SSC MOCK TEST – 109 (SOLUTION)

1. (A) As, Adidas → 6 letter ⇒ 36
   Similarly, Men → 3 letter ⇒ **9**

2. (D) As, $\underline{ABC}$ $\underline{ZYX}$
   Reverse
   Similarly, $\underline{MNO}$ **NML**
   Reverse

3. (B) As, 48×2   48÷2
   ↓   ↓
   96   24
   Similarly, 24×2   24÷2
   ↓   ↓
   48   **12**

4. (D) 9   16   25   **27**
   ↓   ↓   ↓   ↓
   3^2 4^2 5^2 3^3

5. (C) A C E   B D F
   +2 +2   +2 +2
   W Y B   M O Q
   +2 +3   +2 +2

6. (D) Except **Crow**, all others are animals.

7. (C) Break → Broach → Broca → Broke.

8. (D) Except 2800, all others are not multiple of 400.

9. (D) ATQ,
   $x - 3 = 8 (y - 3)$
   ⇒ $x - 8y = -21$ ------(i)
   and $x + 7 = 3 (y + 7)$
   $x - 3y = +14$ -------(ii)
   From equation (i) and (ii)
   $x = 35$ and $y = 7$
   Hence, their present ages = **35, 7**

10. (A) Except **17** all others are multiple of 3

11. (D) 3   6   11   **18**
    +3   +5   +7

12. (B) A C E   F H J   K M O   **P R T**
    +2 +2 +1 +2 +2 +1 +2 +2 +1 +2 +2

13. (D) 4   8   16   32   **64**
    ×2   ×2   ×2   ×2

14. (D)
    17 km
    8km
    15 km
    28 km   20 km
    15 km

15. (B) 3/6   1/5   2/**4**

16. (C) 3 × 4 = 12
    7 × 8 = **56**
    7 × 9 = 63

17. (B) $\sqrt{3^2 + 4^2}$ = 5
    $\sqrt{12^2 + 5^2}$ = 13
    $\sqrt{15^2 + \mathbf{8}^2}$ = 17

18. (D) 10 × 10 = 100
    11 × 11 = 121
    13 × 12 = **156**

19. (B)

20. (A)

21. (B)

22. (B)
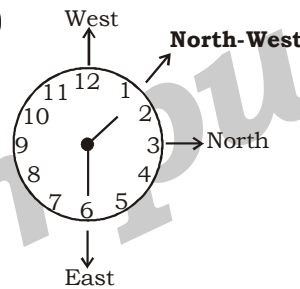
23. (B)

24. (C) 5 × 3 + 8 − 4 ÷ 2 = 21

25. (D)

26. (B)

rank	country	Wealth
1.	United States	$48,900 billion
2.	China	$17,400 billion
3.	Japan	$15,100 billion
4.	United Kingdom	$9, 200 billion
5.	Germany	$9, 100 billion
6.	France	$6, 600 billion
7.	India	$5,600 billion

27. (D) Axis Bank has tied up with Inter-American Investment Corporation (IIC) to facilitate trade with Latin America. It is the first Indian bank to participate in the Trade Finance Facilitation Programme as a confirming bank. IIC, a member of the Inter-American Development Bank Group, is a multilateral development bank committed to supporting the private sector in Latin America.

28. (D) A bill is proposed legislation under consideration by a legislature. A bill does not become law until it is

passed by the legislature and, in most cases, approved by the executive. Once a bill has been enacted into law, it is called an Act or a statute.

29. (B) An agricultural produce market committee (APMC) is a marketing board established by a state government in India. APMC operate on two principles:
1. Ensure that farmers are not exploited by intermediaries (or money lenders).
2. All food produce should first be brought to a market yard and then sold through auction.

30. (C) The Dandeli Wildlife Sanctuary is located at Uttara Kannada District in Karnataka. The sanctuary is a birdwatchers paradise, housing nearly 200 species of birds, most famous for the great Indian hornbill and the Malabar pied hornbill. It is also the only known tiger reserve in India to report frequent sightings of the elusive black panther.

31. (D) The Union Minister of Railway, Suresh Prabhu has recently launched "Mission 41K" to save Rs. 41,000 crore on the Indian Railways' expenditure on energy consumption over the next 10 years.

32. (D) Oxytocin (Oxt) is a human peptide hormone and neuropeptide that is used as a medication to facilitate childbirth

33. (B) Mac OS, operating system (OS) developed by the American computer company Apple Inc. The OS was introduced in 1984 to run the company's Macintosh line of personal computers (PCs).

35. (D) The book "Army and Nation : The Military and Indian Democracy since Independence" has been authored by Steven Wilkinson, a professor of political science and International relations at Yale University.

37. (A) The Instrument of Accession is a legal document executed by Maharaja Hari Singh, ruler of the princely state of Jammu and Kashmir, on 26 October 1947. By executing this document under the provisions of the Indian Independence Act 1947, Maharaja Hari Singh agreed to accede to the Dominion of India.

38. (B) In the Republic of India, a chief minister is the head of government of each of twenty-nine states and two union territories (Delhi and Pondicherry).

According to the Constitution of India, at the state-level, the governor is de jure head, but de facto executive authority rests with the chief minister. The Chief Minister is the leader of the Legislative Assembly of the State. On his advice the Governor exercises his functions in matters like summoning, poroguing or, if necessary, dissolving the Legislative Assembly. As the chief spokesman of the State Government, he explains the government policies.

39. (B) Haemophilia -A disorder in which blood doesn't clot normally or when blood can't clot properly that leads to excessive bleeding (external and internal) after any injury or damage.

40. (B) Article 40:- Organisation of village panchayats. The State shall take steps to organize village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self government.

42. (A) Socialism :- An economic system in which the production and distribution of goods are controlled substantially by the government rather than by private enterprise, and in which cooperation rather than competition guides economic activity.

43. (B) Dr. Mukul Sangma, the Chief Minister of Meghalaya, has recently launched a flagship programme 'Livelihood Intervention and Facilitation of Entrepreneurship' at Songsak in East Garo Hills for the state on July 11, 2017. LIFE is a programme of the State Rural Livelihood Society, an agency of the Community and Rural Development Department, which is implementing the Centre's flagship programme - National Rural Livelihoods Mission (NRLM). NRLM promotes livelihood through women Self Help Groups (SHGs) and their Federations. The programme offers thrust on improving the livelihood of rural poor in a sustainable manner through the process of SHGs, Village organisation and Producers Groups.

46. (C) A cryogenic rocket engine is a rocket engine that uses a cryogenic fuel or oxidizer, its fuel or oxidizer (or both) are gases liquefied and stored at very low temperatures. Notably, these engines were one of the main factors of NASA's success in reaching the Moon by the Saturn V rocket.

47. (A) Glucose is a sugar with the molecular formula $C_6H_{12}O_6$. Glucose is made during photosynthesis from water and carbon dioxide, using energy from sunlight. It is types of monosaccharide.

48. (C) A restriction enzyme or restriction endonuclease is an enzyme that cuts DNA at or near specific recognition nucleotide sequences known as restriction sites.

50. (B) The second battle of tarain (1191) :- Prithviraj Chauhan was defeated by Mohammed Ghori

51. (A) ATQ,
Ist Discount =

$35 + 15 + 10 - \dfrac{35 \times 15}{100} - \dfrac{10 \times 15}{100} - \dfrac{35 \times 10}{100}$

$+ \dfrac{35 \times 15 \times 10}{10000} = 50.275\%$

IInd Discount =

$30 + 20 + 10 - \dfrac{30 \times 20}{100} - \dfrac{20 \times 10}{100} - \dfrac{30 \times 10}{100}$

$+ \dfrac{30 \times 20 \times 10}{10000} = 49.6\%$

Hence, I**st discount** is better than IInd discount.

52. (B) ATQ,

Amit's age = $\dfrac{96}{24} \times 11 = 44$ years

and Anuraag's age = $\dfrac{96}{24} \times 13 = 52$ years

Then, Required ratio = 44 + 4 : 52 + 4

$\Rightarrow$ 48 : 56

$\Rightarrow$ **6 : 7**

53. (D) ATQ,
$9^{12} - 7^{12} = (9^6 - 7^6) (9^6 + 7^6)$
$= (9^3 - 7^3) (9^3 + 7^3) (9^6 + 7^6)$
$= (9 - 7) (9^2 + 7^2 + 7 \times 9) (9^3 + 7^3) (9^6 + 7^6)$
$= 2 (193) (9 + 7) (9^2 + 7^2 - 9 \times 7) (9^6 + 7^6)$
$= 2 \times 16 \times 193 \times 67 (9^6 + 7^6)$
Hence, $9^{12} - 7^{12}$ is exactly divisible by **134**

54. (B) ATQ,

Required Selling Price = $\dfrac{425}{85} \times 120 =$ **₹600**

55. (C) ATQ,

```
        13000
    7% /     \
    910       910
       7% \ 63.7
```

Hence, Required Interest = **₹1883.7**

56. (A) ATQ,

Total surface area = $\dfrac{22}{7} \times 5 \times 13 + \dfrac{22}{7} \times 5 \times 5$

$= \dfrac{22}{7} \times 90 =$ **282.86cm²**

57. (B) ATQ,

Remaining Units = $\dfrac{56 \times 4}{8} = 28$

Then, efficiency of B = $\dfrac{28}{7} = 4$

and efficiency of A = $\dfrac{56}{8} - 4 = 3$

Hence, Required time = $\dfrac{36}{3} =$ **12 days**

58. (D) ATQ,

$\dfrac{17 + 12\sqrt{2}}{3 + 2\sqrt{2}} = \dfrac{9 + 8 + 2 \times 2\sqrt{2} \times 3}{3 + 2\sqrt{2}}$

$= \dfrac{(3 + 2\sqrt{2})^2}{3 + 2\sqrt{2}} =$ **3 + 2$\sqrt{2}$**

59. (C) ATQ,
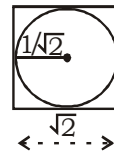
Required area = $\pi \times \left(\dfrac{1}{\sqrt{2}}\right)^2$

$= \dfrac{\pi}{2}$ **m²**

60. (B) ATQ,

The quantity of water = $\dfrac{600 \times 85}{100} = 510\, l$

Total quantity of final solution

$= \dfrac{510}{(100 - 32)} \times 100$

$= 750\, l$

Hence, Required quantity = 750 – 600

= **150 l**

61. (B) ATQ,

```
A + B → 50 ⟍        ⟋ 6
B → 75  ⟍  300  ⟋
              ⟍ 4
```

Hence, Required time = $\dfrac{300}{6 - 4} =$ **150 days**

62. (B) ATQ,

$$
\begin{array}{ccccc}
A & : & B & : & C \\
30000\times12 & : & 50000\times6+ & : & 60000\times10 \\
 & & 90000\times6 & & \\
6 & : & 14 & : & 10 \\
3 & : & 7 & : & 5
\end{array}
$$

Hence, Required difference

$$= \frac{30000 \times (7-5)}{15}$$

= **₹4000**

63. (B) ATQ,

$x - y = 8$

$\Rightarrow x = y + 8$ ------(i)

Then, $xy = 42 \times 2$

$\Rightarrow (y+8)\, y = 42 \times 2$

$\Rightarrow y^2 + 8y - 84 = 0$

$\Rightarrow (y+14)(y-6) = 0$

$\Rightarrow$ either $y = -14$ or $y = 6$

The number can't be negetive

Hence, The Required number = **14, 6**

64. (D) ATQ,

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

and,

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

then,

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

$$= 2\,[(3)^2 + (2\sqrt{2})^2]$$

$$= 2\,(9+8)$$

$$= 34$$

Hence, $x^2 + y^2 = $ **34**

65. (A) ATQ,

$19^{98} = (18+1)^{98} = 18^{98} \times 1^0 + 18^{97} \times 1 +-$

$------+ 18^1 \times 1^{97} + 18^0 \times 1^{98}$

Hence, $18^0 \times 1^{98}$ is not multiple of 18.

Then, required reminder = **1**

66. (C) ATQ,

Required average = $\dfrac{23 \times 8 - 19 + 63}{8}$

$$= \frac{228}{8} = \textbf{28.5}$$

67. (A) ATQ,

$$
\begin{array}{ccc}
A & : & B \\
3600 \times x & : & 6300 \times x \\
4 & : & 7
\end{array}
$$

Hence, Required difference = $\dfrac{1100}{11} \times (7-4)$

= **₹300**

68. (B) ATQ,

$$\frac{\sec\theta + \tan\theta}{\sec\theta - \tan\theta} = \frac{1+\sin\theta}{1-\sin\theta} = \frac{9}{7}$$

$\Rightarrow 9 - 9\sin\theta = 7 + 7\sin\theta$

$\Rightarrow \sin\theta = \dfrac{1}{8}$

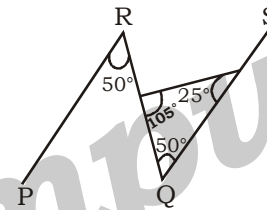then, $\cos\theta = \dfrac{\sqrt{63}}{8} = \dfrac{\mathbf{3\sqrt{7}}}{\mathbf{8}}$

69. (A) ATQ,

$\cos\theta + \sec\theta = 2$

This value is at $\theta = 0°$

then, cosec 0° + sin 0° = **∞**

70. (A) ATQ,

Hence, $\theta = $ **105°**

71. (B) ATQ,

$$
\begin{array}{cccc}
P & : & Q : R & : S \\
50° & : & 100°: 150° & :360°-100°-50°-150° \\
50° & : & 100°: 150° & : 60°
\end{array}
$$

Hence, Required difference = 100° − 60°

= **40°**

72. (C) ATQ,

Required area = $\dfrac{1}{2} \times$ equal side $\times \sin\theta$

$$= \frac{1}{2} \times 20 \times 20 \times \sin 60°$$

$$= \frac{1}{2} \times 400 \times \frac{\sqrt{3}}{2} = \mathbf{100\sqrt{3}}$$

73. (B) ATQ,

Required number = $\dfrac{4200}{2800} = $ **1.5**

74. (D)

75. (C) ATQ,

Average deficit =

$$\frac{2200+3100+2100+2800+2600+3600+4200+2600}{8}$$

= 2900

Hence, Requireed percentage = $\dfrac{3600}{2900} \times 100$

$$= 124.13\%$$

≈ **125%**

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Allegory	a short moral story	कथा
Anomaly	something that is deviated from the common rule	जो नियमतः ना हो
Anonymity	the state of being unknown to most people	गुमनाम
Archives	place where public documents are kept	सरकारी दस्तावेज रखने का स्थान
Carcass	the dead body of an animal	पशु का शव
Coffer	a small box for holding money	तिजोरी
Diffident	lacking confidence	शर्मिलाए जिसमें आत्मविश्वास की कमी हो
Epic	a story about a hero or exciting events	काव्य जिसमें वीरो का वर्णन हो
Heterogeneity	variety of something	विविधता
Illumination	light	प्रकाश
Imitation	something that is made or produced as a copy	नकल
Incidental	happening as a result of (an activity)	किसी चीज के परिणामस्वरूप होना
Moron	stupid/Foolish	मूर्ख
Ode	a poem	कविता
Pantomime	a performance in which a story is told without words using body movement	बिना बोले अभिनय करना
Pantry	a small room in a house in which food is stored	छोटी रसोई
Persist	to continue to exist	बने रहना
Plagiarism	the act of using another person's words or ideas without giving credit to that person	साहित्यिक चोरी
Preserve	to keep in its original condition	मूल स्थिति में बचा कर रखना
Primitive	relating to earliest age	प्रारंभिक
Prudent	showing careful good judgment	चतुर/विवेकी
Scullery	a room or place for washing dishes	बर्तन माँजने की जगह
Template	a thing that is used as a model for producing other similar examples.	साँचा
Transparent	(of glass plastic etc.) allowing to see through it	पारदर्शी
Twig	a small branch without its leaves	डाली, टहनी
Viable	capable of being done or used	साध्य
Witty	able to say or write clever, amusing things	विनोदपूर्ण, परिहासयुक्त

SSC MOCK TEST - 109 (ANSWER KEY)

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

76. (B) Change 'about' into 'of '.
' Think' is followed by fixed preposition 'of'.

77. (A) Change 'display' into 'furnish'.
Furnish - to supply or give something to someone that is needed or wanted. Display- to put (something) where pople can see it.

78. (A) 'People' means 'a number of persons'. 'Peoples' means 'people of different races' and here we are talking about Indians that is only one race. However 'Indians' need not be followed by another noun people here.

88. (A) Here subject (the candidate) will come before (helping verb) ('should') because the given sentence is an assertive sentence so it will follow an assertive format i.e. Subject + verb + Object.

89. (C) 'Pick a quarrel with someone' is a phrasal verb which means 'to start a fight with someone'.

90. (B) Since the given sentence is an assertive sentence, there is no need of 'helping verb;.

91. (A) If a sentence starts with 'Let us/Let's us', 'Shall we' is used in question tag.

92. (B) Replace 'He was travelled' with 'He was, travelling' because 'the action of travelling was in continuation at the time of meeting hence Past Continuous Tense will be used.

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