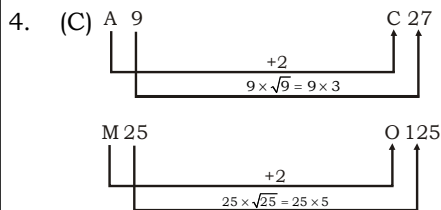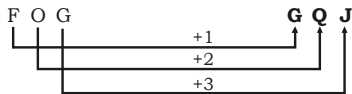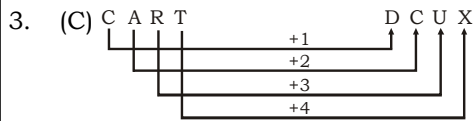## SSC MOCK TEST – 64 (SOLUTION)

1. (C)

2. (C) $78 \Rightarrow 7 \times 8 = 56 \Rightarrow 56 + (5 + 6) = 56 + 11 = 67$
   $82 \Rightarrow 8 \times 2 = 16 \Rightarrow 16 + (1 + 6) = 16 + 7 = 23$
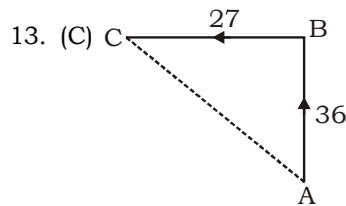
3. (C)

4. (C)

5. (C) All except litchi have multiple seeds.

6. (A) $64 = 4^3$, $16 = 4^2$, $36 = 6^2$, $144 = 12^2$
   Only (64) is the no. whose cubic root is possible.

7. (D) $4^3 + 5^3 = 64 + 125 = 189$
   $5^3 + 6^3 = 125 + 216 = 341$
   $6^3 + 7^3 = 216 + 343 = 559$
   $3^3 + 6^3 = 27 + 216 = 243$
   Except (243), rest are the sum of the cubes of consecutive numbers.

8. (D) All except Trousers are garments which cover the upper part of the body.

9. (C) In all other figures, double sided arrows intersect each other at right angles.

10. (C) Some doctors may be professors and vice-versa.
    Some professors may be men and vice-versa.
    Some doctors may be men and vice-versa.
    Some doctors may be men and professors as well.

11. (C) Let the number of pineapples and watermelons be x and y respectively.
    Then, $7x + 5y = 38$ or $5y = (38 – 7x)$ or
    $y = \dfrac{38 - 7x}{5}$
    Clearly, y is a whole number, only when $(38 – 7x)$ is divisible by 5.
    This happens when $x = 4$.

12. (C) Madhav is the only son of one of the sons of Varman's father → Either Varman is the father or uncle of Madhav.

13. (C)
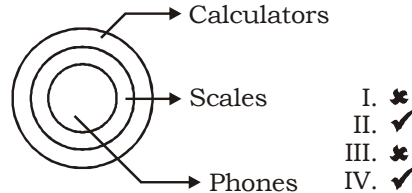
    Required distance
    $AC = \sqrt{27^2 + 36^2}$
    $= \sqrt{729 + 1296}$
    $= \sqrt{2025}$
    $= 45$ km

14. (A) Road $\Rightarrow$ n (Road) = 4
    $\Rightarrow 4! = 4 \times 3 \times 2\ 5\ 1 = 24$
    You $\Rightarrow$ n (You) = 3
    $\Rightarrow 3! = 3 \times 2 \times 1 = 6$
    Go $\Rightarrow$ n (Go) = 2
    $\Rightarrow 2! = 2 \times 1 = 2$
    Young $\Rightarrow$ n (Young) = 5
    $\Rightarrow 5! = 5 \times 4 \times 3 \times 2 \times 1 = 120$

15. (C)

    I. ✖
    II. ✔
    III. ✖
    IV. ✔
    Only (II) and (IV) follow.

16. (C) Only one statement is true, either first or second.

17. (B)

18. (C) $4^3 – 7^2 = 64 – 49 = 15$
    $5^3 – 9^2 = 125 – 81 = 44$
    $3^3 – 4^2 = 27 – 16 = 11$

19. (C) $16 + \dfrac{16}{2} = 24$, $24 + \dfrac{24}{2} = 36$
    $36 + \dfrac{36}{2} = 54$, $54 + \dfrac{54}{2} = 81$
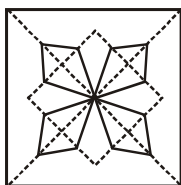 $81 + \dfrac{81}{2} = 81 + 40.5 = 121.5$
    $121.5 + \dfrac{121.5}{2} = 121.5 + 60.75 = 182.25$

20. (D) From figures X and Y, we conclude that dot, circle, square and cross lie adjacent to the triangle. Therefore, the arrow must lie opposite to triangle. From figures X and Z, we conclude that dot, triangle, arrow and cross lie adjacent to the circle. Therefore, the square must lie opposite to circle. Thus, the arrow lies opposite to triangle, the square lies opposite to circle and consequently, the cross lies opposite to dot.

As analysed above, the cross lies opposite the dot.
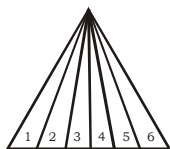
21. (C)

22. (D)

23. (C) aa/b **b** b/cc **c** c/ **a** aa/b **b** bb/c **c** c **c** c

24. (C) $4^{2010} = 4^{3 \times 670}$ mod 7

= 1^{670} mod 7

So, it will be next to friday i.e, saturday after 4^{2010} days.

25. (C)

Here, n = 6

So, required no. of Δ's = $\dfrac{6 \times 7}{2}$ = 21

26. (B) Mustard gas is "Dichloro Diethye sulphide"; its vapours produced blisters on skin and damages lungs.

28. (A) India has recently signed an agreement with Egypt in the area of Maritime Transport in New Delhi to step up co-operation on the seas. The agreement will strengthen cooperation and provide sustained mutual assistance and advice on merchant shipping and other related maritime matters. It was signed during the 3-day visit of Egyptian President Abdel Fattah El Sisi to India on September 1-3, 2016. This is the first presidential visit to Egypt from India since the visit of then President Mohamed Morsi in 2013.

29. (D) The book "Munnu: A Boy from Kashmir" has been authored by Malik Sajad. This book is a poignant, heart-stopping account of what it means to be a young boy growing up in a conflict-ridden land.

30. (A) Article 222 empowers the President to transfer judges from one High Court to another. Clause (2) of this article goes on to provide that when a judge is transferred he shall be entitled to receive a compensatory allowance in addition to his salary. It is felt that there is no real justification for granting such an allowance and it is accordingly proposed to omit clause.

31. (B) Anuradha Rao has been appointed as the new MD and CEO of SBI Mutual Fund. Prior to this appointment, Rao was the Deputy Managing Director at SBI handling New Business Portfolio. She succeeded Dinesh Kumar Khara, who has been appointed Managing Director of State Bank of India (Associate & Subsidiaries).

36. (D) The Indian Space Research Organization (ISRO) will launch the INSAT-3DR satellite into orbit by the GSLV-F05 rocket vehicle from the Satish Dhawan Space Centre at Sriharikotta, Andhra Pradesh. The INSAT-3DR is a modern weather satellite and has a mission duration of 8 years. It will help to predict weather patterns and also provide search and rescue information.

37. (C) A basic microscope is made up of two converging lenses. The first lens creates a real image which serves as the object for the second lens, and the image created by the second lens is the one a viewer sees. The final image is magnified, virtual and is inverted compared to the original object.

38. (A) Since the colour of red litmus paper remained red with no change, hence the given liquid is not base.

39. (A) Nearness to source of raw materials is one of the key factors that guide the establishment of such industries as iron, steel and other metal industries. Besides, they are also found near the coal mines which are used in smelting processes.

41. (D) Steel Authority of India Limited is one of the largest state-owned steel-making company based in New Delhi (India) and it is one of the top steel makers in World. Major plants owned by SAIL are located at Bhilai, Bokaro, Durgapur, Rourkela, Burnpur (near Asansol) and Salem.

44. (C) The Forty-second Amendment of the Constitution of India, enacted in 1976, brought about the most widespread changes to the Constitution until then. It is often called a "mini-Constitution" or the "Constitution of India".

47. (B) Seller's market is a market which has more buyers than sellers. High prices result from this excess of demand over supply. The opposite of the seller's market is the buyer's market, where supply greatly exceeds demand.

48. (B) The 52nd Constitutional Amendment of 1985 amended articles 101, 102, 190 and 191; and inserted Schedules 10 to the Constitution of India. It dealt with the Anti Defection Law and provided disqualification of members from parliament and assembly in case of defection from one party to other.

49. (D) Curzon introduced some reforms in agriculture. He passed the Punjab Land alienation Act of 1902. Under this act Curzon declared that the land of agriculture will not be transferred to non-agriculturist. In this way he protected the farmers from money lender class.

51. (C) $2^2 + 4^2 + 6^2 + ... + 20^2 = (1 \times 2)^2 + (2 \times 2)^2 + ... (2 \times 10)^2$

$= 2^2 (1^2 + 2^2 + ... 10^2)$

$= 4 \times \dfrac{1}{6} \times 10 \times 11 \times 21 = 1540$

52. (D) $\dfrac{7}{15} = 0.466,\quad \dfrac{15}{23} = 0.652$

$\dfrac{17}{25} = 0.68,\quad \dfrac{21}{29} = 0.729$

So, 21 : 29 is greatest among all.

53. (B) Let the no. of days be x

$\left.\begin{array}{ll}\text{Cows} & 40:1 \\ \text{Bags} & 1:40\end{array}\right\} x : 40$

$\Rightarrow 40 \times 1 \times 40 = 1 \times 40 \times x$
$\Rightarrow x = 40$
∴ Required number of days = 40

54. (C) Speed (V) = $\dfrac{240}{24}$ = 10 m/sec

Time (T) = $\dfrac{240 + 650}{10} = \dfrac{890}{10}$ = 89 sec

55. (A) Volume of cylinder = $\dfrac{22}{7} \times 6 \times 6 \times 28$

Volume of each bullet = $\dfrac{4}{3} \times \pi \times \dfrac{3}{4} \times \dfrac{3}{4} \times \dfrac{3}{4}$

∴ No. of bullet = $\dfrac{\text{Volume of cylinder}}{\text{Volume of each bullet}}$

$= \dfrac{36 \times 28 \times \dfrac{22}{7} \times 16}{9 \times \dfrac{22}{7}} = 1792$

56. (B) Due to stopage, it covers 9 km less
∴ Time taken to cover 9 km

$= \dfrac{9}{54} \times 60$ = 10 min

57. (B) Put a = 1, b = –1, c = –1
then, $a^2 + b^2 + c^2 = (1)^2 + (-1)^2 + (-1)^2 = 3$
$(a^2 + b^2 + c^2)^2 = 3^2 = 9$

58. (B) Let the length of piece of cloth be x m

∴ cost of 1 m of piece of cloth = $\dfrac{35}{x}$

$\Rightarrow (x + 4)\left(\dfrac{35}{x} - 1\right) = 35$

$\Rightarrow 35 - x + \dfrac{140}{x} - 4 = 35 \Rightarrow \dfrac{140}{x} - x = 4$
$\Rightarrow x^2 + 4x - 140 = 0 \Rightarrow (x + 14)(x - 10) = 0$
$\Rightarrow x = 10$
So, the piece of cloth is 10 m in length.

59. (B) Let the total profit be ₹ 100
After paring charity A's share

$= 95 \times \dfrac{3}{5}$ = ₹ 57

If A's share is ₹ 57, they profit = 100

If A's share is ₹ 855, they profit = $\dfrac{100}{57} \times 855$

$= 1500$

60. (C) Whole work will be done by X in (10 × 4)
= 40 days

Whole work will be done by Y in $\dfrac{40 \times 100}{40}$

= 100 days
Whole work will be done by Z in (13 × 3)
= 39 days
∴ We can say that Z will complete the work first.

61. (C) $\dfrac{5.32 \times (56 + 44)}{(7.66 + 2.34)(7.66 - 2.34)}$

$= \dfrac{5.32 \times 100}{10 \times 5.32} = 10$
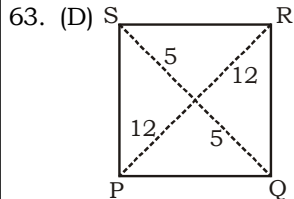
62. (A) Let the original SP be x

the new SP = $\dfrac{2x}{3}$

Loss = 10%

∴ CP = $\dfrac{100}{90} \times \dfrac{2x}{3} = \dfrac{20x}{27}$

Gain = $x - \dfrac{20x}{27}$ = $\dfrac{7x}{27}$

Gain% = $\dfrac{7x}{27} \times \dfrac{27}{20x} \times 100$ = 35%

63. (D)

PO = OR = $\dfrac{24}{2}$ = 12 cm

SO = OQ = $\dfrac{10}{2}$ = 5 cm

PQ = QR = RS = SP = $\sqrt{12^2 + 5^2}$

$= \sqrt{144 + 25} = \sqrt{169}$

$= 13$ cm

∴ Perimeter = 4 × 13 = 52 cm

64. (B) Let P be the principal

∴ Required rate R = $\dfrac{100 \times P}{P \times 16}$ = $6\dfrac{4}{16}$ = 6.25%

65. (C) $x^2 = y + z$, $y^2 = z + x$, $z^2 = x + y$
    Put $x = y = z = 2$

Then, $\dfrac{1}{1 + x} + \dfrac{1}{1 + y} + \dfrac{1}{1 + z}$
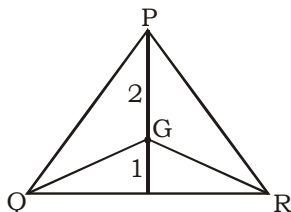
$= \dfrac{1}{1 + 2} + \dfrac{1}{1 + 2} + \dfrac{1}{1 + 2}$

$= \dfrac{1}{3} + \dfrac{1}{3} + \dfrac{1}{3} = 1$

66. (C) Let the mean score = x
    Then, 20 × 80 + 25 × 31 + 55 × x = 52 × 100
    ⇒ 1600 + 775 + 55 × x

⇒ 55x = 2825 ⇒ x = $\dfrac{2825}{55}$ = 51.4 (approx.)

67. (D)

ar(ΔQGR) = $\dfrac{1}{3}$ × 48 = 16 cm²

68. (D) P = ₹ 500, A = ₹ 583.20, T = 2 yrs
    Let the rate R%

$500\left(1 + \dfrac{R}{100}\right)^2$ = 583.20

$\Rightarrow \left(1 + \dfrac{R}{100}\right)^2 = \dfrac{583.20}{500}$

$\Rightarrow 1 + \dfrac{R}{100} = \sqrt{\dfrac{11664}{10000}}$

$\Rightarrow \dfrac{R}{100} = \dfrac{108}{100} - 1 \Rightarrow R = \dfrac{8}{100}$

∴ Required rate = 8%

69. (D) Let the three parts be A, B and C.

Then, $\dfrac{A}{2} = \dfrac{B}{3} = \dfrac{C}{4} = x$

⇒ A = 2x, B = 3x, C = 4x
⇒ A : B : C = 2 : 3 : 4

∴ Largest part = 243 × $\dfrac{4}{9}$ = 108

70. (B) Let CP be x

then, 1st SP = 125% of x = $\dfrac{5x}{4}$

2nd SP = 80% of x = $\dfrac{4x}{5}$

Also, 130% of $\dfrac{4x}{5}$ = $\dfrac{26x}{25}$

ATQ, $\dfrac{5x}{4} - \dfrac{26x}{25}$ = 10.50

$\Rightarrow \dfrac{21x}{100}$ = 10.50

⇒ x = 50

∴ Required CP = ₹ 50

71. (C) Put θ = 45°

$\dfrac{1}{1 + \tan^2\theta} + \dfrac{1}{1 + \dfrac{1}{\tan^2\theta}}$

$\dfrac{1}{1 + \tan^2\theta} + \dfrac{\tan^2\theta}{1 + \tan^2\theta}$

$= \dfrac{1 + \tan^2\theta}{1 + \tan^2\theta} = 1$

72. **(D)** Amount of salt in 30 g solution

$$= \frac{2}{100} \times 30 = 0.6 \text{ kg}$$

Let x kg of pure salt to be added, then

$$\frac{0.6 + x}{30 + x} = \frac{10}{100} \Rightarrow 60 + 100x = 300 + 10x$$

$$\Rightarrow 90x = 240$$

$$\Rightarrow x = \frac{8}{3} = 2.67$$

$\therefore$ Amount of salt added = 2.67 kgs

73. **(A)** $\dfrac{1}{\operatorname{cosec}\theta - \cot\theta} - \dfrac{1}{\sin\theta}$

$$\frac{1}{\operatorname{cosec}\theta - \cot\theta} \times \frac{\operatorname{cosec}\theta + \cot\theta}{\operatorname{cosec}\theta + \cot\theta} - \frac{1}{\sin\theta}$$

$\operatorname{cosec}\theta + \cot\theta - \operatorname{cosec}\theta$

$= \cot\theta$

74. **(B)** Amount spend on Cricket and Hockey

together = $\displaystyle \mathsf{₹} \left[\frac{81 + 63}{360} \times 2 \right]$ crores

= 0.8 crores

= ₹ 80 lacs

75. **(C)** Let the total spending on sports be x. Then,

Amount spent on cricket = $\mathsf{₹} \left(\dfrac{81x}{360} \right)$ = $\dfrac{9x}{40}$

Amount spend on football = $\dfrac{54}{360} x$ = $\dfrac{3x}{20}$

Difference = $\dfrac{9x}{40} - \dfrac{3x}{20}$ = $\mathsf{₹}\dfrac{3x}{40}$

$\therefore$ Required% = $\dfrac{\dfrac{3x}{40} \times 100}{\dfrac{9x}{40}}$ = $\dfrac{100}{3}$ = $33\dfrac{1}{3}\%$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Antibiotic	a medicine that inhibits the growth of micro organisms	जीवाणुनाशक, प्रतिजीवी
Dubious	doubtful; uncertain	संदेहपूर्ण
Gypsy	a nomadic or free-spirited person	बंजारा
Instantaneous	occurring or done in an instant or instantly	तात्कालिक, क्षणिक
Intermittent	occurring at irregular intervals	रूक-रूक कर
Lucrative	profitable	लाभदायक
Panacea	a solution or remedy for all difficulties or diseases	सभी दुखों की एकमात्र दवा
Parsimonious	unwilling to spend money ; frugal	कंजूस
Prodigal	wastefully extravagant	खर्चीला
Questionable	doubtful as regards truth or quality	संदिग्ध
Rapid	happening in a short time or at a fast pace	तीव्र, द्रुत
Rebel	person who rises in opposition against an established government or ruler	विद्रोही, बागी
Sanguine	optimistic or positive	आशावादी
Sceptical	having doubts or reservations	संदेहवादी
Surplus products	an excess of products or supplies over demand	अतिरिक्त/अधिशेष उत्पाद

SSC MOCK TEST - 64 (ANSWER KEY)

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

76. (A) Replace 'any' by 'either', as we are talking about two objects.
77. (B) Replace 'to do not calculate' by 'not to calculate'.
78. (B) Replace 'than' by 'but'.
81. (B) 'Word for word' means verbatim (शब्दशः) i.e exact repetition of the same words.
91. (C) 'Family members' is wrong english.
92. (B) Here we need a causative verb.

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