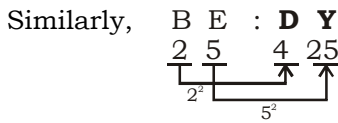


**SSC MOCK TEST – 169 (SOLUTION)**

1. (D) As, aeroplane is kept in hangar  
Similarly, Bee are kept in **apiary**.
2. (B) As,  $34 : 91 \rightarrow 3^3 + 4^3 = 27 + 64 = 91$   
Similarly,  $56 \rightarrow 5^3 + 6^3 = 125 + 216 = \mathbf{341}$

3. (C) As, A D : A P
- 



4. (D) Except 'N', position of others in english alphabet is at odd place.
5. (B)  $3701 \rightarrow 3 + 7 = 10 \rightarrow 01$   
**4941**  $\rightarrow 4 + 9 = 14 \rightarrow 41$   
 $8421 \rightarrow 8 + 4 = 12 \rightarrow 21$   
 $9761 \rightarrow 9 + 7 = 16 \rightarrow 61$

6. (A) Except **finger**, others are inside the body.
7. (C) Dissect, Disseminate, Dissipate, Dissociate, Distract.

8. (B)  $4, 2.5, 2, 3.5, 6.5, 16.75$
- 

9. (A)
- 

10. (C)
- 
- $\therefore$  Ajay is **Grandfather** of Anita.

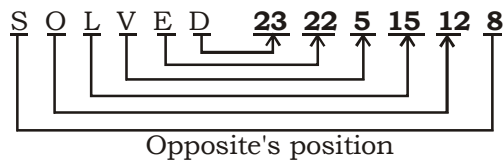
11. (B)
- 

$\therefore$  Required distance = **34 m**.

12. (D) Word **sleeping** cannot be formed.

13. (C) As, Z E B R A 26 9 25 22 1
- 

Similarly,



14. (A)  $8 + 73 - 48 \times 6 \div 70$   
After inter-changing the signs as per given details,  
 $8 \times 73 + 48 \div 6 - 70$   
**= 522**
15. (C) As,  $9@8 = 217 \rightarrow 9^3 - 8^3 = 729 - 512 = 217$   
and,  $7@4 = 279 \rightarrow 7^3 - 4^3 = 343 - 64 = 279$   
Similarly,  $11@6 \rightarrow 11^3 - 6^3 = 1331 - 216$   
**= 1115**

16. (A) As,  $\sqrt[3]{2 \times 12 \times 9} = 6$   
and,  $\sqrt[3]{81 \times 8 \times 9} = 18$   
Similarly,  $\sqrt{45 \times 3 \times 25} = \mathbf{15}$

17. (B)
- 

$\therefore$  **S** is sitting between P and V.

18. (B)
- I. True  
II. Can't say  
 $\therefore$  Only **conclusion I** follows.

19. (D) **250 kg**

20. (A)

21. (A)  
22. (B)  
23. (A)  
24. (D)  
25. (C) I M A G E  
 $\downarrow \downarrow \downarrow \downarrow \downarrow$   
**66 31 85 88 87**

26. (B) Diamond clarity is the quality of diamonds that relates to the existence and visual appearance of internal characteristics of a diamond called inclusions, and surface defects, called blemishes. Clarity is one of the four Cs of diamond grading, the others being carat, color, and cut.
27. (B) The Security Council consists of five permanent members and 10 non-permanent members elected by the General Assembly for a term of two years.
28. (B) The Bibi Ka Maqbara is a tomb located in Aurangabad, Maharashtra, India. It was built by Mughal emperor Aurangzeb's son Azam Shah in the memory of his mother (posthumously known as Tomb of the Lady).
29. (C) The word "Satyameva Jayate" is inscribed below the base plate of the Emblem in the Devnagari script. The words Satyameva Jayate is taken from the Mundaka Upanishad, meaning "Truth alone triumphs".
30. (B) The 10<sup>th</sup> Schedule to the Constitution, popularly referred to as the 'Anti-Defection Law,' was inserted by the 52<sup>nd</sup> Amendment in 1985. On 31<sup>st</sup> January 1985, the Constitution (52<sup>nd</sup> Amendment) Bill was passed by the Rajya Sabha.
33. (B) Kathak, Nauntanki, Jhora and Kajri are the important dances of Uttar Pradesh. Kathak, one of the four classical dances of India, originated here. Ramlila, Rasalila, Nautankis and folk dances of Kumaon hills (Jhora, Chhapeli, Jagar) are all dances, that reflect the lifestyle and beliefs of the people.
35. (D) Shah Alam II, based on the Treaty of Allahabad signed in August 16, 1765, granted Diwani rights or right to administer the territory and collect taxes to the British East India Company. According to this treaty, Mughal Emperor granted Fiscal Rights (Diwani) to the East India Company at Bengal, Bihar and Orissa.
37. (B) The Gutenberg discontinuity lies between the Earth's mantle and core. The Gutenberg discontinuity occurs within Earth's interior at a depth of about 2,900 km below the surface, where there is an abrupt change in the seismic waves (generated by earthquakes or explosions) that travel through Earth.
39. (B) Detoxification is the physiological or medicinal removal of toxic substances from a living organism, including the human body, which is mainly carried out by the liver.
40. (B) Phosgene is a highly toxic gas that has been used as a chemical warfare agent. It is an insidious poison as it is not irritating immediately, even when fatal concentrations are inhaled. Phosgene is a common name for Phosphine.
- Phosgene :**
- Common name : Carbonyl chloride
  - Other names : Carbonyl dichloride; Chloroformyl chloride; Dichloroformal-dehyde
  - Molecular formula:  $\text{CCl}_2\text{O}$
42. (C)
- The **Hopman Cup** is an annual international eight-team indoor hard-court tennis tournament held in Perth, Western Australia in early January each year, which plays mixed-gender teams on a country-by-country basis.
  - The **Sultan Azlan Shah Cup** is an annual international men's field hockey tournament held in Malaysia. It began in 1983 as a biennial contest. The tournament became an annual event after 1998, following its growth and popularity.
  - The **Sudirman Cup** is the world mixed team badminton championship which takes place every two years.
  - **Uber cup** is related to international badminton tournament for women. It is also called world team championship for women which is organized every 2 year.
43. (C) Glycolysis begins with the consumption of energy (in the form of ATP) called the preparatory phase, followed by the release of energy (also in the form of ATP) called the payoff phase. The breakdown of glucose into pyruvate occurs in ten steps, each of which is catalyzed by its own enzyme. The first five steps require energy, while the net end products of glycolysis are two Pyruvate, two NADH, and two ATP.
45. (D) High powered money or monetary base refers to the money produced by R.B.I. and Government of India. Alternatively total liability of monetary authority of the country and R.B.I. is called monetary base or high powered money (H). It consists of (i) currency (notes and coins) in the hands of public (C), (ii) Cash reserve of commercial banks (R) and (iii) Other deposits with R.B.I. (OD). High powered money(H) = C + R + OD
46. (B) Input-output is a novel technique invented by Professor Wassily W. Leontief in 1951. It is used to analyse inter-industry relationship in order to understand the inter-dependencies and complexities of the economy and thus the conditions for maintaining equilibrium between supply and demand.

47. (C) Jigyasa, a student - scientist connect programme has been launched by the government in New Delhi. The programme would be implemented by the Council of Scientific and Industrial Research (CSIR) in collaboration with Kendriya Vidyalaya Sangathan (KVS).

49. (B) Horsepower (hp) is a unit of measurement of power. There are many different standards and types of horsepower. Unfortunately the Horsepower unit of power is rather less well defined. In fact there are at least four different definitions of Horsepower:

- Mechanical Horsepower, hp(I)  $\approx$  745.7W
- Metric Horsepower, hp(M)=735.49875W
- Electrical Horsepower, hp(E)=746W
- Boiler Horsepower, hp(S)=9,812.5W

50. (B) Temperature coefficient of resistance is the coefficient that signifies the effect of temperature on resistance of the material. As far as semi-conductors are concerned, the temperature coefficient is negative. That signifies that, with increase in temperature, the resistance decreases.

51. (C)  $4y + 12x - 1 = 0$   
Equation of line is given by  $y = mx + C$  where  $m$  is the slope of line.  
 $\Rightarrow 4y = -12x + 1$

$$\Rightarrow y = -\frac{12}{4}x + \frac{1}{4}$$

$$\therefore m = -3$$

52. (D) Length of wire = circumference of circle

$$= 2 \times \frac{22}{7} \times 7 = 44\text{cm}$$

$$\therefore \text{Perimeter of rectangle} = 2(l + b) = 44\text{cm.}$$

$$\Rightarrow 2(7x + 4x) = 44$$

$$\Rightarrow x = 2$$

$$\text{So, length} = 7 \times 2 = 14\text{cm}$$

$$\text{Breadth} = 4 \times 2 = 8\text{ cm.}$$

$$\therefore \text{Required area} = 14 \times 8 = \mathbf{112\text{ cm}^2}$$

53. (A) Let the time taken by A and B to complete one revolution of the park be  $x$  and  $y$  respectively.

ATQ,

$$x = \frac{1500}{6.75 \times \frac{5}{18}} = \frac{400}{1} \text{ sec.}$$

$$y = \frac{1500}{4.75 \times \frac{5}{18}} = \frac{21600}{19} \text{ sec.}$$

$\therefore$  Required time

$$= \frac{\text{L.C.M. of numerator of } x \text{ and } y}{\text{H.C.F of denominator of } x \text{ and } y}$$

$$= \frac{21600}{1 \times 3600} = \mathbf{6 \text{ hrs.}}$$

54. (B) Required area of field =  $2\pi rh \times 1500$

$$= 2 \times \frac{22}{7} \times 1.8 \times 3.36 \times 1500.$$

$$= 57024\text{m}^2$$

55. (C)  $13601 = 87 \times 156 + 29$

$\therefore 29$  is the least number.

56. (B) Let the speed of flow of river be  $x$  km/h. ATQ.,

$$\frac{14}{5+x} + \frac{9}{5-x} = 5$$

$$\Rightarrow 14(5-x) + 9(5+x) = 5(25-x^2)$$

$$\Rightarrow 70 - 14x + 45 + 9x = 125 - 5x^2$$

$$\Rightarrow 5x^2 - 5x - 10 = 0$$

$$\Rightarrow 5x^2 - 10x + 5x - 10 = 0$$

$$\Rightarrow 5x(x-2) + 5(x-2) = 0$$

$$\Rightarrow (5x+5)(x-2) = 0$$

$$\Rightarrow x = -1, 2$$

$\therefore$  Required speed  $x = 2$  km/hr.

57. (D) Let the length of train be ' $l$ ' m.

$$\text{speed of train} = \frac{18000}{10 \times 60} = 30 \text{ m/sec}$$

$$\therefore \text{Required length} = 30 \times 11 = \mathbf{330 \text{ m.}}$$

58. (A) Rahul's monthly income =  $\frac{32000 \times 115}{100}$

$$= ₹36800$$

$$\text{Ajay's Annual salary} = 36800 \times 3 \times 12$$

$$= \mathbf{₹1324800}$$

59. (B) A.T.Q.,

No. of day	Total work	Efficiency
P + Q - 20	120	6
Q + R - 30		4
R + P - 40		3
2(P + Q + R)		13

$$P + Q + R - \frac{13}{2} = 6.5$$

$$\text{R's efficiency} = 6.5 - 6 = 0.5$$

$$\text{P's efficiency} = 6.5 - 4 = 2.5$$

$$\therefore \text{Required ratio} = \frac{120}{2.5} : \frac{120}{.5}$$

$$= \mathbf{1 : 5}$$

60. (C) Let the bill after 30% discount be ₹ $x$ . ATQ.,

$$\frac{x \times 118}{100} = 4743 - 200$$

$$\Rightarrow x = \frac{4543 \times 100}{118} = ₹3850$$

$$\therefore \text{Service charge} = \frac{3850 \times 8}{100} = \mathbf{₹308}$$

61. (D) Let C joined the partnership after  $x$  months.

A.T.Q.,

$$\frac{(21600 + 14400) \times 12}{18000 \times (12 - x)} = \frac{(10600 - 2120)}{2120}$$

$$\Rightarrow \frac{36000 \times 12}{18000(12 - x)} = 4$$

$$\Rightarrow \frac{24}{12 - x} = 4$$

$$\Rightarrow 12 - x = 6$$

$$\Rightarrow x = \mathbf{6 \text{ months}}$$

62. (B) A.T.Q.,

$$\frac{\pi r^2 h}{2\pi r h} = \frac{616}{352}$$

$$\Rightarrow r = 3.5\text{m}$$

$$\therefore \pi r^2 h = 616$$

$$\Rightarrow \frac{22}{7} \times 3.5 \times 3.5 \times h = 616$$

$$\Rightarrow h = \frac{616}{11 \times 3.5} = 16$$

$$\text{Total surface area} = 2\pi r(h + r)$$

$$= 2 \times \frac{22}{7} \times 3.5 (16 + 3.5)$$

$$= 22 \times 19.5$$

$$= \mathbf{429}$$

63. (C) Let the roots be 'a' and 'a<sup>2</sup>' of equation.

$$x^2 + kx - 8 = 0$$

Now,

$$a + a^2 = -k \quad \text{--- (i)}$$

$$\text{and, } a \times a^2 = -8$$

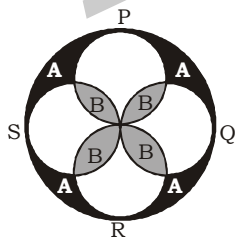
$$a = -2 \quad \text{--- (ii)}$$

Now putting eq. (ii) in (i) we get,

$$-2 + (-2)^2 = -k$$

$$\mathbf{k = -2}$$

64. (A)



Let the radius of PQRS be  $2r$

$\therefore$  Radius of each of the smaller circles

$$= \frac{2r}{2} = r$$

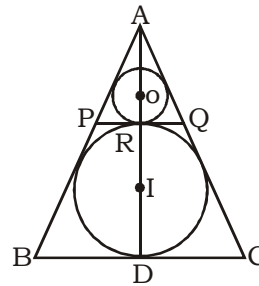
Area  $A = \pi(2r)^2 - 4\pi(r)^2 + B$  (As B is counted twice)

$$\Rightarrow 4A = 4\pi r^2 - 4\pi(r)^2 + 4B$$

$$\Rightarrow A = B$$

$\therefore$  Required ratio =  $\mathbf{1 : 1}$

65. (B)



Let the side of equilateral triangle be 'a' cm.

I is centroid of  $\triangle ABC$ .

$$\therefore RD = \frac{\sqrt{3}}{2} a \times \frac{2}{3} = \frac{a}{\sqrt{3}}$$

Draw  $PQ \parallel BC$

$\Rightarrow \triangle APQ$  is an equilateral triangle

$$AR = AD - RD$$

$$= \frac{\sqrt{3}a}{2} - \frac{a}{\sqrt{3}}$$

$$AR = \frac{a}{2\sqrt{3}}$$

Now, radius of smaller circle

$$= \frac{a}{2\sqrt{3}} \times \frac{1}{3} = \frac{a}{6\sqrt{3}}$$

$$\therefore \text{Required ratio} = \pi \left( \frac{a}{6\sqrt{3}} \right)^2 : \frac{\sqrt{3}}{4} a^2$$

$$= \pi \frac{a^2}{36 \times 3} : \frac{\sqrt{3}}{4} a^2$$

$$= \mathbf{\pi : 27\sqrt{3}}$$

66. (C) We know sum of square of two sides of a triangle must be greater than the square of third side.

Two sides are 12 units and 18 units.

Then,  $12^2 + 12^2 < 18^2$  and

$$12^2 + 18^2 > 18^2$$

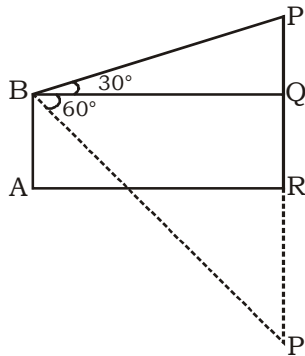
$\therefore$  Third side = 18 units

$$\text{Semiperimeter, } S = \frac{(12 + 18 + 18)}{2} = 24.$$

$$\text{Area} = \sqrt{24(24 - 12)(24 - 18)(24 - 18)}$$

$$= \sqrt{24(12)(6)(6)} = \mathbf{72\sqrt{2} \text{ unit}^2}.$$

67. (B)



Let AB be the height of building.

P is the point where aeroplane was flying at that moment.

In  $\Delta BQP$ ,

$$\sin 30^\circ = \frac{PQ}{300} \text{ and } \cos 30^\circ = \frac{BQ}{300}$$

$$\Rightarrow PQ = 150 \text{ m and } BQ = 150\sqrt{3} \text{ m}$$

Now, in  $\Delta BQP$

$$\tan 60^\circ = \frac{P'Q}{BQ}$$

$$\Rightarrow \sqrt{3} = \frac{P'Q}{150\sqrt{3}}$$

$$\Rightarrow P'Q = 450 \text{ m}$$

$$PP' = PQ + QP'$$

$$\therefore 150 + 450 = 600 \text{ m}$$

$$\therefore \text{Height of plane from ground level} = \frac{600}{2} = \mathbf{300 \text{ m}}$$

68. (C) 5 and 6 always give 5 and 6 as unit place digit respectively.

$$\text{unit place of } (73)^{54} = (3)^{\frac{54}{4}} \text{ (2 remainder)}$$

$$\Rightarrow (3)^2 = 9$$

$$\text{Required unit digit} = 5 + 6 + 9 = 20$$

$$\therefore 0 \text{ is the unit digit}$$

69. (A)  $2\sqrt[3]{40} - 4\sqrt[3]{320} + 3\sqrt[3]{625} - 3\sqrt[3]{5}$

$$= 4\sqrt[3]{5} - 16\sqrt[3]{5} + 15\sqrt[3]{5} - 3\sqrt[3]{5}$$

$$= 19\sqrt[3]{5} - 19\sqrt[3]{5}$$

$$= \mathbf{0}$$

70. (D) ATQ.,

$$\sec A + \tan A = 4 \quad \dots(i)$$

$$\text{then, } \sec A - \tan A = \frac{1}{4} \quad \dots(ii)$$

Adding eq. (i) and eq. (ii) we get,

$$2\sec A = \frac{17}{4}$$

$$\Rightarrow \sec A = \frac{17}{8}$$

$$\Rightarrow \cos A = \frac{8}{17}$$

$$\Rightarrow \sin A = \sqrt{1 - \cos^2 A}$$

$$= \sqrt{1 - \left(\frac{8}{17}\right)^2}$$

$$\therefore \mathbf{\sin A = \frac{15}{17}}$$

71. (D)  $\sin \theta + \cos \theta = \sqrt{2} \sin(90^\circ - \theta)$

$$\Rightarrow \sin \theta = (\sqrt{2} - 1) \cos \theta$$

$$\Rightarrow \cot \theta = \frac{1}{\sqrt{2} - 1}$$

$$\Rightarrow \cot \theta = \frac{\sqrt{2} + 1}{(\sqrt{2} - 1)(\sqrt{2} + 1)}$$

$$\therefore \cot \theta = \mathbf{\sqrt{2} + 1}$$

72. (D) Total production of wheat and rice together in 1998 =  $175 + 175 = 350$

Total production of wheat and rice together in 1999 =  $150 + 200 = \mathbf{350}$

73. (A) Total production of wheat for all the seven years together =  $125 + 175 + 150 + 175 + 225 + 200 + 250 = 1300$

Total production Rice for all the seven years together =  $150 + 175 + 200 + 150 + 250 + 225 + 200 = 1350$

$$\text{Required ratio} = \frac{1300}{1350} = \frac{26}{27} = \mathbf{26 : 27}$$

74. (A) In 1998, percentage increase in production of wheat.

$$= \frac{(175 - 125)}{125} \times 100 = \frac{50 \times 100}{125} = \mathbf{40\%}$$

Which is maximum.

75. (C) Average production (in thousand tonnes) of Rice

$$= \frac{1350}{7} = 192.85 = \mathbf{195} \text{ (approx)}$$

**MEANINGS IN ALPHABETICAL ORDER**

<b>Word</b>	<b>Meaning in English</b>	<b>Meaning in Hindi</b>
Conglomerate	to gather into a mass or coherent whole	एकत्रित होना
Empire	a group of territories or peoples under one ruler	साम्राज्य
Disperse	to go or move in different directions : to spread apart	बिखेरना
Disposal	the action or process of getting rid of something	निपटान
Restored	to give back (someone or something that was lost or taken)	वापस देना
Cut down	to reduce	कम होना
Mowed down	to kill or knock down (a person or many people) in a sudden and violent way	नरसंहार
Cozen	trick or deceive	ठगना
Revolt	to fight in a violent way against the rule of a leader or government	विद्रोह
Bury	to put (a dead person or animal) in a grave	दफनाना
Incinerate	to cause to burn to ashes	जला देना
Abuse	language that condemns or vilifies usually unjustly, interperately, and angrily	अपशब्द
Lambasted	to attack verbally, to criticize	आलोचना करना
Compliment	to express esteem, respect, affection, or admiration	प्रशंसा करना
Benign	gentle and kind	सौम्य
Succinct	briefly and clearly expressed	संक्षिप्त
Laconic	using very few words	संक्षेप
Feeble	markedly lacking in strength	कमजोर, शक्तिहीन
Verbose	containing more words than necessary	शब्दबहुल
Grunt	make a low, short guttural sound of a pig	सूअर की आवाज
Meadow	land that is covered or mostly covered with grass	घास का मैदान
Mannequin	a dummy used to display clothes in a shop window	पुतला
Spectrum	a band of colours, as seen in a rainbow, produced by separation of the components of light by their different degrees of refraction according to wavelength	स्पेक्ट्रम,
Allocation	to distribute	बाटना

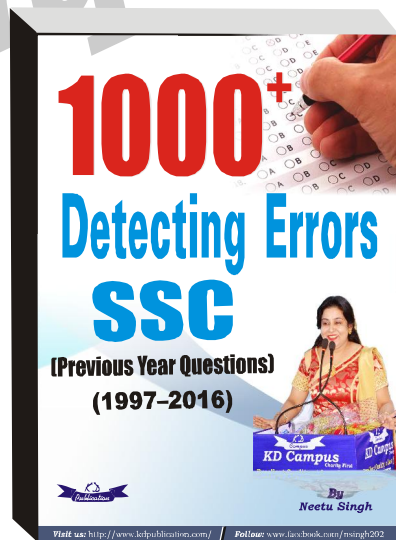


**SSC MOCK TEST - 169 (ANSWER KEY)**

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



76. (B) Replace 'in' with 'by'.
77. (C) Change 'but' into 'than' because conjunction 'than' is used after 'other'.
90. (A) Change 'prior than' into 'prior to' because 'prior to' means 'a decision taken before'.
91. (C) Change 'down' into 'through' because 'fell through' is a phrasal verb which means 'come to nothing'.



**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**