SSC MOCK TEST – 179 (SOLUTION)

1. (C) As, Fear arises from the threat
Similarly, Anger arises from the **Provocation.**

2. (B) As, $\underset{+7}{\underline{BDF \quad : \quad IKM}}$

Similarly, $\underset{+7}{\underline{OQS \quad : \quad \textbf{VXZ}}}$

3. (C) As, 346 : 989 → 346 + 643 = 989
Similarly, 463 : 827 → 463 + 364 = **827**

4. (D) Except **534**, middle term is the difference of first and last term.

5. (A) $W \xrightarrow{-1} V \xrightarrow{+2} X$

$D \xrightarrow{+1} E \xrightarrow{-2} C$

$J \xrightarrow{+1} K \xrightarrow{-2} I$

$Q \xrightarrow{+1} R \xrightarrow{-2} P$

6. (C) Except **Cube,** others are two dimensional figures.

7. (A) **35241**

8. (C) $\underset{+(1^2+1)\ +(2^2+2)\ +(3^2+3)\ +(4^2+4)\ +(5^2+5)}{\underline{34\ ,\ 36\ ,\ 42\ ,\ 54\ ,\ 74\ ,\ \textbf{104}}}$

9. (D) $\underset{+1\ \ -1\ \ +2\ \ -2\ \ +3\ \ -3\ \ +4\ \ -4}{\underline{B\,P\ ,\ C\,O\ ,\ E\,M\ ,\ H\,J\ ,\ \textbf{L\,F}}}$

10. (A) South-east $\xrightarrow{135°,\ \text{Anti-clockwise}}$ North

North-east $\xrightarrow{135°,\ \text{Anti-clockwise}}$ West

West $\xrightarrow{135°,\ \text{Anti-clockwise}}$ **South - East**

11. (A) B > D > A > C
∴ **C** has the least money

12. (D) **DIGGING**

13. (C) As, $\underset{1\ +3\ +20\ +9\ +22\ +1\ +20\ +5\ =\ 81\ \rightarrow\ 18}{A\ C\ T\ I\ V\ A\ T\ E}$

and $\underset{18\ +5\ \ +3\ +25\ +3\ +12\ +5\ =\ 71\ \rightarrow\ 17}{R\ E\ C\ Y\ C\ L\ E}$

Similarly, $\underset{23\ +9\ +14\ +4\ +15\ +23\ +19\ =\ 107\rightarrow\textbf{701}}{W\ I\ N\ D\ O\ W\ S}$

14. (D) 117 × 13 + 13 – 3 ÷ 60
After inter-changing the signs as per given details,
117 ÷ 13 – 13 × 3 + 60
= 9 – 39 + 60 = **30**

15. (B) As, 57#39 = 144 → (5 + 7) × (3 + 9) = 144
and, 37#56 = 110 → (3 + 7) × (5 + 6) = 110
Similarly, 88#23 = 80 → (8 + 8) × (2 + 3) = **80**

16. (C) As, $5^3 + 3^2 + 4^1 = 138$
and, $8^3 + 9^2 + 2^1 = 595$
Similarly, $4^3 + 7^2 + 3 = $ **116**

17. (D)
$$B^+ \!=\!\!=\!\! \overset{\overset{\displaystyle D^+}{|}}{\underset{\underset{\displaystyle C^-\!-\!F}{|}}{A^+}} \!=\!\!=\!\! E^-$$
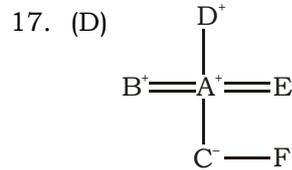
∴ There are four male members in the family.

18. (B)
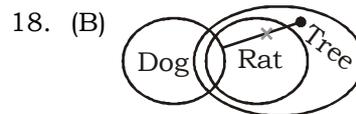
I. True
II. False
III. Can't say
IV. False
∴ **Only I follows**

19. (D) **150kg**

20. (A)

21. (D)

22. (D)

23. (B)

24. (C)

25. (B) $\underset{\downarrow\quad\downarrow\quad\downarrow\quad\downarrow\quad\downarrow}{H\quad O\quad U\quad S\quad E}$
98, 95, 33, 44, 14

26. (B) The 106th session of Indian Science Congress (ISC), 2019 concluded in Lovely Professional University, Jalandhar, Punjab. The five-day session was inaugurated by PM Narendra Modi and attended by Union Science & Technology Minister Dr. Harsh Vardhan.

27. (B)
- In 2017, United Nations General Assembly declared 23 September as the International Day of Sign Languages.
- Theme: for International Day of Sign Languages (IDSL) 2018: "With Sign Language, Everyone is Included".

30. (B) The country's first Tribal Tourism Circuit in Dhamtari district of Chhattisgarh. First Tribal Circuit Project under Swadesh Darshan Scheme inaugurated by Tourism minister in Chhattisgarhi.

31. (B) Mysore-born Gita Gopinath has joined International Monetary Fund as its chief economist, becoming the first woman to occupy the top IMF post.

32. (B)
- 'Therm' is a non-SI unit of heat energy equal to 100000 British Thermal Units (Btu).
- SI unit of Power – watt
- SI unit of Distance – meter

33. (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.

34. (C) Chromite is the only ore of chromium, a metal essential for making stainless steel, nichrome, chromeplating, pigments, refractories, chemicals and pharmaceuticals.

35. (C) The cause of electrical conduction in semiconductors is due to the movement of the holes in the valence band and the movement of the electrons in the conduction band.

37. (A) Ergotism is the effect of long term ergot poisoning, due to ingestion of alkaloids produced by fungus claviceps purpurea which is found in infected cereals and ryes.

38. (A) The great Congo River, formerly known as the Zaire River under the Mobutu regime, is the second longest river in Africa, shorter only than the Nile, as well as the second largest river in the world by discharge volume, following only the Amazon.

39. (D) Statutory liquidity rate: The ratio of liquid assets to net demand and time liabilities (NDTL) is called Statutory Liquidity Ratio (SLP).

    Bank Rate: Bank rate is the charged by the central bank for lending funds to commercial banks.

    Repo Rate: Repo rate is the rate at which the central bank of a country (Reserve bank of India in case of India) lends money to commercial banks in the event of any short fall of funds. Repo rate is used by monetary authorities to control inflation.

40. (D)
    1. Medium Term loans i.e. loans and advanced granted for a period of above 1 year and upto and inclusive of 3 year.
    2. Long term upto and inclusive of 3 year advance granted for a period of above 3 years.

43. (B) In 1913, Pacific Coast Hindustant Association was founded by Lala Hardayal with Sohan Singh Bhakna as it president, which was called Ghadar Party.

46. (A) In terms of any object at earth, maximum weight at pole and minimum weight at equator due to gravitational force of earth.

47. (B) The Pampas of South America are a grassland biome. They are flat, fertile plains that covers an area of 300,000 sq. miles or 777,000 square kilometers, from the Atlantic Ocean to the Andes Mountains.

48. (C) The Hunter Commission established in 1882 under the William Hunter as the Chairman. The commission was appointed by the British Government to review the progress of education in India since the Wood Dispatch of 1854.

50. (A) The speed of light in vacuum, commonly denoted by 'C', is a universal physical constant important in many areas of physics. Its exact value is 299, 792, 458 metre per second (approximately 300,000 km/s).

51. (B) Let the radius of sphere and hemisphere be R and r respectively.

    ATQ.,

    $4\pi R^2 = 3\pi r^2$

    $\Rightarrow \dfrac{R}{r} = \dfrac{\sqrt{3}}{2}$ ...(i)

    Now, $\dfrac{\text{Volume of sphere}}{\text{Volume of hemisphere}} = \dfrac{\frac{4}{3}\pi R^3}{\frac{2}{3}\pi r^3}$ ...(ii)

    Putting equation (i) in equation (ii), we get.

    $\dfrac{\text{Volume of sphere}}{\text{Volume of hemisphere}} = \dfrac{2\left(\sqrt{3}\right)^3}{\left(2\right)^3} = \dfrac{3\sqrt{3}}{4}$

    ∴ Required ratio = $\mathbf{3\sqrt{3} : 4}$

52. (C) One day work of P = $\dfrac{200}{4}$ = 50m²

    One day work of Q = $\dfrac{240}{6}$ = 40 m²

    One day work of P and Q together = 50 + 40 = 90 m².

    Now, Required time taken

    $= \dfrac{2 \times 15 \times (30 + 18) + 30 \times 18}{90}$

    $= \dfrac{30 \times 66}{90}$ = **22 days.**

53. (A) $\dfrac{2}{5}$ of 80% of 20% × 950

    $= \dfrac{2}{5} \times \dfrac{80}{100} \times \dfrac{20}{100} \times 950$ = **60.8**

54. (D) Equation of line is given by $(y - y_1) = \dfrac{y_2 - y_1}{x_2 - x_1}(x - x_1)$

Given points, $x_1 = 0$, $y_1 = 2$ $x_2 = 5$ and $y_2 = 4$.

Now, $y - 2 = \dfrac{(4 - 2)}{(5 - 0)}(x - 0)$

$\Rightarrow \ y - 2 = \dfrac{2}{5}(x)$

Required equation $\Rightarrow y = \dfrac{2}{5}x + 2$

55. (C)
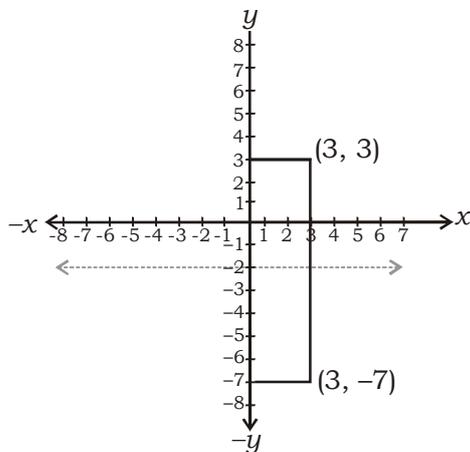
$\therefore$ Required point is **(3, 3).**

56. (A) $\left(1 - \dfrac{1}{2}\right)\left(1 - \dfrac{1}{3}\right)\left(1 - \dfrac{1}{4}\right).....\left(1 - \dfrac{1}{50}\right) = \dfrac{x}{25}$

$\Rightarrow \ \dfrac{1}{2} \times \dfrac{2}{3} \times \dfrac{3}{4} .... \dfrac{49}{50} = \dfrac{x}{25}$

$\Rightarrow \ \dfrac{1}{50} = \dfrac{x}{25}$

$\Rightarrow \ \boldsymbol{x = \dfrac{1}{2}}$

57. (C) $a^2\sec^2x - b^2\tan^2x = c^2$

$\Rightarrow a^2(1 + \tan^2x) - b^2\tan^2x = c^2$

$\Rightarrow a^2 + a^2\tan^2x - b^2\tan^2x = c^2$

$\Rightarrow \tan^2x = \dfrac{c^2 - a^2}{a^2 - b^2}$ ....(i)

$\Rightarrow \ \sec^2x - 1 = \dfrac{c^2 - a^2}{a^2 - b^2}$

$\Rightarrow \ \sec^2x = \dfrac{c^2 - a^2}{a^2 - b^2} + 1$

$\sec^2x = \dfrac{c^2 - b^2}{a^2 - b^2}$ ...(ii)

Now, $\sec^2x + \tan^2x$

$= \dfrac{c^2 - b^2}{a^2 - b^2} + \dfrac{c^2 - a^2}{a^2 - b^2}$

$= \dfrac{2c^2 - a^2 - b^2}{a^2 - b^2}$

$= \boldsymbol{\dfrac{a^2 + b^2 - 2c^2}{b^2 - a^2}}$

58. (B) $(1 + \sec 20° + \cot 70°)(1 - \mathrm{cosec}\, 20° + \tan 70°)$

$\Rightarrow \ [1 + \sec 20° + \cot(90°-20°)][1 - \mathrm{cosec}\, 20° + \tan(90° - 20°)]$

$\Rightarrow \ (1 + \sec 20° + \tan 20°)(1 - \mathrm{cosec}\, 20° + \cot 20°)$

$\Rightarrow \ \left(1 + \dfrac{1}{\cos 20°} + \dfrac{\sin 20°}{\cos 20°}\right)\left(1 - \dfrac{1}{\sin 20°} + \dfrac{\cos 20°}{\sin 20°}\right)$

$\Rightarrow \ \left(\dfrac{\cos 20° + 1 + \sin 20°}{\cos 20°}\right)\left(\dfrac{\sin 20° - 1 + \cos 20°}{\sin 20°}\right)$

$\Rightarrow \ \dfrac{1}{\sin 20° \cos 20°}\left[(\sin 20° + \cos 20°)^2 - (1)^2\right]$

$\Rightarrow \ \dfrac{1}{\sin 20° \cos 20°}$

$(\sin^2 20° + \cos^2 20° + 2.\sin 20.\cos 20° - 1)$

$\Rightarrow \ \dfrac{1}{\sin 20° \cos 20°}(1 + 2\sin 20° \cos 20° - 1)$

$\Rightarrow \ \boldsymbol{2}$

59. (C) $x^2 + y^2 + 6x + 5 = 4(x - y)$

$\Rightarrow \ x^2 + y^2 + 2x + y^2 + 4y + 5 = 0$

$\Rightarrow \ (x + 1)^2 (y + 2)^2 = 0$

$\Rightarrow \ x = -1$ and $y = -2$

$\therefore \ x - y = -1 - (-2) = \boldsymbol{1}$

60. (D) $a + b = 1$

Now, $a^4 + b^4 - a^3 - b^3 - 2a^4b^4 + ab$

$= (a^2 - b^2)^2 - (a^3 + b^3) + ab$

$= [(a + b)(a - b)]^2 - [(a + b)(a^2 + b^2 - ab)] + ab$

$= (a^2 + b^2 - 2ab - a^2 - b^2 + ab + ab)$

$= \boldsymbol{0}$

61. (D) Suppose capacity of the tank = 24 litre.

Thus, Efficiency of A = 3 litre/hour
and B = 4 litre/hour

After 2 hour, amount of water in tank
= 2 × (4 + 3) = 14 litre.

Now, Amount of water to be filled
= 24 – 14 = 10 litre.

Thus, Total time required by B to fill the tank = $\dfrac{10}{4}$ = **2.5 hours.**

62. (A) Let these numbers are A, B and C respectively

A	B	C
50	40	100

$\therefore$ Required percentage = $\dfrac{10}{50} \times 100$ = **20%**

63. (B) $(1x + 2x + 3x)/3 = 600$

$\Rightarrow x = 300$

A = 300, B = 600, C = 900

After increasing A by 10% and decreasing B by 20%, we have average increased by 5%

$(330 + 480 + C)/3 = 630$

$\Rightarrow 810 + C = 1890$

$\Rightarrow C = 1080$

Thus, the increase in C

= 1080 – 900 = **180**

64. (B) Area of 4 walls = $2(16+7) \times 8$

So, $2(16+7) \times 8 - 65 = 303$ m^2

Cost = 303 × 7.5 = **₹2272.5**

65. (A) P1:P2:P3 = $R_1T_1 : R_2T_2 : R_3T_3$

= (6×10):(10×12):(12×15)

= 1:1/2:1/3 = **6:3:2**

66. (A)

Days   **Efficiency**

M+W+B – 3 ———— 6

M – 6 ——— 18 ——— 3

B – 18 ————— 1

W ———————→ 2

$\therefore$ Required time taken = $\dfrac{18}{2}$ = **9 days**

67. (C) CP of 100 kg of mixture = 1100 – 300

= ₹ 800

CP of 1 kg of mixture = $\dfrac{800}{100}$ = ₹8

By the Method of Allegation:

A   B

10   5

8

3   2
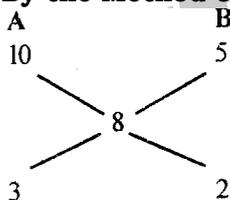
$\therefore$ Required ratio = **3 : 2**

68. (C) Let the labelled price be ₹100

Reduced price = (100 – 20)% of 100

= ₹80

10% additional discount = 10% of 80 = ₹8

Net CP = 80 – 8 = ₹72

Therefore, Raju's cost price = $\dfrac{1400}{100} \times 72$

= **₹1008**

69. (A) $\dfrac{3}{5}$% of the total distance

= 40 × 3 + 60 × 4.5 = 120 + 270 = 390 km

$\therefore$ Total distance = $\dfrac{390}{3} \times 5$ = 650 km

Remaining distance = 650 – 390 = 260 km

$\therefore$ Required speed = $\dfrac{260}{4}$ = **65 km/hr**

70. (C) Net rate for 2 yrs = $10 + 10 + \dfrac{10 \times 10}{100}$

= 21%

Interest for 3 yrs = $21 + 10 + \dfrac{21 \times 10}{100}$ = 33.1%

Now, (33.1 – 21)% of P = 12100

or, 12. 1% of P = 12100

or, P = $\dfrac{12100 \times 100}{12.1}$ = **1 lakh**

71. (B) Vimal's present age = 8 + 2 = 10 years

F + 10 = 2(V + 10)

or, F + 10 = 2(10 + 10) = 40

or, F = 30;

$\therefore$ Neha's present age = $\dfrac{1}{6} \times 30$ = **5 years**

72. (D) Req. ratio

$\dfrac{\text{Male employees in OS}}{\text{Male employees in Policy Servicing}}$

= $\dfrac{\dfrac{7}{10} \times 10 \times \dfrac{3000}{100}}{\dfrac{2}{5} \times 15 \times \dfrac{3000}{100}} = \dfrac{21}{18} = \dfrac{7}{6} \Rightarrow$ **7 : 6**

73. (D) Number of male employees in Claims department = $\dfrac{30}{100} \times 3000 \times \dfrac{5}{9}$ = 500

Number of females employees in OS

= $\dfrac{10}{100} \times 3000 \times \dfrac{3}{10}$ = 90

$\therefore$ Required percentage = $\left(\dfrac{500 - 90}{90}\right)$%

= 455.5% ≈ **456%**

74. (A) Total number of employees in Admin

= $\dfrac{20}{100} \times 3000$ = 600

Number of female employees in New Business = $\dfrac{25}{100} \times 3000 \times \dfrac{7}{15}$ = 350

$\therefore$ Required difference = 600 – 350 = **250**

75. (D) Required ratio

$\dfrac{\text{Number males in OS + Number of males in New Business}}{\text{Number of females in OS + Number of females in New Business}}$

= $\dfrac{3000 \times \dfrac{10}{100} \times \dfrac{7}{10} + 3000 \times \dfrac{25}{100} \times \dfrac{8}{15}}{3000 \times \dfrac{10}{100} \times \dfrac{3}{10} + 3000 \times \dfrac{25}{100} \times \dfrac{7}{15}}$

= $\dfrac{210 + 400}{90 + 350} = \dfrac{610}{440} = \dfrac{61}{44} \Rightarrow$ **61 : 44**

MEANINGS IN ALPHABETICAL ORDER

| Word	Meaning in English	Meaning in Hindi
Punitive	inflicting, involving, or aiming at punishment	दंडात्मक
Suffocate	feel or cause to feel trapped and oppressed	घुटना होना
Foment	to promote the growth or development	उकसाना
Tranquilize	have a calming or sedative effect	शांत होना
Expunge	to strike out, obliterate, or mark for deletion	मिटाना
Truculent	aggressively self-assertive	लड़ाकू
Quaint	marked by skillful design	आकर्षक
Attic	a space inside or partly inside the roof of a building.	अटारी
Acrophobia	fear of heights	ऊँचाई का डर
Acarophobia	fear of bugs (small crawling organisms	कीटो से डर
Glossophobia	fear of public speaking	भाषणभीति
Plaudit	the applause of an audience praise	प्रशंसा
Tepid	slightly warm, lukewarm	गुनगुना
Tenuous	very slender or fine, insubstantial	तुच्छ
Musty	lacking freshness or vitality	बासी
Mouldy	covered with a fungal growth which causes decay	फफूंदी लगा हुआ
Gauged	determine the amount, level, or volume	मापना
Surmise	a thought or idea based on scanty evidence	शंका करना
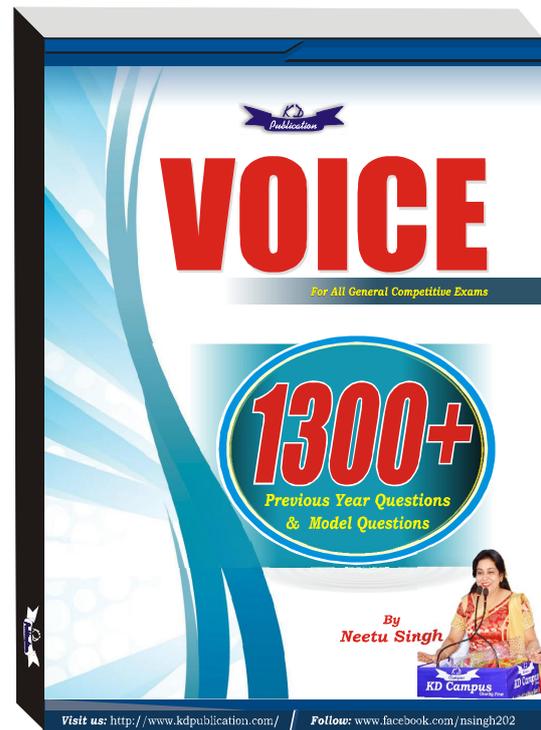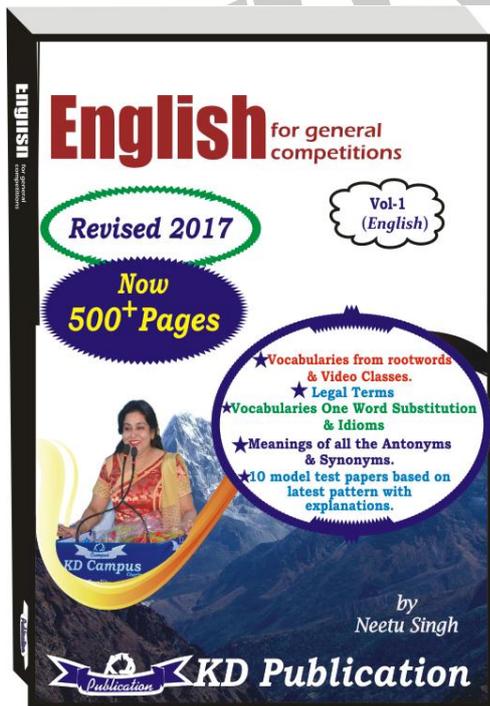
SSC MOCK TEST - 179 (ANSWER KEY)

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

76. (C) Replace 'seriously' with 'most seriously'. As proper degree of comparison should be used.

77. (B) Remove 'a' from the sentence, as Article is not used after kind of/sort of/type of.

90. (B) 'as' is not used after name, elect, think, consider, call, appoint etc. as these verbs do not take adverb 'as' with them.

91. (A) Get on - step into a vehicle
Get around to - finally find time to do something
Go over - review
Come down with - fall sick
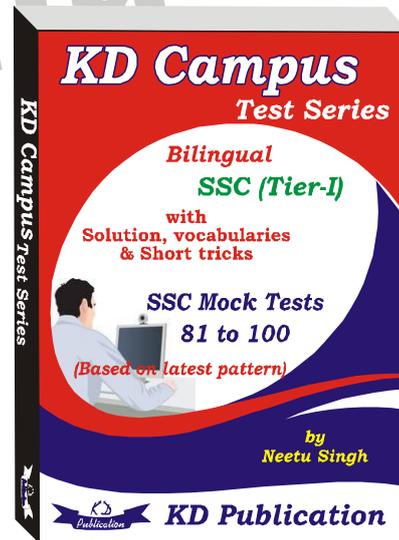
Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

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