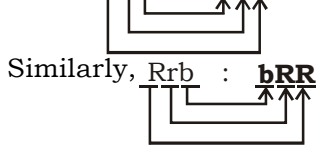


SSC MOCK TEST – 154 (SOLUTION)

1. (C) As, 'Ophthalmia' is a disease of 'Eyes'. Similarly 'Rickets' is the disease of 'Bone'.

2. (A) The next prime number of 13 is 17. Similarly, the next prime number of 23 is **29**.

3. (B) As, Dda : aDD



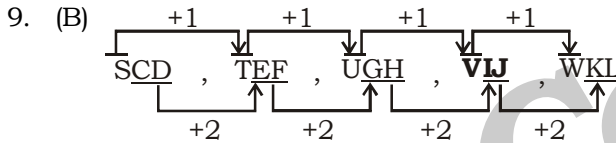
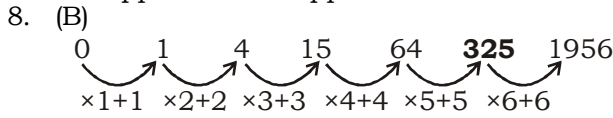
4. (D) Except **Darjeeling**, others are Capital.

5. (D) $13 \times 9 = 117$, $18 \times 9 = 162$, $19 \times 9 = 171$, but $16 \times 9 = 144 \neq 304$

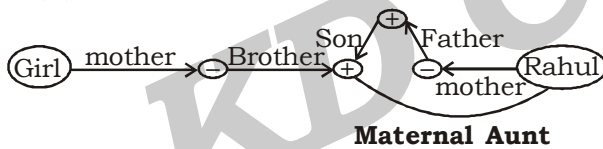
6. (D) Except option (D), the letter in between the first and second letters are vowel.

- D (E) F
- H (I) J
- N (O) P
- L (M) N

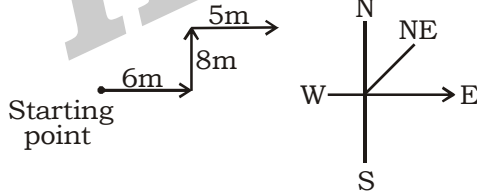
7. (B) Apparatus → Apparel → Appeal → Application → Appreciation



10. (C)



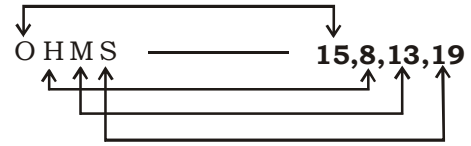
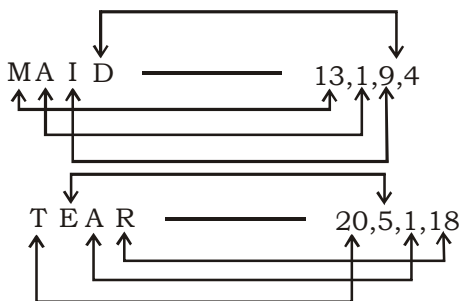
11. (A)



So, pooja is in **North-east** direction from the starting point.

12. (C) Author

13. (D)



14. (D) $10 \times 4 \div 5 - 6 + 10$

After changing the signs as per given details,

$$10 - 4 + 5 \times 6 \div 10$$

$$= 10 - 4 + 30 \div 10$$

$$= 10 - 4 + 3$$

$$= 13 - 4 = 9$$

15. (A) $15 \times 12 \Rightarrow (1 \times 5) \times (1 + 2) = 5 \times 3 = 15$

$$27 \times 13 \Rightarrow (2 \times 7) \times (1 + 3) = 14 \times 4 = 56$$

$$\text{So, } 13 \times 27 \Rightarrow (1 \times 3) \times (2 + 7) = 3 \times 9 = 27$$

16. (B) $\sqrt{36} \times \sqrt{64} = 6 \times 8 = 48$

$$\sqrt{25} \times \sqrt{9} = 5 \times 3 = 15$$

$$\text{So, } \sqrt{81} \times \sqrt{169} = 9 \times 13 = 117$$

17. (A) **16**

18. (A)



I. True II. False

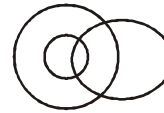
So, only conclusions I follows.

19. (B) From figure (ii) and (iii),

$$\begin{matrix} 4 & 1 & 3 \\ 2 & 6 & 5 \end{matrix}$$

∴ Three dots are present on the face with five dots

20. (B)



21. (C)

22. (C)

23. (C)

24. (D) 5 dots will be opposite to 2 dots.

25. (C)

26. (C) Ranjit Singh was born on 13th November

1780 in Gujranwala now in modern day Pakistan, into a Sikh Sansi (nomadic tribe) family. Zaman Shah gave the title or "Raja of Lahore" to Ranjit Singh, in

1799. After having duly installed the Sikh Chief as Raja, Zaman Shah, whose departure was hastened by news that Fath Ali Shah was threatening to invade Khurasan, returned to Peshawar.

27. (A) Mount Godwin Austen, or K2, The Earth's second highest mountain, after Mount Everest. The peak is 8,607 meters high, in the Karakoram Range of northern

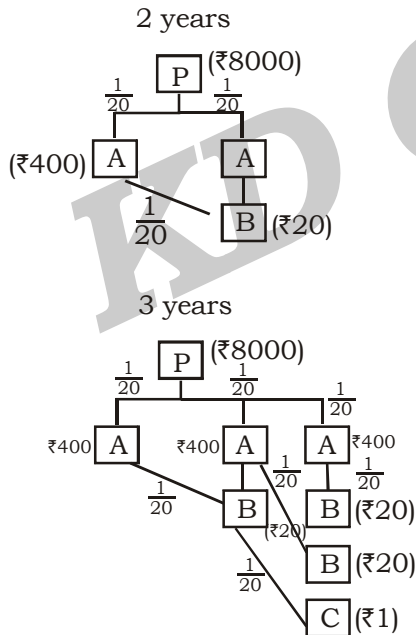
- Jammu and Kashmir, near the border of Pakistan and China.
28. (B) Yakshagana, dance-drama of South India, associated most strongly with the state of Karnataka. It is noted for its music, colourful costumes, vigorous dance movements, subtle expressions and extempore dialogues.
30. (A) "DivyaNayan", a personal reading machine for visually impaired to access printed or electronic textual information. The device is useful for the targeted disability group for accessing printed and digital information.
31. (C) The rate of change of momentum is directly proportional to the impressed force, and takes place in the same direction in which the force acts.
32. (A) The Third Five-year Plan, stressed agriculture and improvement in the production of wheat, but the brief Sino-Indian War of 1962 exposed weaknesses in the economy and shifted the focus towards the defense industry and the Indian Army. The target growth rate was 5.6%, but the actual growth rate was 2.4%.
33. (C) The Battle of Khanwa was fought near the village of Khanwa, about 60 km west of Agra, on March 17, 1527. After his victory over Rana Sanga (1527) on the battlefield of Kanwaha, Babur assumed the title of Ghazi. Thus Babur was styled Zahir-al-Din (supporter of the faith) Muhammad Babur Padshah Ghazi. Humayun adopted the title of Nasir-al-Din (defender of the faith) Muhammad Padshah Ghazi. Akbar assumed the title of Jalal-al-Din (glory of the faith) Muhammad Akbar Padshah Ghazi.
36. (B) John Dalton was an English chemist, physicist, and meteorologist. He is best known for introducing the atomic theory into chemistry, and for his research into colour blindness, sometimes referred to as Daltonism in his honour.
37. (C) Antacids are a class of medicines that neutralize acid in the stomach. Antacids are used to relieve the symptoms of Gastro esophageal Reflux Disease, heartburn or indigestion (also called dyspepsia).
38. (B) The constant of proportionality (G) in the above equation is known as the universal gravitation constant. The value of G is found to be
 $G = 6.673 \times 10^{-11} \text{ N m}^2/\text{kg}^2$
39. (D) The Tropic of Capricorn runs through 10 countries: Namibia, Botswana, South Africa, Mozambique, Madagascar, Australia, Chile, Argentina, Paraguay, and Brazil.
41. (B) India's Amit Kumar Saroha has won the Gold Medal in the Men's club throw F51 event at the World Para Athletics Grand Prix in Tunisia. In 2010, Amit Kumar Saroha had won silver in discus throw at the Asian Para Games in China.
- Tunisia is a North African Country Bordering the Mediterranean Sea and Sahara Desert.
 - Capital: Tunis
 - Currency: Dinar
42. (B) The perfect pair of sex chromosomes is found in female and is called the homogametic sex. In humans, each cell normally contains 23 pairs of chromosomes, a total of 46.
44. (D) The Earth's radius is about 4,000 miles (6,400 kilometers). The main layers of its interior are in descending order: crust, mantle and core. The crust thickness averages about 21.70 miles (35 kilometers) under the continents, but is only about 3 miles (5 kilometers) under the oceans.
45. (C) Rajasthan Chief Minister Vasundhara Raje has been conferred with the 'Chief Minister of the Year' award for her remarkable work in e-governance.
46. (A) Speedometer, instrument that indicates the speed of a vehicle, usually combined with a device known as an odometer that records the distance traveled.
48. (B) A person aged seven and above, who can both read and write in a language (any) is considered as literate. India's literacy rate is 74.04%. Kerala has achieved a

literacy rate of 93.91%. Bihar is the least literate state in India, with a literacy of 63.82%.

49. (C) The modern currency is not made up of precious metal such as gold, silver or copper and unlike grain and cattle, they are neither everyday use. Thus, the modern currency is without any use. But still it is accepted as a medium of exchange as it is authorized by Government of the country. In India, the Reserve Bank of India issues currency notes on behalf of the central Government. Thus, modern currency is accepted as a medium of exchange without any use of its own.

50. (D) India and Seychelles signed six agreements in several fields including education, cyber security, and cultural exchange. The agreements were signed following delegation-level talks between Prime Minister Narendra Modi and President of Seychelles, Danny Antoine Rollen Faure in New Delhi.

51. (B)



If simple interest instead of compound interest was reckoned for 2 years and 3 years respectively, then

$$\text{For 2 years, C.I. - S.I.} = (2A + B) - (2A) = ₹20$$

$$\therefore B = ₹20$$

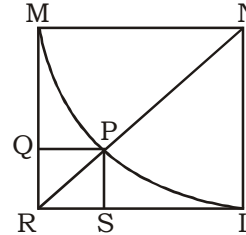
Similarly, for 3 years,

$$\begin{aligned} \text{C.I. - S.I.} &= (3A + 3B + C - 3A) \\ &= ₹61 \\ \Rightarrow C &= ₹1 \quad (\because B = ₹20) \end{aligned}$$

$$\therefore \text{Rate} = \frac{1}{20} = 5\%$$

So, Required sum = ₹8000

52. (B)



\therefore MNLR is a square

Let $MN = NL = LR = MR = 2$ units

In right angle $\triangle RLN$,

$$RN^2 = RL^2 + LN^2$$

$$\Rightarrow RN = \sqrt{(2)^2 + (2)^2} = \sqrt{4+4} = \sqrt{8}$$

$$\Rightarrow RN = 2\sqrt{2} \text{ units}$$

$$\text{So, } PR = RN - PN = 2\sqrt{2} - 2$$

\because MPL is an arc with MN as radius

$$\therefore MN = NL = NP = 2 \text{ units}$$

So, Required ratio

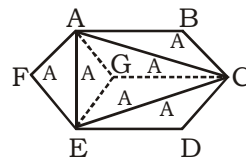
$$\frac{\text{Area of square of side MN}}{\text{Area of square PQRS}}$$

$$= \frac{2 \times 2}{\left(\frac{2\sqrt{2} - 2}{\sqrt{2}}\right)^2} = \frac{8}{8 + 4 - 8\sqrt{2}}$$

$$= \frac{8}{12 - 8\sqrt{2}} = \frac{2}{3 - 2\sqrt{2}}$$

$$= 2 : 3 - 2\sqrt{2}$$

53. (A)



Due to symmetry, a regular hexagon is divided into 3 parallelograms or 6 triangle and each having an equal area.

Let area of each triangle be A.

$$\text{Required area} = \frac{\text{Area } \triangle ACE}{\text{Area } ABCDEF}$$

$$= \frac{3A}{6A} = \frac{1}{2} = 1 : 2$$

54. (A) $a + b + ab = 8$ -----(i)
 $b + c + bc = 15$ -----(ii)
 $a + c + ac = 35$ -----(iii)
 Adding 1 on both sides in eqn (i), (ii) and (iii), we get
 $a + b + ab + 1 = 8 + 1$
 $(a + 1)(b + 1) = 9$ -----(iv)
 $b + c + bc + 1 = 15 + 1$
 $(b + 1)(c + 1) = 16$ -----(v)
 and, $a + c + ac + 1 = 35 + 1$
 $(a + 1)(c + 1) = 36$ -----(vi)
 Multiplying eqn (iv), (v) and (vi), we get
 $(a + 1)^2 (b + 1)^2 (c + 1)^2 = 9 \times 16 \times 36$
 $\Rightarrow (a + 1)(b + 1)(c + 1) = 3 \times 4 \times 6 = 72$ -----(vii)
 From the eqn (v), and (vii), we get
 $16 \times (a + 1) = 72$
 $\Rightarrow (a + 1) = \frac{72}{16} \Rightarrow a = 3.5$

55. (A)

	X	Y
Days	2	1
Efficiency	1	2

 So, Total work = $27 \times 1 = 27$
 Total work by X and Y in 1 day = $(2 + 1) = 3$ units
 \therefore Required fraction = $\frac{3}{27} = \frac{1}{9}$

56. (D) ATQ,
 $\frac{4}{7}(P) = \frac{12}{14}(Q)$
 $\Rightarrow \frac{P}{Q} = \frac{12}{4} \times \frac{7}{14}$
 $\Rightarrow \frac{P}{Q} = \frac{3}{2}$
 57. (B) $(x - 7)^2 + (y + 10)^2 + (z - 6)^2 = 0$
 $\therefore x - 7 = 0, y + 10 = 0$ and $z - 6 = 0$
 $\Rightarrow x = 7, y = -10$ and $z = 6$
 So, $x + y + z = 7 - 10 + 6 = 3$

58. (A)

C.P	5% less	S.P
100	\rightarrow	95
30% less	\downarrow	\downarrow (11)
(New C.P.) 70	$\xrightarrow{P = 20\%}$	84 (New S.P.)

 11 units = 84
 $\therefore 38.5$ units = $\frac{84}{11} \times \frac{385}{10} = ₹294$
 \therefore New selling price of article = ₹294

59. (D) The number 347XY is divisible by 80.
 This means it is also divisible by 10 and 8.
 To get divisible by 10, the unit digit must be zero so, $Y = 0$
 Similarly, To get divisible by 8, the last 3 digit must be divisible by 8.
 Only $X = 2$ satisfies the condition
 So, $X = 2, Y = 0$
 and, $(2X + Y)^2 = (2 \times 2 + 0)^2 = 16$

60. (B) $(\tan \theta)(1 + \sec 2\theta)(1 + \sec 4\theta)(1 + \sec 8\theta)$
 $(\tan \theta) \left(\frac{\cos 2\theta + 1}{\cos 2\theta} \right) \left(\frac{\cos 4\theta + 1}{\cos 4\theta} \right) \left(\frac{\cos 8\theta + 1}{\cos 8\theta} \right)$
 $= (\tan \theta) \left(\frac{2\cos^2 \theta}{\cos 2\theta} \right) \left(\frac{2\cos^2 2\theta}{\cos 4\theta} \right) \left(\frac{2\cos^2 4\theta}{\cos 8\theta} \right)$
 $= (\tan \theta) \frac{(4)}{\sin \theta}$
 $\frac{(2 \sin \theta \cos \theta)(\cos \theta)(\cos 2\theta)(\cos 4\theta)}{\cos 8\theta}$
 $= \frac{\tan \theta}{\sin \theta} (4) \frac{\sin 2\theta \cos \theta \cos 2\theta \cos 4\theta}{\cos 8\theta}$
 $= \left(\frac{\sin \theta}{\cos \theta} \right) (2) \frac{(2 \sin 2\theta \cos 2\theta) \cos 4\theta}{\cos 8\theta}$
 $= \frac{\tan \theta}{\tan \theta} \frac{(2 \sin 4\theta \cos 4\theta)}{\cos 8\theta}$
 $= \frac{\sin 8\theta}{\cos 8\theta} = \tan 8\theta$

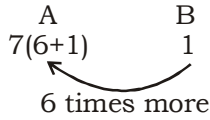
61. (B) $\cos^2 \theta - \sin \theta = \frac{1}{4}$
 $\Rightarrow 1 - \sin^2 \theta - \sin \theta = \frac{1}{4}$
 $\Rightarrow \sin^2 \theta + \sin \theta + \frac{1}{4} - 1 = 0$
 $\Rightarrow \sin^2 \theta + \sin \theta - \frac{3}{4} = 0$
 $\Rightarrow 4 \sin^2 \theta + 4 \sin \theta - 3 = 0$
 $\Rightarrow 4 \sin^2 \theta + 6 \sin \theta - 2 \sin \theta - 3 = 0$
 $\Rightarrow 2 \sin \theta (2 \sin \theta + 3) - 1 (2 \sin \theta + 3) = 0$
 $\Rightarrow \left(\sin \theta = \frac{1}{2} \right), \left(\sin \theta = \frac{-3}{2} \right)$

62. (D) Let the number = x
 ATQ,
 32% of $x - 17\%$ of $x = 120$
 $\Rightarrow 15\%$ of $x = 120$

$$\Rightarrow x = \frac{120 \times 100}{15} = 800$$

So, Required number = **800**

63. (D) ATQ,



$$\begin{aligned} \therefore \text{Required percentage} &= \left(\frac{6}{7} \times 100\right)\% \\ &= \mathbf{85.7142\%} \end{aligned}$$

64. (A) **Incenter**

65. (A) S.I for 10 years = ₹280

S.I. for 1 year = ₹28

$$\therefore \text{Required rate} = \left(\frac{28}{400} \times 100\right) = \mathbf{7\%}$$

$$\begin{aligned} 66. (B) \text{ Required speed} &= \frac{(500 + 221)}{35} \times \frac{18}{5} \\ &= \frac{721}{35} \times \frac{18}{5} \\ &= \frac{12978}{175} = \mathbf{74.16 \text{ km/hr}} \end{aligned}$$

$$\begin{aligned} 67. (A) \text{ Required distance} &= (n) \frac{(n+1)}{2} \\ &= 10 \times \frac{11}{2} = \mathbf{55 \text{ km}} \end{aligned}$$

68. (A) ATQ,

$$\frac{r_{\text{Cone}}}{r_{\text{Cylinder}}} = \frac{2}{1}$$

$$\text{Required volume} = \frac{\frac{1}{3} \pi r^2 h}{\pi R^2 h}$$

$$= \frac{1}{3} \left(\frac{2}{1}\right)^2 = \left(\frac{4}{3}\right)$$

$$69. (C) \text{ Required speed} = \frac{8+4}{2} = \mathbf{6 \text{ km/hr}}$$

70. (D) ATQ,

$$\left(\frac{x+y}{2}\right) - \left(\frac{y+z}{2}\right) = 12$$

$$\Rightarrow x + y - y - z = 24$$

$$\Rightarrow x - z = \mathbf{24}$$

$$71. (D) \frac{1}{\sqrt{11-2\sqrt{30}}} - \frac{3}{\sqrt{7-2\sqrt{10}}} - \frac{4}{\sqrt{8+4\sqrt{3}}}$$

$$= \frac{1}{\sqrt{11-2\sqrt{6} \times 5}} - \frac{3}{\sqrt{7-2\sqrt{5} \times 2}} -$$

$$\frac{4}{\sqrt{8+2\sqrt{2} \times \sqrt{2} \times \sqrt{3}}}$$

$$= \frac{1}{\sqrt{(\sqrt{6}-\sqrt{5})^2}} - \frac{3}{\sqrt{(\sqrt{5}-\sqrt{2})^2}} - \frac{4}{\sqrt{(\sqrt{6}+\sqrt{2})^2}}$$

$$= \sqrt{6} + \sqrt{5} - \frac{3(\sqrt{5}+\sqrt{2})}{3} - \frac{4(\sqrt{6}-\sqrt{2})}{4}$$

$$= \sqrt{6} + \sqrt{5} - \sqrt{5} - \sqrt{2} - \sqrt{6} + \sqrt{2} = \mathbf{0}$$

72. (B) Runs scored against pakistan

$$= \frac{1600}{100} \times 12 = \mathbf{192}$$

73. (D) The difference between the runs scored against England and Pakistan is same as the difference between runs scored against **Australia and New Zealand.**

$$74. (A) \text{ Required Runs} = (25 - 9) \times \frac{1600}{100} = \mathbf{256}$$

75. (D) Required angle

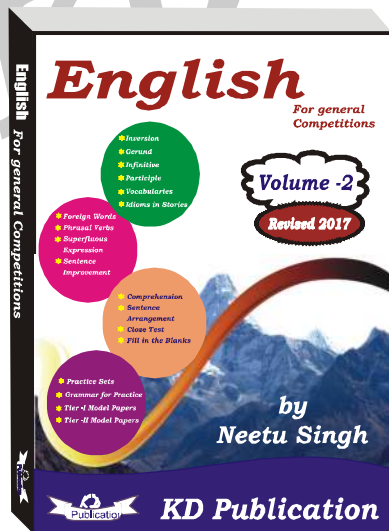
$$= \frac{360^\circ}{100} \times [(25 + 16) - (9 + 12)]$$

$$= \frac{360^\circ}{100} \times 20 = \mathbf{72^\circ}$$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Cogent	having power to compel, effective	टोस
Precedence	very important	प्रधानता
Procrastinate	to delay	देर करना
Baroque	having many details	बहुत सारी जानकारी
Accessory	a thing which can be added to something else to make it useful	उपसाधन
Assassination	a person who kills someone usually for political reasons	हत्यारा
Encomium	glowing and warmly praise	गुणानुवाद
Eulogium	a speech that praises someone who has died	प्रशंसा भाषण
Glottis	the opening between the vocal cords in your throat	उपजिह्वा
Admonish	to express warning or disapproval in a gentle manner	धिक्कारना
Pedagogical	of or relating to teacher	शैक्षणिक
Bizarre	strange	विचित्र
Inconclusive	not showing that something is true	अनिर्णीत
Uprise	a revolt	बगावत

For all general competitive exams



CHAPTERS

- ★ Foreign Words
- ★ Phrasal Verbs
- ★ Superfluous
- ★ Expression
- ★ Sentence Improvement

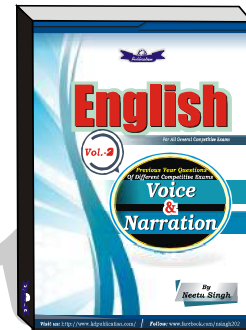
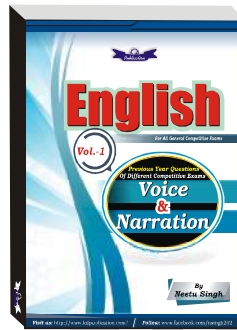
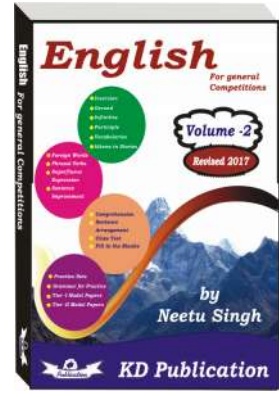
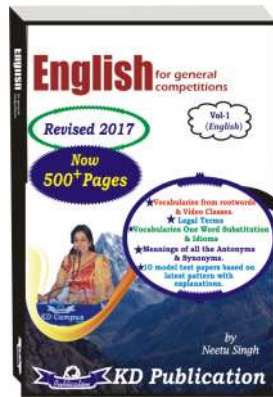


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SSC MOCK TEST - 154 (ANSWER KEY)

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



- 76. (A) Remove 'very' from the sentence because 'essential' itself means 'extremely important'. Here 'very' is superfluous.
- 77. (A) Remove 'not' from the sentence because before 'neither', 'not' is never used. For ex: He decided neither to wait nor to watch T.V.
- 90. (B) Option (B) is correct because 'admonish somebody' is always used.
- 91. (B) Change 'took violence' into 'took to violence' because
take to : to start something
take to violence : to start violence



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

Note:- Whatsapp with Mock Test No. and Question No. at 7053606571 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