SSC MOCK TEST - 265 (SOLUTION)

1. (B) As,

    $250 \rightarrow 2 + 5 + 0 \rightarrow (7)^3 = 343$

    Similarly,

    $132 \rightarrow 1 + 3 + 2 \rightarrow (6)^3 = \mathbf{216}$

2. (C) As,

    $C \xrightarrow[\text{vowel}]{\text{opposite}} X$

    $A \xrightarrow[\text{consonant}]{-1} Z$

    $R \xrightarrow[\text{consonant}]{-1} Q$

    $E \xrightarrow[\text{opposite}]{\text{vowel}} V$

    Similarly,

    $G \xrightarrow[\text{consonant}]{-1} F$

    $O \xrightarrow[\text{vowel}]{\text{opposite}} L$

    $A \xrightarrow[\text{opposite}]{\text{vowel}} Z$

    $T \xrightarrow[\text{consonent}]{-1} S$

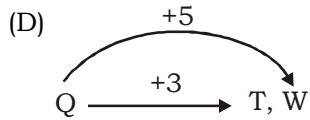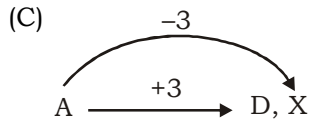3. (C) Viticulture is cultivation of Grapes, while Vermiculture is cultivation of Earthworms.

4. (C) Except option (C), the sum of all the numbers is even number.
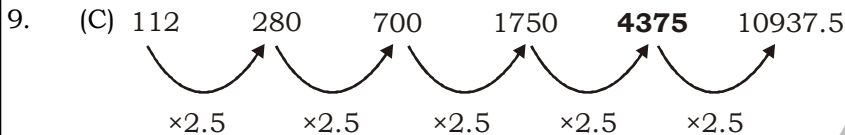
5. (D) (A)

    $P \xrightarrow{+3} S, M$ (with -3 arc above)

    (B)

    $K \xrightarrow{+3} N, H$ (with -3 arc above)

(C)

$$A \xrightarrow{+3} D, X \qquad (\text{arc } -3)$$

(D)

$$Q \xrightarrow{+3} T, W \qquad (\text{arc } +5)$$

6. (D) Garba is the state dance of Gujarat while Brahmotsavam, Carnival and Baisakhi is the State festival of state Haryana, Goa and Andhra Pradesh respectively.

7. (C) 3. Zeitgeber $\rightarrow$ 2. Zeitgeist $\rightarrow$ 4. Zelenograd$\rightarrow$ 1. Zellweger$\rightarrow$ 5. Zemindar

8. (A)

9. (C) 112   280   700   1750   **4375**   10937.5

        ×2.5   ×2.5   ×2.5   ×2.5   ×2.5

10. (C) $T \xrightarrow{-3} Q \xrightarrow{-4} M$,

$U \xrightarrow{-3} R \xrightarrow{-4} N$,

$V \xrightarrow{-3} S \xrightarrow{-4} O$,

From option (C),

$W \xrightarrow{-3} T \xrightarrow{-4} P$

11. (D) The opposite of letter Q is X.

12. (A) $15 + 3^2 = 24$

$24 - 4^2 = \mathbf{8}$

$8 + 5^2 = 33$

$33 - 6^2 = -3$

$-3 + 7^2 = 46$

13. (B) **From figure (i),**

$2 \times 5 + 4 \times 9 = 46$

From figure (ii),

$7 \times 4 + 3 \times 6 = 46$

From figure (iii),

$11 \times 2 + 8 \times x = 46$

$22 + 8x = 46$

$8x = 46 - 22$

$8x = 24$

$x = 3$

14. (C) As,

GOOGLE $\rightarrow$ $7 + 15 + 15 + 7 + 12 + 5 = 61 \rightarrow 61 - 10 = 51$

Similarly,

INFOSYS $\rightarrow$ $9 + 14 + 6 + 15 + 19 + 25 + 19 = 107 \rightarrow 107 - 10 = 97$

15. (B)

16. (A) There are 11 triangles in the given question figure.

17. (B) a **c d** f/ f **h** i **k**/ kmn**p**

18. (C)

$$98 \quad 87 \quad 74 \quad 63 \quad \mathbf{50} \quad 39$$

$$-11 \quad -13 \quad -11 \quad -13 \quad -11$$

93 is the wrong term.

19. (C) 22 times

20. (C) $177 \times 3 \div 35 + 2.5 - 9 = 536$

After changing the signs, we have
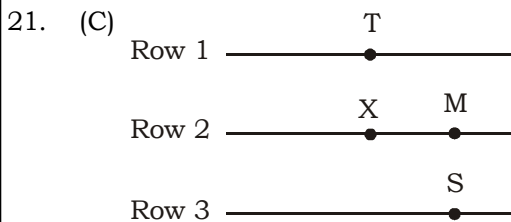
$177 \times 3 + 35 \div 2.5 - 9 = 536$

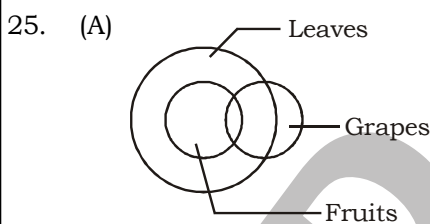$531 + 35 \times \dfrac{10}{25} - 9 = 536$

$531 + 14 - 5 = 536$

$531 + 9 = 536$

$536 = 536$

21. (C)

Row 1 ——————•——————
            T

Row 2 ——————•——•——————
          X   M

Row 3 ——————•——————
           S

Hence 'S' is in South-East with respect to T.

22. (A)   23. (C)   24. (A)

25. (A)

Leaves

Grapes

Fruits

I. True   II. False

Hence, only conclusion I follows.

27. (A) Qutb-ud-din Aibak, who was a general at Muhammad Ghori's Delhi Sultanate, died as a result of a fall from his horse while playing Chaugan.

28. (B) The closest star to Earth are three stars in the Alpha Centauri system. The two main stars are Alpha Centauri A and Alpha Centauri B, which form a binary pair. They are an average of 4.3 light-years from Earth. The third star is Proxima Centauri.

30. (A) The term of the Chief Minister is not fixed and he holds office during the pleasure of the Governor. However, this does not mean that the Governor can dismiss him at any time. He cannot be dismissed by the Governor as long as he enjoys the majority support in the Legislative Assembly. But, if he loses the confidence of the assembly, he must resign or the Governor can dismiss him.

31. (B) This 11.2 km/s is also known as the escape velocity. It works out to roughly 25000 miles per hour.

32. **(B)** Isotopes are atoms of the same element which have the same atomic number but different mass numbers. Isotopes have same number of protons but different numbers of neutrons in the nuclei.

33. **(C)** Adrenaline is known as the emergency hormone because it is released by the adrenal glands under the conditions of stress or excitement. This hormone is also a part of the body's stress response called the fight or flight response.

34. **(A)** SBI Cards and American Express have entered into a strategic partnership. This partnership will allow SBI Card's premium products – SBI Card ELITE and SBI Card PRIME to be available on American Express global network.

35. **(A)** Polar Satellite Launch Vehicle (PSLV) is nearly twice the length and 18 times heavier than the Satellite Launch Vehicle (SLV) [SLV-3, India's first satellite launch vehicle, was launched on July 18, 1980 from Sriharikota. It was just 23 metres high.

36. **(B)** CD-ROM: Compact Disc - Read Only Memory.

37. **(D)** Nautanki: This is the most recent and popular form of North Indian musical theatre of mass entertainment of Uttar Pradesh. It derives its name from the name of the heroine of the play, Shahajadi Nautanki. The dialogues of Nautanki plays are mostly in verse form which are sung and delivered in high pitch on the beats of a percussion instrument called *Naggara.*

38. **(D)** World Environment Day (WED) is celebrated on 5 June every year, and is the United Nations' principal vehicle for encouraging awareness and action for the protection of the environment.

41. **(A)** Jupiter is the largest of all the planets. It has a radius of 71,492 kilometers at the equator and a radius of 66,854 kilometers at the poles.

43. **(A)** One of the states not bisected by the Tropic of Cancer is Odisha. Tropic of cancer passes through Rajasthan, Gujarat, Madhya Pradesh, Chhattisgarh, Jharkhand, West Bengal, Tripura and Mizoram.

45. **(D)** Mercury is the only one in liquid state at room temperature. It's used in thermometers because it has high coefficient of expansion. ... It also has a high boiling point which makes it very suitable to measure higher temperatures. Also, it has a shiny appearance and doesn't stick to the glass surface of glass.

47. **(D)** Gases do not have definite shape and volume for they can occupy the whole space available to them and the molecules exert no attraction between them under ordinary conditions.

50. **(B)** IBRD: International Bank for Reconstruction and Development (IBRD) lends to governments of middle-income and creditworthy low-income countries. It has 187-member countries.

51. **(A)** $\dfrac{\text{Radius of Cone A } (r_A)}{\text{Radius of Cone B } (r_B)} = \dfrac{4}{5}$

$\dfrac{\text{Volume of Cone A}}{\text{Volume of Cone B}} = \dfrac{1}{4}$

$\dfrac{\pi r_A^2 h_A}{\pi r_B^2 h_B} = \dfrac{1}{4}$

$\left(\dfrac{r_A}{r_B}\right)^2 \dfrac{h_A}{h_B} = \dfrac{1}{4}$

$$\left(\frac{4}{5}\right)^2 \frac{h_A}{h_B} = \frac{1}{4}$$

$$\frac{h_A}{h_B} = \frac{1}{4} \times \frac{25}{16} = \frac{25}{64}$$

$$h_A : h_B = 25 : 64$$

52. (A) Length of AD = $\frac{3}{2}$ AG

$$= \frac{3}{2} \times 4 = 6 \text{ cm}$$

53. (C) $\angle BOC = 180° - \angle BAC$
$$= 180° - 52° = 128°$$

54. (B) $\tan\theta + \dfrac{1}{\tan\theta} = 2$

So, $\tan\theta = 1$

$$\tan^2\theta + \frac{1}{\tan^2\theta} = (1)^2 + \frac{1}{(1)^2}$$

$$= 1 + 1 = 2$$

55. (C) Ram   12 �� 2
Ravi   8   24   3
         5

Time required = $\dfrac{24}{5} = 4\dfrac{4}{5}$ days

56. (B) A   10   3
B   15   30   2
         5

Actual work done by both in a day = $\dfrac{5}{2}$

Time required = $30 \times \dfrac{2}{5} = 12$ days

57. (C) Let cost price = ₹ 100

Selling price = $100 + \dfrac{20}{100} \times 100 = ₹120$

Marked price = $120 \times \dfrac{100}{90} = ₹\dfrac{400}{3}$

New selling price = $\dfrac{400}{3} - \dfrac{400}{3} \times \dfrac{20}{100} = ₹\dfrac{320}{3}$

Profit percentage = $\dfrac{\dfrac{320}{3} - 100}{100} \times 100 = 6\dfrac{2}{3}\%$

58. (B) Let cost price = ₹ 100

Selling price = $100 + \dfrac{15}{100} \times 100 = ₹\ 115$

Marked price = $₹\left(115 \times \dfrac{100}{90}\right)$

Required ratio = $100 : \dfrac{23}{18} \times 100 = 18 : 23$

59. (D) $(d + e + f)^2 = d^2 + e^2 + f^2 + 2de + 2ef + 2fd$

$(d + e + f)^2 = d^2 + e^2 + f^2 + 2(de + ef + fd)$

$(16)^2 = 154 + 2(de + ef + fd)$

$256 - 154 = 2(de + ef + fd)$

∴ $de + ef + fd = 51$

60. (B) 7 men = 21 women

1 man = 3 women

12 men + 14 women

= (12 × 3) women + 14 women = 50 women

21 women can do a work = 15 days

1 woman can do the work = 21 × 15 days

50 women can do the twice work = $\dfrac{21 \times 15 \times 2}{50} = \dfrac{63 \times 2}{10} = 12\dfrac{3}{5}$ days

61. (C) Distance = $\dfrac{7 \times 8}{8 - 7} \times \dfrac{6}{60} = \dfrac{56}{10} = 5.6$ km

62. (A) Let sides be $15x$, $20x$ and $25x$ respectively.

$(15x)^2 + (20x)^2 = (25x)^2$ (the triangle is right angled)

ATQ,

$\dfrac{1}{2} \times 15x \times 20x = 15000$

$150x^2 = 15000$

$x^2 = 100$

$x = 10$

Perimeter of triangle = (15 + 20 + 25) × 10

= (60) × 10 = 600 cm
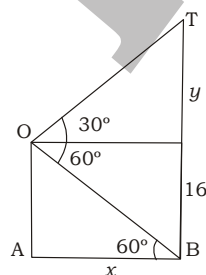
63. (B) Volume of the box = (65 × 36 × 80) cm³

Volume of a cake = (13 × 18 × 16) cm³

Number of cakes = $\dfrac{65 \times 36 \times 80}{13 \times 18 \times 16}$ = 50

64. (B)

$\tan 30° = \dfrac{y}{x} \Rightarrow x = \sqrt{3}y$

In Δ AOB,

$\dfrac{16}{x} = \tan 60°$

$16 = \sqrt{3} \times \sqrt{3}y$

$\dfrac{16}{3} = y \Rightarrow y = 5.33$

So, height of tower = (16 + 5.33) = 21.33 m

65. (B) $\dfrac{V_2}{V_1} = \dfrac{4}{3}$ and $\dfrac{R_2}{R_1} = \dfrac{3}{2}$

Let height be H_1 and H_2
ATQ,

$\dfrac{\dfrac{1}{3}\pi R_1^2 H_1}{\dfrac{1}{3}\pi R_2^2 H_2} = \dfrac{4}{3}$

$\dfrac{(3)^2 H_1}{(2)^2 H_2} = \dfrac{4}{3}$

$\dfrac{9 H_1}{4 H_2} = \dfrac{4}{3}$

$\dfrac{H_1}{H_2} = \dfrac{16}{27} = 16 : 27$

66. (A) $lb = 72$, $bh = 56$, $hl = 63$

$(lb \times bh \times lh) = 56 \times 72 \times 63$

$(lbh)^2 = 56 \times 72 \times 63$

$lbh = \sqrt{56 \times 72 \times 63}$

Volume(lbh) = 504 cm³

67. (A) Area of the field =

(34×22) m² = 748 m²

Let the widith of the path be x meters.

Area without path = $(34 - 2x)(22 - 2x)$ m²

Area of path = $748 - (748 + 4x^2 - 112x)$

$528 = -4x^2 + 112x$

$4x^2 - 112x + 528 = 0$

$x^2 - 28x + 132 = 0$

$(x - 22)(x - 6) = 0$

$x = 6$ m

68. (C) $3x - \dfrac{1}{3x} = 12$

$3\left(x - \dfrac{1}{9x}\right) = 12$

$x - \dfrac{1}{9x} = 4$

Squaring both sides,

$x^2 + \dfrac{1}{81x^2} - 2x \times \dfrac{1}{9x} = 16$

$x^2 + \dfrac{1}{81x^2} = 16 + \dfrac{2}{9}$

$x^2 + \dfrac{1}{81x^2} = \dfrac{146}{9}$

69. (B) $bx - ay = 7$ _____(i)
   $ax + by = 5$ _____(ii)
   Squaring equation (i) and (ii) and adding them,
   $b^2 x^2 + a^2 y^2 - 2abxy = 49$
   $\underline{a^2 x^2 + b^2 y^2 + 2abxy = 25}$
   $x^2 (a^2 + b^2) + y^2 (a^2 + b^2) = 74$
   $(a^2 + b^2)(x^2 + y^2) = 74$

   $a^2 + b^2 = \dfrac{74}{37} = 2$ $\qquad \{\because x^2 + y^2 = 37\}$

70. (A) Area of triangle $= \dfrac{1}{2}\left\{x_1(y_2 - y_3) + x_2(y_3 - y_1) + x_3(y_1 - y_2)\right\}$

   $= \dfrac{1}{2}\left\{4(2 - 9) + 7(9 - 3) + 5(3 - 2)\right\}$

   $= \dfrac{1}{2}(-28 + 42 + 5) = = 9.5$ sq. units

71. (B) B is the state which is the largest producer of rice.

72. (B) The average of production of rice $= \dfrac{8 + 10 + 4 + 4 + 2}{5} = 5.6$ lakh tonnes

73. (C) The total production of rice and wheat in state B = 10 + 2 = 12 lakh tonnes
   The total production of rice and wheat in state C = 4 + 4 = 8 lakh tonnes
   The total production of rice and wheat in state D = 4 + 2 = 6 lakh tonnes
   The total production of rice and wheat in state C = 2 + 6 = 8 lakh tonnes
   ∴ The minimum production of rice and wheat is in the state D.

74. (D) Total production of rice = 8 + 10 + 4 + 4 + 2 = 28
   Total production of wheat = 16 + 2 + 4 + 2 + 6 = 30
   ∴ Required ratio = 28 : 30 = 14 : 15

75. (D) The difference between the production of rice and wheat in the state A
   = 16 – 8 = 8 lakh tonnes
   The difference between the production of rice and wheat in the state B
   = 10 – 2 = 8 lakh tonnes
   The difference between the production of rice and wheat in the state E
   = 6 – 2 = 4 lakh tonnes
   ∴ The difference is maximum in A and B both

MEANINGS IN ALPHABETICAL ORDER

Affinity	a spontaneous or natural liking or sympathy for	लगाव
Affirm	assert strongly and publicly	दृढ़ता के साथ कहना
Amnesia	a partial or total loss of memory	स्मृतिशक्ति का लोप
Assuage	make (an unpleasant feeling) less intense	शांत करना
	available parts or elements	करके मरम्मत करना
Clamour	a loud and confused noise	कोलाहल
Cobble	roughly assemble or put together something from	उपलब्ध चीजों को ही इकट्ठा
Coincide	occur at or during the same time	एक साथ होना
Cornerstone	an important quality or feature on which a particular	आधारशिला
Ephemeral	lasting for a very short time	अल्पकालिक
Erosion	a gradual decline of something	क्षरण
Evolution	the gradual development of something	क्रमिक विकास
	found in pairs on the heads of cattle	
Genetic	relating to genes or heredity	आनुवंशिक
	having done wrong	
Horn	a hard permanent outgrowth, often curved and pointed,	सींग
Immanent	permanently pervading and sustaining	स्थायी
Misery	a state or feeling of great distress	कष्ट
Origins	the point or place where something begins	उत्पत्ति
Pedantic	too worried about small details or rules	सूक्ष्म विवरण या नियमों के बारे में चिंतित होने वाला
Penitence	the action of feeling or showing sorrow and regret for	पछतावा
Persecution	hostility and ill-treatment, especially because of	उत्पीड़न
Poaching	illegally hunt or catch	अवैध रूप से शिकार करना
	race or political or religious beliefs	
	someone or something	
Surpass	exceed; be greater than	श्रेष्ठ होना
Synthesize	combine so as to form a more complex product	कृत्रिम उत्पाद बनाना
Temporal	relating to worldly as opposed to spiritual affairs	लौकिक
Terminate	bring to an end	समाप्त करना
	thing depends or is based	
Transient	lasting only for a short time	क्षणिक
Variation	a change or difference	परिवर्तन

SSC MOCK TEST - 265 (ANSWER KEY)

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

76. (C) 'Nothing else' is followed by 'but' .

77. (D) No error

78. (C) 'Magnificence' means 'the quality of being extremely attractive and impressive'.

79. (A) 'Call for (somebody)' means 'ask something publicly'.

'Call on/upon (somebody)' means 'to formally invite or ask somebody to speak, etc.'

'Call out (somebody)' means 'to ask somebody to come, especially to an emergency'.

'Call (somebody) in' means 'to ask for the services of somebody'.

86. (A) Since both actions happened in past tense simultaneously, Simple Past tense should be used.

87. (B) 'Prefer' is followed by 'to'.

90. (D) The correct spelling is 'Terminated'.

91. (C) The correct spelling is 'Persecution'.