

SSC MOCK TEST – 164 (SOLUTION)

1. (D) As, Dengue is caused by Aedes mosquito. Similarly, Zika is caused by **Aedes mosquito**.

2. (A) As, $\frac{C}{3} : \frac{F}{6} : I$
Similarly, $\frac{D}{4} : \frac{G}{7} : K$

3. (A) As, $63 : 20 \rightarrow 6 \times 3 + \frac{6}{3} = 20$

Similarly, $42 : 10 \rightarrow 4 \times 2 + \frac{4}{2} = 10$

4. (D) Except '**Submarine**', others travel on road.

5. (D) $\begin{matrix} C & I & B & D & A & A & E & J \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ 3 & 3 \times 3 & 2 & 2 \times 2 & 1 & 1 \times 1 & 5 & 5 \times 2 \end{matrix}$

6. (A) $7320 \rightarrow 7 \times 3 = 21$
 $3412 \rightarrow 3 \times 4 = 12$
 $8756 \rightarrow 8 \times 7 = 56$
 $6424 \rightarrow 6 \times 4 = 24$

7. (B) Ectozoa, Equerry, Expands, Expired, Expound.

8. (B) $\frac{BD, FH, JL, NP, RT}{+4 \quad +4 \quad +4 \quad +4}$

9. (A) $\frac{8, 12, 12, 8, 16, 4}{+4 \quad +4 \quad +4 \quad +4}$

10. (A) $B \rightarrow E \rightarrow D \rightarrow C \rightarrow F \rightarrow A$

11. (A) Let the age of P and Q be $2x$ and $5x$ years. A.T.Q.,

$$\frac{2x+8}{5x+8} = \frac{1}{2}$$

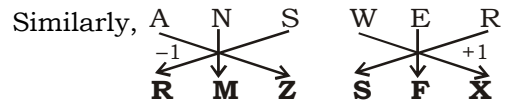
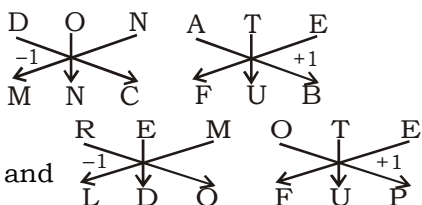
$$\Rightarrow 4x + 16 = 5x + 8$$

$$\Rightarrow x = 8$$

$$\therefore \text{Required difference} = 5(8) - 2(8) = 24 \text{ years}$$

12. (B) '**Retinue**' cannot be formed by using the letters of Indeterminate.

13. (A) As,



14. (C) $6 \times 8 + 63 - 9 \div 47$

After interchanging the signs as per given details,
 $6 - 8 \times 63 \div 9 + 47$
 $= 6 - 56 + 47$
 $= -3$

15. (D) As,
 $(8 + 1)^2 \rightarrow 8^2 + (8 + 1)^2 = 64 + 81 = 145$
and, $(6 + 2)^2 \rightarrow 6^2 + (6 + 2)^2 = 36 + 64 = 100$
Similarly,
 $(9 + 2)^2 \rightarrow 9^2 + (9 + 2)^2 = 81 + 121 = 202$

16. (A) As,
 $13^2 + 8 \times 3 = 169 + 24 = 193$
 $9^2 + 7 \times 11 = 81 + 77 = 158$
and $11^2 + 5 \times 3 = 121 + 15 = 136$
Similarly,
 $x^2 + 7 \times 3 = 121$
 $x^2 = 100$
 $\therefore x = 10$

17. (D) 9 triangles

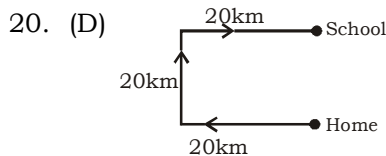
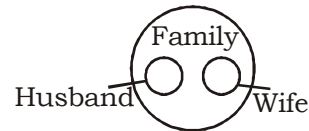


I. Can't say

II. Can't say

\therefore Either conclusion I or conclusion II follows

19. (C)



\therefore He is 20 km, north from his house.

21. (A)

22. (C)

23. (A)

24. (C)

25. (A) $\begin{matrix} P & A & P & E & R \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 32, & 20, & 21, & 41, & 65 \end{matrix}$

26. (A) Crook glass mainly Cerium oxide (CeO_2) which sharply absorbs the ultraviolet rays from the sunlight is utilized in making lenses of eye glasses.
27. (D) Indo-Mongolia joint exercise Nomadic Elephant-2018 has been commenced at Ulaanbaatar. The 12 days long joint exercise will be conducted from 10 Sep to 21 Sep 2018.
28. (D) The speed of sound in a vacuum is zero meter per second, as sound cannot travel in vacuum. Sound is a wave, which means it spreads through the vibration of particles in a medium, such as Liquid, Solid and Gas.
29. (D) The nephron is the microscopic structural and functional unit of the kidney. It is composed of a renal corpuscle and a renal tubule.
30. (C) The common name of Sodium Tetraborate Decahydrate ($\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$) is Borax. A soft and light, colorless crystalline substance, borax is used in many ways as a component of glass and pottery glazes in the ceramics industry.
31. (D) Kirchhoff's Current Law is one of the fundamental laws used for circuit analysis. Gustav Kirchhoff's First Law states that for a parallel path the total current entering in a circuit's junction is exactly equal to the total current leaving the same junction. This is because it has no other place to go as no charge is lost.
32. (D) Pteridophytes (Ferns and fern allies) are vascular plants and have leaves (known as fronds), roots and sometimes true stems, and tree ferns have full trunks. Examples include ferns, horsetails and club-mosses.
33. (A) ICICI Bank has announced a new overdraft facility for medium, small and micro enterprises based on their GST returns.
- ICICI Bank
- Founded: 1994
 - Headquarters: Mumbai, Maharashtra
 - Tagline: Hum Hain Na, Khayal Apka
35. (C) The London house of the sovereign is called Buckingham palace. It was built in 1703 as Buckingham House - a London residence for John Sheffield, the 3rd Earl of Mulgrave. Today the palace has total 775 rooms.
36. (B) The Rashtrapati Bhavan has a total number of 340 rooms spread on four floors. The mansion has a floor area of 200,000 square feet and was built with 700 million bricks and three million cubic feet of stone. The Rashtrapati Bhavan was built using almost no steel. The Rashtrapati Bhavan was designed by Edwin Lutyens and built in 1931 to be the central point of British power in Delhi.
38. (B) In 1951, the first bank credit card appeared in New York's Franklin National Bank for loan customers. In India, Andhra Bank was the first to introduce credit cards in 1981.
40. (B) Lag BaOmer festival is associated with Jewish religion. It is a Jewish holiday. Lag B'Omer is celebrated on the thirty-third day of counting the Omer, i.e. 18 Year. Mourning customs are lifted, weddings may be solemnized, and music enjoyed.
42. (D) A chessboard is the type of chequerboard used in the board game chess, over which the chess pieces are laid. The board has 8 squares along the bottom and 8 squares up the side. A chessboard has 64 squares.
44. (D) Eleventh Five Year Plan:
- Its duration was from 2007 to 2012.
 - It was prepared by the C. Rangarajan.
 - Its main theme was "faster and more inclusive growth".
 - Its growth rate target was 8.1% but it achieved only 7.9%.
48. (B) Arpinder Singh has won the Bronze Medal in the IAAF Continental Cup at Ostrava in Czech Republic. Triple jumper Arpinder Singh has created history by becoming the first Indian to win a medal in the IAAF Continental Cup.
49. (A) The atoms of most elements form chemical bonds to reduce potential energy and gain stability. Electric forces attract neighbouring atoms to each other, making them stick together. Strongly attractive atoms seldom spend much time by themselves; before too long, other atoms bond to them. The arrangement of an atom's electrons determines how strongly it seeks to bond with other atoms.
50. (B) Barium is an alkaline earth metal. This means that it is a group 2 elements. Any Alkaline Earth metal is trying to loan out two electrons to achieve the electron configuration of an inert gas.

51. (A) Required percentage = $22 - 22 - \frac{22 \times 22}{100}$
 $= -4.84\%$

∴ There is loss of **4.84%**

52. (C) Difference between 525 and 495 = 30
 Quotient = $30 \times 2 = 60$
 Required number = $60 \times 30 + 22$
 $= \mathbf{1822}$

53. (B) Work efficiency

A + B → 24	}	48	{	2
B + C → 12				4
C + A → 48				1
$\frac{2(A + B + C)}{2(A + B + C)}$				$\frac{7}{7}$
∴ A + B + C →				$\frac{7}{2}$

∴ Required no. of days = $\frac{48}{\frac{7}{2}} = \frac{96}{7}$

$= \mathbf{13 \frac{5}{7} \text{ days}}$

54. (A) Total runs in 15 overs = $15 \times 4.8 = 72$ runs

∴ Required run rate = $\frac{247 - 72}{35} = \mathbf{5 \text{ runs}}$.

55. (B) Time = 5 hour 36 min, Speed = 5 km/hr.

Total distance covered = $5 \frac{3}{5} \times 5 = 28$ km.

∴ Required Time = $\frac{28}{14} = 2$ hrs = **120 min**.

56. (D) Three years difference between CI and SI in given by

$$D = P \left(\frac{300r^2 + r^3}{(100)^3} \right)$$

$$\Rightarrow 620 = P \left(\frac{300 \times 10^2 + 10^3}{100^3} \right)$$

⇒ P = **₹ 20000**

57. (B) Let the side of an equilateral triangle and regular hexagon be x and y respectively. then, $3x = 6y$

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

∴ Required ratio = $\frac{\frac{\sqrt{3}}{4}(2k)^2}{6 \times \left(\frac{\sqrt{3}}{4}\right) \times (k)^2}$
 $= \mathbf{2 : 3}$.

58. (C) T.S.A of cube = $6 \times (5)^2 = 150 \text{ cm}^2$
 when it cut in 1cm cube there will be 125 cubes.

T.S.A of 125 cube of 1cm side = $6 \times (1)^2 \times 125 = 750 \text{ cm}^2$

∴ Required percentage = $\frac{750 - 150}{150} \times 100 = \mathbf{400\%}$

59. (D) $\text{cosec}^4 \alpha = 49 + \cot^4 \alpha$

⇒ $(\text{cosec}^4 \alpha - \cot^4 \alpha) = 49$

⇒ $(\text{cosec}^2 \alpha - \cot^2 \alpha)(\text{cosec}^2 \alpha + \cot^2 \alpha) = 49$

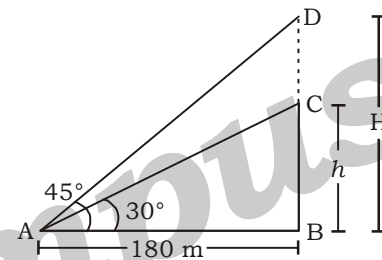
⇒ $1 \cdot \left(\frac{1}{\sin^2 \alpha} + \frac{\cos^2 \alpha}{\sin^2 \alpha} \right) = 49$

⇒ $1 + 1 - \sin^2 \alpha = 49 \sin^2 \alpha$

⇒ $2 = 50 \sin^2 \alpha$

∴ $\sin \alpha = \mathbf{\frac{1}{5}}$

60. (B)



Let BC be 'h' and BD be 'H'.

A.T.Q, $\tan 30^\circ = \frac{h}{180}$

$h = 60\sqrt{3} \text{ m}$

Now, $\tan 45^\circ = \frac{H}{180}$

H = 180 m.

Required height = BD - BC

$= 180 - 60\sqrt{3}$

$= 76.077 \approx \mathbf{76 \text{ m}}$.

61. (B) A.T.Q,

Let the rise in height be 'h' cm

$\pi \times 60 \times 60 \times h = \frac{4}{3} \pi \times 30 \times 30 \times 30$

∴ Required height = 10 cm

62. (C) In first expression

$a^2 b^7 c^3 - 2(abc)^3$
 $= a^2 b^3 c^3 (b^4 - 2a)$... (i)

In second expression

$(ab)^3 - 8(a^2 bc^7)^2 + 3a^6 b^5 c^2$
 $= a^3 b^2 (b - 8ac^{14} + 3a^3 b^3 c^2)$... (ii)

From equation (i) and (ii),

∴ ' **$a^2 b^2$** ' is the HCF of two terms.

63. (D) Given that,

$$x + y - 9 = 0 \quad \dots(i)$$

$$\text{and, } 5x + y - 21 = 0 \quad \dots(ii)$$

From equation (i) and (ii),

We get, $x = 3$ and $y = 6$

Now putting in expression

$$3x^3 + 7y^2 - 9xy$$

$$\therefore \text{ Required value} = 3(3)^3 + 7(6)^2 - 9 \times 3 \times 6 \\ = \mathbf{171}$$

64. (A) $x + 7$ is a factor of $2x^3 + 17x^2 + 30x + K$

$$\therefore x + 7 = 0$$

$$\Rightarrow x = -7$$

Put $x = -7$ in the given expression,

$$2(-7)^3 + 17(-7)^2 + 30(-7) + K = 0$$

$$\Rightarrow -686 + 833 - 210 + K = 0$$

$$\Rightarrow -63 + K = 0$$

$$\Rightarrow \mathbf{k = 63}$$

65. (D) $x^2 = 12 + \sqrt{12 + \sqrt{12 + \sqrt{12 + \dots \infty}}}$

$$\Rightarrow x^2 = 12 + \sqrt{x^2}$$

$$\Rightarrow x^2 - x - 12 = 0$$

$$\Rightarrow x^2 - 4x + 3x - 12 = 0$$

$$\Rightarrow x(x - 4) + 3(x - 4)$$

$$\Rightarrow (x + 3)(x - 4)$$

$$\therefore \mathbf{x = 4}$$

66. (C) Required Number = $750 \times \frac{6}{100} \times \frac{60}{100}$
= **27**

67. (D) Let the speed of stream be x km/h.

$$\text{A.T.Q, } \frac{12}{11+x} + \frac{12}{11-x} = 2\frac{3}{4}$$

$$\Rightarrow 12 \left(\frac{11-x+11+x}{121-x^2} \right) = \frac{11}{4}$$

$$\Rightarrow \frac{12 \times 22}{121-x^2} = \frac{11}{4}$$

$$\Rightarrow x^2 = 121 - 96$$

$$\Rightarrow x^2 = 25$$

$$\Rightarrow \mathbf{x = 5 \text{ km/h.}}$$

68. (A) $\frac{\cos x}{1 + \operatorname{cosec} x} + \frac{\cos x}{\operatorname{cosec} x - 1} = 2$

$$\Rightarrow \cos x \left(\frac{\operatorname{cosec} x - 1 + 1 + \operatorname{cosec} x}{\operatorname{cosec}^2 x - 1} \right) = 2$$

$$\Rightarrow \cos x \left(\frac{2 \operatorname{cosec} x}{\cot^2 x} \right) = 2$$

$$\Rightarrow \tan x = 1$$

$$\therefore \mathbf{x = \frac{\pi}{4}}$$

69. (A) Total distance to cover = $(350 + x)$ m

$$\text{Speed of train in m/s} = 54 \times \frac{5}{18} = 15 \text{ m/s.}$$

$$\text{Relative speed} = (15 + 10) \text{ m/s.}$$

A.T.Q,

$$\frac{350+x}{15+10} = 20$$

$$\Rightarrow 350 + x = 500$$

$$\therefore \mathbf{x = 150 \text{ m.}}$$

70. (B) $\frac{1}{1+\sqrt{2}+\sqrt{3}} + \frac{1}{1-\sqrt{2}+\sqrt{3}}$

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

$$= \frac{2+2\sqrt{3}}{4+2\sqrt{3}-2}$$

$$= \mathbf{1}$$

71. (A) Total area of rectangular sheet = 30×21
= 630 cm^2

Radius of largest possible circle

$$= \frac{21}{2} \text{ cm.}$$

$$\text{Area of circle} = \pi \left(\frac{21}{2} \right)^2 = 346.5 \text{ cm}^2$$

$$\therefore \text{ Required area} = 630 - 346.5 = \mathbf{283.5 \text{ cm}^2}$$

72. (D) Required percentage = $\frac{750}{3830} \times 100$
= **19.6%**

73. (B) Total number of Marketing and Finance department personnel = $3080 + 640$
= **3744.**

74. (C) Required Ratio = **383 : 323.**

75. (B) Required difference = $\frac{3135}{5} - \frac{3080}{5} = \mathbf{11}$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Acclaim	to praise (someone or something) in a very strong and enthusiastic way	प्रशंसा करना
Acerbic	sharply or biting critical, sarcastic	तीखा, कड़वा
Aggrandize	to make appear great or greater : praise highly	बढ़ाना, प्रशंसा करना
Agitate	to disturb, excite, or anger (someone)	उत्तेजित करना
Belittle	to describe (someone or something) as little or unimportant	महत्त्वहीन समझना
Bereft	deprived	से वंचित
Carouse	to drink alcohol, make noise, and have fun with other people	बहुत पीना एवं मजे करना
Chapel	a room or area in a church that is used for prayer or small religious services	प्रार्थना स्थान
Clamant	demanding attention	कोलाहलमय
Condiment	something used to enhance the flavour of food	मसाला
Construe	to understand (an action, event, remark, etc.) in a particular way	अर्थ करना
Crescendo	a gradual increase in the loudness of a sound or section of music	स्वरोत्कर्ष
Debonair	having a cheerful, lively, and self-confident way	खुशदिल
Deduce	to figure out by using reason or logic	परिणाम निकालना
Derelict	a person who has no money, job, home, etc.	आवारा व्यक्ति
Escalate	to become worse or to make (something) worse or more severe	खराब करना
Esoteric	very evil or cruel	नीच, दुष्ट
Exigent	needing to be dealt with immediately	अति आवश्यक
Fiendish	hard to understand	गुप्त, गूढ़
Frolic	a playful or mischievous action	आनन्ददायक
Iconoclast	a person who attacks settled beliefs or institutions	रिवाज तोड़ने वाला
Intensify	to become more intense	तीव्र बनाना
Narcissist	a person who is overly concerned with his or her physical appearance	आत्ममोही
Nocturnal	active mainly during the night	रात्रिचर
Obscure	difficult to understand	जिसे समझना मुश्किल हो
Ponder	to think about or consider (something) carefully	विचार करना
Scurrilous	said or done unfairly to make people have a bad opinion of someone	मिथ्या
Squander	to use (something) in a foolish or wasteful way	खर्च करना
Yielding	bending or stretching easily	लचीला

SSC MOCK TEST - 164 (ANSWER KEY)

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



76. (C) Replace 'it's' with 'its'. Here music is uncountable noun hence possessive adjective 'its' will be used for it. Whereas 'it's' means 'it is'.
77. (B) Replace 'with' with 'for'.
- Affection for : से लगाव
 - Affectionate to : से लगाव होना
78. (C) 'Derivable' is the correct option. Derivable means capable of being derived. (प्राप्त करने योग्य). All other options are not suitable according to the meaning of the sentence.
79. (D) 'Redouble' is the correct option. 'Redouble' means to greatly increase the size or amount of (something) (अधिक बलवती करना)
88. (D) 'Acknowledgment' is the correctly spelt word. 'Acknowledgment' means an act of admitting the truth of existence of (स्वीकृति)
89. (D) 'Deductible' is the correctly spelt word. 'Deductible' means able to be subtracted from an amount of money. (कटौती योग्य)
90. (C) 'Fell off the roof' is the correct option.
91. (B) 'Passed' is the correct option. According to the meaning of the sentence, the sentence should be in past indefinite tense. And we use structure [subject + V² + object] in past indefinite tense.

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