

## SSC CGL (Tier I) 2022 - HINTS & SOLUTIONS

### ANSWER KEY

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

### HINTS & SOLUTIONS

1.(3) We can fly in Air, in the same way  
We can swim in water.

2.(2) Each alphabet increased by +8.

3.(1)  $7 + 7 = 14$

Similarly,  $9 + 9 = 18$

4.(4) All other are name of sports.

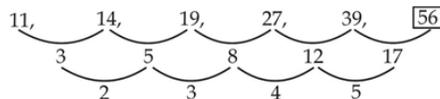
5.(3)  $-2, -1$  pattern except option(c)

6.(3) Except (c), all other are divisible by 27.

7.(3) No. of alphabets increase by one.

8.(1)

9.(2)



10.(1)

16 July = Sunday

No. of day between two dates = 16

No. of odd days =  $\frac{16}{7} \Rightarrow$  Remainder = 2

$\therefore$  1<sup>st</sup> August = Sunday + 2 = Tuesday

11.(1)

$190 = 30 + 20 + 50 + 90$

$140 = (30 + 20 + 90)$  or  $(50 + 90)$

$160 = 20 + 50 + 90$

200 = Not a possible combination

12.(2)

13.(3) +2 pattern.

14.(2)

$80 \div 4 - 25 \times 2 + 41$

$\Rightarrow 20 - 50 + 41$

$\Rightarrow 11$

15.(1)

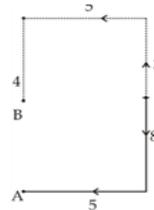
$35 \#6 \rightarrow (35 + 6) \times 2 = 82$

16.(4)

$$x^2 - 8^2 = 36$$

$$x = 10$$

17.(1)



B is 7km north to A.

18.(4)

Neither I nor II is strong

19.(1)

20.(4)

(C, H)

21.(4)

22.(4)

23.(4)

24.(3)

25.(3)

26.(3)

It is an island country consisting of a small archipelago centered around Bahrain Island, situated between the Qatar peninsula and the north eastern coast of Saudi Arabia.

27.(4)

Jhaveri sisters a famous dancer of Manipuri dance.

28.(1)

Venkat II (1586-1614) Not only reconquered most of the territories but also controlled a number of Palayagirs. Allowed Portuguese to build Churches at Vellore.

29.(4)

The White Mutiny took place during the vice-royalty of Lord Ripon.

30.(4)

The Cripps mission was an attempt in late March 1942 by the British government to secure full Indian cooperation and support for their efforts in World War II. The mission was headed by Sir Stafford Cripps, a senior left-wing politician and government minister in the War Cabinet of Prime Minister Winston Churchill.

31.(1)

The Sundarbans forest is about 10,000 sq km across India and Bangladesh, of which 40% lies in India, and is home to many rare and globally threatened wildlife species such as the estuarine crocodile, royal Bengal tiger, Water monitor lizard, Gangetic dolphin, and olive ridley turtle. The forest in India is divided into the Sundarbans Tiger Reserve and 24 Parganas (South) Forest Division, and together with the forest in Bangladesh is the only mangrove forest in the world where tigers are found.

32.(3)

Bhutan is a land locked country. Bordered by Indian states- Sikkim in west, Arunachal Pradesh in east and West Bengal in south.

33.(2)

The Inter Tropical Convergence Zone, or ITCZ, is a belt of low pressure which circles the Earth generally near the equator where the trade winds of the Northern and Southern Hemispheres come together. It is characterised by convective activity which generates often vigorous thunderstorms over large areas.

34.(3)

Africa's highest mountain peak mt. Kilimanjaro lies in Tanzania.

35.(3)

The Fundamental Duties of citizens were added to the Constitution by the 42nd Amendment in 1976, upon the recommendations of the Swaran Singh Committee that was constituted by the government earlier that year.

36.(2)

The idea of creation of Zonal Councils was first of all mooted by the first Prime Minister of India, Pandit JawaharLal Nehru in 1956. The zonal councils have been established by the state reorganization act 1956 to

- 37.(1) advise on matters of common interest to each of the five zones, into which the territory of India has been divided. Micro Units Development and Refinance Agency Bank (or MUDRA Bank) is a public sector financial institution in India. It provides loans at low rates to micro-finance institutions and non-banking financial institutions which then provide credit to MSMEs (small business). It was launched by Prime Minister Narendra Modi on 8 April 2015.
- 38.(1) Visible light has the lowest frequency among the following electromagnetic radiations.
- 39.(2) At hill stations, the boiling point of water will be less than that at sea level due to change in atmospheric pressure.
- 40.(4) Hydrogen Bond is weakest bond between atoms. Occur in molecules that have covalent bonds. Sometimes the electrons are not equally shared; one atom tends to have an electron more often than the other atom. In this situation one atom of the molecule becomes partly negative and the other then becomes partly positive. This is especially common between water molecules.
- 41.(1) The elements in each group have the same number of electrons in the outer orbital. Those outer electrons are also called valence electrons. They are the electrons involved in chemical bonds with other elements.
- 42.(1) Pepsin is an endopeptidase that breaks down proteins into smaller peptides (protease). It is produced in the stomach and is one of the main digestive enzymes in the digestive systems of humans and many other animals, where it helps digest the proteins in food.
- 43.(3) Somatosensory Receptor(s) is a cell or group of cells specialized to detect changes in the environment and trigger impulses in the sensory nervous system. It is a receptor to detect touch in human being.
- 44.(1) The main respiratory surface in humans is the alveoli. Alveoli are tiny balloon like structures with very thin walls. They have numerous tiny thin walled blood vessels in direct contact with them. It is within the lungs.
- 45.(3) Maharashtra is the top state in delivering justice to its citizens followed by Kerala, Tamil Nadu, Punjab and Haryana in the first ever ranking of states on their capacity to deliver justice to citizens.
- 46.(4) The researchers from Queen Mary institute of London have developed a new dielectric capacitor- a device that stores energy like a battery.
- 47.(3) India has been placed at 57 position among 195 countries in the Global Health Security Index 2019 with a score of 46.5 out of 100.
- 48.(2) IRCTC has decided to compensate the passengers of New Delhi-Lucknow Tejas Express.
- 49.(2) The Indian Ambassador to the Netherlands, Venu Rajamony, released his book titled India and the Netherlands, Past, Present and Future at a seminar held at the Rijksmuseum in Amsterdam.
- 50.(2) World leaders have gathered in New York City for the 74th session of the United Nations General Assembly (UNGA)

51.(1)

2	43	1
2	21	1
2	10	0
2	5	1
2	2	0
	1	

In binary 101011

- 52.(3)
- A (48)  
N (24)  
A+N+R (8)
- Efficiency of Ram =  $6 - (2 + 1) = 3$
- No. of days =  $\frac{48}{3} = 16$  days

53.(2)

$$5 \times 3x + \frac{30}{2}x + \frac{40}{10}x = 170$$

$$\Rightarrow 15x + 15x + 4x = 170$$

$$\Rightarrow 34x = 170$$

$$\Rightarrow x = 5$$

No. of 50 paise coins =  $30x = 150$

54.(1)

Circumference =  $2\pi r$

$$\Rightarrow 2 \times \frac{22}{7} \times r = 221.32$$

$$\Rightarrow r = 35.21 \text{ cm}$$

Area =  $\pi r^2 =$

$$\Rightarrow \frac{22}{7} \times (35.21)^2 = 3896.3 \text{ cm}^2$$

55.(2)

Runs scored in 40 overs =  $40 \times 5.5 = 220$

Remaining runs = 67

Remaining overs = 10

Required run rate =  $\frac{67}{10} = 6.7$

56.(3)

C.P. of milk =  $36 \times 4 = 144$

S. P. of mixture =  $40 \times 5 = 200$

Profit % =  $\frac{56}{144} \times 100 = 38.89\%$

57.(2)

ATQ,

27%  $\rightarrow$  108

1%  $\rightarrow$  4

100%  $\rightarrow$  400

58.(3)

Required distance =  $(40 + 68) \times \frac{5}{18} \times 36 \times 60$

= 64800 m or 64.8 km

59.(4)

CI in 2 yrs =  $5 + 5 + \frac{5 \times 5}{100} = 10.25\%$

CI in 3 yrs =  $10.25 + 5 + \frac{10.25 \times 5}{100}$

= 15.7625%

$15.7625\% = \frac{1261}{8000}$

Amount = 9261 units

Now, 9261 units  $\rightarrow$  27,783

1 unit  $\rightarrow$  3

So, 8000 units  $\rightarrow$   $8000 \times 3 = 24000$

60.(1)

Put  $x = 2$

LHS =  $7 + 4(29)/29 = 11 = \text{RHS}$

61.(2)

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

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

$$= (-3)[(-3)^2 + 27]$$

$$= (-3)(36) = -108$$

62.(3)

$$\frac{5}{4} + 4 \times \frac{4}{5} = \frac{89}{20}$$

So, fraction is  $5/4$

63.(4)

ATQ,

$a + 3d = 15$

And,  $a + 9d = 87$

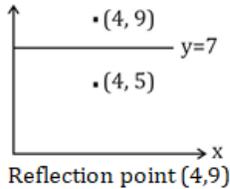
On solving  $d = 12$

$a = -21$

now, 13<sup>th</sup> term is

$a + 12d = -21 + 12 \times 12 = 123$

64.(2)



65.(2)

$$\frac{8+x}{2} = 3$$

$$x = -2$$

66.(4)

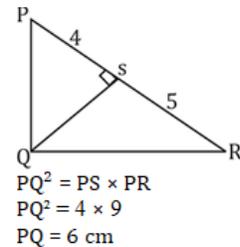
Equation of line is  $y = mx + c$

$$\Rightarrow y = \frac{-1}{2}x + 5$$

$$\Rightarrow 2y = -x + 10$$

$$\Rightarrow x + 2y - 10 = 0$$

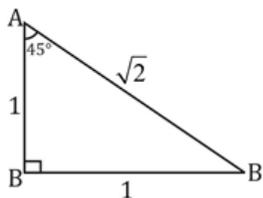
67.(2)



68.(3)

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

69.(1)



If  $\sqrt{2}$  units  $\rightarrow$  8 cm  
 1 unit  $\rightarrow \frac{8}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} = 4\sqrt{2} \text{ cm}$

70.(1)

$$\sec \theta = \frac{H}{B} = \frac{97}{65}$$

$$P = 72$$

$$\operatorname{Cosec} \theta = \frac{H}{P} = \frac{97}{72}$$

71.(2)

No. of taxi in company A = 25  
 No. of taxi in company D = 75  
 No. of taxi in company C = 35  
 $\therefore$  No. of taxi in company C is more than A but less than that of D

72.(4)

Final no. of taxi in company D =  $75 + 30 = 105$   
 No. of Taxi in company C = 35  
 $\therefore$  Required difference =  $105 - 35 = 70$

73.(4)

$$\text{Required \%} = \frac{75 - (25 + 35)}{(25 + 35)} \times 100 = 25\%$$

74.(2)

$$\text{Required amount} = (25 + 120 + 35 + 75 + 95 + 10) \times 100 \times 3$$

= Rs 1,08,000

75.(1)

$$\text{Speed} = \frac{90 \times 1000}{2.5 \times 60 \times 60} = 10 \text{ m/sec}$$

76.(4)

'CDAB' is the correct sequence.

77.(3)

Replace 'sheered' with 'sheared'.  
 Shear: to cut the wool off a sheep.  
 Sheer: swerve or change course quickly.  
 Hence 'sheared' the past participle of verb 'shear' is to be used according to the given context.

78.(3)

**Extemporaneous** means spoken or done without preparation.

79.(4)

The die is cast (idiom): a decision has been made or something has happened that makes it impossible to change things.

80.(2)

81.(2)

82.(4)

'There' takes verb according to the subsequent part ahead of it. Here plural clause after conjunction 'and' suggests that prior clause also should be in plural. Hence the correct sentence is 'From time immemorial there have been friendly migrations and unfriendly onslaughts on the Kerala society, mostly through the sea.'

83.(3)

Red tape: excessive bureaucracy or adherence to official rules and formalities.

Skirmish: a minor short-term fight.

Cryosphere is the frozen water part of the Earth system. Hence option C fits in the context.

84.(2)

Vilipend: to hold or treat as of little worth or account.

Decry: publicly denounce.

Exalt: think or speak very highly of.

Reprobate: express of feel disapproval of.

Slur: speak indistinctly so that the sounds run into one another.

Hence Vilipend and Exalt are antonyms to each other.

85.(1)

Realistic: based on what is real rather than on what is wanted or hoped for.

Strait: a narrow passage of water connecting two seas or two other large areas of water.

Fuselage: the main body of an aircraft.

86.(2)

Disgruntled: angry or dissatisfied.

87.(1)

Instance: a step, stage, or situation viewed as part of a process or series of events.

88.(4)

Threaten: cause (someone or something) to be vulnerable or at risk; endanger.

89.(3)

Unjust: not based on or behaving according to what is morally right and fair.

90.(4)

Rancour: bitterness or resentfulness, especially when long standing.

Hence 'Hatred' is the correct synonym.

91.(4)

92.(3)

93.(2)

'BADC' is the correct sequence.

94.(1)

There is a preposition related error. Replace 'suffused by' with 'suffused with'.

95.(3)

Tumultuous means making an uproar or loud, confused noise.

96.(3)

Cordon off: to restrict access to a particular area by using a rope, tape, or other means.

97.(1)

Use 'is not able to' in place of 'can't be able to'. Modal 'can' doesn't take 'able' with it as 'can' already implies the ability of the subject.

98.(4)

Vulnerable: exposed to the possibility of being attacked or harmed.

99.(1)

Pestilent: causing annoyance; troublesome.

Innocuous: not harmful or offensive.

Hence Pestilent and Innocuous are antonyms to each other.

100.(1)

Tryst: an agreement to be present at a specified time and place.

Rendezvous: a meeting at an agreed time and place.

Hence 'Rendezvous' is the correct synonym.