SSC MOCK TEST – 176 (SOLUTION)

1. (A) As, $4^3 + 4^2 = 64 + 16 = 80$
   Similarly, $5^3 + 5^2 = 125 + 25 = $ **150**

2. (C) As, L M N   O R S
   +5, +5, +5
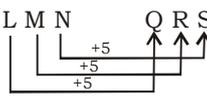
   Similarly, B C D   **G H I**
   +5, +5, +5
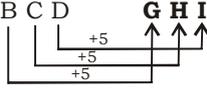
3. (D) As, Moon is a Satellite
   Similarly, Earth is a **planet**

4. (C) Except **297,** all number are product of two prime numbers.
   **297 = 11×27 = 11×3×3×3**
   143 = 11×13
   221 = 13×17
   391 = 17×23

5. (D) H $\xrightarrow[\text{I (vowel)}]{+2}$ J

   D $\xrightarrow[\text{E (vowel)}]{+2}$ F

   N $\xrightarrow[\text{O (vowel)}]{+2}$ P

   R $\xrightarrow[\text{S (consonant)}]{+2}$ T

6. (D) Except **arrow**, others are used while holding in hand.

7. (D) Subtle $\rightarrow$ Sucres $\rightarrow$ Sudoku $\rightarrow$ Sugery $\rightarrow$ Sullen

8. (C) $7^2 - 7 = 42$
   $6^2 - 6 = 30$
   $5^2 - 5 = 20$
   $4^2 - 4 = 12$
   $3^2 - 3 = 36$
   $2^2 - 2 = 2$
   $1^2 - 1 = 0$
   $0^2 - 0 = 0$

9. (C) B $\xrightarrow{+2}$ D $\xrightarrow{+3}$ G $\xrightarrow{+5}$ L $\xrightarrow{+7}$ S $\xrightarrow{+11}$ **D**

10. (B)
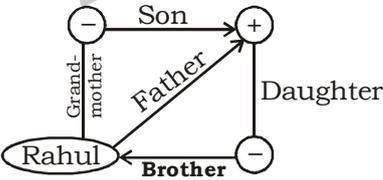
    ∴ Rahul is brother of the girl in the photograph.

11. (B) ATQ,
    Q > P > T   and   S > Q > R
    Combining Both inequality, we get
    S > Q > P > T and S > R
    ∴ **S** is fastest among them.

12. (D) **MONITOR**

13. (C) As, M A D R A S and T E N A N T
    5 1 7 9 1 6   4 3 2 1 2 4
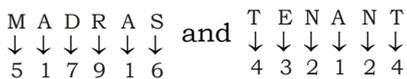
    Similarly, R M A T S N
    9 5 1 4 6 2

14. (A) $13 ÷ 27 + 3 × 5 – 2$
    After changing the signs as per given details,
    $13 + 27 ÷ 3 – 5 × 2$
    $= 13 + 9 – 10 = 22 – 10 = $ **12**

15. (A) As, $2314 = (2×3) + (1×4) = 6 + 4 = 10$
    and, $1754 = (1×7) + (5×4) = 7 + 20 = 27$
    Similarly,
    $7234 = (7 × 2) + (3 × 4) = 14 + 12 = $ **26**

16. (C) As, $(3)^2 + (2)^3 = 9 + 8 = 17$
    and, $(2)^2 + (3)^3 = 4 + 27 = 31$
    Similarly, $(3)^2 + (4)^3 = 9 + 64 = $ **73**

17. (C) Number of triangles = 10 + 4 + 2 + 2 = 18
    Small triangles (1unit) = 10 triangles
    Combination of 4 small triangles = 4 triangles
    Combination of 2 small triangles & one parallelogram = 2 triangles
    Combination of 7 small triangles & one parallelogram = 2 triangles.

18. (C)
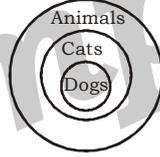
    Conclusion – **I.** ✔
    Conclusion – **II.** ✔
    ∴ Both **condusion I and conclusion II** follow.

19. (B)

3	2	1
6	5	4

    opposite

    ∴ **Two** dots are present on the face opposite to the face having five dots.

20. (D) Tiger & Lions both are animals.

21. (D)
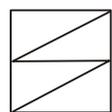
22. (B)

23. (A)

24. (C)
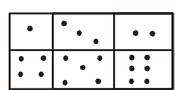
    ∴ **"Six"** dots are present on the face opposite to the face having two dots.

25. (D) **D**   **R**   **E**   **A**   **M**
    ↓   ↓   ↓   ↓   ↓
    11, 22, 04, 13, 23

26. (C) NITI Aayog has launched 'AI 4 All Global Hackathon' to develop AI (Artificial Intelligence) Applications to make positive social and economic impact in India, in partnership with a Singapore based AI startup named Perlin. NITI Aayog is inviting developers, students, start-ups and companies to participate in the Hackathon. This Hackathon is a part of National AI Strategy which has a vision to expand the idea of "Artificial Intelligence, AI for All".

27. (A) On December 10, 2018, Kazakhstan opened consulate, under the leadership of the managing director of Chandan Steel Limited, Dilip Chandan, in Gujarat to further business partnership. The consulate was inaugurated on the eve of the 27th Anniversary of the Independence Day of the Republic of Kazakhstan. It would help in enhancing development of mutually beneficial cooperation between Kazakhstan and India in the fields of IT industry, engineering, tourism and transport and logistics infrastructure, as well as agriculture.

28. (C) On December 10, 2018, 11-day long AVIAINDRA 2018, the 2nd edition of exercise between Indian Air Force (IAF) and Russian Federation Aerospace Force (RFSAF), commenced at Air Force Station Jodhpur. It would conclude on 21 December 2018. The exercise would be conducted in 2 phases and is unique in nature, wherein the foreign participant does not bring its air assets. The inaugural IAF-RFSAF Ex AVIAINDRA was conducted in 2014.

29. (A) On December 9, 2018, Arunachal Pradesh got Shi Yomi as its 23rd district after its inauguration by Chief Minister Pema Khandu in presence of Union Minister of State for Home Kiren Rijiju. The district, consisting of four circles - Mechuka, Pidi, Tato and Monigong - was carved out of West Siang district. This including two other districts- Pakke-Kesang, Lepa Rada- was created after the approval of District Re-Organisation Bill, 2018 on August 29, 2018. The Pakke-Kessang district was carved out of East Kameng district with five administrative units namely Pakke-Kessang, Seijosa, Pijiriang, Passa Valley and Dissing Passo with district headquarters at Lemmi. Lepa Rada was created by bifurcating the Lower Siang district with headquarters at Basar with four administrative units - Tirbin, Basar, Daring and Sago.

30. (B) On 10th December 2018, Tamil Nadu Government launched a 24-hour toll free helpline number 181 for women facing domestic violence and sexual harassment to get assistance ranging from police help, legal aid or medical services including ambulance. The Service developed at a cost of 62.70 lakh will be available round-the-clock on all days of the week and women can also get information about the welfare schemes aimed at their benefit.

31. (A) On 9th December 2018, The Central Board of Secondary Education, (CBSE), conducted the largest ever Central Teacher Eligibility Test (CTET) at 2144 centres in 92 cities across the country. As many as 16,91,088 teaching job aspirants took the Central Teacher Eligibility Test (CTET). Among them the number of female candidates were 9,78,818 while male candidates numbered 7,12,071. 199 transgender candidates also participated in the 11th edition of the teacher eligibility test while 33,107 differently abled candidates called their applications for the exam this year. This year onwards, the score cards and CTET certificate will be given to the candidates in a digital format. CBSE will create DigiLocker accounts of the candidates and digitally signed certificates will be legally valid as per the IT Act. The mark sheets and certificates will contain encrypted QR code and can be downloaded using the login credentials that will be sent by the board.

32. (C) On December 8, 2018, Indian Railways' catering and tourism arm IRCTC announced the launch of the Buddhist Circuit Tourist Train. The Tourist Circuit will consist of destinations including: Delhi, Bodhgaya, Nalanda/Rajgir, Varanasi/Sarnath, Lumbini, Kushinagar, Sravasti and Agra. According to the IRCTC website, the train will depart on December 8 and December 22 completing a 16-day tour. Portal for booking of tickets are: https://www.irctcbuddhisttrain.com/. Earlier, Indian Railways launched another tourist circuit train called the Shri Ramayana Express.

33. (A) On 10th December 2018, A United Nations Conference in Moroccan city of Marrakesh adopted a global pact "The Global compact for Safe, Orderly and Regular Migration" to better handle migrant flows despite a string of withdrawals driven by anti-immigrant populism. The pact is described as a "Roadmap to prevent suffering and chaos" by UN Secretary General Antonio Guterres.

34. (C) On 5th December 2018, the Reserve Bank of India (RBI) said that it will implement an 'Ombudsman Scheme for Digital Transactions' covering services provided by entities falling under Reserve Banks regulatory jurisdiction. The scheme will be notified by the end of January 2019. The ombudsman scheme will provide cost-

free mechanism to redress grievances of customers related to digital transactions to strengthen consumer confidence. In another customer protection initiative, the RBI has issued instructions on limiting customer liability in respect of unauthorized electronic transactions involving banks and credit card issuing non-banking financial companies (NBFCs) and will very soon work out a frame work for the same purpose involving transactions of prepaid payment instruments PPIs like mobile wallets.

35. (B) On December 9, 2018, Prathamesh Maulingkar from Goa, dubbed as Mr. India, became the first Asian/Indian to win 2018 Mister Supranational title after contesting 37 candidates in the 3rd edition of the competition held in Krynica-Zdroj, Poland. He was followed by Mr. Poland at 2nd position and Mr. Brazil at 3rd position. Mr. Brazil was also crowned with Mr Popularity sash.

36. (D) Country-India, Bangladesh
Length-2,525 km
Discharge location-Bay of Bengal
Tributaries
left-Ramganga, Gomti, Karnali, Gandaki, Koshi, Mahananda
right-Yamuna, Tamsa, Son, Punpun, Tons

37. (D) The Kosi was also called Kausika in Rigveda, Nepal and Bihar in northern India. It is a major tributary of the Ganges. One major tributary of the Kosi is the Arun, much of whose course is in Tibet. This river is mentioned in the epic 'Mahabharata' as Kausiki.
The Kosi River is known as the "Sorrow of Bihar" as the annual floods affect about 21,000 km^2 of fertile agricultural lands thereby disturbing the rural economy.

38. (B) The Jog water falls created by the Sharavathi river in Sharavathi valley of Shimoga district in Karnataka. Its breathtaking spectacle when Sharavathi river falling from a height of 829 ft. It is the most impressive and one of the highest plunge waterfalls in India.

39. (C) Laterite is a soil and rock type rich in iron and aluminium, and is commonly considered to have formed in hot and wet tropical areas. Nearly all laterites are of rusty-red coloration, because of high iron oxide content. They develop by intensive and prolonged weathering of the underlying parent rock.

40. (B) By 1500 BCE the Aryans migrated into the Indian subcontinent. Coming from central Asia, this large group of nomadic cattle herders crossed the Hindu Kush Mountains and came in contact with the Indus Valley Civilization.

41. (A) The Rigveda is an ancient Indian collection of Vedic Sanskrit hymns along with associated commentaries on liturgy, ritual and mystical exegesis. It is one of the four sacred canonical texts of Hinduism known as the Vedas.
There are 1000 hymns in the Rigveda, most of them dedicated to specific deities. Indra, a heroic god, slayer of Vritra and destroyer of the Vala, liberator of the cows and the rivers; Agni the sacrificial fire and messenger of the gods; and Soma, the ritual drink dedicated to Indra, are the most prominent deities.

42. (B) From 1858, after the demise of the East India Company's rule in India, the British civil service took on its administrative responsibilities. The change in governance came about due to the Indian Rebellion of 1857, which came close to toppling British rule in the country.
Satyendranath was selected for the Indian Civil Service in June, 1863. He completed his probationary training and returned to India in November 1864.
From 1922 Onwards, ICS exam began to be held in India. The Royal Commission of the Superior Civil Service in India under the Chairmanship of Lord Lee, in its 1924 Report, recommended setting up of Public Service Commission of India.

43. (A) On 8 August 1940, early in the Battle of Britain, the Viceroy of India, Lord Linlithgow, made the so-called "August Offer", a fresh proposal promising the expansion of the Executive Council to include more Indians, the establishment of an advisory war council, giving full weight to minority opinion, and the recognition of Indians' right to frame their own constitution (after the end of the war). In return, it was hoped that all parties and communities in India would cooperate in Britain's war effort.

44. (D) The Father of Economics, Adam Smith was an 18th-century philosopher renowned as the father of modern economics, and a major proponent of laissez-faire economic policies.

45. (D) The theory of distribution is that incomes are earned in the production of goods and services and that the value of the productive factor reflects its contribution to the total product. Distribution refers to the way total output, income, or wealth is distributed among individuals or among the factors of production such as labour, land, and capital. In general theory and the national income and product accounts, each unit of output corresponds to a unit of income. It is the systematic attempt to account for the sharing of the national income among the owners of the factors of production i.e., land, labour, and capital. Economists have studied how the costs of these factors i.e., rent, wages, and profits and the size of their return are fixed.

46. **(C)** Laissez-faire is an economic system in which transactions between private parties are free from government intervention such as regulation, privileges, tariffs and subsidies. The phrase laissez-faire is part of a larger French phrase and translates to "let do", but in this context usually means "let go".

47. **(D)** In nuclear physics, nuclear fusion is a reaction in which two or more atomic nuclei are combined to form one or more different atomic nuclei and subatomic particles (neutrons or protons). The difference in mass between the reactants and products is manifested as either the release or absorption of energy.

48. **(B)** The six common air pollutants are:
   • Particle Pollution (particulate matter)
   • Ground-level ozone
   • Carbon monoxide
   • Sulfur oxides
   • Nitrogen oxides
   • Lead

49. **(D)** Sodium bicarbonate, commonly known as baking soda, is a chemical compound with the formula $NaHCO_3$. It is a salt composed of a sodium cation and a bicarbonate anion. Sodium bicarbonate is a white solid that is crystalline, but often appears as a fine powder.

50. **(A)** Computer-aided design is the use of computer systems to aid in the creation, modification, analysis, or of a design. CAD software is used to increase the productivity of the designer, improve the quality of design, improve communications through documentation, and to create a database for manufacturing.

51. **(C)** $\left[\left(999\dfrac{995}{999}\times999\right)\right]^2$

   $=\left[\left(999\dfrac{995}{999}\right)\times999\right]^2$

   $=\left[\left(1000-1+\dfrac{995}{999}\right)\times999\right]^2$

   $=\left[999000-999+995\right]^2$

   unit digit is **6**

52. **(A)** $\sqrt{2}$, $\sqrt[3]{3}$, $\sqrt[4]{5}$, $\sqrt[3]{2}$

   $2^{1/2}$ $3^{1/3}$ $5^{1/4}$ $2^{1/3}$

   $\sqrt[12]{2^6}$ $\sqrt[12]{3^4}$ $\sqrt[12]{5^3}$ $\sqrt[12]{2^4}$

   $\sqrt[12]{64}$ $\sqrt[12]{81}$ $\mathbf{\sqrt[12]{125}}$ $\sqrt[12]{16}$

   $\sqrt[4]{5}$ is greatest

53. **(B)** $2P+\dfrac{1}{P}=4$

   $\Rightarrow P+\dfrac{1}{2P}=2$

   Taking cube both sides,

   $P^3+\dfrac{1}{8P^3}=8-\dfrac{3}{2}\times2=8-3=\mathbf{5}$

54. **(A)** $\dfrac{1}{(a+b)(b+c)}+\dfrac{1}{(b+c)(c+a)}+\dfrac{1}{(c+a)(a+b)}$

   $=\dfrac{(c+b)+(a+b)+(b+a)}{(a+b)(b+c)(c+a)}=\dfrac{2(c+b+a)}{(a+b)(b+c)(c+a)}$

   $=\dfrac{2\times0}{(a+b)(b+c)(c+a)}=0$

55. **(C)** $\tan2\theta.\tan3\theta=1$

   $\therefore$ $(2\theta+3\theta)=90°$

   $\Rightarrow$ $5\theta=90°\Rightarrow\theta=18°$

   $\therefore$ $2\cos^2\dfrac{5\times18°}{2}-1=2\cos^245°-1$

   $=1-1=\mathbf{0}$

   {tan A tan B - 1 the (A + B = 90)}

56. **(C)** Put $\theta=45°$ $\sin\theta+\cos\theta$

   $\sin45°+\cos45°$

   $=\dfrac{1}{\sqrt2}+\dfrac{1}{\sqrt2}=\dfrac{2}{\sqrt2}=\mathbf{\sqrt2}$

57. **(D)** In ΔABD,

   $\angle BDA=180°-(\angle A+\angle B)$

   $=180°-(60°+90°)=30°$

   $\angle CAD=\angle BDA=30°$

   $\therefore$ **CA = CD**

58. **(C)**
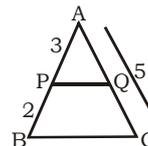
   $\dfrac{AP}{AB}=\dfrac{3}{5}$

   $\therefore$ $\dfrac{\text{Area of }\Delta APQ}{\text{Area of }\Delta ABC}=\dfrac{AP^2}{AB^2}=\mathbf{\dfrac{9}{25}}$

59. **(A)** ABC D is quadrilateral
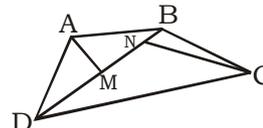
   BD = 24m, AM = 8m, CN = 13m

   Area of $\square ABCD$ = Area of (ΔABD) + Area of $\Delta(BCD)$

   $=\dfrac{1}{2}BD\times AM+\dfrac{1}{2}BD\times CN$

   $=\dfrac{1}{2}BD(AM+CN)$

   $=\dfrac{1}{2}\times24\times(8+13)=\mathbf{252m^2}$

60. (D)

r_1 = 11 cm
r_2 = 6 cm
length of common tangent

PQ = $\sqrt{AB^2 - (r_1 - r_2)^2}$

= $\sqrt{169 - (11-6)^2}$ = $\sqrt{144}$ = 12 cm

⇒ **PQ = 12cm**

61. (A)

ATQ.,
1unit → 50m

∴ ($\sqrt{3}$ +1) units = 50 ($\sqrt{3}$ +1)m = 136.6 m.

∴ Required distance = **136.6m**

62. (A) $16\dfrac{2}{3} = \dfrac{1}{6}$

R   S
5   6

∴ Required percentage = $\dfrac{(6-5)}{5}$ × 100

= 20

63. (B) Let number = 100

100 → 115
        ↓ −25%
−13.75 → 86.25

ATQ.,
13.75 units = 22

⇒ 100 units = $\dfrac{22}{13.75}$ × 100

= 160

∴ Required number = **160**

64. (B) 6SP = 8CP

⇒ $\dfrac{CP}{SP}$ = $\dfrac{3}{4}$

Now, profit = $\dfrac{1}{3}$ × 100 = **33.33%**

65. (C)

CP = 100
92   108

ATQ.,
16 units = 28

⇒ 100 units = $\dfrac{28}{16}$ × 100 = **175**

66. (B) Total age increment → 42 × 2 month = 84 month or 7 years

∴ Age of new student = 10 + 7 = 17 years.

67. (D)

	A	W	
A	2	1	3×5
B	3	2	5×3

Now,

	A : W
A	10 : 5
B	9 : 6
Mixture	19 : 11

∴ Required Ratio = **19 : 11**

68. (C)

P   5182   5832
  2 years   3years

S.I. of 1 year = 5832 – 5182 = ₹ 650
S.I. of 2 years = 2 × 650 = ₹ 1300

∴ Required principal = 5182 – 1300

= ₹ **3882**

69. (C)

	A	B
Eff.	4	5
Time	5	4
	↓×2	↓×2
	10	8

∴ Required time = **8 days**

70. (D) Circumference = $2\pi r$

$2\pi r$ = 2 × $\dfrac{22}{7}$ × 42 = 264 cm

∴ Required distance = 264 × 5
= 1320 cm/sec.

71. (C) Required volume = $\dfrac{8 \times 4 \times 4000}{60}$ × 15

= **32000 m³**

72. (B) Required number of people

= $\dfrac{(20 - 6.7) \times 20000}{100}$

= 2660

73. (B) $\dfrac{\text{Service Sector}}{\text{Industry}}$ = $\dfrac{20}{30}$ **= 2 : 3**

74. (C) Required angle $\dfrac{20}{100} \times 360$ = **72°**

75. (D) Required difference = $\dfrac{(33.30 - 6.70) \times 20000}{100}$

= 5320

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Pitched	intensely fought	तीव्र लड़ना
Heated	marked by anger	क्रोध से चिहिनत
Peaked	to appear pale or wan	निर्बल
Ruddy	to have a healthy complexion, to be healthy	स्वस्थ, तदरूस्त
Stentorian	loud; usually used to imply a voice of great power and range	बहुत ऊंची और जोरदार आवाज
Quixotic	foolishly impractical	विलक्षण
Staid	sedate and marked by prim restraint	शांत, गंभीर
Millefleur	having an allover pattern of small flowers and plants	छोटे फूलो का पैटर्न
Legion	a large military force	सैन्य टुकड़ी
Array	to put soldiers in a place or position so that they are ready to attack	सरणी
Sordid	very bad or dishonest	नीच, पतित
Nausea	extreme disgust	घृणा
Abrasive	causing damage, wear, or removal of surface material by grinding or rubbing	अपघर्षक
Heave	to lift or pull something with effort	उभाड़
Shrimp	a very small or unimportant person	महत्वहीन व्यक्ति
Wimp	a weak, cowardly, or ineffectual person	डरपोक
Runt	a very small or weak person	छोटा व्यक्ति
Adhesive	designed to stick to something	विपकना
Brooches	an ornament that is held by a pin or clasp and is worn at or near the neck	ब्रौच
Patriot	one who loves and supports his or her country	देश-भक्त
Scholar	a learned person	विद्वान
Buglers	army person playing bugles, which is an instrument that resembles a trumpet	बिगुलवाला

SSC MOCK TEST - 176 (ANSWER KEY)

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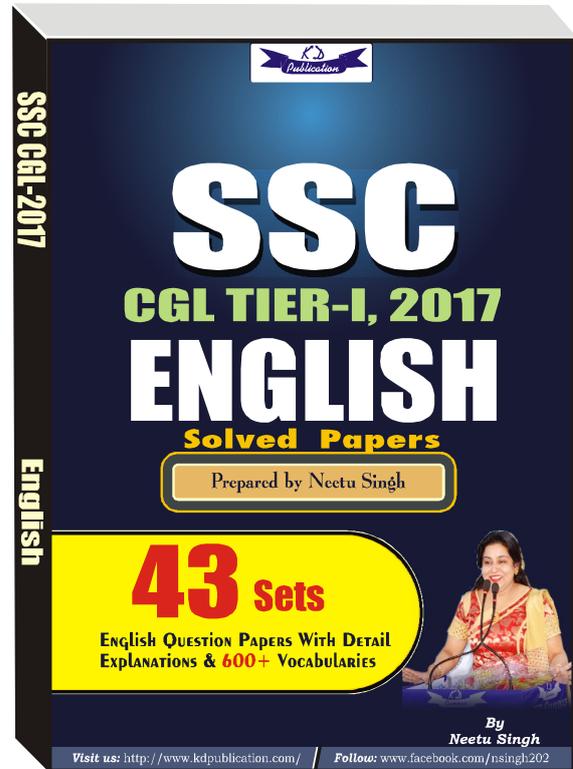
76. (B) Change 'indicating' into 'indicate' because the correct structure is 'could be used + to + V^{1st} from'.

77. (C) Change 'over' with 'out' because "callout" means 'to speak aloud or to shout'.

90. (D) Phrasal verb 'take off' means 'to remove something.

91. (C) Present Perfect Continuous tense is used for an action that has already started and still going on.
Hence replace 'were being' with 'have been'.
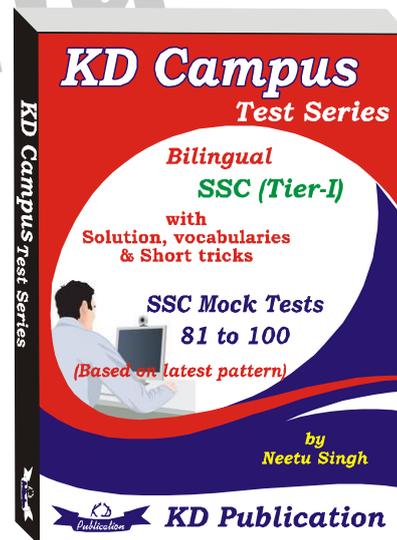
Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

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