SSC MOCK TEST – 180 (SOLUTION)

1. (D) As, Pituitary is a gland in Brain.
   Similarly, Thymus is a gland in **chest.**

2. (C) As, $49 : 66 \rightarrow (\sqrt{49} + 1)^2 + 2 = $ **66**

   Similarly, $81 : 102 \rightarrow (\sqrt{81} + 1)^2 + 2 = $ **102**

3. (B) As, C U R R E N T → D S U N J H A
   (+1, −2, +3, −4, +5, −6, +7)

   Similarly,

   M O N T H L Y → **N M Q P M F F**
   (+1, −2, +3, −4, +5, −6, +7)

4. (A) Except **Ally**, others are antonym of ally.

5. (D) E J L X P F **I Q**
   $5 \times 2 = 10$ $12 \times 2 = 24$ $16 \times 2 = 32$ $9 \times 2 \ne 17$

6. (C) As, $192 \rightarrow 19 \Rightarrow 1 + 9 \times 2 = 19$
   $364 \rightarrow 27 \Rightarrow 3 + 6 \times 4 = 27$
   $472 \rightarrow 14 \Rightarrow 4 + 7 \times 2 \ne 14$
   $896 \rightarrow 62 \Rightarrow 8 + 9 \times 6 = 62$

7. (B) **43521**

8. (D) $\underline{08}$, $\underline{09}$, $\underline{17}$, $\underline{26}$, $\underline{90}$, **115**
   $(+1^2, +2^3, +3^2, +4^3, +5^2)$

9. (A) D C E , G F H , **J I K** , M L N
   (+3, +3, +3)

10. (B)

South-West

11. (C)

12. (D) **PATENT**

13. (B) As, W I N D O W
   (23 09 14 04 15 23) → Reverse → 325140419032

   and V I E W E R
   (22 09 05 23 05 18) → 815032509022

Similarly,

D E S K T O P
(04 05 19 11 20 15 16) → 61510211915040

14. (C) $34 - 4 + 12 \div 4 \times 64$
   After inter-changing the signs as per given details,
   $34 \div 4 \times 12 + 4 - 64$
   = **42**

15. (A) $16 - 11 = 5 \times 5 = 25$
   $24 - 18 = 6 \times 5 = 30$
   36 $- 28 = 8 \times 5 = 40$

16. (A) $4 \times 5 = 20/2 = 10$
   $15 \times 2 = 30/3 = 10$
   $6 \times 5 = 30/\mathbf{3} = 10$

17. (A)

18. (D) **Statement :**

Conclusions :
I. – II. –
III. ✓ IV. –

19. (D) 240 kg
20. (D)
21. (B)
22. (D)
23. (B)
24. (D)
25. (D) **F O R C E**
   ↓ ↓ ↓ ↓ ↓
   89, 75, 69, 78, 21

26. (C) In 1018, Rajendra conquered Ceylon (Sri Lanka). Earlier Rajaraja I conquered only half of it.

27. (A) The Nile River begins at the equator and ends at the Mediterranean Sea. It flows through Egypt, Sudan, Uganda, Ethiopia, Zaire, the Sahara Desert, Kenya, Tanzania, Eritrea, Burundi and Rwanda. The Nile River is the longest river in the world. It is often associated with Egypt. It has two tributaries. The White Nile starts at Lake Victoria, and the Blue Nile starts at Lake Tana. The two tributaries merge in Sudan.

29. (C) Diamantine Trench is situated in south-east part of Indian Ocean. The depth of Diamantine Trench is 8047 m.

	Name	Deepest point (km)	Ocean
1	Mariana Trench	11.0 km	Pacific Ocean (near Japan)
2	Philippine Trench	10.4 km	Pacific Ocean (near the Philippine islands
3	Bonin Trench	9.99 km	Pacific Ocean (near Japan)
4	New Britain Trench	9.94 km	Pacific Ocean (near New Guinea)
5	Kuril Trench	9.75 km	Pacific Ocean (near Russia)

32. (C) The National Safety Council (NSC) is a self-supporting non-profit autonomous society, set up by the Ministry of Labour and Employment, Govt. of India (GoI) on 4th March 1966. Its aim is to strengthen a national movement on Safety, Health & Environment (SHE) to prevent and mitigate loss of life, human suffering & economic losses and provide support services. It is in news because the 2016 NSCI Safety Awards will be presented by the Minister of State (Independent Charge), Labour & Employment Bandaru Dattatreya on April 20, 2017 in New Delhi. The NSCI Safety Awards are coveted national level awards in the field of Workplace Safety, Health and Environment. The headquarters of the NSC is located in Mumbai, Maharashtra.

33. (D) Venus can be seen with the unaided eye from Earth. It is the brightest planet in our Solar System. Venus was given the nickname evening star and morning star because of its bright consistent presence.

35. (C) The world famous one of the largest herbarium in India is situated at the Indian Botanical Garden, Kalkaska. This herbarium is the largest herbarium of east. It is famous for the 'Great Banyan tree.' The largest herbarium in the world, at the museum national d'histoire naturally is in Paris, France.

36. (B) Consumer Price Index Number for Industrial Workers (CPI (IW)) is released by the Labour Bureau. Labour Bureau is responsible for the collation, collection and publication of statistics and related information on wages, earnings, productivity, absenteeism, labour turn-over, industrial relations, working and living conditions and evaluation of working of various labour enactments etc.

37. (A) The World Day for Animals in Laboratories (also known as World Lab Animal Day (WLAD)) is observed every year on April 24 to mark the birthday of former National Anti-Vivisection Society (NAVS) president Hugh Dowding. Today the event is marked by demonstrations and protests by groups opposed to the use of animals in research. The day is not included on the official list of United Nations observances.

38. (B) Eight of the water-soluble vitamins are known as the vitamin B-complex group: thiamin (vitamin B1), riboflavin (vitamin B2), niacin (vitamin B3), vitamin B6 (pyridoxine), folate (folic acid), vitamin B12, biotin and pantothenic acid. The B vitamins are widely distributed in foods, and their influence is felt in many parts of the body. They function as coenzymes that help the body obtain energy from food. Vitamin (A), (D), (E) and (K) are fat soluble.

39. (B) Gandhara School was based on Greco-Roman norms encapsulating foreign techniques and an alien spirit. It is also known as Graeco-Buddhist School of art. The foreign influence is evident from the sculptures of Buddha in which they bear resemblance to the Greek sculptures. Grey sandstone (Blue-grey Mica schist to be precise) is used in Gandhara School of Art.

40. (C) The food manufactured in the leaves is translocated upwards, downwards and laterally to all parts of the plant through the phloem. The phloem also conducts some other substances such as amino acids. The conducting cells of the phloem are cylindrical cells called sieve tubes, which have sieve like partitions at both ends. These partitions are called sieve plates.

45. (C) Salmon is a large fish with silver skin and pink flesh that is used for food. Salmons live in the sea but swims up rivers to lay their eggs. A fish with reddish or pinkish flesh that is often caught for sport or food and lives most of its life in the ocean but swims up rivers or streams as an adult to deposit or fertilize eggs.

46. (C) A hydrogen vehicle is an alternative fuel vehicle that uses hydrogen as its onboard fuel for motive power. The hydrogen vehicle use hydrogen fuel cell for generation of motive power. These fuel cell in which hydrogen serves as a fuel and oxygen as an oxidant emits exhaust of water.

47. (D) Kinetic energy is dependent on the object's mass and velocity. Since kinetic energy is the energy of motion, all objects that have motion have potential kinetic energy. This energy is determined by the size of the object, where the object is and the speed or velocity it is moving at. Kinetic energy is directly proportional to the square of its velocity or speed.

48. (A)

Books	:	**Author**
'A wasted Hour'	:	Jeffrey Archer
'TWo (a Novel)'	:	Gulzar
'Hit Refresh'	:	Satya Nadella.

49. (C) • Manipur Share the border with (Nagaland, Mizoram Assam) and international border with Myanmar.

   • Tripura Share the border with (Assam, Mizoram) and International border with Bangladesh.

   • Nagaland share the border with (Assam, Arunachal Pradesh, Manipur) and International border with Myanmar.

50 (B) The winner of Russian GP–2018 formula race is L. Hamilton.

51. (C) Prime number between 20 and 50 are 23, 29, 31, 37, 41, 43 and 47.

Required average = $\dfrac{23+29+31+37+41+43+47}{7}$

= $35\dfrac{6}{7}$

52. (C) Volume of tank = $5 \times \dfrac{9}{2} \times \dfrac{21}{10} = \dfrac{189}{4}\,m^3$

Area of remaining field = $\dfrac{27}{2} \times \dfrac{5}{2} - 5 \times \dfrac{9}{2} = \dfrac{45}{4}\,m^2$

Now, $\dfrac{45}{4} \times h = \dfrac{189}{4}$

$\Rightarrow$ h = 4.2

$\therefore$ Required height = **4.2 m**

53. (B) $525 = P\left[\left(1+\dfrac{R}{100}\right)^n -1\right]$

$\Rightarrow$ P = 2500

Then, SI for 4 years with 5% rate per annum = $\left(\dfrac{2500 \times 4 \times 5}{100}\right)$ = **500**

54. (A) CP = (1920 + 1280) / 2 = 1600

$\therefore$ SP = $1600 \times \dfrac{125}{100}$ = **2000**

55. (C) Let Rachana's time = x
Sulochana's time = $x + 6$

$\dfrac{1}{x} + \dfrac{1}{x+6} = \dfrac{1}{4}$

$\Rightarrow$ x = 6 hr

$\therefore$ Time taken by Rachana = **6 hrs.**

56. (B)

	WATER:	MILK
In first can =	1 :	3
In second can =	1 :	1

$3/4$ $1/2$

$5/8$

$1/8$ $1/8$

1 : 1

2 units = 12 liters

then, – milk = $6l$

and, water = **$6l$**

57. (A) When type 1 sugar and type 2 sugar is mixed in proposition of 2:3.
Total price for total sugar is
= (15 × 2) + (20 × 3) = ₹ 90 for 5 kg.

then, price per kg. = $\dfrac{90}{5}$ =

58. (C) 1st capacity = l × b × h = 8 × 8 × 14
= 896 cm³

2nd capacity = $\pi r^2 h$ = $\dfrac{22}{7}$ × 4× 4× 14
= 704 cm³
Difference in capacities = 896 – 704
= 192cm³

59. (A) 10 × 7 : 12 × 5 : 15 × 3
= 14 : 12 : 9
Now, 35 units → ₹175
$\Rightarrow$ 1 unit → ₹5
9 unit → ₹**45**

60. (B)

61. (C)

$$11\,\overline{)756896}\,(68809$$
$$\underline{66}$$
$$96$$
$$\underline{88}$$
$$88$$
$$\underline{88}$$
$$96$$
$$\underline{99}$$
$$3$$

$\therefore$ Required number **= 3**

62. (D) Correct answer = $1-\left(\dfrac{1}{4}+\dfrac{1}{5}\right)$

= $1-\left(\dfrac{9}{20}\right) = \dfrac{11}{20}$ = .55

Now, Required percentage

= $\dfrac{(0.55-0.45)}{0.55} \times 100$ = **$\dfrac{220}{11}$**

63. (D) Required price = $\dfrac{150 \times 100 \times 120}{85 \times 100}$

= ₹ **$221\dfrac{13}{17}$**

64. (B) Let the speed = x & y

Now, $\dfrac{15}{x+y} = \dfrac{1}{2}$

$\Rightarrow x + y = 30$............(i)

and, $\dfrac{15}{x-y} = \dfrac{5}{2}$

$\Rightarrow x - y = 6$............(ii)

By solving equation (i) and (ii), we get
$x = 18$ & $y = 12$

$\therefore$ Required1 speed = **18 km/hr**

65. (A) Required area = $\pi (68^2 - 22^2)$
$= \pi \times 90 \times 46$
$= \mathbf{4140\,\pi\ cm^2}$

66. (C)
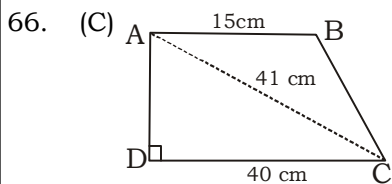
In $\triangle ADC$

AD = $\sqrt{41^1 - 40^2}$

$\Rightarrow$ AD = $\sqrt{81}$ = 9cm

$\therefore$ Required area = $\dfrac{1}{2}$ (40+15)×9

$= \dfrac{55 \times 9}{2} = \dfrac{495}{2}$ = **247.5cm²**

67. (C) Let the radius of rod = rcm
ATQ,

$\dfrac{4}{3} \pi \times 21 \times 21 \times 21 = \pi \times r^2 \times 7$

$\Rightarrow (r + h) : 2r$

$\Rightarrow H_2 + 7 : 2 \times 21$

$\Rightarrow$ **7 : 6**

68. (B) $a + \dfrac{1}{b} = 1$

$\Rightarrow a = 1 - \dfrac{1}{b}$

$\Rightarrow a = \dfrac{b-1}{b}$

$\Rightarrow \dfrac{1}{a} = \dfrac{b}{b-1}$ ....(i)

$b + \dfrac{1}{c} = 1$

$\Rightarrow \dfrac{1}{c} = 1 - b$

$\Rightarrow c = \dfrac{1}{1-b}$ ....(ii)

Now, $c + \dfrac{1}{a}$

$= \dfrac{1}{1-b} + \dfrac{1}{b-1}$

$\Rightarrow \dfrac{1}{1-b} - \dfrac{b}{1-b} = \dfrac{1-b}{1-b} = \mathbf{1}$

69. (B) $x^5 - 12x^4 + 12x^3 - 12x^2 + 12x - 1$
$= x^5 - 11x^4 - x^4 + 11x^3 + x^3 - 11x^2 - x^2 + 11x + 1x - 1$
$= (11)^5 - (11)^5 - (11)^4 + (11)^4 - (11)^3 - (11)^3 - (11)^2 + (11)^2 + 11 - 1$
= **10**

70. (B)
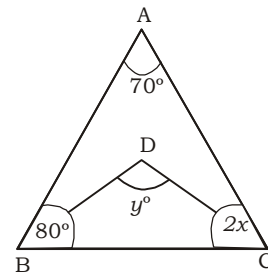
In $\triangle ABC$,
$\angle C = 180° - 70° - 80° = 30°$
We know,
That D is incenter of $\triangle ABC$,

$\therefore \angle DCB = \dfrac{2x}{2} = \dfrac{30}{2} = 15°$

Now,
In $\triangle ABC$,

$\dfrac{1}{2} \angle B + y + 15° = 180°$

$\Rightarrow y = 180° - 15° - 40°$

$\Rightarrow \mathbf{y = 125°}$

71. (B) secA + tanA = a ....(i)
We know that $\sec^2 A - \tan^2 A = 1$
$\Rightarrow$ (secA+tanA) (secA–tanA)=1

$\Rightarrow$ secA – tanA = $\dfrac{1}{a}$ ....(ii)

Adding equation (i) and(ii), we get

2secA = a+ $\dfrac{1}{a}$

$\Rightarrow$ secA = $\dfrac{a^2 + 1}{2a}$

$\Rightarrow$ cosA = $\mathbf{\dfrac{2a}{a^2+1}}$

72. (D) Required% = $\dfrac{70}{2180} \times 100 = 3.21\%$

73. (B) 13150

74. (D) Average = (2500 + 2250 + 2450 + 2150 + 2020 + 2300)/6

$= \dfrac{13670}{6} \approx \mathbf{2278}$

75. (C) Required% = $\dfrac{2540}{13780} \times 100 = 18.43\% \approx \mathbf{18\%}$

MEANINGS IN ALPHABETICAL ORDER

| Word	Meaning in English	Meaning in Hindi
Devise	Plan or invent by careful thought	योजना बनाना
Incumbent	Currently holding office	पदाधिकारी
Tether	Tie with a rope or a chain	रस्सी से बांधना
Dethrone	Remove from power	राज-गद्दी से उतारना
Dwindle	Diminish gradually in size, amount	कम हो जाना
Ambidextrous	Able to use both hands equally well	उभयहस्त
Connoisseur	An expert judge in matters of taste	विशेषज्ञ
Cacographer	Bad handwriting or spelling	बुरी लिखावट
Demagogue	A person, especially a political leader, who wins support by exciting the emotions of ordinary people	दुर्जनों का नेता
Epicure	A person who enjoys high quality food and drink	चटोरा, स्वादलोलुप
Egotist	self-seeker	अहंवादी, स्वार्थी
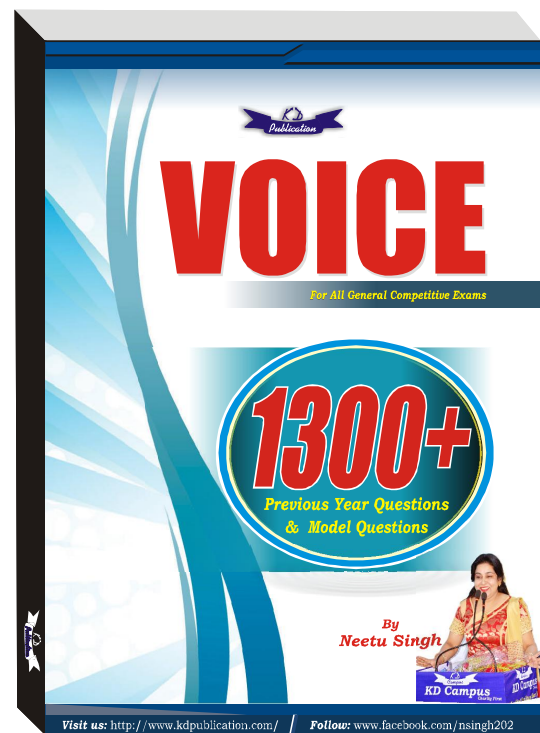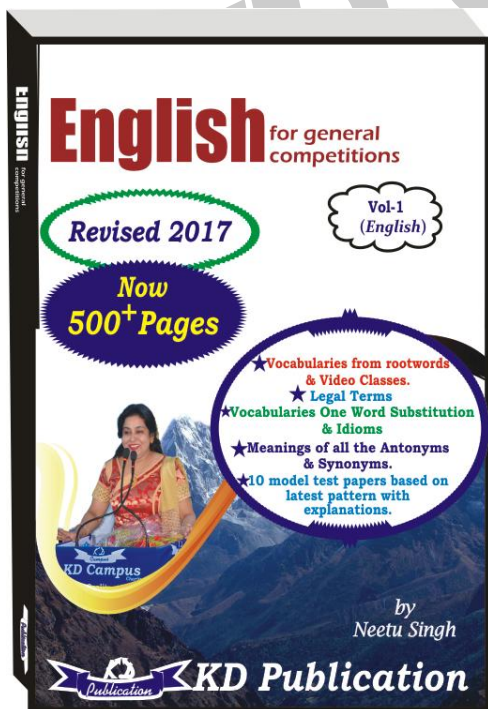
SSC MOCK TEST - 180 (ANSWER KEY)

1.	(D)	26.	(C)	51.	(C)	76.	(D)
2.	(C)	27.	(A)	52.	(C)	77.	(C)
3.	(B)	28.	(D)	53.	(B)	78.	(B)
4.	(A)	29.	(C)	54.	(A)	79.	(A)
5.	(D)	30.	(B)	55.	(C)	80.	(C)
6.	(C)	31.	(C)	56.	(B)	81.	(D)
7.	(B)	32.	(C)	57.	(A)	82.	(A)
8.	(D)	33.	(D)	58.	(C)	83.	(C)
9.	(A)	34.	(C)	59.	(A)	84.	(C)
10.	(B)	35.	(C)	60.	(B)	85.	(D)
11.	(C)	36.	(B)	61.	(C)	86.	(C)
12.	(D)	37.	(A)	62.	(D)	87.	(A)
13.	(B)	38.	(B)	63.	(D)	88.	(B)
14.	(C)	39.	(B)	64.	(B)	89.	(D)
15.	(A)	40.	(C)	65.	(A)	90.	(D)
16.	(A)	41.	(D)	66.	(C)	91.	(C)
17.	(A)	42.	(A)	67.	(C)	92.	(A)
18.	(D)	43.	(B)	68.	(B)	93.	(D)
19.	(D)	44.	(A)	69.	(B)	94.	(C)
20.	(D)	45.	(C)	70.	(B)	95.	(B)
21.	(B)	46.	(C)	71.	(B)	96.	(A)
22.	(D)	47.	(D)	72.	(D)	97.	(D)
23.	(B)	48.	(A)	73.	(B)	98.	(A)
24.	(D)	49.	(C)	74.	(D)	99.	(C)
25.	(D)	50.	(B)	75.	(C)	100.	(A)
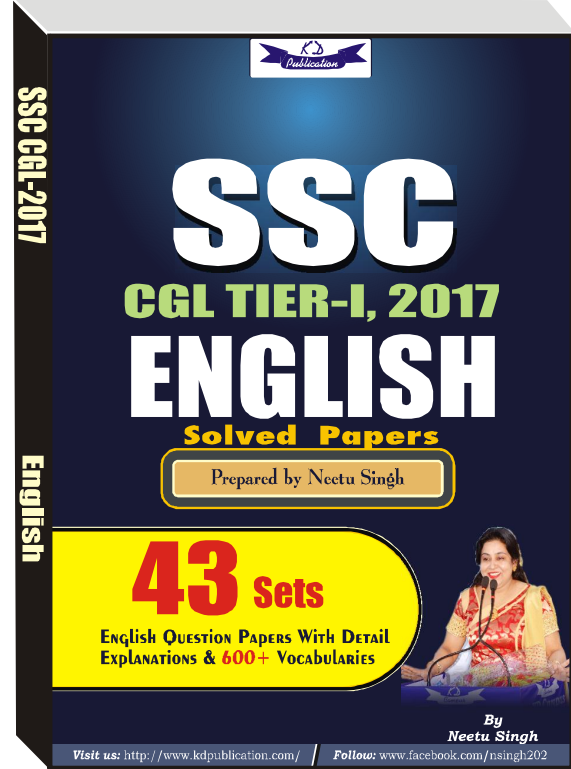
76. (D) There is no error in the sentence.
77. (C) When we talk about result or consequence of something, we use effect. Effect is used as both noun and verb.
78. (B) Pronoun for farmers in the sentence is not himself as it is singular and goes after he. Themselves is the correct pronoun.
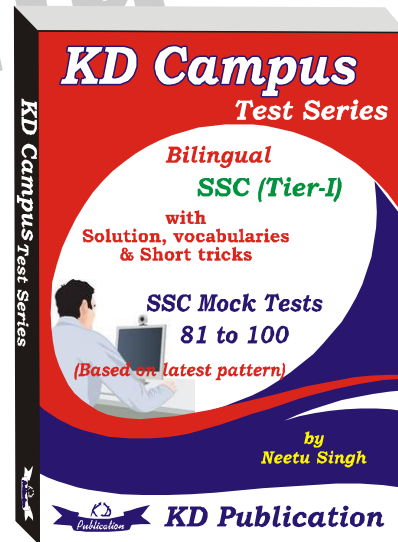
Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

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