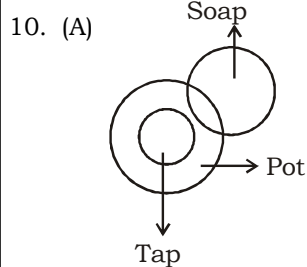
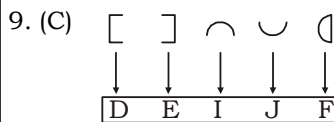


SSC MOCK TEST - 91 (SOLUTION)

1. (C) Y mail is related to Yahoo and Gmail is related to **Google**.
2. (D) 14th November is Children's day and **14th February** is Valentine day.
3. (A) $18(1 + 8) = 162$, $26(2 + 6) = 208$
4. (A) Akbar was mughal emperor and Ashok was **mauryan** emperor.
5. (B) '**June**' month is of 30 days.
6. (B) X = 10, **II = 2**, C = 100, XXII = 22
Only '2' is the prime number.
7. (C) Except **Tally**, others are related to MS office suite.
8. (A) Sofa, Table and Chair are **furnitures**.



1. False 2. False

11. (B)

$$\begin{array}{r} 6\ 2\ 5\ 3 \\ + 1\ 8\ 7\ 8 \\ \hline 8\ 1\ 3\ 1 \end{array}$$

12. (B) $3 + 5 + 7 + 8 = 23$
 $2 + 3 = 5$

13. (B) HCF (12, 15) = 3
HCF (15, 20) = 5
HCF (20, 24) = 4
HCF (24, 26) = 2
HCF (26, 39) = 13
HCF (39, 12) = 3

14. (B)
15. (C)

16. (C)

$$\begin{array}{cccccc} 7.2 & 36 & 144 & 432 & 864 \\ \times 5 & \times 4 & \times 3 & \times 2 & \end{array}$$

17. (D)

$$\begin{array}{cccccc} 16 & 3 & 0.5 & -2.5 & -9 & -41 \\ \times 0.25-1 & \times 0.5-1 & \times 1-3 & \times 2-4 & \times 4-5 & \end{array}$$

18. (A)

$$\begin{array}{ccccccccc} 484 & 289 & 529 & 256 & 576 & 225 & 625 & 196 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 22^2 & 17^2 & 23^2 & 16^2 & 24^2 & 15^2 & 25^2 & 14^2 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ +1 & -1 & +1 & -1 & +1 & -1 & \end{array}$$

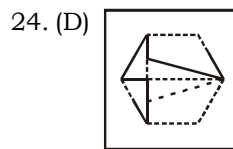
19. (B) 1 = ONE = 3 letters
3 = THREE = 5 letters
6 = SIX = 3 letters
11 = ELEVEN = 6 letters
then, 13 = Thirteen = **8 letters**.

20. (A) $\underline{abcd}/\underline{adbc}/\underline{acdb}/\underline{abcd}$

21. (B) $24 \times 5 - 318 \div 6 + 3$
 $= 24 \times 5 - 53 + 3$
 $= 123 - 53$
 $= 80$

22. (C)

23. (C) $12 + 8 \div 4 - 6 \times 1$
 $= 12 + 2 - 6$
 $= 8$



25. (D) 22, 55, 31, 65

C O R E

26. (D) The Servants of India Society was formed in Pune, Maharashtra, on June 12, 1905 by Gopal Krishna Gokhale. All are related to this organization.
27. (B) Due to the monsoon drift of Indian Ocean, regular direction of the ocean currents changes twice a year.
28. (C) Representation of states in the Parliament does require a constitutional amendment only with the ratification of the legislature of not less than one-half of the states. Other given options require the same.
30. (A) As monkey and bullet both fall under the same gravitational force, so bullet will hit exactly the same point it has been aimed.
31. (C) Scintillation counter (scintillometer) : An instrument which measures gamma radiation. It is also used in airborne and ground radiometre surveys. This instrument utilizes the flash of light emitted when the atoms of a suitable 'phosphor' are energized by gamma rays. The scintillations are detected by a light sensitive cathode.
32. (C) A terrestrial ecosystem is an ecosystem found only on landforms. Six primary terrestrial ecosystems which exist are tundra, taiga, temperate deciduous forest, tropical rain forest, grassland and desert.

34. (C) M P Veerendra Kumar, the noted Malayalam author and journalist, has been recently bestowed with the 30th edition of Moortidevi award 2016 by Bharatiya Jnanpith organization for his Malayalam travelogue "Hymavathabhoovil", which dwells upon ancient trails of Indian culture, myth, literature and people strewn in the plains, valleys and mountains of India. Kumar is Chairman and Managing Director (CMD) of the Malayalam daily Mathrubhumi and a Rajya Sabha MP.
35. (A) Mobile manufacturer OPPO Mobiles India Pvt Ltd has become the new team sponsor for the Indian cricket team for 5 years. The company in association with the Board of Control for Cricket in India (BCCI) will start from April 2017 for a period of five years. The team sponsor gets to have its commercial logo on the both the men's and women's kits. Oppo will replace broadcasting giants Star India, whose tenure will expire in March 2017.
36. (A) A famine had struck the district and a large part of Gujarat, and virtually destroyed the agrarian economy. The poor peasants had barely enough to feed themselves, but the British government of the Bombay Presidency insisted that the farmers not only pay full taxes, but also pay the 23% increase stated to take effect that year.
37. (D) Volcanic Mountain. Mount St. Helens, located in Washington State, is the most active volcano in the Cascade Range, and it is the most likely of the contiguous U.S. volcanoes. The volcano is almost 53 km due west of Mount Adams and approximately 80 km northeast of the Vancouver, Washington-Portland, Oregon metropolitan area. Volcanism occurs at Mount St. Helens and other volcanoes in the Cascades are due to subduction of the Juan de Fuca plate off the western coast of North America.
38. (D) In Gujarat and Maharashtra the Chief Ministers come under the ambit of Lok Ayukta Act. Maharashtra was the first state to introduce the institution of Lokayukta through The Lokayukta and Upa-Lokayuktas Act in 1971. This was followed by similar acts being enacted by states of Odisha, Rajasthan, Bihar, Uttar Pradesh, Karnataka, Madhya Pradesh, Andhra Pradesh, Gujarat, Kerala and Delhi. The latest Lokayukta was established in Goa.
40. (B) Capillary action, or capillarity, is a phenomenon where liquid spontaneously rises in a narrow space such as a thin tube, or in porous materials such as paper or in some non-porous materials such as liquified carbon fibre. This effect can cause liquids to flow against the force of gravity or the magnetic field induction, in blotting of ink, spread of water drop on a cotton cloth and the rising of water from the roots of a plant to its foliage.
41. (C) Uranium oxide is smuggled across border in the form of yellow cake. Uranium oxide is produced by refining tons of dirt (ore) containing uranium to produce "Yellow cake". Typically yellow cake which contains 80% of uranium oxide, melts at approximately 2878°C whereas modern yellow cake contains 70 to 90% triuranium octoxide (U_3O_8) by weight. Yellow cake is used in the preparation of uranium fuel for nuclear reactor. Uranium obtained from yellow cake is also used in making many types of illegal nuclear explosive which are very dangerous to mankind.
42. (A) Eutrophication is the ecosystem response to the addition of artificial or natural substances, such as nitrates and phosphates, through fertilizers or sewage, to an aquatic system. One of its example is the "bloom".
43. (B) HDFC Bank has recently launched India's first Artificial Intelligence (AI)-based banking chatbot "Electronic Virtual Assistant (EVA)" for customer service. EVA can answer millions of customer queries across multiple channels instantly. Eva can assimilate knowledge from thousands of sources and provide answers in simple language in less than 0.4 seconds.
44. (B) Charles Wilkins was a member of Asiatic Society of Bengal founded by William Jones. He translated Bhagavad Gita into English in 1794.
45. (D) Forest fires have become a seasonal phenomenon in Indonesia. At the root of the problem is the practice of forest clearance known as slash and burn, where land is set on fire as a cheaper way to clear it for new planting. Peat soil, which characterises much of the affected areas, is highly flammable, causing localised fire to spread making it difficult to stop.

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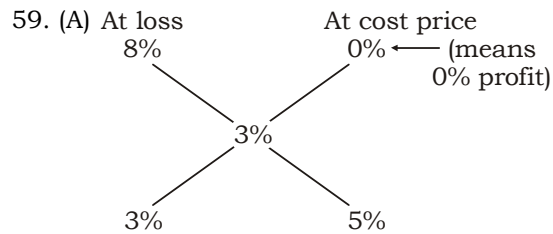
46. (C) According to Article 131, The SC has original jurisdiction in any dispute –
- Between the Government of India & one or more States.
 - Between the Government of India and any State or States on one side and one or more other States on the other.
 - Between two or more States.
49. (B) The ABO blood group system is widely credited to have been discovered by the Austrian scientist Karl Landsteiner, who found three different blood types in 1900; he was awarded the Nobel Prize in Physiology or Medicine in 1930 for his work.
50. (D) Prime Minister Narendra Modi has recently inaugurated the India's longest cable-bridge over the Narmada River on the Ahmedabad-Mumbai section of NH-8 (New NH-48) in Bharuch, Gujarat. The bridge is built by Larsen and Turbo, as a part of the Rs. 379 crore project of the National Highway Authority of India (NHAI).
51. (C) Required total expenditure
- $$= \frac{12000}{(10+15)} \times 100 = ₹ \mathbf{48,000}$$
52. (A) Required percentage
- $$= \frac{(20-10)}{20} \times 100 = \frac{1}{2} \times 100 = \mathbf{50\%}$$
53. (C) **Food + Entertainment** = (20 + 5)% = 25%
- (100% = 360° ⇒ 25% = 90°)
54. (B) Average of 10 numbers = 7
- Sum = 10 × 7 = 70
- New sum = 70 + (12 × 10) = 190
- ∴ Required Average = $\frac{190}{10} = \mathbf{19}$
55. (D) $M_1 D_1 W_2 = M_2 D_2 W_1$
- $$M_2 = \frac{M_1 D_1 W_2}{D_2 W_1} = \frac{60 \times 200 \times 8}{150 \times 4} = 160 \text{ men}$$
- ⇒ $M_2 = 160$
- Extra Men = 160 – 60 = **100 Men**
56. (C)
- | | | |
|----|---|----|
| A | : | B |
| 12 | : | 9 |
| 12 | : | 16 |
- 7 units = 7 litre
⇒ 1 units = 1 litre
- After removal = 21 × 1 = 21 litres
Before removal = 21 + 7 = **28 litres**

57. (C) $\frac{1}{1+\tan^2 \theta} + \frac{1}{1+\cot^2 \theta} = \frac{1}{\sec^2 \theta} + \frac{1}{\cos^2 \theta}$
= $\cos^2 \theta + \sin^2 \theta = \mathbf{1}$

58. (D) $T = \frac{D}{S}$

$$= \frac{72}{18} \times \frac{5}{18}$$

$$= \frac{5}{2} = 2 \text{ hrs } 30 \text{ min}$$



∴ Quantity sold at cost price = $\frac{5}{8} \times 60 = \mathbf{37.5 \text{ kg}}$

60. (A) Let the numbers be 4x and 3x respectively
- First number × second number = HCF × LCM
- $$\Rightarrow 4x \times 3x = 1452$$

$$\Rightarrow x^2 = \frac{1452}{3 \times 4} = 121$$

$$\therefore x = \sqrt{121} = 11$$

∴ Difference of the numbers = 4x – 3x = x = **11**

61. (C)
- | Gold | Silver | |
|------|--------|---------------|
| 80 | 20 | ⇒ diff. = 300 |
| 95 | 5 × 4 | ← 80 20 |
| | | ← 380 20 |
- 80 + 20 i.e. to make silver equal
100 units = 50g

∴ 1 unit = $\frac{1}{2} \text{ g}$

Difference between 80 and 380 = 380 – 80 = 300 units = **150 gms.**

62. (D) Male employees = x
Female employees = y
- ∴ (x + y) 21000 = x × 12000 + y × 28000
- $$\Rightarrow (x + y) \times 21 = 12x + 28y$$
- $$\Rightarrow 21x + 21y = 12x + 28y$$
- $$\Rightarrow 9x = 7y$$
- $$\Rightarrow \frac{x}{y} = \frac{7}{9}$$
- ⇒ x : y = 7 : 9
- ∴ Required ratio = **7 : 9**

63. (C) Distance travelled by A =

$$2 \times \text{Distance} \times \left(\frac{\text{Speed}_1}{\text{Speed}_1 + \text{Speed}_2} \right)$$

$$= 2 \times 39 \times \frac{6}{13} = \mathbf{36 \text{ kms}}$$

64. (C) Let the duration of flight be t hours.

$$S = \frac{D}{T}$$

$$S_1 - S_2 = 300 \text{ km/h}$$

$$\frac{900}{t} - \frac{900}{t+2} = 300$$

$$\Rightarrow \frac{900}{t} - \frac{2 \times 900}{2t+1} = 300$$

$$\Rightarrow (2t+1)900 - t \times 1800 = 300t(2t+1)$$

$$\Rightarrow 3(2t+1) - 6t = t(2t+1)$$

$$\Rightarrow 6t+3 - 6t = 2t^2 + t$$

$$\Rightarrow 2t^2 + t - 3 = 0$$

$$\Rightarrow 2t^2 + 3t - 2t - 3 = 0$$

$$\Rightarrow t(2t+3) - 1(2t+3) = 0$$

$$\Rightarrow (2t+3)(t-1) = 0$$

$$\Rightarrow t = 1$$

\therefore Required duration = **1hr**

65. (A) A B C D

$$\frac{2 \ 3 \ 3 \ 3}{1 \ 1 \ 4 \ 4}$$

$$\frac{2 \ 2 \ 2 \ 5}{4 \ 6 \ 2460}$$

\therefore A : D = 4 : 60 = **1 : 15**

66. (C) $3 \sin^2\theta - \sin^4\theta = 1 \Rightarrow \sin^4\theta - 3\sin^2\theta = -1$

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

$$\Rightarrow \sin^4\theta - 2\sin^2\theta + 1 + 1 - \sin^2\theta = 1$$

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

$$\Rightarrow \cos^2\theta + (\cos^2\theta)^2 = 1$$

$$\Rightarrow \cos^2\theta + \cos^4\theta = 1$$

$$\Rightarrow \cos^4\theta = 1 - \cos^2\theta = \sin^2\theta$$

$$\Rightarrow \tan^2\theta = \cos^2\theta$$

$$\therefore \tan^2\theta + \tan^4\theta = \cos^2\theta + \cos^4\theta = \mathbf{1}$$

67. (B) Let no. of men be x .

According to the given data, we have

$$\frac{3680}{6 \times 8} \times 2 = \frac{920}{2 \times x}$$

[As daily wages of man is double of that of woman]

$$\Rightarrow x = \frac{920 \times 6 \times 8}{3680 \times 2 \times 2} = 3 \text{ men}$$

\therefore Required number of men = **3 men**

68. (A) The given expression

$$\frac{\frac{1}{4} \times 4 \times \frac{1}{4}}{\frac{1}{4} \div \left(\frac{1}{4} \times \frac{1}{4} \right)} - \frac{1}{16} = \frac{\frac{1}{4}}{\frac{1}{4} \times 16} - \frac{1}{16} = \frac{1}{16} - \frac{1}{16} = \mathbf{0}$$

69. (B) $\angle PSQ = 180^\circ - (120^\circ + 25^\circ) = 35^\circ$

$$\angle QSR = 80^\circ - 35^\circ = 45^\circ$$

In triangle QSR,

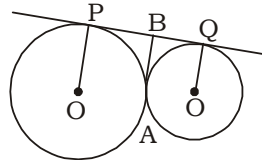
$$\angle QSR + \angle SRQ + \angle SQR = 180^\circ$$

$$45^\circ + 45^\circ + \angle SQR = 180^\circ$$

$$\angle SQR = 180^\circ - 90^\circ = 90^\circ$$

Also, $\angle SQR = \angle QRT = \mathbf{90^\circ}$ [\therefore SQ || RT]

70. (C)



$$PQ^2 = (R+r)^2 - (R-r)^2 = 4Rr$$

71. (D) We have,

$$\frac{P \left(1 + \frac{r}{100} \right)^8}{P \left(1 + \frac{r}{100} \right)^7} = \frac{1107}{1080}$$

$$\Rightarrow 1 + \frac{r}{100} = \frac{1107}{1080}$$

$$\Rightarrow \frac{r}{100} = \frac{1107}{1080} - 1 = \frac{27}{1080}$$

$$\Rightarrow \frac{r}{100} = \frac{1}{40}$$

$$\Rightarrow r = \frac{100}{40} = 2.5\%$$

\therefore Required rate = **2.5%**

72. (D) 960

$$\downarrow 20\% = 192$$

$$768 \text{ (960 - 192)}$$

$$\downarrow x\%$$

$$384 \text{ (768 - 768} \times 50\%)$$

\therefore Second discount = **50%**

73. (D) $\tan \theta = \frac{5}{13}$

$$\therefore \frac{2 \sin \theta \cdot \cos \theta}{\cos^2 \theta - \sin^2 \theta} = \frac{2 \tan \theta}{1 - \tan^2 \theta}$$

(divide numerator and denominator by $\cos^2 \theta$)

$$= \frac{2 \times \frac{5}{13}}{1 - \frac{25}{169}} = 2 \times \frac{5}{13} \times \frac{169}{144} = \frac{65}{72}$$

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74. (B) $\left(x^2 + \frac{1}{x^2}\right)^2 = x^4 + \frac{1}{x^4} + 2 = 34 + 2 = 36$

$\therefore x^2 + \frac{1}{x^2} = 6$

Again, $\left(x - \frac{1}{x}\right)^2 = x^2 + \frac{1}{x^2} - 2 = 6 - 2 = 4$

$\therefore x - \frac{1}{x} = 2$

$\Rightarrow \left(x - \frac{1}{x}\right)^3 = 2^3$

$\Rightarrow x^3 - \frac{1}{x^3} - 3x \cdot \frac{1}{x} \left(x - \frac{1}{x}\right) = 8$

$\Rightarrow x^3 - \frac{1}{x^3} - 3 \times 2 = 8$

$\therefore x^3 - \frac{1}{x^3} = 8 + 6 = 14$

75. (A) In $\triangle ABC$, $\triangle ACD$, $\triangle BCD$ and $\triangle ABD$

$AB + BC > AC$

$CD + DA > AC$

$BC + CD > BD$

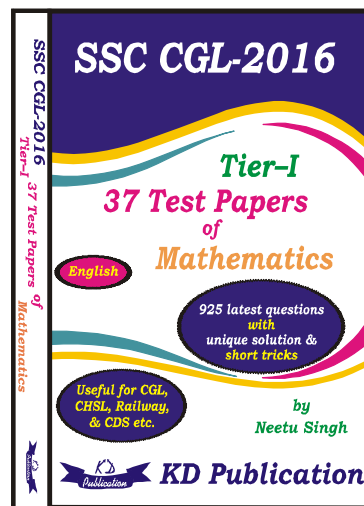
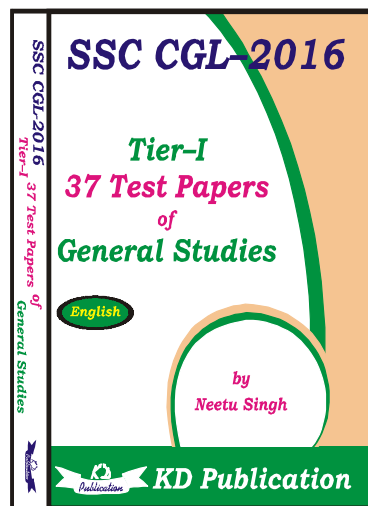
$DA + AB > BD$

Adding above inequalities, we have

$2(AB + BC + CD + DA) > 2(AC + BD)$

$\Rightarrow AB + BC + CD + DA > (AC + BD)$

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MEANINGS IN ALPHABETICAL ORDER

WORDS	MEANING IN ENGLISH	MEANING IN HINDI
Astringent	restricted, bounded with limitation	नियमों से बंधा हुआ
Bareness	lacking a usual or appropriate covering	सादगी
Contrary	a fact or condition incompatible with another	प्रतिकूल
Fascinating	extremely interesting or charming.	दिलचस्प
Franconia	former duchy in Austrasia	ऑस्ट्रेलिया में डच के भूतपूर्व निवासी
Frequenting	resort to often or habitually	अक्सर
Isolate	to set apart from others	अलग कर देना
Lax	having an open or loose texture	ढीलापन
Monumental	resembling a monument	स्मारक चिन्ह संबंधी
Profoundly	having intellectual depth and insight	गंभीरतापूर्वक
Recurring	to occur again after an interval	पुनरावर्ती
Samaritan	a person who is generous in helping those in distress	मुसीबत में मदद करने वाला
Solstice	either of the two points on the ecliptic at which its distance from the celestial equator is greatest	अयनकाल
Sophisticated	very genuine and knowledgeable	सुविज्ञ
Vernal	occurring in the spring	वसंत ऋतु संबंधी
Vitiate	to make faulty or defective, impair	नुकसान पहुँचाना

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SSC MOCK TEST - 91 (ANSWER KEY)

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

76. (C) use 'died from' instead of 'died by'.
Die 'from' reason. Die 'of' disease. Die 'in' harness
77. (B) use 'beside' instead of 'besides'. 'Beside' means 'adjacent to' (के बगल में) and 'Besides' means 'apart from' (के अलावा)
78. (C) use 'well' instead of 'good'. 'work' being a verb takes an adverb 'well' and not an adjective 'good'.
79. (C) use 'properly' instead of 'proper'. We need an adverb here to qualify a verb i.e maintained.

Mock - 89 Corrections

23. (*)Both (B) and (D) are correct.
48. (B)

Mock 90- Corrections

99. (A)

Mock 91- Corrections

82. Change 'tame' into 'lame'.

Note:- Whatsapp with Mock Test No. and Question No. at 9560866063 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