

**SSC MOCK TEST – 50 (SOLUTION)**

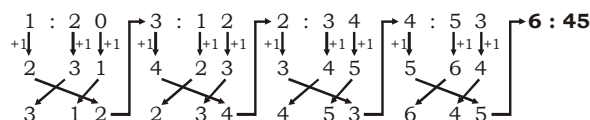
1. (B) Horse is ridden by a jockey, similarly car is driven by a **chauffeur**.
2. (A) Second is the 2-D figure of the first.
3. (B) Fog reduces visibility and AIDS reduces **immunity**.
4. (C) Prime number next to 11 is 13.  
 $11 + 13 = 24$ .  
 Prime number next to 37 is 41  
 and  $37 + 41 = 78$ .
5. (D) As,
 

J	N	Q	S
+5	-5	+5	-5
O	I	V	N

Similarly,

E	H	M	Q
+5	-5	+5	-5
J	C	R	L
6. (B)  $\sqrt{784} = 28$  and  $784 + 28 = 812$  similarly,  
 $\sqrt{1024} = 32$  and  $1024 + 32 = 1056$ .
7. (D) Conscience prevents us from doing immoral activities and police prevents us from doing **crime**.
8. (C)  $47 + (\text{Reverse}(47)) = 47 + 74 = 121$   
 $89 + (\text{Reverse}(89)) = 89 + 98 = 187$
9. (A) Glucose is rich in carbohydrates and soybean is rich in **proteins**.
10. (\*)
11. (C) All except **Brother** are relations based on extended family.
12. (A) All except **Goiter** are diseases caused due to deficiency of vitamin, while goiter is caused due to deficiency of iodine.
13. (D) In all other figures, the dot inside the square is attached to one end of the extended side of the square.
14. (B) Except option (B) i.e. (13-86), Second term is divisible by the sum of digits mentioned in the first term.
15. (B) Except the word '**SOCIETY**', rest of the words have all the vowels i.e. A, E, I, O, U.
16. (D) All except **Lucknow** are Union Territories.
17. (C) Using the correct symbols, we have:  
 Given expression =  $(3 \times 15 + 19) \div 8 - 6$   
 $= (45 + 19) \div 8 - 6 = 64 \div 8 - 6 = 8 - 6 = 2$

18. (D) The order is : Sharp, Shock, Snooker, Socks, Sound. So, **Snooker** is in the middle.
19. (D)



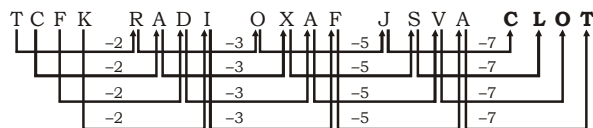
20. (D) The final arrangement is as follows.

	Weight ↑	Height ↑
1.	C	E
2.	D	A
3.	E	C
4.	A	B
5.	B	D

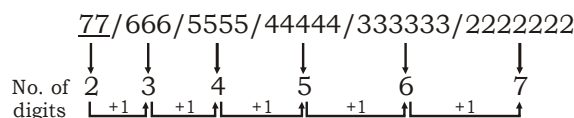
So, D is the second heaviest person.

21. (B) As,  
 C A T  
 $3 \ 1 \ 20 = 3 + 1 + 20 = 24$   
 $\Rightarrow 243 \rightarrow$  No. of letters in CAT.  
 G O  
 $7 \ 15 = 7 + 15 = 22$   
 $\Rightarrow 222 \rightarrow$  No. of letters in GO.  
 Similarly,  
 C L O U D  
 $3 \ 12 \ 15 \ 21 \ 4 = 3 + 12 + 15 + 21 + 4 = 55$   
 $\Rightarrow 555 \rightarrow$  No. of letters in CLOUD.

22. (D)



23. (B)

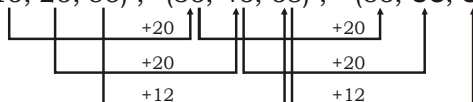


24. (C) (14, 272), (17, 182), \_\_, (23, 56), (26, 20)  
 The given series is a mixed series.  $14^{+3}$ ,  $17^{+3}$ ,  $20^{+3}$ ,  $23^{+3}$ , 26.  
 $272, 182, \_56, 20$   
 $\Rightarrow 16^2 + 16, 13^2 + 13, 10^2 + 10, 7^2 + 7, 4^2 + 4$ .  
 Also,  $16 - 3 = 13, 13 - 3 = 10, 10 - 3 = 7, 7 - 3 = 4$   
 The missing pair is (20, 110)

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25. (C) (16, 26, 56), (36, 46, 68), (56, **66, 80**)



26. (B) Every number is the sum of previous two numbers i.e.  $17 = 5 + 12$ ,  $29 = 17 + 12$  and so on.

So, the next term in the series is  $75 + 121 = \mathbf{196}$ .

27. (A) In each row the average of the first 3 cards from the left equals the value of the fourth card.

$$\frac{2+1+3}{3} = 3 \text{ Here, A represents 1 and also,}$$

there is one card from each suit in every row. So, there will be one ♥ symbol card.

28. (C) Following table depicts the specific code of letters:

Letters	A	D	E	N	R	U	W	Y
Code	7	4	1	9	2	3	5	6

On the basis of the table given above let us check the relationship in each option.

(A) W A R D E N **Remarks**  
5 7 2 4 1 9 Correct

(B) D E R A N U  
4 1 2 7 9 3 Correct

(C) **N E D A Y U**  
9 2 4 7 6 3 **Incorrect**

Here, 2 should be replaced by 1.

(D) E N D W A R  
1 9 4 5 7 2 Correct

29. (C) As it is given that each of them are left with ₹ 32 which means in total they have  $32 \times 4 = ₹ 128$  at the end as well as in the beginning of the fourth game.

Amount	Amount In Rupees			
	S	T	U	V
Initial Amount	66	34	18	10
Amount after S lost	4	68	36	20
Amount after T lost	8	8	72	40
Amount after U lost	16	16	16	80
Amount after V lost	32	32	32	32

30. (A) Each time two letters are removed i.e. one from the beginning and one from the end. Therefore, 'PENDICU' will replace the question mark.

PERPENDICULAR/ERPENDICULA/  
RPENDICUL/**PENDICU**

31. (D) The number in the second column is three times the difference between the numbers in the third and first columns.

$$\text{So, missing number} = 3 \times (16 - 7) = 3 \times 9 = \mathbf{27}.$$

32. (A)  $(3 \times 100) + (5 \times 9) = 345$ .

$$(4 \times 100) + (6 \times 10) = 460.$$

$$\text{So, missing number} = (5 \times 100) + (7 \times 11) = \mathbf{577}.$$

33. (B)  $11 \times 2 + \frac{6}{2} = 25$ .

$$6 \times 2 + \frac{8}{2} = 16.$$

$$\text{So, missing number} = 5 \times 2 + \frac{12}{2} = 10 + 6 = \mathbf{16}.$$

34. (D) C = 3, H = 8, E = 5, A = 1 and R = 18

$$\Rightarrow (3 \times 8) - (5 + 1) = 24 - 6 = 18$$

$$B = 2, O = 15, T = 20, F = 6 \text{ and } D = 4$$

$$\Rightarrow (2 \times 15) - (20 + 6) = 30 - 26 = 4$$

$$D = 4, M = 13, Q = 17, U = 21 \text{ and } N = 14$$

$$\Rightarrow (4 \times 13) - (17 + 21) = 52 - 38 = 14$$

$$G = 7, J = 10, Y = 25, W = 23$$

$$\Rightarrow (7 \times 10) - (25 + 23) = 70 - 48 = 22$$

and the position of **V** = 22

35. (B) It is the sum of the two digits  $(9 + 8) = \mathbf{17}$  in the opposite quadrant.

36. (A) As it is given that B can't be at third place which means it will occupy first, second or fourth place.

Also, the condition C and D cannot be together as well as D should neither be at the beginning nor at the end need to be followed.

So, the possible three arrangements are CBDA and CADB, BDAC.

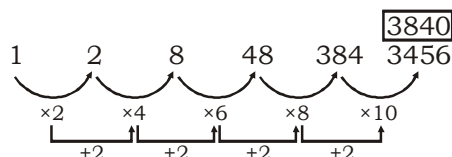
From the above arrangements it is clear that the statement 'A is at the first place' must be false.

37. (A) As, S E C T O R  
↓ -1 ↓ +0 ↓ -2 ↓ +0 ↓ -3 ↓ +0  
R E A T L R

Similarly,

F L O W E R  
↓ -1 ↓ +0 ↓ -2 ↓ +0 ↓ -3 ↓ +0  
**E L M W B R**

38. (D)

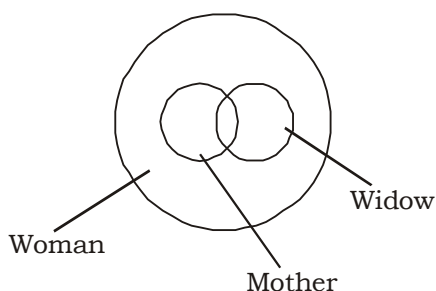


39. (C) The series is W/WY/WYB/WYBG/WYBGR/W/WY/WYB/WYBG.

The letter G stands for Green.

40. (B) My grandfather's only son - My father. So, the girl is the daughter of Vipul's father i.e., Vipul is the girl's brother.

41. (D) All mothers are women. Some mothers and some women can be widows.



42. (A)  $(13 + 5) = 18^{\text{th}}$  letter from your left is **U**.

43. (C) Clearly Y moves 60 m from Q upto A, then 20 m upto B, 40 m upto C and then upto D.

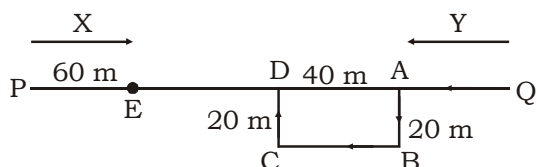
So,  $AD = BC = 40$  m

$QD = (60 + 40)$  m = 100 m

Since A and B travel with the same speed, A will travel the same speed along the horizontal as B travels in the same time i.e.

Distance between X and Y = DE

=  $(200 - 100 - 60)$  m = 40 m



44. (C)

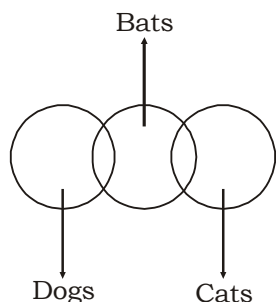
45. (C)

46. (B)

47. (B)

48. (A)

49. (D)



Neither I nor II follows.

50. (C)

51. (C) CT was invented in 1972 by British engineer Godfrey Hounsfield of EMI Laboratories, England. A CT scan, also called X-ray computed tomography (X-ray CT) and computerized axial tomography scan (CAT scan), makes use of computer-processed combinations of many X-ray images taken from different angles to produce cross-sectional images (virtual "slices") of specific areas of a scanned object, allowing the user to see inside the object without cutting.

52. (A) If labour productivity increases, then the demand for labour also increases, and so does real wage.

53. (A) Chloroplasts are organelles found in plant cells and eukaryotic algae that conduct photosynthesis. Chloroplasts absorb sunlight and use it in conjunction with water and carbon dioxide gas to produce food for the plant.

54. (B) 1. The Widal test, developed in 1896 and named after Georges-Fernand Widal, who introduced it, is a presumptive serological test for enteric fever or undulant fever whereby bacteria causing typhoid fever are mixed with a serum containing specific antibodies obtained from an infected individual.

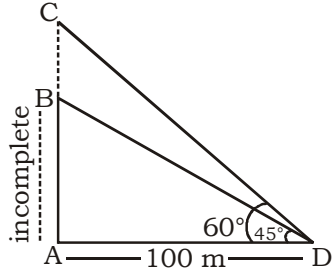
2. The Wayson stain is a basic fuchsin-methylene blue, ethyl alcohol-phenol microscopic staining procedure. It was originally a modified methylene blue stain used for diagnosing bubonic plague. With this stain, Yersinia pestis appears purple with a characteristic safety-pin appearance, which is due to the presence of a central vacuole.

3. An enzyme-linked immunosorbent assay, also called ELISA or EIA, is a test that detects and measures antibodies in your blood. This test can be used to determine if you have antibodies related to certain infectious conditions. Antibodies are proteins that your body produces in response to harmful substances called antigens. An ELISA test may be used to diagnose: HIV, which causes AIDS

4. Mantoux test: a test for immunity to tuberculosis using intradermal injection of tuberculin.

55. (B) Visible light ranges from about 3,900 angstroms to 7,600 angstroms. In fact, the colors that make up visible light, like red, blue and green, and their complements violet, yellow, and orange, also have their own ranges of wavelength. The light with shorter waves, like violet and blue, are more energetic than the light with longer wavelengths such as red.

56. (A) The Three Language Formula was devised in the chief ministers conferences held during 1961. The National Commission on Education known as the Kothari commission examined and recommended a graduated formula which was recommended by the 1968 policy.
58. (C) "All the Prime Minister's men" is written by Janardan Thakur  
Subject: On the alleged misuse of power and corrupt practices of politicians and officials during the previous administration of India.
60. (D) Handyala Lakshminaraswamy Dattu (born 3 December 1950) is a former Chief Justice of India, serving for nearly 14 months, from 28 September 2014 to 2 December 2015. Before his elevation as a judge of the Supreme Court of India on 17<sup>th</sup> December 2008, he had served as the Chief Justice of Kerala High Court and Chhattisgarh High Court.
61. (D) Ohm's Law deals with the relationship between voltage and current in an ideal conductor. This relationship states that:  
The potential difference (voltage) across an ideal conductor is proportional to the current through it. The constant of proportionality is called the "resistance", R.  
Ohm's Law is given by:  $V = I R$
66. (A) According to Huxley the protoplasm is the physical basis of life. Inside the cell wall of living cell the living substance is known as protoplasm. The protoplasm is a thick fluid or jelly-like substance.
71. (D) Producer gas consists chiefly of Carbon monoxide and Nitrogen by forcing air upward through a burning coal or coke. The carbon of the coal/coke is oxidized by the oxygen of the air thus forming Carbon monoxide. The Nitrogen of the air being inert passes through the fire without change.
72. (C) It would be around 4 degrees centigrade. This is because as the water cools to this temperature it reaches its maximum density so will tend to drop to the bottom of the lake. The water above may then cool further & freeze, but this 'heavy' layer will stay at the bottom, insulated by the layers of water above. This is essential for the survival of fish etc, as otherwise in cold weather ponds/lakes could freeze completely.
73. (A) The large Thorium reserves of India is the compelling motivation for India's interest in the Thorium fuel cycle. India is perhaps amongst a selected few countries of the world which has continued to pursue the study of this fuel over the years. Although it was recognised that Thorium would become a practical energy source in India only in the later stages of the Indian nuclear programme sometime in the next century, in view of the long lead times required to develop various technologies associated with the Thorium fuel cycle, research and development programme were initiated in India in a number of relevant areas right from the early days.
74. (C) X ray is a form of electromagnetic radiation, as is visible light, but with some different characteristics. The important difference is that X-ray can penetrate or pass through the human body and produce shadow-like images of structures such as bones, some of the organs, and signs of disease and injury. X-ray can propagate in vacuum.
76. (A) Sulphuric acid, because it is used in manufacture of almost all the chemicals. Sulphuric acid is called the king of chemical because it is involved in some way or other, in the manufacturing of practically everything.
81. (A) Galvanization is the process of applying a protective zinc coating to steel or iron, to prevent rusting.
82. (C) The first real measurement of the speed of light came about half a century later, in 1676, by a Danish astronomer, Ole Romer, working at the Paris Observatory. Romer estimated that light would take about 22 minutes to travel a distance equal to the diameter of Earth's orbit around the Sun.
85. (C) Vernal Equinox Day is held on the 21st of March. Vernal equinox happens on the first day of Spring. It is also known as the Spring equinox. The vernal equinox occurs when the center of the sun crosses the Equator. Vernal Equinox Day, a day when the sun crosses the equator making night and day equal in length. It's a national holiday in Japan, a day to commune with nature and to show our affection for all living things.
86. (B) Abu'l Hasan Yaminuddin Khusro, better known as Amir Khusro (also Khusrau, Khusrow) Dehlavi, was the poet laureate of the Indian subcontinent and enjoys ever-

- lasting fame as one of the most versatile poets and prolific prose-writers of the 13th and 14th centuries. The invention of the sitar and the musical styles known as khyal and tarana are also attributed to him. His poetical composition, the amalgamation of Persian and Hindi in particular, was aimed at cementing the bonds of culture and friendship between the Hindus and Muslims of India.
88. (A) In coordination chemistry, a ligand is an ion or molecule (functional group) that binds to a central metal atom to form a coordination complex. The bonding with the metal generally involves formal donation of one or more of the ligand's electron pairs. The nature of metal ligand bonding can range from covalent to ionic. Furthermore, the metal-ligand bond order can range from one to three. Ligands are viewed as Lewis bases, although rare cases are known to involve Lewis acidic "ligand."
92. (B) Liberalism is a political philosophy or worldview founded on ideas of liberty and equality. Whereas classical liberalism emphasizes the role of liberty, social liberalism and stresses the importance of equality. Liberals espouse a wide array of views depending on their understanding of these principles, but generally they support ideas of freedom of speech, freedom of press, freedom of religion, free markets, civil rights, democratic societies, secular governments, and international cooperation.
93. (C) A conservation effort, Operation Kachhapa, has been launched in 1998, with the cooperation of local conservation groups and the Orissa Forest Department. This initiative hopes to implement management practices by strictly enforcing the ban on near-shore mechanised trawling by providing the necessary support to the Forest Department and seeking the cooperation of the Coast Guard. Since sea turtles do not respect national boundaries, it is important to have active regional cooperation in the conservation of these species.
94. (A) The World Trade Organization (WTO) is an intergovernmental organization which regulates international trade. "It is an international organization to promote multilateral trade.
97. (D) Karnataka may become the first State to go for polls under delimitation. The 'model' of redrawing of constituencies, experimented in Mandya district, is most likely to be replicated in the rest of the State.
99. (C) The pulmonary artery carries deoxygenated blood from the heart to the lungs. It is one of the only arteries (other than the umbilical arteries in the foetus) that carries deoxygenated blood.
100. (D) The Public Accounts Committee (PAC) examines the report of Accounts of the union government submitted by the Comptroller and Auditor General of India, to the President. The Public Accounts Committee in India ensures Parliamentary control over government expenditure. However, only the Lok Sabha has constituted a P.A.C. The Public Accounts Committee is composed of a maximum of 22 members. The present P.A.C. consists of 15 members from the Lok Sabha. From 1954, 7 members from the Rajya Sabha are elected to the P.A.C. as associate members. Thus, the present P.A.C. is a joint committee of the two Houses.
101. (B)
- 
- AB is complete pillar and BC is increased height  
 $\angle ADB = 45^\circ$  and  $\angle ADC = 60^\circ$
- $$\therefore \tan 45^\circ = \frac{AB}{AD}$$
- $$\therefore 1 = \frac{AB}{100} \Rightarrow AB = 100 \text{ m}$$
- In  $\angle ACD$ ,  $\tan 60^\circ = \frac{AC}{AD}$
- $$\therefore \frac{\sqrt{3}}{1} = \frac{BC+100}{100} = BC + 100 = 100\sqrt{3}$$
- $$\therefore BC = 100\sqrt{3} - 100 = 100(\sqrt{3} - 1) \text{ m}$$
102. (A) Let the larger number be  $x$  and smaller be  $y$
- $$\therefore x - \frac{y}{2} = \left(y - \frac{y}{2}\right) \times 5$$
- $$\frac{2x - y}{2} = \frac{y}{2} \times 5$$
- $$2x - y = 5y$$

$$2x = 6y \Rightarrow \frac{x}{y} = \frac{6}{2}$$

$$x : y = 3 : 1$$

103. (D) For minimum value of  $x^2 + \frac{1}{x^2+1} - 3$

$$x^2 + \frac{1}{x^2+1} \text{ would be 0, for this } x = 0$$

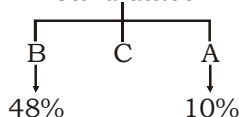
$$\therefore \text{ minimum value of } x^2 + \frac{1}{x^2+1} - 3$$

$$= 0 + \frac{1}{0+1} - 3$$

$$= 0 + 1 - 3$$

$$= -2$$

104. (C) Candidates

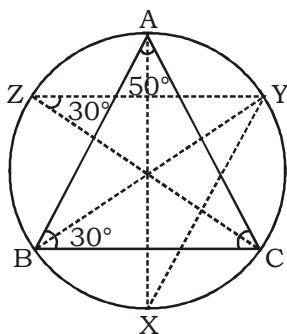


$$\therefore \text{ C got } = 42\%$$

$$\text{Diff. between B and C's votes} = 6\%$$

$$\therefore \text{ Total no. of votes} = \frac{1200}{6} \times 100 = 20,000$$

105. (A)



$$\therefore \angle CZY = \angle CBY = 30^\circ$$

$$\therefore \angle ABC = 2 \times 30 = 60^\circ$$

$$\text{In } \triangle ABC = \angle BCA + 60^\circ + 50^\circ = 180^\circ$$

$$\therefore \angle BCA = 180^\circ - 110^\circ = 70^\circ$$

$$\therefore \angle BCZ = \frac{70}{2} = 35^\circ$$

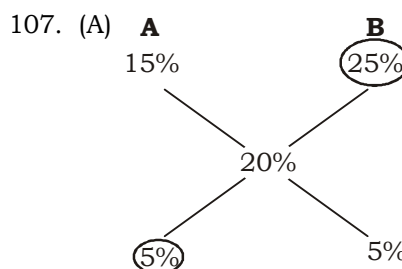
$$\therefore \angle BYZ = \angle BCZ$$

$$\therefore \angle BYZ = \angle BCZ = 35^\circ$$

106. (A) The area of lawn =  $30 \times 16 = 480 \text{ m}^2$

$$\text{The area with path} = 34 \times 20 = 680 \text{ m}^2$$

$$\therefore \text{ The area of path} = 680 - 480 = 200 \text{ m}^2$$



So,

	CP	SP
A	100	115
B	100	125

$$10 \text{ units} = 4800$$

$$100 \text{ units} = 48000$$

$$\text{CP of each cycle} = ₹ 48,000$$

108. (C) From question :  $\Delta s \propto \sqrt{n}$

$$\Rightarrow \Delta s = k\sqrt{n} \quad \dots(i)$$

where  $\Delta s \rightarrow$  reduction in speed,  $n \rightarrow$  no. of wagons,  $\Delta s = (36 - 30) = 6 \text{ km/h}$ ,  $n = 9$ , put values in equ. (i)

$$6 = k\sqrt{9} \Rightarrow k = 2$$

$$\text{for maximum wagons} \Rightarrow \Delta s = 36 \text{ km/h}$$

$$36 = 2\sqrt{n}, n = 324$$

$$\text{maximum wagons} = 324 - 1 = 323$$

$$n = 323$$

109. (D) Let the rate of interest allowed by the bank is R

$$\therefore \text{ interest after 3 years} = \frac{P \times R \times T}{100}$$

$$= \frac{12000 \times R \times 3}{100} = ₹ 360 R$$

$$\text{and interest after 5 years} = \frac{P \times R \times T}{100}$$

$$= \frac{12000 \times 10 \times 5}{100} = ₹ 6000$$

$$\therefore 6000 - 360 R = 3320$$

$$R = \frac{2680}{360} = 7\frac{4}{9}\%$$

110. (A) Total quantity of petrol consumed in 3 years

$$= \left( \frac{4000}{7.50} + \frac{4000}{8} + \frac{4000}{8.50} \right) \text{ litres}$$

$$= 4000 \left( \frac{2}{15} + \frac{1}{8} + \frac{2}{17} \right) \text{ litres}$$

$$= \left( \frac{76700}{51} \right) \text{ litres}$$

$$\text{Total amount spent} = ₹ (3 \times 4000) = ₹ 12000.$$

$$\therefore \text{Average cost} = ₹ \left( \frac{12000 \times 51}{76700} \right)$$

$$= ₹ \frac{6120}{767} = ₹ 7.98$$

111. (A) If  $a + b + c = 0$  then  $a^3 + b^3 + c^3 = 3abc$

$$\therefore \frac{a^2}{bc} + \frac{b^2}{ca} + \frac{c^2}{ab} = \frac{a^3 + b^3 + c^3}{abc} = \frac{3abc}{abc}$$

$$\Rightarrow 3$$

112. (D)  $40\% = \frac{2}{5}$

5	7
5	7
5	7
-----	
125	343
↓ ×400000	↓ ×400000
<b>50,000000</b>	<b>137200000</b>
Three years ago	Present value

113. (A)  $40\% = \frac{2}{5}$ ,  $25\% = \frac{1}{4}$

$$A : B : C$$

$$2 \quad 5$$

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

$$2 : 5 : 20$$

$$\therefore \text{Required \%} = 10\%$$

114. (A)  $5a + \frac{1}{3a} = 5$

multiply by  $\frac{3}{5}$  on both sides,

$$5 \times \frac{3}{5} a + \frac{3}{5} \times \frac{1}{3a} = 5 \times \frac{3}{5}$$

$$3a + \frac{1}{5a} = 3$$

$$\therefore 9a^2 + \frac{1}{25a^2} + \frac{6}{5} = 9$$

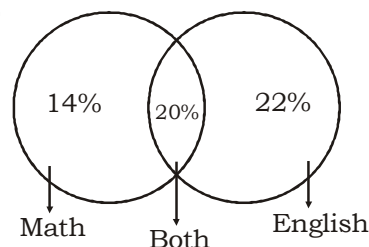
$$9a^2 + \frac{1}{25a^2} = 9 - \frac{6}{5} = \frac{39}{5}$$

115. (B) Let the no. be 30 and 28 respectively. then, the sum of no. =  $30 + 28 = 58$   
Now, divide the no. by 17, then we have 7 as the remainder.

116. (C)  $a^4 + b^4 - a^2b^2 = 0$

$$\begin{aligned} \text{Now, } a^6 + b^6 &= (a^2)^3 + (b^2)^3 \\ &= (a^2 + b^2)(a^4 + b^4 - a^2b^2) \\ &= (a^2 + b^2)(0) \\ &= 0 \end{aligned}$$

117. (A)



$$100\% - 56\% = 44\%$$

118. (C)  $\frac{1}{\operatorname{cosec}^2 51^\circ} + \sin^2 39^\circ + \tan^2 51^\circ -$

$$\frac{1}{\sin^2 51^\circ \cdot \sec^2 39^\circ}$$

$$\sin^2 51^\circ + \sin^2 39^\circ + \tan^2 51^\circ - \frac{\cos^2 39^\circ}{\sin^2 51^\circ}$$

$$\sin^2 51^\circ + \cos^2 51^\circ + \tan^2 51^\circ - \frac{\sin^2 51^\circ}{\sin^2 51^\circ}$$

$$= 1 + \tan^2 51^\circ - 1$$

$$= \tan^2 51^\circ$$

$$= \cot^2 39^\circ$$

$$= \operatorname{cosec}^2 35^\circ - 1$$

$$= x^2 - 1$$

119. (B)  $\therefore (x^4 + x^{-4}) = 322$

$$\therefore x^4 + \frac{1}{x^4} = 322$$

$$\text{the value of } x^2 + \frac{1}{x^2} = 18$$

$$= x^2 + \frac{1}{x^2} - 2 = 16$$

$$\therefore \left( x - \frac{1}{x} \right)^2 = 4$$

$$x - x^{-1} = 4$$

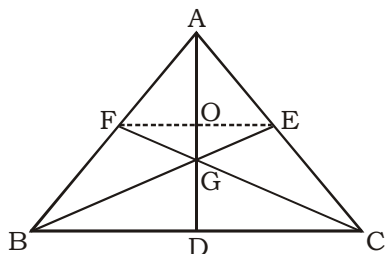
120. (C)  $2(\cos^2 \theta - \sin^2 \theta) = 1$





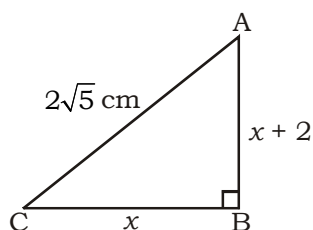
New selling price =  $760 \times \frac{120}{100} = ₹ 912$

131. (C)



$\therefore AO : OG = 3 : 1$

132. (D)



$$(x+2)^2 + x^2 = (2\sqrt{5})^2$$

$$x^2 + 4 + 4x + x^2 = 20$$

$$x^2 + 2x = 8 \Rightarrow x^2 + 2x - 8 = 0$$

$$\therefore x^2 + 4x - 2x - 8 = 0 \Rightarrow (x+4)(x-2) = 0$$

$$x = 2$$

Now,  $\cos^2 A - \cos^2 C$

$$\left(\frac{4}{2\sqrt{5}}\right)^2 - \left(\frac{2}{2\sqrt{5}}\right)^2$$

$$\frac{16}{20} - \frac{4}{20}$$

$$\frac{12}{20} = \frac{3}{5}$$

133. (A) Let radius =  $5x$  cm and height =  $12x$  cm

$$V = \frac{1}{3} \pi \times (5x)^2 \times 12x$$

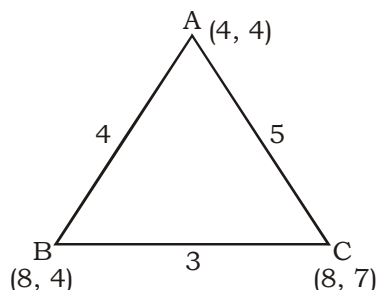
$$314 = \frac{1}{3} \times 3.14 \times 25 \times 12 \times x^3$$

$$\frac{300}{25 \times 12} = x^3$$

$$x = 1$$

$$l = \sqrt{h^2 + r^2} = \sqrt{5^2 + 12^2} = 13 \text{ cm}$$

134. (C)



$$\text{Incentre} = \frac{ax_1 + bx_2 + cx_3}{a + b + c}$$

where  $a, b, c$  are sides of the  $\Delta$ .

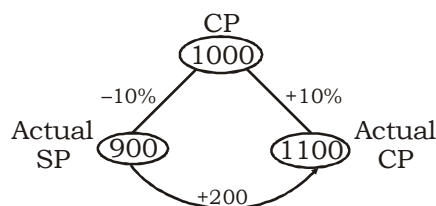
$$x = \frac{3 \times 4 + 4 \times 8 + 5 \times 8}{4 + 5 + 3} = \frac{84}{12} = 7$$

$$y = \frac{3 \times 4 + 7 \times 4 + 5 \times 4}{4 + 5 + 3} = \frac{12 + 28 + 20}{12}$$

$$= \frac{60}{12} = 5$$

coordinates of incentre =  $(7, 5)$ .

135. (B) Let the cost price of 1 gm weight is ₹ 1



$$\% \text{ profit} = \frac{200}{900} \times 100 = 22\frac{2}{9} \%$$

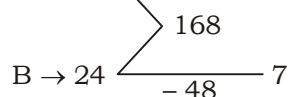
136. (A) Maximum value of  $\sin\theta + \cos\theta$

$$= \sqrt{a^2 + b^2}$$

$$= \sqrt{13^2 + 84^2}$$

$$\Rightarrow \sqrt{7225} = 85$$

137. (B) A  $\rightarrow$  21 8



$$\frac{120}{15} = 8 \text{ days}$$

138. (A) Area of equilateral  $\Delta = \frac{\sqrt{3}}{4} \text{side}^2$

$$\therefore 121\sqrt{3} = \frac{\sqrt{3}}{4} \text{side}^2 = 121 \times 4$$

$$\therefore \text{side}^2 = 11^2 \times 2^2 \Rightarrow \text{side} = 22 \text{ cm}$$

$\therefore$  Perimeter of equilateral  $\Delta =$  circumference of circle



**MEANINGS IN ALPHABETICAL ORDER**

<b>Word</b>	<b>Meaning in English</b>	<b>Meaning in Hindi</b>
Agoraphobia	A fear of being in public places where there are many other people.	भीड़ से डर
Auspicious	showing signs that something is likely to be successful in the future	शुभ, मंगल
Bespectacled	(of a person) wearing eyeglasses	चश्मा पहने हुए
Bewildered	confused	हक्का-बक्का
Clumsy	moving or doing things in a very awkward way	बेढंगा
Condemnatory	to cause (someone) to suffer or live in difficult or unpleasant conditions	दण्डात्मक
Conspicuous	easy to see or notice; likely to attract attention	प्रत्यक्ष
Deceptive	intended to make someone believe something that is not true	कपटी
Fascist	One who is practising or supporting an authoritarian and nationalistic right-wing system of government and social organization.	तानाशाही का समर्थक
Fatalist	A person who believes that events are decided by fate and cannot be controlled.	भाग्यवादी
Gratify	give (someone) pleasure or satisfaction	सन्तुष्ट करना
Gregarious	liking to be with other people, sociable	मिलनसार
Illusion	a thing that is or is likely to be wrongly perceived or interpreted by the senses	भ्रम
Immaculately	in an extremely clean and tidy way	अत्यंत स्वच्छ और व्यवस्थित ढंग से
Immediate	happening or done without delay	तुरंत
Indifference	a lack of interest, feeling or reaction towards somebody/ something	उदासीनता
Invincible	impossible to defeat or overcome	अपराजेय
Leisurely	done without hurrying	आराम से
Mediocre	of only average standard or not very good	औसत दर्जे का
Momentary	lasting for a very short time	क्षणिक
Placid	calm and peaceful	शांत
Pugnacious	showing a readiness or desire to fight or argue	झगडालू
Reconnaissance	the activity of getting information about an area for military purposes, using soldiers, planes, etc	किसी स्थान का सैनिक सर्वेक्षण
Sagacious	showing good judgement and understanding	बुद्धिमान
Sarcastic	Expressing ridicule or using irony in order to mock or convey contempt	व्यंग्यात्मक
Senile	behaving in a confused or strange way, and unable to remember things, because you are old	सठियाना
Subversion	the process of trying to destroy the authority of a political, religious, etc. system by attacking it secretly or indirectly	गुप्त रूप से नष्ट करना
Taste-buds	any of the clusters of bulbous nerve endings on the tongue and in the lining of the mouth that provide the sense of taste	जीभ पर स्थित वह तंत्रिका तंत्र जो स्वाद प्रदान करती है
Variant	slightly different in form or type from something else	प्रकार
Xenophobia	A strong feeling of dislike or fear of people from other countries.	विदेशी लोगों से भय



# K D Campus Pvt. Ltd

2007, OUTRAM LINES, 1ST FLOOR, OPPOSITE MUKHERJEE NAGAR POLICE STATION, DELHI-110009

## SSC MOCK TEST - 50 (ANSWER KEY)

- |         |         |         |          |          |          |          |          |
|---------|---------|---------|----------|----------|----------|----------|----------|
| 1. (B)  | 26. (B) | 51. (C) | 76. (A)  | 101. (B) | 126. (C) | 151. (C) | 176. (C) |
| 2. (A)  | 27. (A) | 52. (A) | 77. (B)  | 102. (A) | 127. (B) | 152. (C) | 177. (B) |
| 3. (B)  | 28. (C) | 53. (A) | 78. (B)  | 103. (D) | 128. (C) | 153. (B) | 178. (A) |
| 4. (C)  | 29. (C) | 54. (B) | 79. (C)  | 104. (C) | 129. (B) | 154. (C) | 179. (D) |
| 5. (D)  | 30. (A) | 55. (B) | 80. (D)  | 105. (A) | 130. (A) | 155. (C) | 180. (A) |
| 6. (B)  | 31. (D) | 56. (A) | 81. (A)  | 106. (A) | 131. (C) | 156. (B) | 181. (B) |
| 7. (D)  | 32. (A) | 57. (A) | 82. (C)  | 107. (A) | 132. (D) | 157. (B) | 182. (C) |
| 8. (C)  | 33. (B) | 58. (C) | 83. (B)  | 108. (C) | 133. (A) | 158. (D) | 183. (B) |
| 9. (A)  | 34. (D) | 59. (A) | 84. (C)  | 109. (D) | 134. (C) | 159. (B) | 184. (B) |
| 10. (*) | 35. (B) | 60. (D) | 85. (C)  | 110. (A) | 135. (B) | 160. (A) | 185. (A) |
| 11. (C) | 36. (A) | 61. (D) | 86. (B)  | 111. (A) | 136. (A) | 161. (D) | 186. (A) |
| 12. (A) | 37. (A) | 62. (A) | 87. (C)  | 112. (D) | 137. (B) | 162. (C) | 187. (C) |
| 13. (D) | 38. (D) | 63. (A) | 88. (A)  | 113. (A) | 138. (A) | 163. (A) | 188. (B) |
| 14. (B) | 39. (C) | 64. (D) | 89. (A)  | 114. (A) | 139. (C) | 164. (A) | 189. (B) |
| 15. (B) | 40. (B) | 65. (A) | 90. (B)  | 115. (B) | 140. (B) | 165. (B) | 190. (D) |
| 16. (D) | 41. (D) | 66. (A) | 91. (C)  | 116. (C) | 141. (B) | 166. (B) | 191. (D) |
| 17. (C) | 42. (A) | 67. (C) | 92. (B)  | 117. (A) | 142. (C) | 167. (D) | 192. (B) |
| 18. (D) | 43. (C) | 68. (C) | 93. (C)  | 118. (C) | 143. (B) | 168. (D) | 193. (D) |
| 19. (D) | 44. (C) | 69. (B) | 94. (A)  | 119. (B) | 144. (A) | 169. (C) | 194. (B) |
| 20. (D) | 45. (C) | 70. (B) | 95. (C)  | 120. (C) | 145. (A) | 170. (A) | 195. (D) |
| 21. (B) | 46. (B) | 71. (D) | 96. (B)  | 121. (B) | 146. (A) | 171. (B) | 196. (C) |
| 22. (D) | 47. (B) | 72. (C) | 97. (D)  | 122. (A) | 147. (B) | 172. (D) | 197. (C) |
| 23. (B) | 48. (A) | 73. (A) | 98. (C)  | 123. (A) | 148. (B) | 173. (B) | 198. (D) |
| 24. (C) | 49. (D) | 74. (C) | 99. (C)  | 124. (A) | 149. (D) | 174. (A) | 199. (D) |
| 25. (C) | 50. (C) | 75. (B) | 100. (D) | 125. (B) | 150. (C) | 175. (D) | 200. (D) |

151. (C) We need on adverb here i.e. 'satisfactorily' which qualifies the verb 'score' in the sentence (it means you score satisfactorily).
152. (C) Replace 'most' by 'much' or 'the most'.
153. (B) Replace 'tell' by 'speak', as 'speak' is often used for one-way communications and does not need an object.
154. (C) Replace 'great' by 'big'.
155. (C) Add 'watch' after 'going out to'.
156. (B) We agree to do something.
158. (D) 'insist' always takes 'on' after it. 'We insist on something/doing something'.
159. (B) 'Had better' is used to give advice about specific situations. 'Had better' is followed by 'bare infinitive'
160. (A) 'than' needs a comparative degree.

### Mock Test 49 (Correction)

142. (B) Don't read the note given in the solution.  
167. (A)

**Note:- If you face any problem regarding result or marks scored, please contact 9313111777**

**Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003**