SSC MOCK TEST – 225 (SOLUTION)

1. (C) As, W U S Q O M
+6 +6 +6

Similarly, **L J H** F D B
+6 +6 +6

2. (B) Family lives in a Home. Similarly, Colleagues works in **office.**

3. (D) As, R E N O U N C E
18 + 5 + 14 + 15 + 21 + 14 + 3 + 5 = 95

Similarly, C A L E N D E R
3 + 1 + 12 + 5 + 14 + 4 + 5 + 18 = **62**

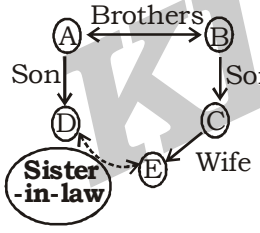
4. (C) B D G K Q S V Z
+2 +3 +4 +2 +3 +4

O Q T W I K N R
+2 +3 +3 +2 +3 +4

5. (C) Except, **Automated Teller Machine,** in all others, there is no special instrument use.

6. (C) Except **24**, all others are prime numbers.

7. (B) Pastel → Pebble → Postal → Pragmatic → Protect.

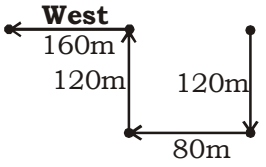
8. (B)


9. (B) 45 × 5 + 2 – 20
Change the symbol, as per given details
45 ÷ 5 × 2 + 20 = **38**

10. (C) Z Z Z Y X W X V T **W T Q**
–1 –2 –3 –1 –2 –3 –1 –2 –3

11. (B) $\frac{1}{3}$ –1 $\frac{-7}{3}$ $\frac{-11}{3}$ **–5**
$\frac{-4}{3}$ $\frac{-4}{3}$ $\frac{-4}{3}$ $\frac{-4}{3}$

12. (D) *a**a**b**c**d**a**b**b**c**d**a* *b**c**c**d**a**b**c**d**d*

13. (C)


14. (A) As, WRITE DIRGV
The place value same from behind

Similarly, FRIEND **UIRVMW**
The place value same from behind

15. (C)

16. (A) 3 + 3 + 3 + 5 = 14
6 + 2 + 2 + 4 = 14
5 + 5 + 3 + **1** = 14

17. (A) 3 + 2 + 8 + 6 + 4 + 2 = 25
4 + 4 + 4 + 5 + 3 + 5 = 25
9 + 1 + 9 + 2 + 3 + **1** = 25

18. (B)


I. False
II. False

19. (B)

20. (D) **S T A T I O N**
6 4 1 4 2 5 3

21. (B) ATQ,
$x = 4y$
then, $x + 10 = 2(y+10)$
$4y + 10 = 2y + 20$
$y = 5$
Hence, Required age = **5 years**

22. (C)

23. (B)

24. (C)

25. (B)

26. (D) The Cripps Mission was a failed attempt in late March 1942 by the British government to secure full Indian cooperation and support for their efforts in World War II. The mission was headed by a senior minister Sir Stafford Cripps.

27. (D) Jahanara Begum was the daughter of Shah Jahan. She was the Padshah Begum (First Lady) of Mugal Empire between 1631 to 1681.
Roshanara Begum was the second daughter of Shah Jahan.
Gauhar Ara Begum was the 14th daughter of Shah Jahan.

28. (B) Playas is a dry, vegetation-free, flat area at the lowest part of an undrained desert basin.
Ventifact is stone shaped by the erosive action of wind-blown sand.

30. (B) The Atacama Desert (Chile) is known as the driest non polar place in the world.

32. (A) Ashok Mehta Committee was appointed by Janata Government on Panchayati Raj in 1977.
GVK Rao Committee was appointed by Planning commission in 1985 once again. Look at Various aspects of Panchayat Raj System.
L.M. Singhhvi Committee (1986) studied Panchayati Raj

33. (A) When it comes to a short circuit, it is the electrical circuit which lets current for travelling along the unintended path with less or no electrical impedance.
It results in the additional amount of current heavily flowing into a circuit.

34. (C) Ocean Thermal Energy Conversion (OTEC) is a process that can produce electricity by using the temperature difference between deep cold ocean water and warm tropical surface waters.
Tidal energy is a renewable energy powered by the natural rise and fall of ocean tides and currents.
Thermal energy (heat energy) is produced when a rise in temperature causes atoms and molecules to move faster and collide with each other.

36. (A) Solicitor General – Tushar Mehta
Direction of CBI – Ranjeet Sinha
Commissioner of CBC – Sharad Kumar

37. (A)

State	**Bihar**
Bihar –	Nitish Kumar
Chhatisgarh –	Bhupesh Baghel
Jharkhand –	Hemant Soren

39. (B) Members of Phaeophycease are commonly called Brown algae

40. (C) Companion cell A type of cell is found within the phloem of flowering plants. Each companion cell is usually closely associated with a sieve element. Its function is uncertain, though it appears to regulate the activity of the adjacent sieve element and to take part in loading and unloading sugar into the sieve element.

41. (A) Alan Turing developed a machine that helped break the German Enigma code.
He also laid the groundwork for modern computing and theorized about artificial intelligence.
Bill Gates is best known as the co-founder of Microsoft Corporation.
Tim Berners Lee invented the World Wide Web. He wrote the first web client and server in 1990.

45. (D) Lucknow – Gomti
Rourkela – Brahmani
Jabalpur – Narmada

46. (D) Southernmost tip of India mainland is Kanyakumari and Southernmost point in India is Indira point.

47. (B)

President	Sourav Ganguly
CEO	Rahul Johri
Vice president(s)	Mahim Verma
Secretary	Jay Shah
Men's coach	Ravi Shastri
Women's coach	W. V. Raman

49. (A) Article 45 - Provision for free and compulsory education for children
Article 46 - Promotion of educational and economic interests of Scheduled Castes, Scheduled Tribes and other weaker sections .
Article 47 - Duty of the State to raise the level of nutrition and the standard of living and to improve public health

50. (A) Columbus discovered a viable sailing route to America.

51. (B) ATQ,
Let the distance = LCM of (60, 80 and 100)
= 1200

Then, Time for one-third = $\frac{400}{60} = 6\frac{2}{3}$ hr

Time for one-fourth = $\frac{300}{80} = 3\frac{3}{4}$ hr

Time for remaining = $\frac{1200-400-300}{100} = 5$hr

Hence, Average speed = $\frac{1200}{\frac{20}{3}+\frac{15}{4}+5}$

$= \frac{1200\times12}{185} = \mathbf{77\frac{31}{37}}$ **kmph**

52. (B) $\Delta AOB \sim \Delta DOC$

$$\frac{AO}{OC} = \frac{OB}{OD}$$

$$\frac{3}{x-3} = \frac{x-5}{3x-19}$$

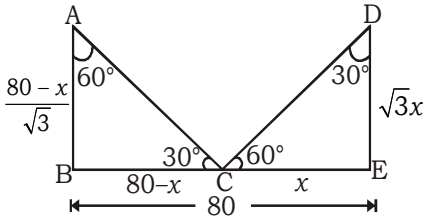
$9x - 57 = x^2 - 8x + 15$

$x^2 - 17x + 72 = 0$

$(x - 8)(x - 9) = 0$

$x = 8, 9$

53. (A) ATQ,



AB = DE

$$\frac{80 - x}{\sqrt{3}} = \sqrt{3}x$$

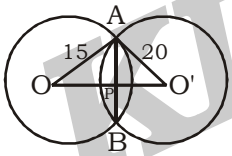
$\Rightarrow$ $80 - x = 3x$

$\Rightarrow$ $4x = 80$

$\Rightarrow$ $x = 20$

Hence, Height of-poles and distance of the point from the poles are, $20\sqrt{3}$, 20, 60.

54. (A)



OO' = 25 cm.

OP = x cm.

PO' = $(25 - x)$ cm.

In ΔAOP

$AP^2 = 15^2 - x^2$ ....(i)

In $\Delta APO'$,

$AP^2 = 20^2 - (25-x)^2$ ...(ii)

From equation (i) & (ii)

$225 - x^2 = 400 - 625 - x^2 + 50x$

$x = 9$ cm

Put in equation (i)

$AP^2 = 225 - 81 = 144$

AP = 12

AB = 2AB = 24 cm

55. (B) ATQ.,

$x^2 - 4x + 1 = 0$

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

Squaring both sides

$$x^2 + \frac{1}{x^2} = 4^2 - 2 = 14$$

Again taking square both sides

$$x^4 + \frac{1}{x^4} = 194$$

Now, $x^9 + x^7 - 194x^5 - 194x^3$ ...(i)

$\Rightarrow$ Putting the value of 194 in equation (i)

$$x^9 + x^7 - \left(x^4 + \frac{1}{x^4}\right)x^5 - \left(x^4 + \frac{1}{x^4}\right)x^3$$

$$\Rightarrow x^9 + x^7 - x^9 - x - x^7 - \frac{1}{x}$$

$$\Rightarrow -\left(x + \frac{1}{x}\right) = -4$$

56. (D) ATQ.,

A : B : C : D

1 : 2 : **2** : **2**

3 : 3 : 1 : **1**

2 : **2** : 2 : 3

6 : 12 : 4 : 6 $\rightarrow$ 3 : 6 : 2 : 3

(A + B + C + D) $\rightarrow$ (3 + 6 + 2 + 3)

14 units $\rightarrow$ ₹5600

$$(A + B) \rightarrow 9 \text{ units} \rightarrow \frac{5600}{14} \times 9$$

₹3600

Hence shares of A + B is ₹3600.

57. (B) ATQ.,

LCM of (12, 16, 18, 21)

LCM = 1008

1008 are smallest number which is divisible by (12, 16, 18, 21) and 2nd number is 2016.

Hence, Smallest number is 16 after adding in 2000 it is divisible by 12, 16, 18 and 21.

Hence, Sum of digits = 6 + 1 = 7

58. (D) ATQ,

$$\left(\frac{\sqrt{26-15\sqrt{3}}}{5\sqrt{2}-\sqrt{38+5\sqrt{3}}}\right)^2 \quad \ldots(i)$$

Taking numberator part

$$26 - 15\sqrt{3} = \frac{52 - 2\times 5\times 3\sqrt{3}}{2}$$

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

Now, taking denominator part

$$38 + 5\sqrt{3} = \frac{76 + 2\times 5\sqrt{3}\times 1}{2}$$

$$= \frac{\left(5\sqrt{3}+1\right)^2}{2}$$

Putting the value of $26 - 15\sqrt{3}$ and $38 + 5\sqrt{3}$ in equation (i)

$$\left(\frac{\frac{3\sqrt{3}-5}{\sqrt{2}}}{5\sqrt{2}-\frac{5\sqrt{3}+1}{\sqrt{2}}}\right)^2 = \left(\frac{3\sqrt{3}-5}{10-5\sqrt{3}-1}\right)^2$$

$$= \left(\frac{3\sqrt{3}-5}{9-5\sqrt{3}}\right)^2 = \left(\frac{3\sqrt{3}-5}{\sqrt{3}\left(3\sqrt{3}-5\right)}\right)^2$$

$$= \frac{1}{3}$$

59. (A) ATQ.,

Apples $\rightarrow$ 16CP = 10SP $\Rightarrow \frac{CP}{SP} = \frac{1}{1.6}$

Oranges $\rightarrow$ 12CP = 16SP $\Rightarrow \frac{CP}{SP} = \frac{4}{3}$

$$= \frac{2}{1.5}$$

Mangoes $\rightarrow$ 6CP = 4SP $\Rightarrow \frac{CP}{SP} = \frac{2}{3}$

And ratio of cost price of all fruits are given

	A	O	M
CP $\rightarrow$	1	1	2

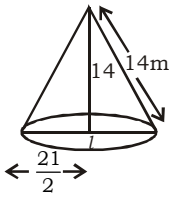
Now, total CP of (1, apples + 2 oranges + 2 mangoes)
= 1 × 1 + 2 × 1 + 2 × 2
= 7 units

	1 Apple	**2 Oranges**	**2 Mangoes**	
CP $\rightarrow$	1	2	4	= 7 units
SP $\rightarrow$	1.6	1.5	6	= 9.1 units
Profit $\rightarrow$	.6	–.5	2	= 2.1 units

7 units $\rightarrow$ 2.1 Profit

$$100 \rightarrow \frac{2.1}{7} \times 100 = 30\%$$

60. (C)



$$l = \sqrt{\left(\frac{28}{2}\right)^2 + \left(\frac{21}{2}\right)^2} = \frac{35}{2}$$

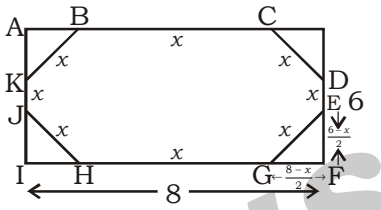
Curved suface area = πrl

$$= \frac{22}{7}\times\frac{21}{2}\times\frac{35}{2}$$

Total cost of colouring its curved surface area = $\frac{22}{7}\times\frac{21}{2}\times\frac{35}{2}\times 6$

= 3465

61. (A) ATQ.,



In ΔEFG

$$\left(\frac{8-x}{2}\right)^2 + \left(\frac{6-x}{2}\right)^2 = x^2$$

$$\Rightarrow \frac{64 + x^2 - 16x + 36 + x^2 - 12x}{4} = x^2$$

$$\Rightarrow 100 - 28x = 2x^2$$

$$\Rightarrow x^2 + 14x - 50 = 0$$

$$\frac{-14 \pm \sqrt{196+200}}{2}$$

$$\Rightarrow \frac{\sqrt{396}-14}{2} = \frac{2\sqrt{99}-14}{2}$$

$$= \left(3\sqrt{11} - 7\right) \text{ cm}$$

62. (A) ATQ.,
Let, the radius of right circular cylinder is r and height is h
$2\pi rh = 60\pi$
$\Rightarrow 2\pi \times 3h = 60\pi$
$\Rightarrow h = 10$ cm
$\Rightarrow$ Volume of right circular cylinder = $\pi r^2 h$
$= \pi \times 9 \times 10$
$= 90\pi$ cm^3

63. (A) $\frac{(\sin\theta - \cos\theta)(1 + \tan\theta + \cot\theta)}{1 + \sin\theta\cos\theta}$

$$\Rightarrow \frac{(\sec\theta\,\text{cosec}\theta)\left(\frac{\cos\theta\sin\theta + 1}{\sin\theta\cos\theta}\right)}{\sec\theta\,\text{cosec}\theta\,(1 + \sin\theta\cos\theta)}$$

$$\Rightarrow \frac{(\sec\theta - \text{cosec}\theta)}{\sec\theta\,\text{cosec}\theta\,\frac{1}{\sec\theta\,\text{cosec}\theta}}$$

$\Rightarrow \sec\theta - \text{cosec}\theta$

64. (B) ATQ.,

$$25\%\frac{x}{2} = 2.5 \times 30\%\ \frac{y}{4}$$

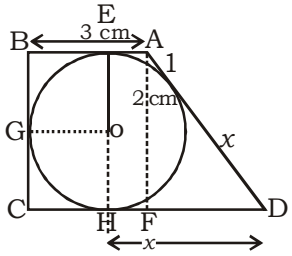
$$\Rightarrow \frac{x}{y} = \frac{3}{2}$$

$$= \frac{3-2}{2}\times 100$$

= 50% more

Hence, x is 50% more than y.

65. (D)



BEOG will be square of side 2 cm.

EA = 3 – 2 = 1 cm

Let HD = x

From ΔAFD

$4 + (x-1)^2 = (x+1)^2$

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

$\Rightarrow 4x = 16$

$\Rightarrow x = 4$

$$\text{Area of trapezium} = \frac{1}{2}\times BC \times (AB + CD)$$

$$= \frac{1}{2}\times 4 \times (3+6)$$

$= 18\ cm^2$

66. (A) ATQ.,

$$A = \frac{3}{4}B,\quad B = \frac{4}{5}C$$

A : B : C

E 3 : 4 : 5

A : B + C

E 3 : 9

Time 9 : 3

6 units → 120

9 units → 180 days

A finish the work in 180 days

B + C finish the work in 60 days

A	**B + C**
180 days	60 days
1 unit day	3 units day

180 units

(A + B + C) togehter finish the work in

$$= \frac{180\,units}{4\,units\ day}$$

= 45 days

Hence, (A + B + C) together finish the work in 45 days.

67. (C) ATQ,

$$x + \frac{6}{x} = 7$$

$\Rightarrow x^2 - 7x + 6 = 0$

$\Rightarrow x = 6$ or 1

But ATQ, **6** is correct answer.

68. (C) ATQ,

$-13 - 2d = 2 - 7d$

$\Rightarrow d = 3$

Then, first term = – 19

Hence, Required term = $-19 + 23 \times 3$ = **50**

69. (B) ATQ,

$$\sin\theta = \frac{\sqrt{\sec^2\theta - 1}}{\sec\theta} = \frac{\sqrt{\left(\frac{17}{15}\right)^2 - 1}}{\frac{17}{15}} = \frac{\mathbf{8}}{\mathbf{17}}$$

70. (B) ATQ,

$$236.544 = P \times \left(\frac{8}{100}\right)^2\left(\frac{308}{100}\right)$$

P = 12000

Hence, Required amount = **₹12000**

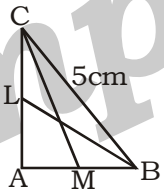
71. (A) ATQ,

The ratio of time = A : B : C

$$\frac{1}{2} : \frac{1}{4} : \frac{1}{5}$$

= **10 : 5 : 4**

72. (A)



Given = BL = $\frac{3\sqrt{5}}{2}$ cm, BC = 5 cm

In right angle triangle if median is given then $5BC^2 = 4(CM^2 + BL^2)$

$$\Rightarrow 5 \times 25 = 4\left(CM^2 + 9\times\frac{5}{4}\right)$$

$125 = 4CM^2 + 45$

$4\ CM^2 = 125 - 45$

$$CM^2 = \frac{80}{4} = 20$$

$CM = 2\sqrt{5}$ cm.

73. (A) ATQ,

$$\text{Required percent} = \frac{250}{750}\times 100 = \mathbf{33.33\%}$$

74. (D) ATQ,

Total number = 250 + 300 + 200 + 400 + 350 + 250 + 350 + 250 + 150

= **2500**

75. (C) ATQ,

Total Hockey's players = 200 + 250 + 150

= **600**

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Accumulate	to gather or pile up especially little by little	संचय करना
Ambuscade	make a surprise attack on (someone) from a concealed position	छिपकर आक्रमण करना
Apartheid	racial segregation	रंगभेद
Apogee	the farthest or highest point	पराकाष्ठा
Assets	an item of value owned	संपत्ति
Ceasing	to bring an activity or action to an end	बंद करना
Convivial	relating to, occupied with, or fond of feasting, drinking, and good company	खुशनुमा
Debility	weakness, infirmity	दुर्बलता
Debonair	gentle, courteous	खुशमिज़ाज, शिष्ट
Denude	to deprive of something important	किसी महत्त्वपूर्ण चीज से वंचित करना
Divulge	to make known (something, such as a confidence or secret)	उजागर करना
Dulcify	to make sweet	मधुर बनाना
Eviscerate	to remove an organ from (a patient) or the contents of (an organ)	अंग बाहर निकालना
Exhaustion	the state of being extremely tired	थकावट
Exhorbitant	(of a price or amount charged) unreasonably high.	अत्यधिक दाम का
Exulted	to be extremely joyful	हर्षित होना
Graceful	displaying grace in form or action	भव्य
Halting	marked by a lack of sureness or effectiveness	विराम
Harmony	the combination of simultaneous musical notes in a chord	अनुरूपता
Incessant	continuing or following without interruption	अविरल
Marooned	helpless	असहाय
Mayhem	needless or willful damage or violence	अशांति
Mischievous	able or tending to cause annoyance, trouble, or minor injury	उपद्रवी, शरारती
Pensive	musingly or dreamily thoughtful	विचारमग्न
Rebuff	to reject or criticize sharply	अस्वीकार करना, निंदा करना
Ruckus	a noisy fight or disturbance	शोर-गुल
Sanitation	the act or process of making clean	स्वच्छता
Senility	the physical and mental decline associated with old age	जीर्णता
Soothe	to please by or as if by attention or concern	शान्त करना
Suppress	to put down by authority or force	कुचलना
Surfeit	an overabundant supply	आधिक्य
Tipsy	unsteady, staggering, or foolish from the effects of liquor	नशे में धुत्त
Virility	the quality or state of being virile	पुरूषत्व

SSC MOCK TEST - 225 (ANSWER KEY)

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

77. (B) Replace 'who has' with 'who have'. The verb follows the antecedent of the Relative Pronoun. Here the antecedent is 'sons'.

78. (A) Replace 'aims' with 'aim'. 'Economic laws' is a plural subject and hence will take plural verb with it.

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