SSC MOCK TEST – 56 (SOLUTION)

1. (A) T R I P P L E
S Q H O O K D

D I S P O S E
C H R O N R D

2. (B) Machine is made to work according to the instruction of human. Similarly, slave works under the instruction of his **master**.
3. (A) Pigeon is the symbol of 'peace' and White flag is the symbol of **surrender**.
4. (B) $2197 = 13^3$
$19683 = \mathbf{27^3}$
5. (D) Except (D), each contains 2 consonants and 3 vowels.
6. (C) Except (C), in all options first and last & middle two letters are opposite.
7. (C) $4489 = 67 \times 67$
$5329 = 73 \times 73$
$2401 = 49 \times 49$
8381 = not a perfect square
8. (A) Putting the value ◆ = 3, D = 4 and ❖ = 5 satisfies all three data.
As, ❖ = 5 Þ ➹ = 2.5
So, ❖❖❖➹ + ◆◆ + DD = 3.5 ❖ + 2 ◆ + 2 D
$= 3.5 \times 5 + 2 \times 3 + 2 \times 4 = \mathbf{31.5}$
9. (D) Q > P > T and S > Q > R
From the above two relations, it is clear that S runs fastest among all.

10. (A)

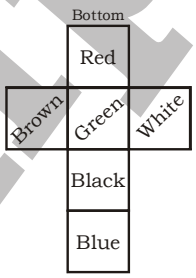
Range	No. of occurence	Page no.
1 - 10	1	5
11 - 20	1	15
21 - 30	1	25
31 - 40	1	35
41 - 50	2	45, 50
51 - 60	10	51, 52, 53, 54, 55, 56 57, 58, 59
61 - 70	1	65
71 - 80	1	75
81 - 90	1	85
91 - 100	1	95
	20	

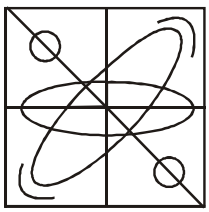
11. (C) The word 'SHINE' can be formed.
12. (D) Putting the proper signs in the given expression,
We get: $252 \div 9 \times 5 - 32 + 92$
$= 28 \times 5 - 32 + 92$
$= 140 - 32 + 92$
$= 232 - 32 = 200$

13. (A) 55296 **3456** 288 36 9
×16 ×12 ×8 ×4
+4 +4 +4

14. (D)
J 2 Z K 4 X I 7 V **L 11 T** H 16 R M 22 P
−2 −2 −2 −2 −2
+2 +3 +4 +5 +6
+1 +1
−1 −1

15-16



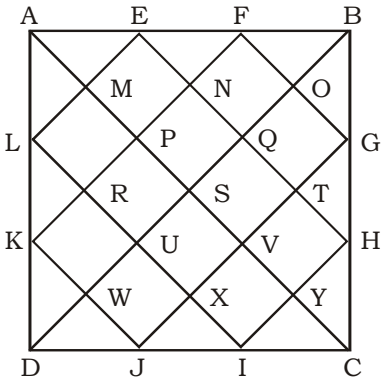
15. (B) White is opposite to brown.
16. (A) (**Black, White, Brown and Red**) are adjacent to green.
17. (C) $(9 \times 8) + (8 \times 6) + (6 \times 7) + (7 \times 9)$
$= 72 + 48 + 42 + 63 = 225$
$(6 \times 7) + (7 \times 4) + (4 \times 3) + (6 \times 3)$
$= 42 + 28 + 12 + 18 = 100$
$(9 \times 6) + (6 \times 4) + (4 \times 5) + (9 \times 5)$
$= 54 + 24 + 20 + 45 = \mathbf{143}$
18. (A) $(11 + 9) \times (11 - 9) = 40$
$(15 + 7) \times (15 - 7) = 176$
$(25 + 21) \times (25 - 21) = \mathbf{184}$
19. (A) 
20. (B) Let Tanya paid ₹ x
then, amount paid by Vivek ₹ $\frac{x}{2}$
Again, amount paid by Ashutosh = $\frac{x}{2} \times \frac{2}{3}$
$= ₹ \frac{x}{3}$

Total bill = $x+\frac{x}{2}+\frac{x}{3}=\frac{6x+3x+2x}{6}=\frac{11x}{6}$

\ Required fraction = $\frac{\frac{x}{2}}{\frac{11x}{6}}=\frac{3}{11}$

21. (D) The correct order is : D A B E C.
D is third to the left of E' is correct.

22. (C)



Simple triangles are AML, LRK, KWD, DWJ, JXI, IYC, CYH, HTG, GOB, BOF, FNE and EMA i.e. 12 in number.
Triangles composed of two components each are AEL, KDJ, HIC and FBG i.e. 4 in number.
Triangles composed of three components each are APF, EQB, BQH, GVC, CVJ, IUD, DUL and KPA i.e. 8 in number.
Triangles composed of six components each are ASB, BSC, CSD, DSA, AKF, EBH, GCJ and IDL i.e. 8 in number.
Triangles composed of twelve components each are ADB, ABC, BCD and CDA i.e. 4 in number.
Total number of triangles in the figure
= 12 + 4 + 8 + 8 + 4 = 36

23. (B) 1, 7, 8; 3, 5, 6; 2, 4, 9
24. (A)
25. (B)
26. (D) The Telecom Regulatory Authority of India (TRAI) has recently launched 'MySpeed' mobile app, which allows users to measure their internet speed on their smart phone and send results to a TRAI analytics portal. The application will also send coverage, data speed and network information along with device and location of the customer.
27. (A) The Mauryan emperor, Ashoka invaded Kalinga in 261 BC and after a fierce battle Kalinga was conquered. The 13th rock edict of Ashoka elaborates the Kalinga war.
29. (A) The First battle of Muhammad Ghori against a Hindu ruler was with Raja Bhimdev II of Gujarat who was a member of Solanki Dynasty. This is called "Battle of Gujarat" and it took place at Kayadra near Mount Abu. Raja Bhimdev II was young and real regent was his mother Naikidevi. Naikidevi inflicted such a major defeat to Muhammad Ghori that this invasion became Muhammad's first and last attack on India from the Gujarat side. He never turned to Gujarat again.
30. (B) Sudarshan Sen has been appointed as the new Executive Director of Reserve Bank of India (RBI) in place of N S Vishwanathan, who has been elevated as Deputy Governor of the central bank. Sen will look after Department of Banking Regulation, Department of Co-operative Bank Regulation and Department of Non-Banking Regulation. Earlier, he was in-charge of the Department of Banking Regulation. He also served as the Regional Director of Ahmedabad office of the RBI.
31. (C) Sundarbans – a UNESCO-listed World Heritage Site. Sundarban has world's largest mangrove forest which is home to wide range of fauna, including 260 bird species, the Bengal tiger and other threatened species such as the estuarine crocodile and the Indian python. It is also home to the rare Irrawaddy dolphin.
32. (B) The Bakken Formation is one of the largest contiguous deposits of oil and natural gas in the United States. It is an interbedded sequence of black shale, siltstone and sandstone that underlies large areas of north-western North Dakota, north-eastern Montana, southern Saskatchewan and south-western Manitoba.
35. (A) Mahapadma Nanda (345 BC – 329 BC) was the founder of Nanda dynasty. Mahapadma Nanda was also known as Ekarat and Sarvakshatrantaka.
38. (A) The World Polio Day is observed on 24th October every year. The day was observed to create awareness about the hazards of the crippling disease. The Day was established by Rotary International over a decade ago to commemorate the birth of Jonas Salk, who led the first team to develop a vaccine against poliomyelitis.
39. (A) The Aichi Targets are a set of 20, time-bound, measureable targets for the conservation of biodiversity. The targets were agreed by the Parties to the Convention on

Biological Diversity in Nagoya, Japan, in October 2010. Achievement of the targets will contribute to reducing, and eventually halting, the loss of biodiversity at a global level by the middle of the twenty-first century.

41. (D) The Governor is the head of executive power of a state but real executive authority is vested in the Council of Ministers.

42. (C) The BIFR was established under the Sick Industrial Companies (Special Provisions) Act, 1985 (SICA). The board was set up in January 1987 and became functional on 15th May 1987.

44. (A) The State Finance Corporations (SFCs) are the integral part of institutional finance structure in the country. SEC promotes small and medium industries of the states. Besides, SFCs are helpful in ensuring balanced regional development, higher investment, more employment generation and broad ownership of industries.

46. (C) National saving certificate is not considered as a national debt. Government debt is the debt owed by a central government. In the U.S. and other federal states, "government debt" may also refer to the debt of a state or provincial, municipal or local government.

47. (B) Only 2 & 3 options are correct .The first statement is factually incorrect. Legislative Council is a continuing House and one-third of the members retire in every two years.

48. (A) All India Khilafat Conference : In November 1919, a joint conference of the Muslims and Hindus was called at Delhi in pursuance of the Muslim League President Fazl-ul-Haq . Gandhi ji suggested to start the non–cooperation movement which was opposed by Jinnah. In December 1919, the Khilafat Conference held its second session. The third Khilafat Conference was held in February 1920 at Bombay .

49. (B) Radar is an object detection system that uses electromagnetic waves to identify the range, altitude, direction, or speed of both moving and fixed objects such as aircraft, ships, motor vehicles, weather formations, and terrain.

51. (B) Per copy cost price for the customer of 45 magazines $= \frac{7}{10} \times 90 = ₹\ 63$

Per copy cost price for the buyer of 26 magazine $= \frac{3}{4} \times 90 = ₹\ 67.50$

\ Required diff. = 67.50 – 63 = ₹ 4.50

52. (B) Relative speed of both trains = 45 + 45 = 90 km/h

\ time taken by trains = $\frac{450}{90}$ = 5 hrs

\ distance covered by crow = 100 × 5 = 500 km

53. (C) S.I for 2 years = 25%
C.I for 2 years = 26.5625%

\ Required sum = $\frac{510}{26.5625} \times 25 = ₹\ 480$

54. (B) 119 + 19 = 138

\ Required no. = $\frac{138}{17}$ = 2

55. (A) No. of other workers except centre heads = x

\ $12 \times 400 + x \times 56 = (x + 12) \times 60$

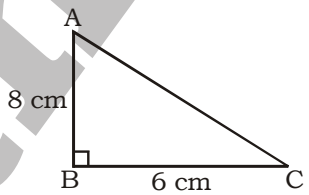
$\Rightarrow 4800 + 56x = 60x + 720$

$\Rightarrow 4x = 4080$

$x = 1020$

\ Total no. of employees = 1020 + 12 = 1032

56. (A)



AC = $\sqrt{6^2 + 8^2}$ = 10 cm

\ circum radius = $\frac{10}{2}$ = 5 cm

i.e. mid-point of hypotenuse.

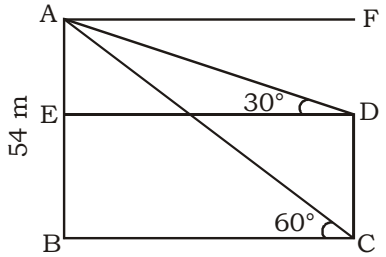
57. (C) If $a + \frac{1}{a} = 1$, then $a^3 = -1$

\ $\left(x + \frac{3}{x}\right)^3 = (-1)$

$\frac{27}{x^3} = -1$

$x^3 = -27$

58. (B)



AB = temple = 54 m

CD = temple = h m

BC = width of river = x m

From ΔABC,

$$\tan 60° = \frac{AB}{BC}$$

$$\Rightarrow BC = \frac{54}{\sqrt{3}} = 18\sqrt{3} \text{ m}$$

From ΔADE,

$$\tan 30° = \frac{AE}{DE} \qquad [\because DE = BC = 18\sqrt{3}]$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{54-h}{18\sqrt{3}}$$

$\Rightarrow 54 - h = 18$

$\Rightarrow h = 54 - 18 = 36$ m

59. (A) Area of the circle = πr^2
$= \pi(2)^2$
$= 4\pi$

The circle is cut to make a square

$\therefore$ Perimeter of square = Perimeter of circle

$$\Rightarrow 4a = 2\pi r \Rightarrow a = \frac{2p \times 2}{4} = \pi$$

$\therefore$ Area of the square = $a^2 = \pi^2$

$$\therefore \text{required ratio} = \frac{4p}{p^2} = 4 : \pi$$

60. (C) $(a^2 - b^2)\sin\theta + 2ab\cos\theta = a^2 + b^2$

$$\text{or } \left(\frac{a^2-b^2}{a^2+b^2}\right)\sin\theta + \left(\frac{2ab}{a^2+b^2}\right)\times\cos\theta = 1$$

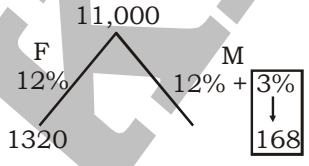
On comparing it by

$\sin^2\theta + \cos^2\theta = 1$

We get $\sin\theta = \frac{a^2-b^2}{a^2+b^2}$ & $\cos\theta = \frac{2ab}{a^2+b^2}$

$$\therefore \tan\theta = \frac{\sin q}{\cos q} = \frac{a^2-b^2}{2ab}$$

61. (A)



$\because$ 3% = 168

$\therefore$ No. of males = 5600

and no. of females = 5400

Required diff. = 200

62. (B) 1st worker- 9 ——— 10
90
IInd worker- 10 ——— 9

(Ist + IInd) = 19 unit — 1 unit

ATQ, $\frac{90}{5\text{-(given)}} = 18$ unit

$\because$ 1 unit = 10

$\therefore$ Total no. of gems = 90 × 10 = 900

63. (D)

C.P		S.P	
100		108	4
80	40% profit	112	×160
			640

$\therefore$ initial cost price = 100 × 160 = ₹ 16,000

64. (C) $a^3 + b^3 + c^3 - 3abc = \frac{1}{2}(a+b+c)[(a-b)^2 + (b-c)^2 + (c-a)^2]$

$$\Rightarrow \frac{1}{2}(333 + 333 + 334)[(0)^2 + (-1)^2 + (1)^2]$$

$$\Rightarrow \sqrt[3]{\frac{1}{2} \times 1000 \times 2} = 10$$

65. (C) Between 100 and 200 are 102, 105, ..., 198

Let number of terms = n

$\therefore 198 = 102 + (n-1)3$

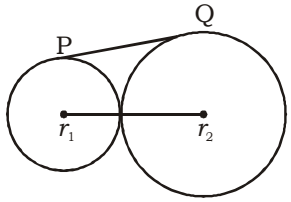
$$\Rightarrow n - 1 = \frac{198-102}{3} = 32$$

$n = 33$

$$\therefore S = \frac{n}{2} \times (a + l)$$

$$\Rightarrow \frac{32}{2}(102 + 198) = 4950$$

66. (D)



$$PQ = 2\sqrt{r_1 r_2} = 2\sqrt{4 \times 9} = 12 \text{ cm}$$

\ Area of the square (having side PQ = 12 cm)
= 12^2 = 144 cm^2

67. (C) A : B = 1 : 2 = 3 : 6
B : C = 3 : 4 = 6 : 8
C : D = 6 : 9 = 2 : 3 = 8 : 12
D : E = 12 : 16
\ A : B : C : D : E
Þ 3 : 6 : 8 : 12 : 16

68. (C) Volume of right prism = Area of the base × height
Þ 10380 = 173 × h

Þ $h = \frac{10380}{173}$ = 60 cm

Now, Area of triangle = $\frac{\sqrt{3}}{4}$ × $(Side)^2$

Þ $173 = \frac{\sqrt{3}}{4} \times (Side)^2$

\ $Side = \sqrt{\frac{173 \times 4}{\sqrt{3}}} = \sqrt{\frac{173 \times 4}{1.73}}$ = 20 cm

\ Perimeter = 3 × 20 = 60 cm
\ Area of the lateral surface
= Perimeter base × height
= 60 × 60 = 3600 sq. cm

69. (B) $\cos\theta = \frac{15}{17} = \frac{Base}{hypotenuse}$

\ Perpendicular = $\sqrt{(17)^2 - (15)^2}$

= $\sqrt{289 - 225} = \sqrt{64} = 8$

\ $\cot(90° - \theta) = \tan\theta = \frac{Perpendicular}{Base} = \frac{8}{15}$

70. (C) A + B = 16 — 3
48
B + C = 24 — 2

A + B (4 days) 12 unit
B + C (3 days) 6 unit

Total work left = 30 unit

\ Efficiency of C = $\frac{30}{20}$

\ Required days = $\frac{2}{3} \times 48 = 32$ days

71. (C) 5 — 3
15
3 — 5
2 hr late
ATQ,
24 min late

\ $\frac{24}{120} = \frac{1}{5}$

\ Required distance = $15 \times \frac{1}{5}$ = 3 km

72. (C) L.C.M of 30 min, 60 min, 90 min & 105 min = 1260 min

Total hours = $\frac{1260}{60}$ = 21 hours

\ The bell will again ring simultaneously after 21 hours.
\ Time will be = 9 a.m

73. (B) Percentage increase

= $\frac{125 - 105}{105} \times 100$

= $\frac{20}{105} \times 100 \approx 19\%$

74. (A) Percentage decrease

= $\frac{200 - 180}{200} \times 100$

= $\frac{20}{200} \times 100 = 10\%$

75. (C) Total production of toys in 2005 = 675 thousand
Total production of toys in 2006 = 750 thousand
Percentage increase

= $\frac{750 - 675}{675} \times 100 = 11\%$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Aboriginals	an original inhabitant of a particular place	किसी स्थान विशेष के मूल निवासी
Anglophile	fond or admiring of England or Britain or English things	अंग्रेज प्रेमी
Blatant	(of bad behaviour) done openly and unashamedly	खुलेआम, प्रत्यक्ष
Castigate	reprimand (someone) severely	तिरस्कार करना
Contemptuous	showing contempt; scornful	तिरस्कारपूर्ण
Distinctive	characteristic of one person or thing, and so serving to distinguish it from others	विशेष
Enophile	a connoisseur of wines	मदिरा विशेषज्ञ
Immutable	unchanging over time or unable to be changed	अपरिवर्तनीय
Interrogate	ask questions of (someone, especially a suspect or a prisoner) closely, aggressively, or formally	पूछताछ करना
Necessity	an indispensable thing	आवश्यक सामग्री
Onerous	(of a task, duty, or responsibility) involving an amount of effort and difficulty that is oppressively burdensome	बोझिल, दुष्कर
Paedophile	a person who is sexually attracted to children	वह जो बच्चों के तरफ कामुकता से आकर्षित होता हो
Parvenu	a person of obscure origin who has gained wealth, influence, or celebrity	अल्प समय में धनी या प्रभावशाली व्यक्ति
Propagandist	a person who promotes or publicizes a particular organization or cause	प्रचारक
Propagate	spread and promote (an idea, religion theory, etc.) widely	प्रचार करना
Shallow	of little depth	उथला, कम पानी की सतह

SSC MOCK TEST - 56 (ANSWER KEY)

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

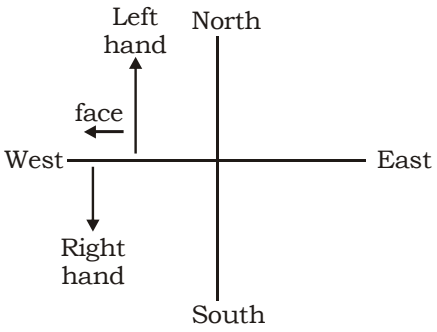
76. (B) Replace 'although' by 'but', as but should be used here to suggest a contrast.
77. (*)
78. (B) As the subject of the sentence (i.e, many misfortune) is plural, it requires plural verb as well. Thus, replace 'comes' by 'come'.
81. (B) A past conditional sentence takes the following form:

$\boxed{\text{Had+ sub+ } V_3}$, $\boxed{\text{Sub+ would have+ } V_3 \text{+ obj}}$

90. (D) An action that will have been completed in future while refering to a particular time frame, comes under future perfect tense.
92. (B) When an action is complete, it will take $\boxed{\text{having+ } V_3}$ form.

Mock Test-55 (corrections)

12. (A)



From the above figure, it is clear that his left hand will be in North direction.

20. (A) Read the correct option as (A). The explanation given is correct.
34. (A)
99. (D)

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