



### Welcome to Quant Sir's Comprehensive Guide – Your Trusted Companion for SSC CGL Tier I Success

Preparing for the **SSC CGL Tier I** exam demands more than dedication—it calls for a strategic mindset, strong conceptual understanding, and refined problem-solving skills. This guide is thoughtfully curated to support your preparation with a thorough analysis of the **SSC CGL 2023 Quant Previous Year Paper - 17 July 2023 - Shift 1**, complete with accurate answer keys and step-by-step explanations.

At **Quant Sir**, we provide you with the actual 2023 question paper and meticulously detailed solutions to help you decode the exam pattern and master the techniques required to tackle even the most challenging problems with ease. Practicing with real exam questions sharpens your accuracy, builds speed, and gives you an authentic feel of the test.

Whether you're attempting SSC CGL for the first time or aiming to fine-tune your preparation, this guide is tailored to boost your performance. With **Quant Sir**, you're not just preparing—you're preparing smart.

## SSC CGL 2023 Quant Previous Year Paper - Exam Pattern

Take a look at the exam pattern for the SSC CGL Tier I 2023 exam.

Tier I: Computer-Based Exam (Qualifying Nature)

Subject	No. of Questions	Maximum Marks	Duration
General Intelligence & Reasoning	25	50	60 minutes (80 min for PwD)
General Awareness	25	50	
Quantitative Aptitude	25	50	
English Comprehension	25	50	
Total	100	200	

## SSC CGL 2023 Quant Previous Year Paper - Topicwise Weightage



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The table below provides a topic-wise analysis of the SSC CGL 2023 Quant Previous Year Paper - 17 July 2023 - Shift 1. It highlights the major focus areas and the number of questions asked from each topic, offering valuable insights into the exam pattern. Use this breakdown to refine your preparation strategy and focus on high-yield areas more effectively.

Topic	No. of Questions
Simplification	3
Averages	1
Profit, Loss & Discount	2
Percentages	1
Simple Interest	1
Time, Speed & Distance	1
Time & Work	3
Algebra	2
Geometry	2
Mensuration (3D Geometry)	2
Trigonometry	4
Data Interpretation	2
Number System / Divisibility	2

## SSC CGL 2023 Quant Previous Year Paper - Tips to Solve

Here are top tips for cracking the SSC CGL Quantitative Aptitude section:



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### 1. Understand the Question First

Don't rush into solving—take a moment to carefully read and comprehend what the question is really asking. Clear understanding reduces the risk of misinterpretation and careless errors.

### 2. Start with Your Strength Areas

Begin the paper with topics you're most confident in—such as Simplification or Ratio & Proportion. This boosts your confidence and helps you manage time more efficiently.

### 3. Manage Time Wisely

Allocate a fixed time per question. If a question seems too time-consuming, move on and come back to it later. Avoid spending too long on one problem at the cost of others.

### 4. Use Efficient Shortcuts and Tricks

Learn quick methods and formulas, especially for high-scoring topics like Percentages, Mensuration, and Profit & Loss. These can significantly cut down your solving time without compromising accuracy.

### 5. Balance Speed with Precision

Speed matters, but accuracy is critical. Make quick estimates where possible and double-check your calculations when time allows to avoid negative marking.

### 6. Practice Data Interpretation Regularly

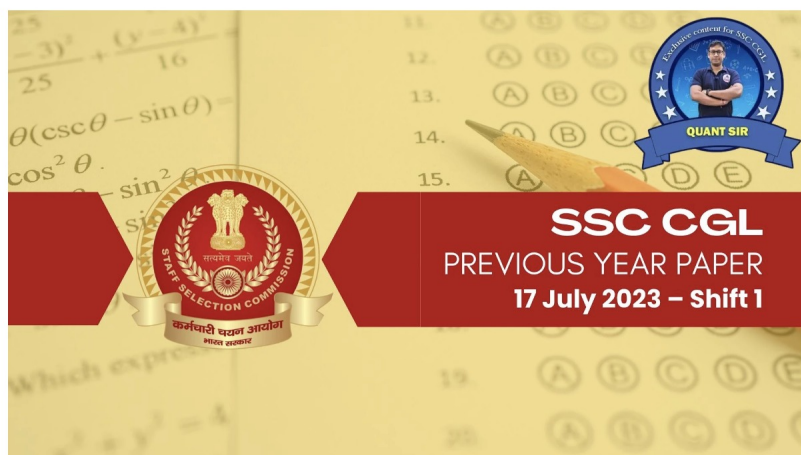
Get comfortable with interpreting charts, tables, and graphs. Focus on spotting patterns and quickly extracting relevant data to save time during the exam.

### 7. Master Key Formulas and Concepts

Be thorough with formulas in Algebra, Geometry, and Trigonometry—but also understand their underlying concepts so you can apply them flexibly in different scenarios.

### 8. Break Down Word Problems Logically

Tackle word problems step by step. Identify the essential data, structure it clearly, and translate it into mathematical expressions for easier solving.



Consistent practice, smart strategy, and familiarity with the question pattern are your keys to success in the Quant section of the SSC CGL exam.





## SSC CGL 2023 Quant Previous Year Paper - 17 July 2023 - Shift 1

**Q:1** Simplify

$$2.5 \times [144 \div 198 \times \{121 \times 81 \div (11 \times 9)\}]$$

1. 180
2. 175
3. 185
4. 190

**Q:2** There are 3 members in a family. The average age of the father and mother is 40 years. The average age of the father, mother, and daughter is 30 years. Find the age (in years) of the daughter.

1. 6
2. 12
3. 10
4. 8

**Q:3** A shopkeeper sells an item at a profit of 15% and uses a weight which is 20% less. Find his actual profit percentage.

1. 42.5%
2. 50%
3. 40%
4. 43.75%

**Q:4** Simplify the following expression.

$$(3x + 5)^2 + (3x - 5)^2$$

1.  $500x$
2.  $450x$
3.  $9x^2 + 50$



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4.  $2(9x^2 + 25)$

**Q:5** Find the smallest number that can be subtracted from 148109326 so that it becomes divisible by 8.

1. 4
2. 8
3. 6
4. 10

**Q:6** The volume of a cone with a height equal to the radius, and a slant height of 5 cm is:

1.  $125\pi/12\sqrt{2} \text{ cm}^3$
2.  $125\pi/6\sqrt{3} \text{ cm}^3$
3.  $125\pi/12\sqrt{2} \text{ cm}^3$
4.  $125\pi/6\sqrt{2} \text{ cm}^3$

**Q:7** If  $\sin \theta + \cos \theta = 4/5$  then, find  $\sin \theta \cos \theta$ .

1.  $9/50$
2.  $-9/50$
3.  $9/25$
4.  $-9/25$

**Q:8** Simplify the following expression.

$$y + 2x - \{y - (y - x + y)\} - (x + y) + y - 2y$$

1.  $-y$
2.  $-2x$
3.  $y$
4.  $2x$

**Q:9** A policeman noticed a thief from 300 m. The thief started running and the policeman was chasing him. The thief and the policeman ran at speeds of 8 km/h and 9 km/h, respectively. What was the distance between them after 3 minutes?

1. 225 m
2. 250 m



3. 300 m

4. 200 m

**Q:10** A, B, and C working alone, can complete a job in 16, 24, and 36 days, respectively. In how many days can they complete the job if they work together?

1.  $7\frac{11}{19}$

2.  $5\frac{17}{19}$

3.  $4\frac{13}{19}$

4.  $6\frac{6}{19}$

**Q:11** A person deposited ₹500 for 3 years, ₹650 for 5 years, and ₹1,250 for 7 years. He received a total simple interest of ₹1,620. The rate of interest per annum is:

1. 12%

2. 13%

3. 10.8%

4. 11%

**Q:12** Rakshit, Ajay, and Satish are sanitation workers in a Municipal Corporation. Rakshit alone takes 20 hours to clean a drain while Ajay takes 12 hours to do the same when working alone. All three together take only 5 hours to clean the drain. In how many hours, can Satish complete the work alone?

1. 12

2. 10

3. 15

4. 18

**Q:13**  $\triangle ABC \sim \triangle DEF$  and the perimeters of  $\triangle ABC$  and  $\triangle DEF$  are 40 cm and 12 cm, respectively. If  $DE = 6$  cm, then  $AB$  is:

1. 12.6 cm

2. 24 cm

3. 20 cm

4. 10 cm

**Q:14** On a circular path of 693 m, Sujata and Anjali start walking from the same point but in opposite directions at speeds of 2.85 km/h and 1.5 m/sec, respectively. When will they meet for the first time?



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1. After 6.75 minutes
2. After 6.05 minutes
3. After 5.04 minutes
4. After 4.56 minutes

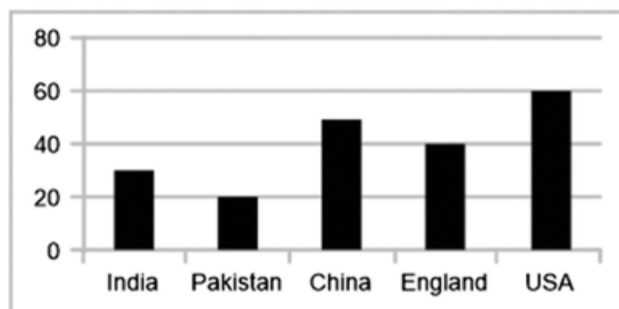
**Q:15** If the area of the circle is  $616 \text{ cm}^2$  and a chord  $XY = 10$  then find the perpendicular distance from the center of the circle to the chord  $XY$ .

1.  $\sqrt{161}$
2.  $\sqrt{171}$
3.  $\sqrt{181}$
4.  $\sqrt{117}$

**Q:16** 15 men and 25 women can complete a piece of work in 9.6 days. If 16 women can complete the same work in 27 days, find the number of days in which 16 men can complete the same work.

1. 22.50
2. 20.25
3. 19.20
4. 21.60

**Q:17** Industrial growth of different countries (in crores of 2):



How many countries' industrial growth is more than the average industrial growth?

1. 3
2. 4



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3. 2

4. 1

**Q:18** Select the incorrect formula from the following Options.

1.  $\sec^2\theta - \tan^2\theta = 1$

2.  $\sin^2\theta + \cos^2\theta = 1$

3.  $\operatorname{cosec}^2\theta - \cot^2\theta = 1$

4.  $\sec^2\theta + \cos^2\theta = 1$

**Q:19** Find the value of  $\sin^2 25^\circ + \sin^2 65^\circ$ .

1. -1

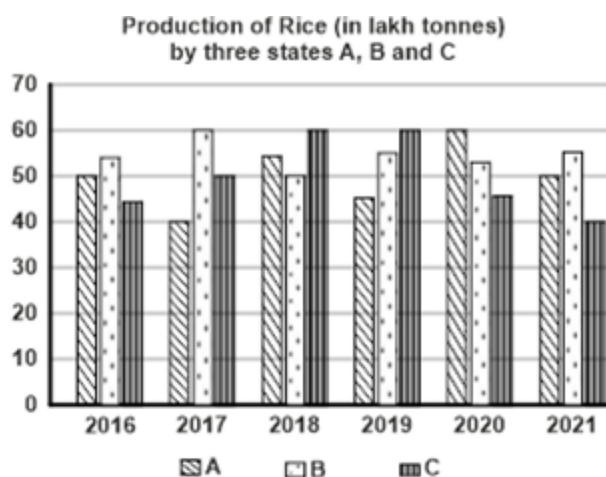
2.  $1/2$

3. 0

4. 1



**Q:20** Select the correct statement with respect to the below bar graph.



1. Rice production by A in 2016 is less than the rice production by C in 2020.

2. B produced more rice than A and C in 2018.

3. The highest production of rice was in the year 2017.

4. Rice production by B in 2017 is equal to the rice production by A in 2020.





**Q:21** If  $x\%$  of 280 is equal to the 15% of 240 + 20% of 310, then the value of  $x$  is:

1. 38
2. 35
3. 30
4. 40

**Q:22** If  $x^2 + 1/x^2 = 7$ , and  $0 < x < 1$ , then find the value of  $x^2 - 1/x^2$ .

1.  $3\sqrt{5}$
2.  $4\sqrt{3}$
3.  $-4\sqrt{3}$
4.  $-3\sqrt{5}$

**Q:23** A shopkeeper offers the following discount schemes for buyers in an article:

- i. Two successive discounts of 15% each
- ii. A discount of 25% followed by a discount of 5%
- iii. Two successive discounts of 20% and 10%
- iv. A discount of 30%

Under which scheme will the selling price be maximum?

1. Scheme iv
2. Scheme iii
3. Scheme ii
4. Scheme i

**Q:24** The area of the two triangles is in the ratio 5 : 3 and their height is in the ratio 5 : 7. Find the ratio of their base.

1. 3 : 5
2. 7 : 3
3. 7 : 5
4. 2 : 3



**Q:25** If the LCM and the HCF of two numbers are 12 and 2 respectively, then find the mean proportional of these numbers.

1.  $2\sqrt{6}$
2.  $\sqrt{14}$
3. 2
4.  $\sqrt{6}$

## SSC CGL 2023 Quant Previous Year Paper - Answer Key

You can check your score for this test here.

1. (1)	2. (3)	3. (4)	4. (4)	5. (3)
6. (4)	7. (2)	8. (4)	9. (2)	10. (1)
11. (1)	12. (3)	13. (3)	14. (3)	15. (2)
16. (2)	17. (3)	18. (4)	19. (4)	20. (4)
21. (2)	22. (4)	23. (4)	24. (2)	25. (1)



Each question carries 2 marks. Here's how to interpret your performance:

- Scored above 45? Outstanding! You're on a strong path to clearing the exam—keep the momentum going with focused practice.
- Scored between 35 and 45? Great job! You're progressing well. Stay consistent and aim to refine your weaker areas for even better results.
- Scored below 30? Don't be discouraged. View this as an opportunity to identify your weak points and channel your efforts more strategically.

To strengthen your preparation, be sure to go through the detailed solutions we've provided. They'll help you grasp the correct methods and improve both your accuracy and speed.

Maintain consistent practice, work on smart time management, and stay focused to maximize your performance on exam day.

For more SSC CGL 2023 papers with answer keys and expert solutions, keep visiting Quant Sir—your trusted resource for smart, exam-oriented preparation.