

SSC MOCK TEST – 139 (SOLUTION)

1. (B) As, the birth place of Bose was cuttack. Similarly, the birth place of Chandra Shekhar Azad was **Bhavra**.

2. (D) As, $\begin{matrix} \text{FHJL} & & \text{RTVX} \\ & \xrightarrow{+12} & \end{matrix}$
Similarly $\begin{matrix} \text{DFHJ} & & \text{PRTV} \\ & \xrightarrow{+12} & \end{matrix}$

3. (D) As, $86 \Rightarrow 8 + 6 = 14^2 - 1 = 195$

Similarly, $97 \Rightarrow 9 + 7 = 16^2 - 1 = 255$

4. (D) Except 'Hamlet' others are capitals.

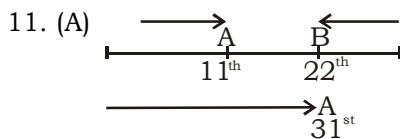
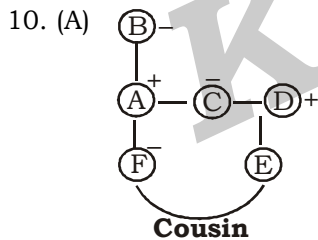
5. (C) Except **207**, all others are multiples of two prime numbers.

6. (B) $\begin{matrix} \text{B} & \text{F} & \text{J} & \text{M} & & \text{O} & \text{S} & \text{W} & \text{A} \\ \uparrow & \uparrow & \uparrow & \uparrow & & \uparrow & \uparrow & \uparrow & \uparrow \\ +4 & +4 & +3 & & & +4 & +4 & +4 & \end{matrix}$
 $\begin{matrix} \text{J} & \text{N} & \text{R} & \text{U} & & \text{L} & \text{P} & \text{T} & \text{W} \\ \uparrow & \uparrow & \uparrow & \uparrow & & \uparrow & \uparrow & \uparrow & \uparrow \\ +4 & +4 & +3 & & & +4 & +4 & +3 & \end{matrix}$

7. (C) Impolite \rightarrow Imponderable \rightarrow Important \rightarrow Importune.

8. (A) $\begin{matrix} \text{NML} & & \text{IHG} & & \text{EDC} & & \text{BAZ} \\ \uparrow & & \uparrow & & \uparrow & & \uparrow \\ +5 & & +4 & & +3 & & \end{matrix}$

9. (C) $7^2 - 1 = 48$
 $8^2 + 1 = 65$
 $9^2 - 1 = 80$
 $10^2 + 1 = 101$
 $11^2 - 1 = 120$
 $12^2 + 1 = 145$



12. (C) VALUE
So, Required number of students = $22 + 31 - 1 = 52$

13. (D) As, $\begin{matrix} \text{L} & \text{I} & \text{A} & \text{R} & & \text{R} & \text{A} & \text{N} & \text{G} & \text{E} \\ \downarrow & \downarrow & \downarrow & \downarrow & & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 5 & 7 & 8 & 2 & & 2 & 8 & 6 & 4 & 1 \end{matrix}$
Similarly, $\begin{matrix} \text{A} & \text{R} & \text{R} & \text{A} & \text{N} & \text{G} & \text{E} \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 8 & 2 & 2 & 8 & 6 & 4 & 1 \end{matrix}$

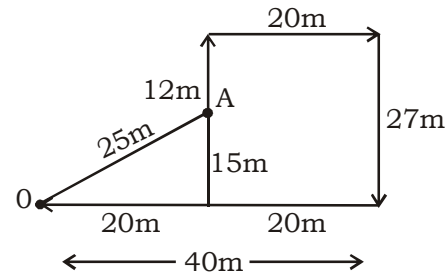
14. (B) $256 \times 24 + 6 - 10$

After changing the signs as per the given details,

$$256 \div 24 \times 6 + 10 = \frac{256}{24} \times 6 + 10$$

$$= 64 + 10 = 74$$

15. (C)



Required distance = $\sqrt{15^2 + 20^2}$

$$= \sqrt{225 + 400}$$

$$= 25 \text{ m}$$

16. (A) $12^2 + 15^2 - 13^2 = 144 + 225 - 169 = 200$

$16^2 + 18^2 - 10^2 = 256 + 324 - 100 = 480$

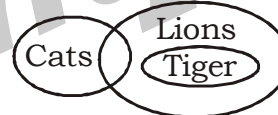
$9^2 + 6^2 - 8^2 = 81 + 36 - 64 = 53$

17. (D) $21 + 9 \times 2 = 39$

$18 + 6 \times 2 = 30$

$15 + 4 \times 2 = 23$

18. (B) **I. False II. True**



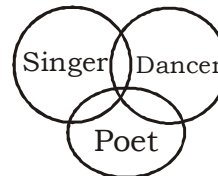
Hence, only conclusion II follows.

19. (D) 22 triangles

20. (C) $\text{efgh}/\text{efgh}/\text{efgh}$

21. (A)

22. (B)



23. (B)

24. (C)

25. (D) I N S E R T
11 66 23 87 10 78

26. (B) In 1712 Innovative steam engines produced by Thomas Newcomen and developed by James Watt powered Britain to prominence as the first industrial country in the world. The invention of the steam engine was crucial to the industrialization of modern civilization.

27. (A) The Indian National Army (INA; Azad Hind Fauj) was an armed force formed by Indian nationalists in 1942 in Japan

- during World War II. Its aim was to secure Indian independence from British rule. The army was first formed in 1942 under Mohan Singh.
28. (C) Ministries of Power and Textiles union ministries have jointly launched a new scheme "SAATHI". Under this initiative, Energy Efficiency Services Limited (EESL), a public sector entity under the administrative control of Ministry of Power, would procure energy efficient Power looms, motors and Rapier kits in bulk and provide them to the small and medium Powerloom units at no upfront cost.
29. (D) Ctrl + Esc: Open the Start menu. (Instead, you could use the Windows key.)
- Alt+Enter: Show properties on currently selected object, full screen for command based windows.
 - Alt+F4: Closes the application
 - Ctrl+Shift+Esc: Opens the task manager
30. (D) Patkai Hills, Indian Mountain Range The patkai hills are situated on India's north-eastern border with Burma. The Indian states along the Patkai range comprise of Assam, Manipur, Meghalaya, Mizoram and Nagaland. Patkai includes three hills namely the Patkai-Bum, the Garo-Khasi-Jaintia, and the Lushai Hills.
31. (C) The flightless ostrich is the world's largest bird. Ostriches have three stomachs. Unlike all other living birds, the ostrich secretes urine separately from faeces. Ostriches are the fast runners of any birds or other two-legged animal and can sprint at over 70 km/hr., covering up to 5m in a single stride.
32. (C) The Virupaksha Temple in Hampi is dedicated to lord Shiva. It is located in Hampi 350 km from Bangalore, in the state of Karnataka in southern India. It is part of the Group of Monuments at Hampi, designated a UNESCO World Heritage Site.
34. (C) Sarojini Naidu known as "The Nightingale of India" because of her mesmerizing poetry. Her works, rich in imagery, covered a variety of themes - love, death, separation among others. Most of her poems have lines repeated across stanzas.
35. (A) In 1885, a German mechanical engineer named Karl Benz designed and built the world's first practical automobile powered by an internal-combustion engine.
37. (B) Phalacrocoracidae is a family of some 40 species of aquatic birds commonly known as cormorants and shags. Cormorants are generally gregarious, nesting in colonies, gathering in flocks and often also hunting together in groups, which sometimes number up to 4,000 birds.
38. (C) Seismic wave, vibration generated by an earthquake, explosion, or similar energetic source and propagated within the Earth or along its surface. Earthquakes generate four principal types of elastic waves; two, known as body waves, travel within the Earth, whereas the other two, called surface waves, travel along its surface.
40. (D) Smiling Buddha was the assigned code name of India's first successful nuclear bomb test on 18 May 1974. The bomb was detonated on the army base, Pokhran Test Range (PTR), in Rajasthan by the Indian Army under the supervision of several key Indian generals.
43. (D) Java Trench, also Known as Sunda Double Trench, deep submarine depression in the eastern Indian Ocean that extends some 2,000 miles (3,200 km) in a northwest-southeast arc along the south western and southern Indonesian archipelago.
44. (C) Cash Reserve Ratio (CRR): It is the percentage of cash deposits that banks need to keep with the Reserve Bank of India on a fortnightly basis. Presently the CRR is 4% that is, for every Rs 100 deposited in the bank; bank will need to deposit Rs 4 with RBI. So It has Rs 96 to lend.
46. (B) GST (Goods and Services Tax) is the biggest indirect tax reform of India. GST is a single tax on the supply of goods and services. It is a destination based tax. GST has subsumed taxes like Central Excise Law, Service Tax Law, VAT, Entry Tax, Octroi, etc.
47. (A) A market-clearing price is the price of a good or service at which quantity supplied is equal to quantity demanded, also called the equilibrium price. The theory claims that markets tend to move toward this price.
49. (B) Smog is a problem in a number of cities and continues to harm human health. Ground-level ozone, sulfur dioxide, nitrogen dioxide carbon monoxide are especially harmful for senior citizens, children, and people with heart and lung conditions such as emphysema, bronchitis, and asthma.

51. (B) If we take one number is 1 and other number should be anything else then we find-

$$(1,2) \Rightarrow 1 \times 2 = 2$$

$$1 + 2 = 3$$

$$(1,3) \Rightarrow 1 \times 3 = 3$$

$$1 + 3 = 4$$

$$(1,5) \Rightarrow 1 \times 5 = 5$$

$$1 + 5 = 6$$

So, one of the numbers must be 1.

52.(B) Let rate and quantity of petrol ₹100/litre and 100 litre respectively.

So, Rate \times Quantity = Consumption

$$+25\% \left(\begin{array}{l} 100 \\ \downarrow \\ 125 \end{array} \times \begin{array}{l} 100 \\ \downarrow \\ x \text{ (let)} \end{array} = 10000 \right) +15\%$$

$$\text{Now, } x = \frac{11500}{125}$$

$\Rightarrow x = 92$ litres
Percentage change in quantity of petrol

$$= \frac{100 - 92}{100} \times 100\% = 8\%$$

53.(D) Let the length of the race be 'd'
When B finished the race. A & C would have run (d - 36) and (d - 24) metres.

So, speed of A and C in ratio

$$= (d - 36) : (d - 24) \text{ -----(1)}$$

Now, when C finished the race, 'A' would have run (d - 16)

$$A : C = (d - 16) : d \text{ -----(2)}$$

from (1) & (2) we get,

$$\frac{d - 36}{d - 24} = \frac{d - 16}{d}$$

$$\Rightarrow d^2 - 36d = d^2 - 40d + 384$$

$$\Rightarrow 4d = 384$$

$$\Rightarrow d = 96 \text{ m}$$

54.(A) $(\operatorname{cosec} \theta + \sin \theta)(\operatorname{cosec} \theta - \sin \theta)$

$$= \operatorname{cosec}^2 \theta - \sin^2 \theta$$

$$= 1 + \cot^2 \theta - (1 - \cos^2 \theta)$$

$$= 1 + \cot^2 \theta - 1 + \cos^2 \theta$$

$$= \cot^2 \theta + \cos^2 \theta$$

55.(D) $1 : \frac{1}{3} : \frac{1}{6} = 6 : 2 : 1$

According to question,

$$9 \text{ unit} \rightarrow 729$$

$$1 \text{ unit} \rightarrow 81$$

$$\therefore \text{Middle part} = 2 \times 81 = 162$$

56.(B) Given,

$$x = 5 - 2\sqrt{6}$$

$$\Rightarrow x - 5 = -2\sqrt{6}$$

$$\Rightarrow (x - 5)^2 = (-2\sqrt{6})^2$$

$$\Rightarrow x^2 + 25 - 10x = 24$$

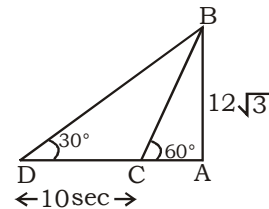
$$\Rightarrow x + \frac{1}{x} = 10$$

$$\Rightarrow x + \frac{1}{x} + 2 = 10 + 2$$

$$\Rightarrow \left(\sqrt{x} + \frac{1}{\sqrt{x}} \right)^2 = 12$$

$$\Rightarrow \sqrt{x} + \frac{1}{\sqrt{x}} = 2\sqrt{3}$$

57.(C)



Let AB is a tower of height $12\sqrt{3}$ m.

In $\triangle BCA$ - $AB : CA = \sqrt{3} : 1$

In $\triangle ADB$ - $AB : AD = 1 : \sqrt{3}$

So, $AB : CA : AD$

$$\sqrt{3} : 1 : 3$$

So, $DC = 3 - 1 = 2$ units

$\therefore DC = 2$ units distance covers in 10 sec

So, $AD = 3$ units distance covers in $= \frac{10}{2} \times 3 = 15$ sec

58.(A) Percentage of candidates who passed in the examination = $(72 + 75 - 60)\% = 87\%$

Then, percentage of candidates who failed in examination = $(100 - 87)\% = 13\%$

ATQ,

$$13\% \rightarrow 5200$$

$$1\% \rightarrow 400$$

Then, total number of candidates,
= 100%
= 400×100
= 40000

59.(C) C.P. of 1 pen = $\frac{1}{8}$

$$\text{S.P.} = \frac{1}{8} \times \frac{160}{100}$$

$$\text{S.P (1pen)} = \frac{1}{5} \text{ /-}$$

\therefore Number of pen sold in 1 rupee = 5

60. (C) Area of a square playground = 992.25 m²

$$\Rightarrow (\text{side of ground})^2 = 992.25$$

$$\Rightarrow \text{Side} = 31.5 \text{ m}$$

Perimeter of this playground
= $4 \times 31.5 \text{ m}$
= 126m

Time to walk one round around the ground

$$= \frac{126}{29/10} = \frac{126 \times 10}{29} = 43.45 \text{ min}$$

61. (D) Work done by A and B together in 5 days

$$= \frac{5}{12} \text{ part}$$

$$\text{Rest work} = 1 - \frac{5}{12} = \frac{7}{12}$$

$$\frac{7}{12} \text{ work by A in 21 days}$$

$$\text{A will do the whole work in} = \frac{21 \times 12}{7} = 36 \text{ days}$$

62. (C) In an equilateral triangle, the ratio of inradius and Circumradius is 1 : 2

63. (B) Let second discount is $x\%$.
According to question,

$$1800 \times \frac{(100 - 15)}{100} \times \frac{(100 - x)}{100} = 1178.1$$

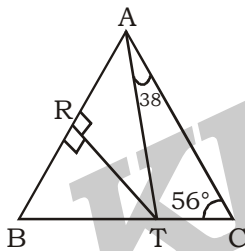
$$\Rightarrow 100 - x = \frac{117810}{18 \times 85}$$

$$\Rightarrow 100 - x = 77$$

$$\Rightarrow x = 100 - 77$$

$$\Rightarrow x = 23\%$$

64. (A)



We know that the sum of two interior angles is equal to the other external angle.

$$\text{So, } \angle ATB = 56^\circ + 38^\circ = 94^\circ$$

In $\triangle ABT$,

RT is perpendicular bisector of AB. So, $\triangle ABT$ is an isosceles triangle.

$$\text{So, } \angle BTR = \frac{94^\circ}{2} = 47^\circ$$

In $\triangle BRT$, $\angle BRT = 90^\circ$

$$\text{So, } \angle ABT = 90^\circ - 47^\circ = 43^\circ$$

65. (B) Let average runs till 14 innings be x .

According to question,

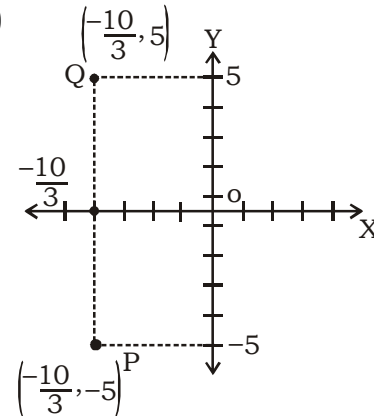
$$14x + 126 = 15(x + 6)$$

$$\Rightarrow 14x + 126 = 90 + 15x$$

$$\Rightarrow x = 36$$

$$\text{Average after 15th innings} = 36 + 6 = 42$$

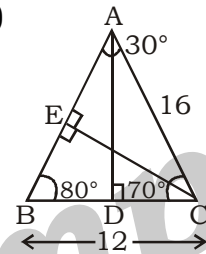
66. (C)



Reflection of the point $P \left(-\frac{10}{3}, -5 \right)$

is $Q \left(-\frac{10}{3}, 5 \right)$

67. (D)



In given triangle, we find $\angle A = 180^\circ - (80^\circ + 70^\circ)$

$$\Rightarrow \angle A = 30^\circ$$

We draw a perpendicular EC to side AB.

$$\text{Now, in } \triangle EAC, \cos 30^\circ = \frac{AE}{AC}$$

$$\Rightarrow \frac{\sqrt{3}}{2} = \frac{AE}{16}$$

$$\Rightarrow AE = 8\sqrt{3} \text{ cm}$$

$$\text{And again, } \sin 30^\circ = \frac{EC}{AC}$$

$$\Rightarrow \frac{1}{2} = \frac{EC}{16}$$

$$\Rightarrow EC = 8 \text{ cm}$$

Now, In $\triangle BEC$, $BE^2 = BC^2 - EC^2$

$$\Rightarrow BE^2 = 12^2 - 8^2$$

$$\Rightarrow BE = 4\sqrt{5} \text{ cm}$$

$$\text{So, } AB = (8\sqrt{3} + 4\sqrt{5}) \text{ cm}$$

$$\text{Area of } \triangle ABC = \frac{1}{2} \times AB \times EC \text{ -----(1)}$$

$$\text{And Area of } \triangle ABC = \frac{1}{2} \times BC \times AD \text{ -----(2)}$$

From (1) and (2), we get

$$AB \times EC = BC \times AD$$

$$\Rightarrow (8\sqrt{3} + 4\sqrt{5}) \times 8 = 12 \times AD$$

$$\Rightarrow AD = \frac{2 \times 4(2\sqrt{3} + \sqrt{5})}{3}$$

$$\Rightarrow AD = \frac{8}{3}(2\sqrt{3} + \sqrt{5}) \text{ cm}$$

68. (D) Given that

$$\tan \theta = \frac{9}{40}$$

$$\text{Hypotenuse} = \sqrt{\text{Base}^2 + \text{height}^2}$$

$$= \sqrt{9^2 + 40^2}$$

$$= 41$$

$$\therefore \sec \theta = \frac{41}{40}$$

69. (C) Amount after 2nd year and 3rd year is ₹1650 and ₹1815.

$$\begin{aligned} \text{Interest when amount ₹1650 to ₹1815} \\ &= 1815 - 1650 \\ &= ₹165 \end{aligned}$$

$$\begin{aligned} \therefore \text{Rate of interest} &= \frac{165}{1650} \times 100\% \\ &= 10\% \text{ (per annum)} \end{aligned}$$

70. (A) Let the two number be $5x$ and $5y$.

$$\text{Then, LCM, } 5xy = 100$$

$$\Rightarrow xy = 20$$

$$\text{ATQ, } 5x + 5y = 45$$

$$x + y = 9$$

$$\text{So, we take } x = 5, y = 4$$

we get numbers are 25 and 20

$$\text{Their difference} = 25 - 20 = 5$$

71. (B) Given expression

$$x^2 + \frac{1}{x^2} - 11$$

$$= x^2 + \frac{1}{x^2} - 2 - 9$$

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

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

So, The difference between these two

$$\text{Factors} = x - \frac{1}{x} + 3 - \left(x - \frac{1}{x}\right) + 3 = 6$$

72. (C) Marks obtain by student 1 in all subjects

$$= 82 + 95 + 91 + 80$$

$$= 348$$

Marks by student 2 in all subjects

$$= 73 + 98 + 93 + 88$$

$$= 352$$

Marks by student 3 in all subjects

$$= 90 + 99 + 99 + 93$$

$$= 381$$

Marks by student 4 in all subjects

$$= 63 + 90 + 95 + 94$$

$$= 342$$

So, Maximum marks obtain by student 3.

73. (C) Average marks in Hindi

$$= \frac{80 + 88 + 93 + 94 + 86}{5}$$

$$= 88.2$$

Average marks in Science

$$= \frac{91 + 93 + 99 + 95 + 90}{5}$$

$$= 93.6$$

$$\therefore \text{Required percentage} = \frac{88.2}{93.6} \times 100\%$$

$$= 94.23\%$$

74. (D) Marks by all students in Hindi

$$= 80 + 88 + 93 + 94 + 86$$

$$= 441$$

Marks by all students in Science

$$= 91 + 93 + 99 + 95 + 90$$

$$= 468$$

Marks by all students in Maths

$$= 95 + 98 + 99 + 90 + 91$$

$$= 473$$

Marks by all students in English

$$= 82 + 73 + 90 + 63 + 84$$

$$= 392$$

So, the Marks of all students in English is minimum.

$$75. (B) \text{ Required percentage} = \frac{90 - 80}{80} \times 100\%$$

$$= \frac{100}{8} \% = 12\frac{1}{2} \%$$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Abnegate	Renounce or reject (something desired or valuable)	त्याग करना
Aristocrat	One believed to be superior of its kind	कुलीन पुरुष
Cite	To mention	उल्लेख करना
Eject	To throw out	निकाल फेंकना
Elegance	The quality of being graceful and stylish in appearance	रमणीयता
Evict	To force out, expel	स्थान से निकाल देना
Gambit	A calculated move, stratagem	चाल
Inquisitive	Having or showing an interest in learning things, curious	जिज्ञासु
Intransigent	Refusal to change one's views or to agree about something	कट्टरता
Magnate	A wealthy and influential business person	प्रभवशाली व्यवसायी
Nimble	Quick and light in movement or action, agile	फुर्तीला
Nonentity	A person or thing with no special or interesting qualities	तुच्छ व्यक्ति
Ruse	A wily subterfuge	चाल
Snoop	A furtive investigation	जासूसी करना
Tizzy	A state of nervous excitement or agitation	घबराहट
Tycoon	A business person of exceptional wealth, power, and influence	शक्तिशाली उद्योगपति

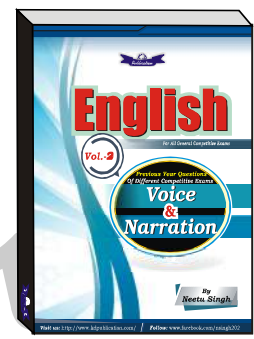
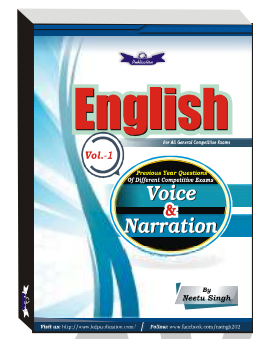
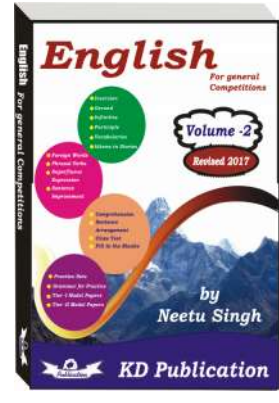
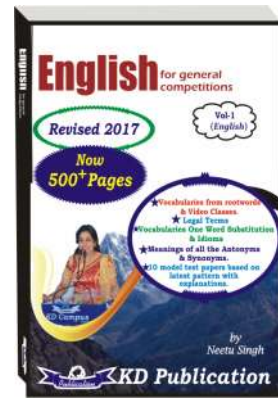


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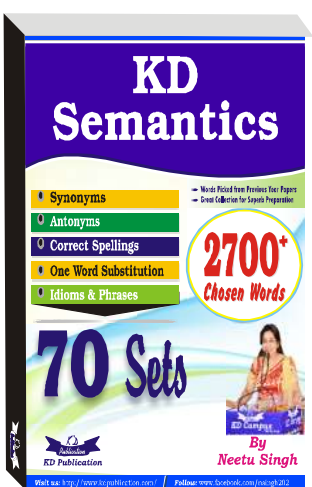
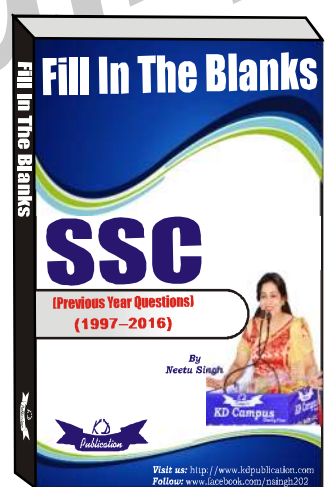
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SSC MOCK TEST - 139 (ANSWER KEY)

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



- 84. (B) 'Take someone at his or her word' means 'to accept what someone says on trust'.
- 85. (A) Adjective is used to qualify a 'noun'. Hence change 'delaying' into 'delay'. Delay is a noun that is qualified by adjective 'inordinate'.
- 86. (A) Change 'students' into student as 'no' is singular
- 87. (B) 'Beauty' can be both adjective and noun. But when it means the quality that makes someone beautiful, it is adjective and hence cannot come in plural form.



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