

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

ANSWER KEY

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

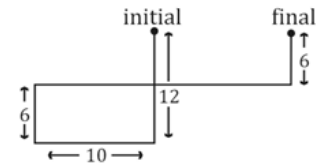
HINTS & SpOLUTIONS

- 1.(1) Pen is used to write on paper, finger is used to input in smartphones.
- 2.(3) +6 pattern.
- 3.(2) $\times 2 + 2$ pattern.
- 4.(4) Rest all moves on water.
- 5.(2) -2 pattern except option (b)
- 6.(3) Except (c), all other are prime numbers
- 7.(2) First alphabet of each word is as per English alphabetical series.
- 8.(1) +3, +4, +5, +6 pattern series.
- 9.(3) -9, -8, -7, -6 pattern series
- 10.(3) No. of days between two dates = 14 days
 No. of odd days = $\frac{14}{7} \Rightarrow$ Remainder = 0
 \therefore Day on 12th August will be Saturday.
- 11.(2)
 $120 = 30 + 20 + 70$
 $150 = 20 + 60 + 70$
 $180 = 20 + 30 + 60 + 70$
 \therefore 190 cannot be a combination.
- 12.(3)
- 13.(1)
- | | | | | | |
|---|---|---|---|---|---|
| N | U | M | B | E | R |
| W | P | D | O | T | G |
- +2
- | | | | |
|---|---|---|---|
| M | A | I | L |
| C | O | N | K |
- +2
- 14.(4)
 $2 \times 6 \div 4 - 15 \div 10$
 $= 3 + 15 - 10 = 8$

15.(3) $17@2 = (17 + 2) \times 2 = 38$
 16.(3)

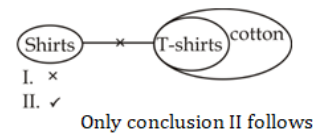
$45 + 36 = 81$
 $31 + 115 = 146$
 $216 + 315 = 531$

17.(3)



Required distance = 10 m

18.(2)



19.(1)

20.(3) A, B, G

21.(3) 22.(3) 23.(2) 24.(2)

25.(2)

99 23 77 59
 | | | |
 P A W N

26.(2)

Daimabad is a deserted village and an archaeological site on the left bank of the Pravara River, a tributary of the Godavari River in Shrirampur taluka in Ahmednagar district of Maharashtra state in India. This site was discovered by B. P. Bopardikar in 1958.

27.(1)

The Neolithic Site of Burzahom, in the district of Srinagar, India brings to light transitions in human habitation patterns from Neolithic Period to Megalithic period to the early Historic period. Burzahom gives evidence Human burial with dogs.

28.(1)

Khajuraho temples were built between 950 and 1050 by the Chandeladynasty. The Khajuraho Group of Monuments is a group of Hindu and Jain temples in Madhya Pradesh, India, about 175 kilometres (109 mi) southeast of Jhansi. They are one of the UNESCO World Heritage Sites in India.

29.(2)

The Victoria Memorial is a large marble building in Kolkata, West Bengal, India, which was built between 1906 and 1921. Lord Curzon proposed construction of Victoria Memorial.

30.(3)

Angel Falls, Spanish Salto Ángel, also called Salto ChurúnMerú, waterfall in the Guiana Highlands in Bolívar state, southeastern Venezuela, on the Churún River, a tributary of the Caroní, 160 miles (260 km) southeast of Ciudad Bolívar.

31.(2)

Cypress is the national tree of Bhutan.

32.(1)

Jim Corbett National Park is the oldest national park in India and was established in 1936 as Hailey National Park to protect the endangered Bengal tiger. It is located in Nainital district of Uttarakhand.

33.(4)

The Jaduguda Mine is a uranium mine in Jaduguda village in the Purbi Singhbhum district of the Indian state of Jharkhand. It commenced operation in 1967 and was the first uranium mine in India. The deposits at this mine were discovered in 1951.

- 34.(2) Estimate Committee largest committee of Parliament of India. It consists of 30 members who are elected by the Lok Sabha every year from amongst its members.
- 35.(2) Article 41 of the Indian Constitution "Right to work, to education and to public assistance in certain cases" deals with the directive principles of state policy.
- 36.(3) Price and output sold relationship is explained through the supply function.
- 37.(2) The JB Say's law of market has been given J B Say. Which stated as "supply creates its own demand."
- 38.(1) Predicted theoretically in 1935 by the Japanese physicist Yukawa Hideki, the existence of mesons was confirmed in 1947 by a team led by the English physicist Cecil Frank Powell with the discovery of the pi-meson (pion) in cosmic-ray particle interactions.
- 39.(3) Vitamin K is a fat-soluble vitamin that is most well-known for the important role it plays in blood clotting. However, vitamin K is also absolutely essential to building strong bones, preventing heart disease, and crucial part of other bodily processes.
- 40.(3) There are seven periods in the periodic table.
- 41.(2) Pure distilled water should be neutral with a pH of 7.
- 42.(4) When a bar magnet is cut into two equal halves, the pole strength of each piece Remains the same.
- 43.(1) Fat-soluble vitamins (which dissolve in fat), such as vitamins A, D, E and K, are stored in the liver.
- 44.(2) The countries which share border with Myanmar are Bangladesh, India, China, Laos, and Thailand.
- 45.(2) Assam recorded the maximum number of crimes against women 168.3 cases in 2021.
- 46.(3) Jessye Norman ,the renowned international opera singer of the 20th Century, has passed away in New York, United States.
- 47.(3)
- 48.(2) Chinese badminton ace Lin Dan clinched the 2019 men's singles Malaysia Open at Axiata Arena in Kuala Lumpur on April 7.
- 49.(2) The theme for the World Environment Day 2019 is "Air Pollution".
- 50.(1) Prime Minister Narendra Modi and visiting Mongolian President Khaltmaagiin Battulga have jointly unveiled a golden statue of Lord Buddha at Gandan Tegchenling Monastery in Ulaanbaatar through video-conferencing in New Delhi

51.(2)

	MP	SP
8%	100	92
	100	78
22%	10000	7176

Or 1250 : 897
 897 units → 2691
 1 unit → 3
 1250 units → 1250 × 3
 = 3750

52.(3)

$$\text{Required time} = \frac{\text{difference in speed}}{\text{speed without stoppages}} = \frac{75-50}{75} = \frac{1}{3}$$

$$\text{Time} = \frac{1}{3} \times 60 = 20 \text{ min/hr.}$$

53.(1)

$$\begin{aligned} x + \frac{1}{x} &= a \\ x^3 + \frac{1}{x^3} &= a^3 - 3a \\ &= 343 - 21 \\ &= 322 \end{aligned}$$

54.(4)

A	B	C
2	4	3

Total work = (2 + 4 + 3) × 8
 = 72 units
 Required time = $\frac{72}{3} \times \frac{3}{4} = 18 \text{ days.}$

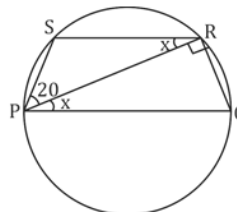
55.(2)

$$\begin{aligned} \cot \theta &= \frac{B}{P} = \frac{4}{3} \\ H &= 5 \\ \text{Now } \frac{5 \times \frac{3}{5} - 2 \times \frac{4}{5}}{5 \times \frac{3}{5} + 2 \times \frac{4}{5}} \\ &= \frac{7}{23} \end{aligned}$$

56.(2)

$$\begin{aligned} \text{Cosec } x &= \sec(90^\circ - x) \\ \text{So, } 5\theta + (\theta + 18^\circ) &= 90^\circ \\ 6\theta &= 72^\circ \\ \theta &= 12^\circ \end{aligned}$$

57.(4)

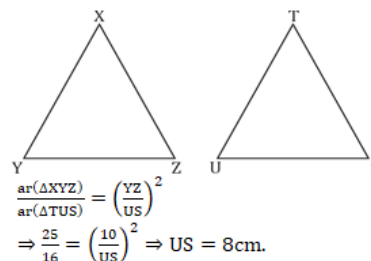


in cyclic quadrilateral PQRS
 $(20 + x) + (x + 90) = 180$
 $2x + 110 = 180$
 $x = 35^\circ$

58.(2)

$$\begin{aligned} \sin^2 43^\circ + \sin^2 47^\circ &= 1 \\ \text{As } \sin^2 47^\circ &= \cos^2 43^\circ \\ \text{So,} \\ 1 + \left(\frac{1}{2}\right)^2 - \left(\frac{1}{\sqrt{2}}\right)^2 \\ \Rightarrow 1 + \frac{1}{4} - \frac{1}{2} &= \frac{3}{4} \end{aligned}$$

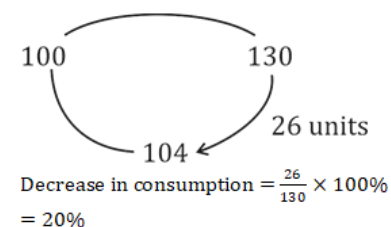
59.(1)



60.(4)

	Old	New
Diameter	5	4
Volume	125	64
Decrease in volume	$= \frac{61}{125} \times 100 = 48.8\%$	

61.(1)



62.(2)

Volumes would be equal.

$$a^3 = b^3 + b^3$$

$$a^3 = 2b^3$$

$$\frac{a}{b} = \frac{(2)^{\frac{1}{3}}}{1}$$

63.(3)

$$\pi r l = 462$$

$$\frac{22}{7} \times r \times 35 = 462$$

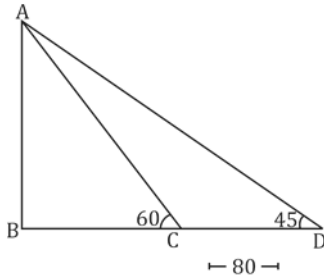
$$r = 4.2 \text{ cm}$$

64.(2)

$$\sin^3 A + \cos^3 A = (\sin A + \cos A) (\sin^2 A + \cos^2 A - \sin A \cos A)$$

$$= (\sin A + \cos A) (1 - \sin A \cos A)$$

65.(4)



$$\sqrt{3} - 1 \text{ unit} \rightarrow 80 \text{ m}$$

$$\sqrt{3} \text{ unit} \rightarrow \frac{\sqrt{3}}{\sqrt{3}-1} \times 80$$

$$= 40(3 + \sqrt{3}) \text{ m}$$

66.(2)

$$\text{HCF} \times a \times b = 1260 \quad \text{---(i)}$$

$$\text{HCF} \times a - \text{HCF} \times b = 54 \quad \text{---(ii)}$$

$$(i) + (ii)$$

$$\frac{a \times b}{a-b} = \frac{1260}{54} = \frac{70}{3}$$

$$a = 10, b = 7$$

$$\text{by ---(i)}$$

$$\text{HCF} \times 10 \times 7 = 1260$$

$$\text{HCF} = 18$$

$$\text{Numbers are} = 18a \text{ and } 18b$$

$$= 180 \text{ and } 126$$

$$\text{Sum of numbers} = 306$$

67.(4)

$$\frac{700}{5} = \frac{140}{5} = \frac{28}{5} = \frac{5}{5} = 1$$

$$\text{No. of zeros} = 140 + 28 + 5 + 1$$

$$= 174 \text{ zeros}$$

68.(2)

$$50\% \text{ profit} = \frac{7}{2} \times 5600$$

$$= 19600$$

$$\text{Whole profit} = 39200$$

69.(3)

$$p^3 + q^3 = (p + q)[(p + q)^2 - 3pq]$$

$$= 5[(5)^2 - 3(3)]$$

$$= 5[16] = 80$$

70.(2)

$$\text{Difference in 2 years} = \frac{ab}{100}$$

i.e.

$$0.49 \rightarrow \text{Rs. } 98$$

$$1 \text{ unit} \rightarrow \text{Rs. } 200$$

$$100 \text{ units} \rightarrow 20,000$$

71.(4)

$$\text{Total work} = (4 + 5 + 3) \times 10$$

$$= 120$$

$$\text{Required time} = \frac{120}{3} \times \frac{30}{100} = 12 \text{ days}$$

72.(2)

In 'D' department the no. of employees are lowest.

73.(4)

$$\text{Required ratio} = 200 : 350$$

$$4 : 7$$

74.(2)

$$\text{Required \%} = \frac{350-200}{200} \times 100 = 75\%$$

75.(3)

Compensation of an employee of dept. 'A' = Rs 40,000

So, total compensation = 40,000 × 200

= Rs 80, 00,000 or Rs. 80 lakh

76.(4)

77.(1)

Replace "outrightly" with "outright" as it itself is an adverb thus no need to add "ly" in it to make it an adverb.

78.(3)

Undiscernibly means impossible to see or clearly distinguish.

79.(2)

"Hit the road" is an idiom which means set out on a journey.

80.(2)

Clinomania means excessive desire to stay in bed

81.(1)

82.(2)

Threadlike means thin in diameter; resembling a thread.

83.(4)

Retract: withdraw (a statement or accusation) as untrue or unjustified.

Assert: to state an opinion or claim a right forcefully.

84.(1)

Pernicious means having a harmful effect, especially in a gradual or subtle way. (detrimental)

85.(1)

Refer to, "A price that is determined by the seller or, for that matter (for that matter: so far as that is concerned), established by anyone other than the aggregate of consumers seems pernicious."

86.(2)

Refer to, "In fact, price-fixing is normal in all industrialized societies because the industrial system itself provides, as an effortless consequence of its own development, the price-fixing that it requires."

87.(3)

Refer to, "Accordingly, it requires a major act of will to think of price-fixing (the determination of prices by the seller) as both "normal" and having a valuable economic function."

88.(4)

Refer to, "That each large firm will act with consideration of its own needs and thus avoid selling its products for more than its competitors charge is commonly recognized by advocates of free-market economic theories."

89.(2)

Abut means be next to or have a common boundary with.

Adjoin means be next to and joined with.

90.(1)

91.(2) 92.(4)

93.(1)

Use 'names' in place of 'name' because more than one candidate is involved.

94.(3)

Set someone by the ears (idiom): to cause (someone, generally a group of two or more people) to engage in a squabble, dispute, or altercation.

95.(4)

Bigot: a person who is intolerant towards those holding different opinions.

96.(3)

As the comparison is made thus "more" should be used.

97.(3)

98.(4)

Admonish means reprimand firmly.

99.(3)

Pompous: affectedly grand, solemn.

100.(4)

Mercurial means subject to sudden or unpredictable changes of mood or mind.

Fickle means changing frequently, especially as regards one's loyalties or affections.