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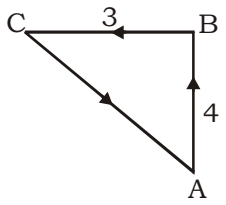
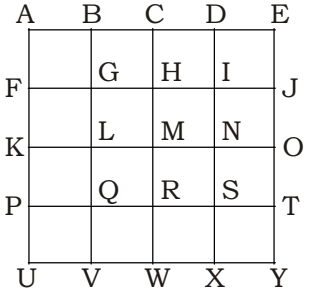
SSC MOCK TEST – 65 (SOLUTION)

1. (B) $64 = (8)^2$
   $100 = (8 + 2)^2 = (10)^2$
   $16 = (4)^2$
   36 $= (4 + 2)^2 = (6)^2$
2. (C) $6 \rightarrow 2 + 4 \rightarrow 6$
   $29 \rightarrow 2 + 9 = 11 \rightarrow$ **119** $= 1 + 1 + 9 = 11$
3. (B) As Saw is an instrument of carpenter, Similarly Scissors is an instrument of **tailor**.
4. (C) Milk is the raw material for cream. Similarly, **clay** is the raw material for **pottery**.
5. (B) Husband of Vikas's mother means father of Vikas. Therefore, that boy is the **son** of Vikas.
6. (D) K J M L G F I H
   −1 +3 −1 −1 +3 −1
   T S V U Z A B Y
   −1 +3 −1 +1 +1 −3
7. (D) All others except **Brass** are metals whereas Brass is an alloy.
8. (B) $E \xrightarrow{+3} H \xrightarrow{+1} I \xrightarrow{+2} K$
   $L \xrightarrow{+2} N \xrightarrow{+1} O \xrightarrow{+2} Q$
   $T \xrightarrow{+3} W \xrightarrow{+1} X \xrightarrow{+2} Z$
   $A \xrightarrow{+3} D \xrightarrow{+1} E \xrightarrow{+2} G$
9. (C) Except **Eraser**, all other articles are used for writing or colouring. Eraser is used to clear the marks made by pencil.
10. (B) $14 \times 2 = 28$
    $28 - 8 = 20$
    $20 \times 2 = 40$
    $40 - 8 = 32$
    $32 \times 2 = 64$
    $64 - 8 =$ **56**
11. (A) $2 + 1.5 = 3.5$
    $3.5 + 1.5 = 5$
    $5 + 1.5 = 6.5$
    $6.5 + 1.5 = 8$
    $8 + 1.5 =$ **9.5**
12. (D) As, M U S T A R D
    13 21 19 20 1 18 4
    So, P R O F U S E
    16 18 15 6 21 19 5
13. (A) There is no 'O' letter in 'SUPERINTENDENT'. So, '**DOCTOR**' cannot be formed.
14. (A)

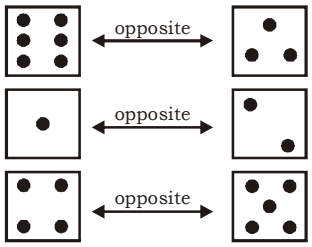


    Required distance
    $= AC = \sqrt{AB^2 + BC^2} = \sqrt{4^2 + 3^2} = 5$ km
    $\therefore$ Total distance covered $= 3 + 4 + 5 =$ **12 km**
15. (D) $2 \rightarrow 1 \rightarrow 4 \rightarrow 3$
16. (D) From the given data,
    $X = Y + 4$ …(i)
    $Y = 2Z$ …(ii)
    $X + Y + Z = 34$ …(iii)
    By solving (i), (ii) and (iii) we get,
    $Y = 12$
    Therefore, $X = Y + 4 = 12 + 4 = 16$.
    Thus, X is **16 years** old.
17. (C) $8 = \sqrt[2]{16} + \sqrt[3]{64} = 4 + 4$
    $12 = \sqrt[2]{81} + \sqrt[3]{27} = 9 + 3$
    11 $= \sqrt[2]{25} + \sqrt[3]{216} = 5 + 6$
18. (A) $(16 + 12)(16 - 12) = 28 \times 4 = 112$
    $(16 + 9)(16 - 9) = 25 \times 7 = 175$
    $(12 + 9)(12 - 9) = 21 \times 3 =$ **63**
19. (B) I $\Rightarrow \times$, You $\Rightarrow \div$, We $\Rightarrow -$, He $\Rightarrow +$
    8 I 12 He 16 You 2 We 10 = ?
    $\Rightarrow ? = 8 \times 12 + 16 \div 2 - 10$
    $\Rightarrow ? = 96 + 8 - 10 =$ **94**
20. (A) Total number of girls in the row
    $= 11 + 11 - 1 =$ **21**
21. (D)
22. (D)
23. (B) The figure may be labelled as shown.



    Simple squares are ABGF, BCHG, CDIH, DEJI, FGLK, GHML, HINM, IJON, KLQP, LMRQ, MNSR, NOTS, PQVU, QRWV, RSXW and STYX i.e. 16 in number.

Squares composed of four components each are ACMK, BDNL, CEOM, FHRP, GISQ, HJTR, KMWU, LNXV and MOYW i.e. 9 in number.
Squares composed of nine components each are ADSP, BETQ, FIXU and GJYV i.e. 4 in number.
There is one square AEYU composed of sixteen components.
There are 16 + 9 + 4 + 1 = **30 squares** in the given figure.

24. (D) 

25. (D)

26. (B) Mariyappan Thangavelu has won India's first gold medal in the men's high jump T-42 event with jump of 1.89 metres at the 2016 Rio Paralympics. With this, Thangavelu became the first Indian high jumper to win Paralympics gold. His compatriot Varun Singh Bhati clinched the bronze medal in the same event. Thangavelu is also the 3rd Indian to win gold at Paralympics after Murlikant Petkar, who won in swimming, at Heidelberg 1972 and Devendra Jhajharia who won at Athens 2004 in javelin throw.

28. (D) Article 1 of the Constitution declares that India shall be a Union of States. The States and the territories thereof shall be as specified in the First Schedule and the territory of India shall comprise the territories of the States, the Union territories specified in the First Schedule and such other territories may be acquired.

29. (D) The great scholars in the Court of Kanishka I were Asvaghosa (the Buddhist poet), Nagarjuna (the philosopher), Samgharaksha (the chaplain), Mathara (the politician), Vasumitra (the Buddhist scholar), Charaka (the physician) and Agisala (the engineer).

35. (A) Preservatives prevent food from bacteria, rancidity, mould growth. They are of two types
Class I : Natural
Class II : Unnatural/man-made

37. (A) Proteins are large biological molecules consisting of one or more chains of amino acids which are essential nutrients for the human body. They are one of the building blocks of body tissue and can also serve as a fuel source. As fuel, proteins contain 4 kcal per gram, just like carbohydrates and unlike liquids, which contain 9 kcal per gram.

38. (B) All true crabs have 10 legs that are arranged in pairs. The front most is modified into pincers and other four pairs are used for locomotion. For some swimming crabs, the hindmost pair of legs is flattened to form paddles.

39. (B) India's first Laser Interferometer Gravitational-Wave Observatory (LIGO) laboratory will be set up in Aundh in Hingoli district of Maharashtra. LIGO-India will bring wide opportunities in cutting edge technology for Indian industries as they will be engaged in the construction of 8 km-long beam tube at ultra- high vaccuum on a levelled terrain.It will be 3rd such laboratory in the world and first outside the United States. The existing laboratories are located in Hanford, Washington and in Livingston, Louisiana.

40. (B) Investment expenditure refers to the creation of new assets i.e. an addition to the stock of existing capital assets. According to Keynes, investment demand depends upon two factors -
(a) Expected rate of profit - It is also called as Marginal Efficiency of Capital (MEC). Investment demand increases with the increase in the expected rate of profit.
(b) The rate of interest (IR):- Investment demand decreases with the increase in the rate of interest.

42. (B) The book "Six Machine: I Don't Like Cricket ... I Love It" is the autobiography of Chris Gayle, a Jamaican cricketer who plays international cricket for the West Indies. The book chronicles how a shy, skinny kid from a tin-roofed shack in the back streets of Kingston became one of the most well-known stars in the global cricketing arena. The story tells of more than just sporting genius; it is a compelling narrative of Chris' struggle, of battling prejudices and still emerging unscathed with a broad smile on his face.

43. (B) The Odisha government has recently launched the pension scheme for construction workers, which will benefit 25 lakh beneficiaries in phased manner. As per the scheme, the construction workers above 60 years of age will get pension of Rs 300 per month while workers above 80 years of age will get pension of Rs 500 per month. The widow and disabled construction workers are also eligible to get the benefit of the pension

scheme. This is the 3rd scheme has been launched by the state government within a month after the Mahaprayan scheme for taking bodies from hospital to the deceased's house and Biju Kanya Ratna scheme that aims to improve child sex ratio.

45. (C) In HTML, The Bold <B></B> element specifies that the enclosed text should be displayed in boldface. The Underlined <U></U> element specifies that the enclosed text should be displayed underlined. The Italic <I></I> element specifies that the enclosed text should be italicized.

46. (C) Solid carbon dioxide is used as a refrigerant (coolant).

48. (A) Henry Moseley gave Modern periodic table. He said physical and chemical properties of element are periodic function of Atomic number of element.

50. (B) A starfish lacks a centralized brain, it has a complex nervous system with a nerve ring around the mouth and a radial nerve running along the ambulacral region of each arm parallel to the radial canal.

51. (C) Given: $\Delta ABC \sim \Delta DEF$

$$\Rightarrow \frac{ar(\Delta ABC)}{ar(\Delta DEF)} = \frac{BC^2}{EF^2} \Rightarrow \frac{54}{ar(\Delta DEF)} = \frac{3^2}{4^2}$$

$$\Rightarrow ar(\Delta DEF) = 54 \times \frac{16}{9} = 96 \text{ cm}^2$$

52. (A) Inscribed circle radius of an equilateral triangle(r) $= \frac{a}{2\sqrt{3}}$

$\Rightarrow a = 6$ cm

$P = 3 \times 6 = 18$ cm

53. (D) Area of trapezium $= \frac{1}{2} \times$ sum of parallel sides $\times$ height

$$105 \text{ sq. m} = \frac{1}{2} \times (9 + 12) \times \text{height}$$

$$105 \text{ sq. m} = \frac{1}{2} \times 21 \times \text{height}$$

$$\text{height} = \frac{105 \times 2}{21} = 10 \text{ m}$$

54. (C) $7 \sin^2\theta + 3 \cos^2\theta = 4$

$\Rightarrow 7 \sin^2\theta + 3(1 - \sin^2\theta) = 4$

$\Rightarrow 7 \sin^2\theta + 3 - 3 \sin^2\theta = 4 \Rightarrow 4 \sin^2\theta + 3 = 4$

$$\Rightarrow \sin\theta = \frac{1}{2} \Rightarrow \tan\theta = \frac{1}{\sqrt{3}}$$

55. (B) By applying the formula;

$(a + b)^3 = a^3 + b^3 + 3ab(a + b)$

We get,

$(\sin\theta + \text{cosec}\,\theta)^3 = \sin^3\theta + 3 \sin\theta \,\text{cosec}\theta\, (\sin\theta + \text{cosec}\theta)$

$(2)^3 = \sin^3\theta + \text{cosec}^3\theta + 3 \times 2$

$\therefore \sin^3\theta + \text{cosec}^3\theta = 2$

56. (B) 2 km/h $= \left(2 \times \frac{5}{18}\right) = \frac{5}{9}$ m/sec

4 km/h $= \left(4 \times \frac{5}{18}\right) = \frac{10}{9}$ m/sec

Let the length of the train be x metres and its speed by y m/sec.

Then, $\left(\frac{x}{y - \frac{5}{9}}\right) = 9$ and $\left(\frac{y}{y - \frac{10}{9}}\right) = 10$

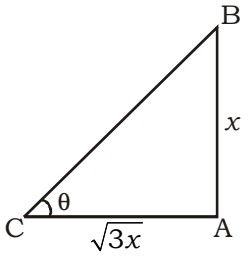
$\therefore 9y - 5 = x$ and $10(9y - 10) = 9x$

$\Rightarrow 9y - x = 5$ and $90y - 9x = 100$

On solving, we get; $x = 50$ and $y = \frac{55}{9}$

$\therefore$ Length of the train is 50 m

57. (A) Let AB be the tree and AC be its shadow.



Let $\angle ACB = \theta$

Then, $\frac{AC}{AB} = \sqrt{3} \Rightarrow \cot\theta = \sqrt{3}$

$\therefore \theta = 30°$

58. (C) Let the principal be P and rate of interest be R%.

$$\therefore \text{Required ratio} = \frac{\left(\frac{P \times R \times 6}{100}\right)}{\left(\frac{P \times R \times 9}{100}\right)} = \frac{6PR}{9PR} = 2 : 3$$

59. (A) C.P. of 1 orange $= \left(\frac{350}{100}\right) = ₹\ 3.50$

S.P. of 1 orange $= \left(\frac{48}{12}\right) = ₹\ 4$

$$\therefore \text{Gain\%} = \left(\frac{0.50}{3.50} \times 100\right)\% = \frac{100}{7}\% = 14\frac{2}{7}\%$$

60. (A) Total number of votes polled
= (1136 + 7636 + 11628) = 20400

$\therefore$ Required percentage = $\left(\frac{11628}{20400}\times 100\right)\%$

= 57%

61. (D) Since the month begins with a sunday, to there will be five sundays in the month.

Required average = $\left(\frac{510\times 5+240\times 25}{30}\right)$

= $\frac{8550}{30}$ = 285

62. (D) $(3^{25} + 3^{26} + 3^{27} + 3^{28}) = 3^{25} \times (1 + 3 + 3^2 + 3^3)$
$= 3^{25} \times 40$
$= 3^{24} \times 3 \times 4 \times 10$
$= (3^{24} \times 4 \times 30)$, which is divisible by 30.

63. (C) Let total number of children be x

Then, $x \times \frac{1}{8}x = \frac{x}{2} \times 16 \Leftrightarrow x = 64$

$\therefore$ Number of notebooks

= $\frac{1}{8}x^2 = \left(\frac{1}{8}\times 64\times 64\right)$ = 512

64. (D) Speed upstream = 7.5 km/h
Speed downstream = 10.5 km/h

$\therefore$ Total time taken = $\left(\frac{105}{7.5}+\frac{105}{10.5}\right)$ = 24 hrs

65. (B) $\frac{\left(\frac{1}{2}\right)x}{21} + \frac{\left(\frac{1}{2}\right)x}{24} = 10$

$\Rightarrow \frac{x}{21} + \frac{x}{24} = 20$

$\Rightarrow 15x = 168 \times 20$

$\Rightarrow x = \left(\frac{168\times 20}{15}\right)$ = 224 km

66. (C) (A + B)'s 1 day's work = $\left(\frac{1}{15}+\frac{1}{10}\right) = \frac{1}{6}$

Work done by A and B in 2 days = $\left(\frac{1}{6}\times 2\right) = \frac{1}{3}$

Remaining work = $\left(1-\frac{1}{3}\right) = \frac{2}{3}$

Now, $\frac{1}{15}$ work is done by A in 1 day

$\therefore \frac{2}{3}$ work will be done by a in $\left(15\times\frac{2}{3}\right)$

= 10 days
Hence, the total time taken = (10 + 2)
= 12 days

67. (A) C.I. when interest compounded yearly

= $\left[5000\times\left(1+\frac{4}{100}\right)\times\left(1+\frac{\frac{1}{2}\times 4}{100}\right)\right]$

= $\left(5000\times\frac{26}{25}\times\frac{51}{50}\right)$

= ₹ 5304

C.I. when interest is compounded half yearly

= $\left[5000\times\left(1+\frac{2}{100}\right)^3\right]$

= $\left(5000\times\frac{51}{50}\times\frac{51}{50}\times\frac{51}{50}\right)$ = ₹ 5306.04

$\therefore$ Difference = ₹ (5306.04 – 5304) = ₹ 2.04

68. (A) A : B

= $\left[4x\times 3+\left(4x-\frac{1}{4}\times 4x\right)\times 7\right]$:

$\left[5x\times 3+\left(5x-\frac{1}{5}\times 5x\right)\times 7\right]$

= $(12x + 21x) : (15x + 28x)$
= $33x : 43x$
= 33 : 43

$\therefore$ A's share = $\left(760\times\frac{33}{76}\right)$ = ₹ 330

69. (C) Let the number of 25 p, 10 p and 5 p coins be x, $2x$, $3x$ respectively.
Then, sum of their values

= $\left(\frac{25x}{100}+\frac{10\times 2x}{100}+\frac{5\times 3x}{100}\right)$ = ₹ $\frac{60x}{100}$

$\therefore \frac{60x}{100} = 30 \Leftrightarrow x = \frac{30\times 100}{60} = 50$

Hence, the number of 5 p coins = (3 × 50)
= 150

70. (C) Suppose pipe A alone takes x hrs to fill the tank.

Then, pipes B and C will take $\frac{x}{2}$ and $\frac{x}{4}$ hrs respectively to fill the tank.

$\therefore \frac{1}{x} + \frac{2}{x} + \frac{4}{x} = \frac{1}{5}$

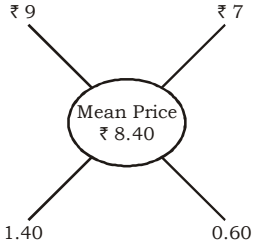
$\Rightarrow \frac{7}{x} = \frac{1}{5}$

$\Rightarrow x = 35$ hrs

71. (D) S.P. of 1 kg of mixture = ₹ 9.24, gain 10%

$\therefore$ C.P. of 1 kg of mixture $= \left(\frac{100}{110} \times 9.24\right) =$ ₹ 8.40

By the rule of alligation, we have
C.P. of 1 kg sugar of 1st kind cost of 1 kg sugar of 2nd kind



$\therefore$ Ratio of quantities of 1st and 2nd kind
= 14 : 6 = 7 : 3
Let x kg of sugar of 1st be mixed with 27 kg of 2nd kind.
Then, 7 : 3 = x : 27

$\Rightarrow x = \left(\frac{7 \times 27}{3}\right)$ = 63 kg

72. (C) To reach the winning post A will have to cover a distance of (500 – 140)m, i.e., 360 m.
While A covers 3 m, B covers 4 m

While A covers 360 m, B covers $\left(\frac{4}{3} \times 360\right)$

= 480 m

Thus, when A reaches the winning post, B covers 480 m and therefore remains 20 m behind.

73. (D) The difference for the given years can be determined only if the amount of imports for these years is known.
As the imports or exports for various years are not known, so the differences between imports and exports for various years cannot be determined.

74. (B) The exports are more than imports in those years for which the exports to imports ratio are more than 1. For Company A, such years are 1995, 1996 and 1997.
Thus, during these 3 years, the exports are more than the imports for Company A.

75. (B) In 1997 for Company A we have:

$\frac{E}{I}$ = 1.75 i.e., E = 1.75I

where E amount of exports
I = amount of imports of Company A in 1997
Now, the required imports I_1 = I + 40% of I = 1.4I

$\therefore$ Required ratio = $\frac{E}{I_1} = \frac{1.75I}{1.4I} = \frac{5}{4}$ = 5 : 4

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Acquired	obtained	अर्जित
Adaptation	an act of making something suitable for a new use or purpose	सुधार, रूपातंरण
Anchor	heavy object attached to a rope or chain and used to moor a vessel to the sea bottom	लंगर
Arsenal	a collection of weapons and military equipment	शस्त्रागार
Atavistic	related to the attitudes and behaviour of the first humans	पूर्वज गुण विशेष संबंधी
Bestial yearning	cruel desire	वहशी इच्छा
Bondage	the state of being a slave	गुलामी, दासता
Captivate	attract and hold the interest and attention of	आकर्षित करना
Conspired	make secret plans to commit an unlawful or harmful act	साजिश करना
Diffidence	modesty or shyness	संशय, झिझक
Dilettante	doing or studying something without being serious about it	शौकीन, अल्हड़
Fraught with	filled with	भरा हुआ
Hastily	with excessive speed or urgency	शीघ्रतापूर्वक
Imperative	of vital importance; crucial	अनिवार्य
Insolvent	unable to pay debts	निर्धन
Insurrection	a violent uprising against an authority or government	विद्रोह
Jaded	tired, bored, or lacking enthusiasm	थका हारा
Keep in leash	to allow very little freedom to do something	नियंत्रित करना
Laudable	deserving praise and commendation	प्रशंसनीय
Mutinous	refusing to obey the orders of authority	विद्रोही, बागी
Nocturnal	occurring at night	रात्रि संबंधी
Novice	inexperienced	अनुभवहीन
Recluse	having a solitary life	सन्यासी, वैरागी
Superficially	not thoroughly or deeply	सतही रूप से
To bear good fruit	to produce desired result	वांछित परिणाम प्राप्त करना
To carve out	to get a part of something	निर्माण करना
Unconscious	not conscious	बेसुध
Undo	cancel or reverse the effects or results of	पूर्ववत स्थिति में करना
Usurer	a person who lends money at unreasonably high rates of interest	सूदखोर
Veteran	a person who has had long experience in a particular field	अभ्यस्त, दीर्घानुभवी
Warfares	engagement in the activities involved in war or conflict	युद्ध संबंधी गतिविधियां

SSC MOCK TEST - 65 (ANSWER KEY)

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

76. (C) Replace 'their' by 'his'. When two subjects are connected by 'Neither .... nor', the possessive case follows the nearest subject.
77. (A) If 'it' is used in a sentence as a subject after which there is verb 'to be', we use nominative case to introduce a pronoun.
78. (C) Add 'for' before 'his favour.'
79. (B) 'Simple present tense' is used for an already decided arrangement of future.
80. (B) When two actions happen at the same time in past, we use simple past tense if the 2nd action will be in simple future tense.
81. (B) The sentence following 'as soon as' shall be in simple present tense.
90. (B) If 'stands' comes for an immovable object, it can't be used in a progressive form.
92. (C) If since is preceded by present perfect tense, it is followed by simple past tense.

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