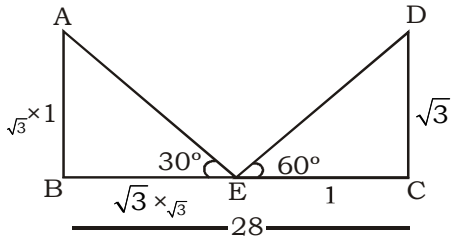
$$\Rightarrow \frac{1}{3y} + \frac{1}{3x} = \frac{4}{35}$$

67. (C)



$\therefore$ Required ratio = 7 : 5

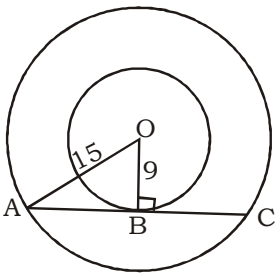
68. (D)



$\therefore$ BC (ratio value) = 4
$\therefore 4 = 28$
$1 = 7$
$\therefore \sqrt{3} = 7\sqrt{3}$
$h = 7\sqrt{3}$

69. (D) $3\cos 80°.\operatorname{cosec}10° + 2\cos 59°.\operatorname{cosec}31°$
$= 3\cos(90° - 10°).\operatorname{cosec}10° + 2\cos(90° - 31°).\operatorname{cosec}31°$
$= 3\sin 10°.\operatorname{cosec}10° + 2\sin 31.\operatorname{cosec}31°$
$= 3 + 2 = 5$

70. (A)



In ΔOAB,
OB $\perp$ AB
$\therefore OB^2 + AB^2 = OA^2$
$\Rightarrow 9^2 + AB^2 = 15^2$
$\Rightarrow AB^2 = 225 - 81$
$\Rightarrow AB = \sqrt{144} = 12$ cm
$\therefore$ The length of the chord is $2 \times 12 = 24$cm

71. (B) Total age of all boys along with the teacher = $(24 + 1) \times 15 = 375$ years
Total age of all boys excluding

The teacher = 24(15 – 1)
= 336 years
∴ The age of the teacher = 375 – 336
= 39 years

72. (A) Profit Ratio of A, B and C

$= (5 \times 12) : (7 \times 12) : (6 \times 6 + \frac{6}{2} \times 6)$

= 60 : 84 : 54
= 10 : 14 : 9

∴ Share of C in the Profit = $\frac{9}{33} \times 33000$

= ₹ 9000

73. (C) Percentage expenditure on clothes for family B = 15

∴ Required expenditure = $\frac{10000 \times 15}{100}$

= ₹1500

74. (C) Expenditure on education for family A = 20%

Required fraction = $\frac{20}{100} = \frac{1}{5}$

75. (A) Food + clothes + house rent
= 30 + 15 + 15 = 60%

∴ Required expenditure = $\frac{30000 \times 60}{100}$

= ₹18000

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Adamant	refusing to be persuaded or to change one's mind	जिद्दी
Aftermath	the consequences or after effects of a significant unpleasant event	परिणाम
Anther	the part of a stamen that contains the pollen	पराग-कोश
Apiary	a place where bees are kept; a collection of bee hives	मधुमक्खियों के पालने का स्थान
Aviary	a large cage, building, or enclosure for keeping birds in	चिड़ियाखाना
Comic	causing or meant to cause laughter	हास्यपूर्ण
Coup attempt	an illegal an violent way of an act to a sudden change of government	तख्तापलट के प्रयास
Deed	an action that is performed intentionally or consciously	कार्य
Distraught	extremely upset and anxious so that you cannot think clearly	चिंतित होना, व्यथित होना
Elated	thrilled or delighted	हर्षित, उल्लसित
Heave a sigh of relief	to respire deeply with relief	राहत की सांस लेना
Lullaby	a quiet, gentle song sung to put a child to sleep	लोरी
Oust	drive out or expel (someone) from a position or place	बेदखल करना
Perspicacious	having a ready insight into and understanding of things	तीक्ष्ण-बुद्धि
Ponder	think about (something) carefully before making a decision or reaching a conclusion	गहनता से सोचना
Prevailing	existing at a particular time; current	मौजूदा, वर्तमान
Sentence	declare the punishment decided for (an offender)	सजा देना
Soprano	a singing voice with the highest range for a woman or boy	गाने की ऊँची आवाज
Stumble	trip and almost fall	ठोकर खाना
Summon	authoritatively or urgently call on (someone) to be present, especially as a defendant or witness in a law court	बुलावा भेजना
Vanquish	defeat thoroughly	जीत लेना, हरा देना
Vile offence	an offence that is extremly unpleasant	घिनौना अपराध

SSC MOCK TEST - 58 (ANSWER KEY)

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

76. (C) Since the subject (i.e, every voter) is singular, it will take singular possessive adjective. Replace 'their' by 'his/her'. Also change 'caste' into 'cast'.
77. (B) The tense of the first part (is - present tense) does not match with the second part (could - past tense), though the sentence refers a past event. Thus, replace 'is' by 'was'.
78. (B) The part of the sentence which starts with 'unless' takes simple present tense. Change 'unless we will qualify' into 'unless we qualify'.
80. (B) When two actions take place in past then earlier one takes past perfect tense and the 2nd one simple present tense.
90. (C) Sentence starting with 'Hardly' takes an inversion form.
91. (A) 'None' takes singular verb after it.
92. (B) Sentence starting with 'only' takes inversion form.

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