SSC MOCK TEST – 173 (SOLUTION)

1. (C) As, Bird flies in the sky.
Similarly, Fish **Swims** in the water.

2. (C) As, $(4 + 3 + 8 + 9) \times 2 = 48$
Similarly, $(7 + 8 + 4 + 3) \times 2 = \mathbf{44}$

3. (B) As, A E : $36 \to (1 + 5)^2 = 36$
     1 5
Similarly, H C $\to (8 + 3)^2 = \mathbf{121}$
       8 3

4. (D) DF : HJ GJ : LO
$+4 \overline{} \quad +4 \qquad +5 \overline{} \quad +5$

OP : UV **NQ : TV**
$+6 \overline{} \quad +6 \qquad +6 \overline{} \quad +5$
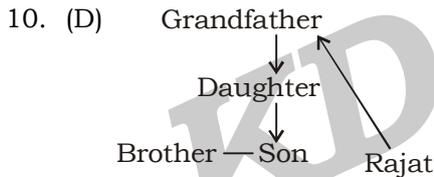
5. (D) $324 \to 71 \Rightarrow 3^1 + 2^2 + 4^3 = 71$
$723 \to 38 \Rightarrow 7^1 + 2^2 + 3^3 = 38$
$492 \to 93 \Rightarrow 4^1 + 9^2 + 2^3 = 93$
$\mathbf{375 \to 172} \Rightarrow 3^1 + 7^2 + 5^3 \neq 172$

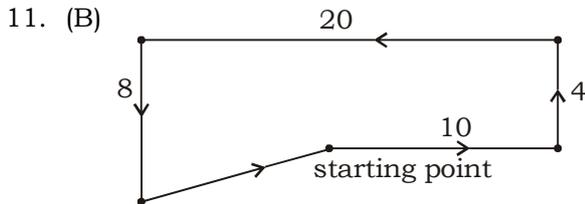6. (C) Except **option C**, in others the former consists of the latter.

7. (C) **52314**

8. (B) rtx**y**sx**yz**rtxy**sx**yz

9. (B) $\underline{54}$, $\underline{58}$, $\underline{63}$, $\underline{71}$, $\underline{84}$, **104**
       $+4 \quad +5 \quad +8 \quad +13 \quad +20$
        $+1 \quad +3 \quad +5 \quad +7$

10. (D) Grandfather
         ↓
      Daughter
         ↓
    Brother — Son   Rajat

∴ Rajat can be brother or cousin of that boy.

11. (B)

∴ **No regular shape** is there.

12. (D) **NUTRITION**

13. (D) As, S C H O O L   Q G B W E X
       -2
       $+4$
       -6
       $+8$
       -10
       $+12$

Similarly,

C O M M O N   **A S G U E Z**
       -2
       $+4$
       -6
       $+8$
       -10
       $+12$
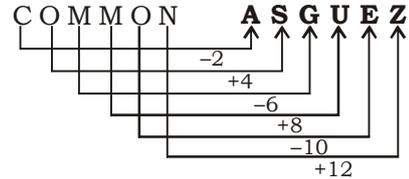
14. (A) $13 - 28 + 4 \times 4 \div 38$
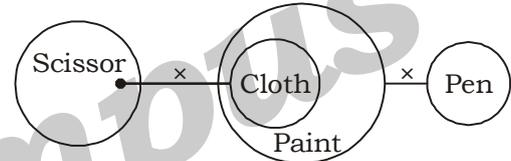After inter-changing the signs as per given details.
$13 \times 28 \div 4 + 4 - 38 = \mathbf{57}$

15. (B) As, $(8 + 3) \times (8 - 3) = 55$
and $(9 + 7) \times (9 - 7) = 32$
Similarly, $(9 + 3) \times (9 - 3) = \mathbf{72}$

16. (D) As, $(7 \times 9 \times 8) - (3 \times 4 \times 2) = 480$
and $(9 \times 8 \times 6) - (4 \times 6 \times 5) = 312$
Similarly, $(3 \times 9 \times 7) - (6 \times 4 \times 1) = \mathbf{165}$

17. (B) **22 triangles**

18. (B)

I. True
II. True
∴ **Both follows**.

19. (D)
20. (D)
21. (C)
22. (A)
23. (A)
24. (D)
25. (C) F   O   U   N   D
       ↓   ↓   ↓   ↓   ↓
      57 04 30 58 78

26. (D) The Purna Swaraj Declaration, of the Independence of India was promulgated by the Indian National Congress i the Lahore session of December 1929, congress passed the pooran swaraj resolution.

27. (D) After publishing a series of books and articles arguing that Buddhism was the only way for the untouchables to gain equality. Ambedkar was publicly converted on October 14, 1956. After receiving ordination Ambedkar gave dhamma diksha to his followers.

28. (C) Dr Jitendra Singh has launched a new training programme Comprehensive Online Modified Modules on Induction Training (COMMIT)for state Government officials at 29 June 2017 according to PIB report . The main objective of this training programme is to improve the public service delivery mechanism and provide citizen-centric administration through capacity building of officials who interact with the citizens on a day to day basis. COMMIT will be launched in 6 states of Assam, Haryana, Maharashtra, Tamil Nadu, Telangana and west Bengal initially on pilot basis during the current financial year.

29. (B) Prime Minister Narendra Modi led the Indian Delegation at the 12th edition of G20 Summit, at Hamburg in Germany on July 7-8, 2017. The theme of the 12th G 20 summit is "Shaping an interconnected world." The Summit was organized around three pillars-stability, Sustainability and Responsibility.

30. (C) Maize (called corn in some parts of the world)is pollinated, by air. The male anthers flowers are either male and female on a corn, rather than both sexes in one flower. Maize flowers have evolved to use air for pollination.

31. (D) Tryst with Destiny speech was made by Jawaharlal Nehru, the first Prime Minister of independent India. The Speech was made to the Indian Constituent Assembly, on the eve of India's Independence, towards midnight on 14 August 1947.

    The phrase "rendezvous with destiny" was used by Franklin D. Roosevelt in his 1936 Democratic National Convention speech.

32. (D) The preamble to the Constitution of India is a brief introductory statement that sets out guiding purpose and principles of the document. As originally enacted the preamble described the state as a 'sovereign democratic republic.' In 1976 the Forty- second Amendment changed this to read "sovereign Socialist secular democratic republic".

33. (D) Indian Shuttler Kidambi Srikanth won the Australian Open Super Series Badminton trophy by defeating former world number one and Rio Olympics Gold medalist Chen Long in Sydney on June 25. 2017. With this, Srikanth became the fifth player clash in Singapore, Indonesia and Australia.

36. (A) National emergency is caused by war, external aggression or armed rebellion in the whole of India or part of its territory. The President can declare such an emergency only on the basis of a written request by the Council of Ministers headed by the Prime Minister. Such a proclamation must be approved by the Parliament within one month. Emergency can be imposed for six months. It can be extended by six months by repeated parliamentary approval.

38. (D) Official Opposition is a term used in India to designate the political party which has secured the largest number of seats in the Lower house of parliament (Lok Sabha) but is not a part of the ruling party of coalition. A political party is officially accorded the status of an opposition party in Lok Sabha, only if it secures at least 10 percent of the seats.

40. (A) Nagarjun was associated with the formulation of the basic ideas of the Mahayana Buddhism. Nagarjun gave the 'Madhyamika' Philosophy or the philosophy of the middle way and taught that there is neither reality nor non-reality but only relativity.

42. (D) When heated from 0° to 10° C volume of a given mass of water will first decrease and then increase. If the word "ice" or "solid" is not mentioned, the word "water" means liquid water. Water vapor can be produced from the evaporation or boiling of liquid water. So the volume first decreases and then increases again when water droplets form the vapors due to stoppage of heat.

43. (C) A cricketer lowers his hands while taking a catch to decrease the rate of momentum. Cricketers increase the time by pulling their hand's backward with ball while taking a catch. Linear momentum or translational momentum is the product of the mass and velocity of an object.

44. (A) Our bones and teeth are generally made up of Tricalcium Phosphate. Tricalcium phosphate is a calcium salt of phosphoric acid with the chemical formula $Ca_3(PO_4)_2$

45. **(B)** Boron increases the absorption of water and calcium in plants. It helps in the metabolic activities in plants. Boron is necessary in order for sugar to move though protoplasmic membranes.

46. **(C)** As the intestine is a soft tissue structure, it is not usually seen on plain X-ray. By using barium to coat the inner lining of this area the radiologist can see the bowel clearly on the X-ray screen, and can watch the way it functions during this study. A small lubricated plastic tube will be inserted through your nostril of mouth and down into your stomach by the Doctor of Nurse. This can be little uncomfortable, but a combination of anesthetic jelly and spray minimizes the discomfort.

47. **(A)** Emphysema is the common lung disease caused by asbestos. Emphysema is a lung condition in which tiny air sacs in the lung - alveoli - fill up with air. As the air continues to build up in these sacs, they expand, and may break or become damaged and form scar tissue. The patient becomes progressively short of breath. Emphysema is a type of COPD (chronic obstructive pulmonary disease).

48. **(A)** Cone cells, or cones, are photoreceptor cells in the retina of the eye that are responsible for color vision, they function best in relatively bright light, as opposed to rod cells that work better in dim light. Cone cells are densely packed in the fovea, but quickly reduce in number towards the periphery of the retina. It allows the perception of color.

50. **(C)** Radiocarbon dating usually referred as simply carbon dating is a radiometric dating method that uses the naturally occurring radioisotope carbon–14 (^{14}C) to estimate the age of carbon bearing materials up to about 58,000 to 62,000 years.

51. **(B)** $\sin(A - C).\cos(B - D) + \cos(C - D).\sin(A + B) + \cos(B - A).\sin(C - D)$

Put $A = B = C = D = 90°$

Then, $\sin 0° \cos 0° + \cos 0° \sin 180° + \cos 0°. \sin 0° = \mathbf{0}$

52. **(C)** $\frac{4}{3}\cot^2\left(\frac{a}{6}\right) + 8\cos^2(\pi - 30°) - 7\cosec^2\left(\frac{\pi}{4}\right) + 12\sin\left(\frac{a}{2}\right)$

Let $a = \pi$

$= \frac{4}{3}\cot^2\frac{\pi}{6} + 8\cos^2 30° - 7\cosec^2\frac{\pi}{4} + 12\sin\frac{\pi}{2}$

$= \frac{4}{3} \times 3 + 8 \times \frac{3}{4} - 7 \times 2 + 12 \times 1$

$= 4 + 6 - 14 + 12 = \mathbf{8}$

53. **(B)**
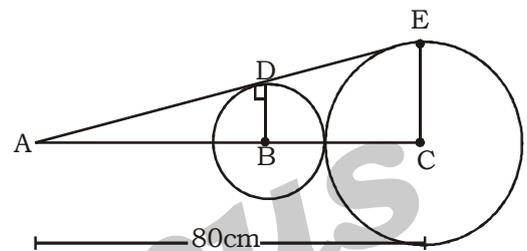
Let the radius of smaller and bigger circle be $3x$ and $5x$ respectively.

ΔABD and ΔAEC are similar triangles

$\frac{BD}{EC} = \frac{AB}{AC}$

$\Rightarrow \frac{3x}{5x} = \frac{AB}{80}$

$\Rightarrow AB = 48$ cm.

Then, $BC = AC - AB$

$= 80 - 48 = 32$ cm.

Now, $3x + 5x = 32$

$\Rightarrow x = 4$

Then, radius of smaller and bigger circle is 12 cm and 20 cm respectively.

$DE = AE - AD$

$= \sqrt{80^2 - 20^2} - \sqrt{48^2 - 12^2}$

$= 20\sqrt{15} - 12\sqrt{15}$

$= \mathbf{8\sqrt{15}}$ **cm**

54. **(D)** Effective discount $= \frac{4 \times 20 - 68}{4 \times 20} \times 100$

$= \frac{12}{80} \times 100 = \mathbf{15\%}$

55. (A) Required number $\Rightarrow \dfrac{7}{9} = \dfrac{56}{x} \Rightarrow x = \mathbf{72}$

56. (C) Cost of one litre of solution = $\dfrac{36}{150} \times 1000$

= ₹ 240

Required ratio =
$$\begin{array}{ccc} \text{Sugar} & & \text{Milk} \\ 48 & & 258 \\ & 240 & \\ 18 & & 192 \end{array}$$

= 3 : 32

57. (B)
$$\begin{array}{lll} \text{Pipe A} & 10 & 12 \\ \text{Pipe B} & 12 \quad 120 \quad 10 \\ \text{Pipe C} & -24 & -5 \\ \hline \end{array} \quad \dfrac{}{17}$$
Total work done by A, B and C together

Total time taken by all pipes together is

$\dfrac{120}{17} = \mathbf{7\dfrac{1}{17}}$ **hrs**

58. (C) Let the present age of Father and Son be $7x$ and $3x$ respectively.
ATQ.,

$\dfrac{7x + 6}{3x + 6} = \dfrac{9}{5}$

$\Rightarrow x = 3$

Their present age = 21 year and 9 years.
Required sum of ages = (21 + 12) + (9 + 12)
= 54

59. (C) CP of article = ₹ x
Marked price = $x + 3x = 4x$
ATQ.,

∴ Required value $\Rightarrow 4x \times \left(\dfrac{100 - 30}{100}\right) = 644$

$\Rightarrow x =$ ₹**230**

60. (D) ATQ.,
2 $(lb + bh + hl) = 88$ cm^2 and   ..(i)
4 $(l + b + h) = 96$ cm   ..(ii)
Now, $(l + b + h)^2 = l^2 + b^2 + h^2 + 2(lb + bh + hl)$
From eq. (i) and eq. (ii), we get
$24^2 = l^2 + b^2 + h^2 + 88$
$\Rightarrow l^2 + b^2 + h^2 = 488$

∴ Length of diagonal = $\sqrt{l^2 + b^2 + h^2} = \sqrt{488}$

= $2\sqrt{122}$ cm

61. (D) Let the number be A, B, C, D and E
ATQ.,
A + B + C + D + E = 80   …(i)

D = $\dfrac{7}{17}$ (C + E)   …(ii)

A = $\dfrac{4}{7}$ D   …(iii)

Given D = 14.

Then, A = $\dfrac{4}{7}(14) = 8$

C + E = 34   —(from {ii}).
Putting values in eq. (i)
8 + B + 14 + 34 = 80
$\Rightarrow$ B = 24

∴ Required average = $\dfrac{24 + 14}{2} = 19$

62. (B) 8A = 6B = 9C

$\dfrac{A}{B} = \dfrac{3}{4}$ and $\dfrac{B}{C} = \dfrac{3}{2}$

$$\begin{array}{ccc} A & : B & : C \\ (3 & : 4) & \times 3 \\ 4 & \times(3 & : 2) \\ \hline 9 & : 12 & : 8 \end{array}$$

∴ **A : B : C = 9 : 12 : 8**

63. (B) Speed = $\dfrac{\text{Distance}}{\text{Time}}$

ATQ.,

S = 126 km/h.   T = $\dfrac{20}{60}$ hrs.

D = $126 \times \dfrac{20}{60} = 42$ km

New speed to cower distance in 14 min

= $\dfrac{42}{\dfrac{14}{60}} = 180$ km/h

∴ Required increase in speed = (180 – 126)
= 54 km/hr.

64. (A) ATQ.,

$15000 = P\left(1 + \dfrac{8}{100}\right)^3$ …(i)

Required Amount = $\dfrac{15000}{\left(\dfrac{27}{25}\right)^3} \times \left(\dfrac{27}{25}\right)^4$

= $15000 \times \dfrac{27}{25}$ = ₹ **16200**

65. (C) $\dfrac{x+y}{z} = \dfrac{8}{5} \Rightarrow 5x + 5y = 8z$ ...(i) and

$\dfrac{y+z}{x} = \dfrac{3}{2} \Rightarrow 2y + 2z = 3x$ ...(ii)

From (i) and (ii), we get

$3 \times (5x + 5y = 8z)$
$\underline{5 \times (-3x + 2y = -2z)}$
$\phantom{5 \times (-3x + {}}25y = 14z$

$\Rightarrow z = \dfrac{25}{14}y$ ....(iii)

Putting eq. (iii) in eq. (ii), we get

$\Rightarrow x = \dfrac{13}{7}y$ ...(iv)

$\therefore$ Required value = $\dfrac{\dfrac{13}{7}y + \dfrac{25}{14}y}{y} = \dfrac{51}{14}$

66. (D) $A = 3 + 2\sqrt{2}$ and A. B = 1

Then B = $\dfrac{1\left(3 - 2\sqrt{2}\right)}{\left(3 + 2\sqrt{2}\right)\left(3 - 2\sqrt{2}\right)}$

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

Then, $\dfrac{1}{A^2} + \dfrac{1}{B^2} = \dfrac{A^2 + B^2}{(AB)^2}$

= $\left(3 + 2\sqrt{2}\right)^2 + \left(3 - 2\sqrt{2}\right)^2$

= $(9 + 8 + 12\sqrt{2}) + (9 + 8 - 12\sqrt{2})$

= 34

67. (C) LCM of 3, 4, 6 = 12

Least three digit number multiple of 12 is 108.

3 – 1 = 4 – 2 = 6 – 4 = 2

All has common difference 2.

Then, add 2 to 108

N = 108 + 2 = 110

$\therefore$ When 110 is divided by 7, the remainder is 5.

68. (B) Let the sides be a cm

ATQ.,

4a – a = 18

a = 6 cm

$\therefore$ Area = 6 × 6 = **36** cm^2

69. (A) $\dfrac{4 + \dfrac{1}{2} \times 10^2 \div \sqrt{216 + 409} \times 4^5}{(60 \text{ % of } 800 \div 16) \div 10}$

= $\dfrac{4 + \dfrac{1}{2} \times \dfrac{100}{25} \times 1024}{\left(\dfrac{3}{5} \times 50\right) \times \dfrac{1}{10}}$

= **684**

70. (C) Let the unit and ten's digit be x and y respectively.

Then, number = $10y + x$

ATQ.,

$x = y + 5$ ...(i)

and $(10x + y) = 2(10y + x) - 4$

$\Rightarrow 8x - 19y = -4$ ...(ii)

Using eq. (i) and eq. (ii) we get

$y = 4$ and $x = 9$

Then, Required number = 10(4) + 9 = **49**.

71. (A) Let amount invested by Q and R be x and y respectively

P	:	Q	:	R
16000 × 12	:	7 × x	:	$5y$

ATQ.,

$\dfrac{16000 \times 12}{5y} = \dfrac{4}{2}$

$\Rightarrow$ ₹ **19200**

72. (D) In M and S, the production of rice increased continuously with respect to previous year.

73. (D) The maximum difference is in state T.

80 – 40 = 40 lakhs tonnes.

74. (A) Required percentage = $\dfrac{80 - 70}{80} \times 100$

= 12.5%

75. (D) Average production

= $\dfrac{60 + 40 + 80 + 120 + 130 + 80 + 50}{7}$

= 80 lakhs tonner

$\therefore$ In 1997–98, production of rice in state **S** is equal to the average production of rice in all states.

MEANINGS IN ALPHABETICAL ORDER

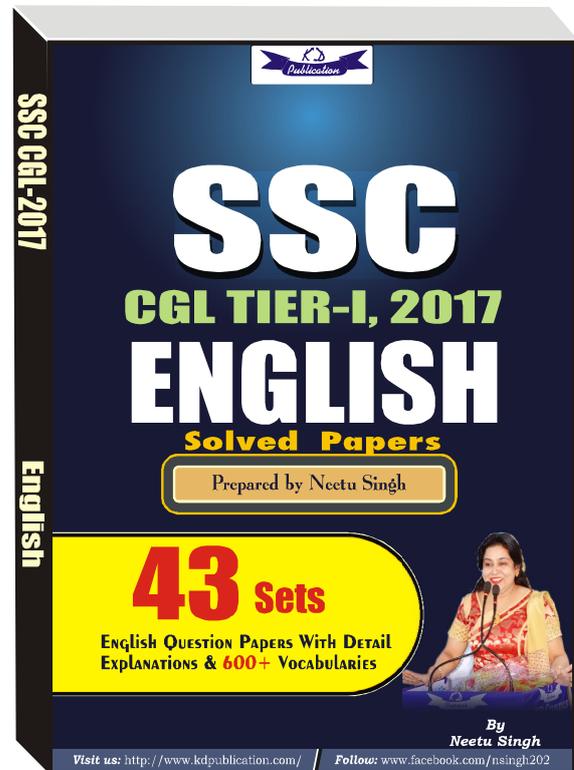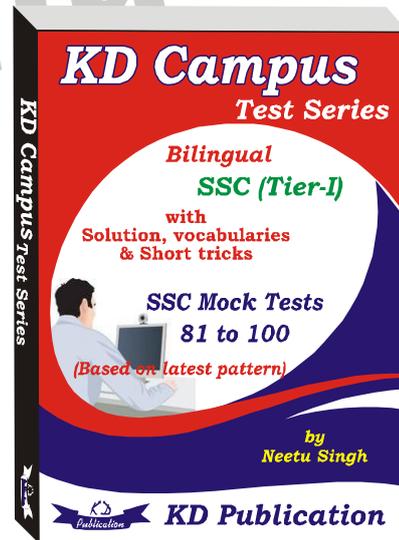| Word	Meaning in English	Meaning in Hindi
Agitation	to disturb, excite, or anger someone	उत्तेजित करना
Perturbation	the state of being worried or upset	घबराहट
Diffidence	lacking confidence	सशंय
Aplomb	confidence and skill shown especially in a difficult situation	संयम, आत्मविश्वास
Sustained	to provide what is needed for something or someone to exist, continue, etc.	अनवरत
Tormented	something that causes extreme physical or mental pain	सतंप्त
Plagued	a large number of harmful or annoying things	त्रस्त
Implemented	to make something active or effective	कार्यान्वित
Feign	to pretend to feel or be affected by something	ढ़ोग करना
Sheen	a soft, smooth, shiny quality	चमक
Ritzy	impressively or ostentatiously fancy or stylish	सरूप
Austere	simple or plain	सादगीपस्न्द
Rookie	person who has just started a job or activity and has little experience	धोखेबाज
Sartorial	of or relating to clothes	कपड़ा के विषय का
Homespun	a loosely woven usually woolen or linen fabric originally made from yarn	कपड़े से संबंधित
Psephologist	the scientific study of elections	चुनाव विश्लेषक
Scrupulous	very careful about doing something correctly	सूक्ष्म
Immaculate	having no flaw or error	शुद्ध
Sordid	very bad or dishonest	घिनौना, बेईमान
Metamorphosis	a change of the form or nature of thing or person into a completely different one	कायापलट
Reconnaissance	a preliminary survey to gain information	पूर्व-परीक्षण

SSC MOCK TEST - 173 (ANSWER KEY)

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

SSC CGL-2017 English

SSC CGL TIER-I, 2017 ENGLISH Solved Papers

Prepared by Neetu Singh

43 Sets

English Question Papers With Detail Explanations & 600+ Vocabularies

By Neetu Singh

Visit us: http://www.kdpublication.com/ | Follow: www.facebook.com/nsingh202

76. **(B)** Replace 'Prevalent' with 'prevalence'. Prevalent is an adjective which means accepted, done or happening often over a large area at a particular time. Prevalence is a noun and we need a noun here.

77. **(B)** Change 'was' into 'were' because here the subject is 'nine people' which is plural, so the verb will also be plural.

90. **(C)** Change 'has learned' into 'learnt' because the correct expression is

> It's time + subject + past form of verb

91. **(C)** Change 'last' into 'least' because 'not is the least' is an idiom which means 'not in any way'.

KD Campus Test Series

Bilingual SSC (Tier-I) with Solution, vocabularies & Short tricks

SSC Mock Tests 81 to 100 (Based on latest pattern)

by Neetu Singh

KD Publication

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