



### Welcome to the Quant Sir Comprehensive Guide – Your Trusted Partner for SSC CGL Tier I Success

Cracking the **SSC CGL Tier I** exam takes more than dedication—it demands strategic preparation, conceptual clarity, and quick, accurate problem-solving. This guide is thoughtfully designed to boost your preparation through a thorough analysis of the **SSC CGL 2021 Quant Previous Year Paper - 13 Aug 2021 - Shift 3**. It includes precise answer keys and step-by-step solutions to every question.

At **Quant Sir**, we bring you the actual exam paper along with expert explanations to help you understand question trends, difficulty levels, and the smartest solving techniques. Practicing with real exam questions equips you with familiarity and confidence to face the exam with precision.

Whether you're beginning your preparation or refining your approach, this guide is your reliable companion for improving speed, accuracy, and overall performance. With **Quant Sir**, you're not just working harder—you're preparing smarter.

## SSC CGL 2021 Quant Previous Year Paper - Exam Pattern

Here's the exam pattern for SSC CGL Tier I exam held in 2021.

Tier I: Computer-Based Exam

Section	No. of Questions	Maximum Marks	Time Allotted
General Intelligence & Reasoning	25	50	Total: 60 minutes
General Awareness	25	50	
Quantitative Aptitude	25	50	
English Comprehension	25	50	
Total	100	200	

## SSC CGL 2021 Quant Previous Year Paper - Topicwise Weightage



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The table below presents a topic-wise breakdown of the SSC CGL 2021 Quant Previous Year Paper - 13 Aug 2021 - Shift 3. It outlines the key focus areas along with the number of questions from each topic, providing valuable insights into the exam pattern and enabling you to adjust your preparation strategy with greater accuracy and confidence.

Topic	No. of questions
Arithmetic Operations	1
Ratio & Proportion / Money	1
Averages	2
Percentage / Profit & Loss	2
Data Interpretation – Table	2
Data Interpretation – Bar Graph	2
Geometry – Circles & Triangles	4
Algebra (Identities/Powers)	3
Trigonometry	2
Time, Speed & Distance	1
Work & Time / Efficiency	1
Simple Interest	1
Number System – Divisibility	1
Mensuration – Circle	1

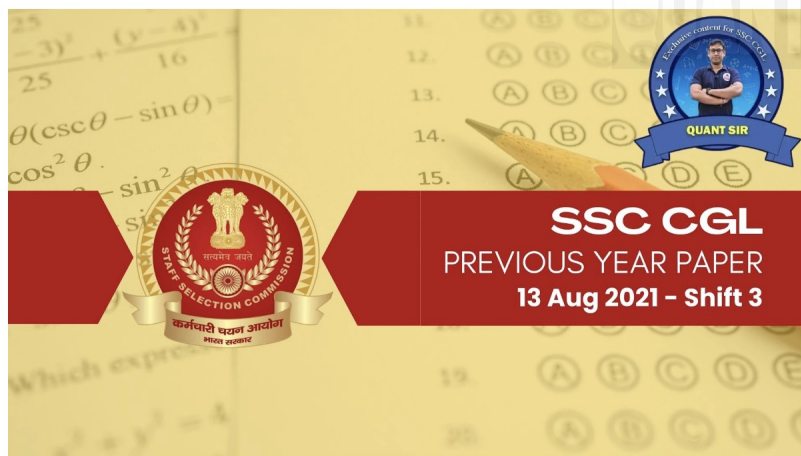
## SSC CGL 2021 Quant Previous Year Paper - Tips to Solve

Here are top tips to ace the SSC CGL Quantitative Aptitude section.



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1. **Read the Question Carefully:** Before jumping into calculations, take a moment to thoroughly understand what's being asked. Misreading even a small detail can lead to avoidable mistakes.
2. **Play to Your Strengths First:** Start with the topics you're most confident in—like Simplification or Ratio & Proportion. These are usually quicker to solve and can give you a positive momentum early on.
3. **Manage Time Wisely:** Set a rough time limit per question. If something seems time-consuming, move on and come back later. This helps you attempt more questions overall.
4. **Master Smart Shortcuts:** Learn and practice quick techniques for high-frequency topics such as Percentages, Profit & Loss, and Mensuration. These shortcuts can significantly enhance your speed.
5. **Focus on Accuracy First:** Speed matters, but accuracy is what earns marks. Use approximation where helpful, and double-check your answers when time permits.
6. **Practice Data Interpretation Regularly:** Get comfortable with interpreting graphs, tables, and charts. Practice identifying patterns and extracting the right data quickly and correctly.
7. **Know Your Formulas Cold:** Be fluent with key formulas from Algebra, Geometry, and Trigonometry. Just as important is knowing when and how to apply them in different scenarios.
8. **Approach Word Problems Step-by-Step:** Break down complex problems into simpler parts. Translate words into equations, and use visualizations or real-life scenarios to aid understanding.



Regular practice, strong conceptual clarity, and a keen understanding of the exam pattern are your strongest allies in mastering the Quant section and achieving a top score.

## SSC CGL 2021 Quant Previous Year Paper - 13 Aug 2021 - Shift 3

Q:1 The value of  $90 \div 20$  of  $6 \times [11 \div 4 \text{ of } \{3 \times 2 - (3 - 8)\}] \div (9 \div 3 \times 2)$  is:

1.  $9/8$





- 2.  $\frac{3}{8}$
- 3.  $\frac{1}{36}$
- 4.  $\frac{1}{32}$

**Q:2** Atul purchased Bread costing Rs. 20 and gave a 100 rupee note to the shopkeeper. The shopkeeper gave the balance money in coins of denominations Rs. 2, Rs. 5, and Rs. 10. If these coins are in the ratio 5 : 4 : 1, then how many Rs. 5 coins did the shopkeeper give?

- 1. 6
- 2. 5
- 3. 4
- 4. 8

**Q:3** A, B, and C divide a certain sum of money among themselves. The average of the amounts with them is Rs. 4520. The share of A is  $10\frac{2}{3}\%$  more than the share of B and  $33\frac{1}{3}\%$  less than the share of C. What is the share of B (in Rs.)?

- 1. 3500
- 2. 3600
- 3. 3984
- 4. 5976

**Q:4** A shopkeeper marks his goods 30% higher than the cost price and allows a discount of 10% on the marked price. In order to earn 6.5% more profit, what discount percent should he allow on the marked price.

- 1. 4
- 2. 5.5
- 3. 6
- 4. 5

**Q:5** The average of eleven numbers is 56. The average of first three numbers is 52 and that of next five numbers is 60. The 9th and 10th number are 3 and 1 more than the 11th number respectively. What is the average of 9th and 11th numbers?

- 1. 53.5
- 2. 54



3. 52.5

4. 52

**Q:6** The data given in the table shows the number of boys and girls enrolled in three different streams in a school over 5 years.

Years	Arts		Science		Commerce	
	Boys	Girls	Boys	Girls	Boys	Girls
2012	48	36	40	35	35	45
2014	42	43	42	32	32	42
2016	45	42	38	30	36	38
2018	39	46	41	23	28	34
2020	36	43	39	30	39	41

The number of boys in the Science stream in the years 2012 and 2016 taken together is what percent of the number of girls for all the years in the Commerce stream?

1. 32.5

2. 39

3. 35

4. 45.5

**Q:7** The radii of two concentric circles are 12 cm and 13 cm. AB is a diameter of the bigger circle. BD is a tangent to a smaller circle touching it at D. Find the length (in cm) of AD? (correct to one decimal place)

1. 23.5

2. 25.5

3. 24.5

4. 17.6

**Q:8** A trader bought 640 kg of rice. He sold a part of rice at a 20% profit and the rest at a 5% loss. He earned a profit of 15% in the entire transaction. What is the quantity (in kg) of rice that he sold at a 5% loss?



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1. 154
2. 256
3. 128
4. 132

**Q:9** The value of is:  $\frac{\tan(45^\circ - \alpha)}{\cot(45^\circ + \alpha)} - \frac{(\cos 19^\circ + \sin 71^\circ)(\sec 19^\circ + \operatorname{cosec} 71^\circ)}{\tan 12^\circ \tan 24^\circ \tan 66^\circ \tan 78^\circ}$

1. -3
2. 2
3. -2
4. 0

**Q:10** Bar graph shows the number of students enrolled for a vocational course in institutes A and B during 5 years from 2014 to 2018.



In which year the number of students enrolled in institute A is  $x\%$  less, where  $25 < x < 30$ , than the number of students enrolled in institute B in the same year?

1. 2017
2. 2016
3. 2015
4. 2014

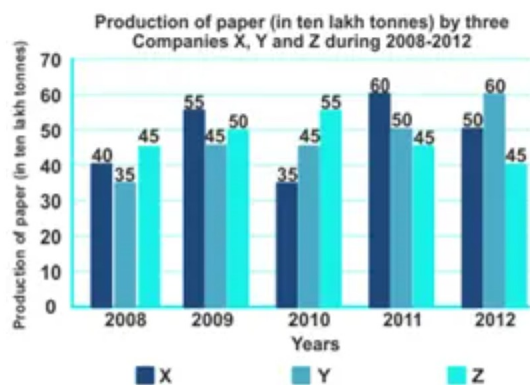


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**Q:11** Study the given bar graph and answer the question.

The bar graph given below represents the data of the Production of Paper (in ten lakh tonnes) by three different companies X, Y and Z during the years 2008 to 2012. The x - axis shows the Years and the y - axis represents the Production of Paper ( in ten lakh tonnes).

(Note: The data shown below is only for mathematical exercise. They do not represent the actual figures.)



Which company/companies had the maximum average production for the given five years period?

1. Y and Z both
2. X and Z both
3. Y
4. X

**Q:12** Two equal sums were lent on simple interest at 6% and 10% per annum respectively. The first sum was recovered two years later than the second sum and the amount in each case was Rs. 1105. What was the sum (in Rs.) lent in each scheme?

1. 850
2. 936
3. 891
4. 900

**Q:13** Find the greatest value of b so that  $30a68b$  ( $a > b$ ) is divisible by 11.

1. 4
2. 6





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3. 3

4. 9

**Q:14** A train is to cover 370 km at a uniform speed. After running 100 km, the train could run at a speed of 5 km/h less than its normal speed due to some technical fault. The train got delayed by 36 minutes. What is the normal speed of the train, in km/h?

1. 45

2. 50

3. 40

4. 48

**Q:15** If  $2x^2 - 8x - 1 = 0$ , then what is the value of  $8x^3 - 1x^3$ ?

1. 560

2. 524

3. 464

4. 540

**Q:16** If  $x^4 + \frac{1}{x^4} = 727, x > 1$ , then what is the value of  $x - 1/x$ ?

1. 6

2. 5

3. -5

4. -6

**Q:17** The following table shows the day-wise number of seats occupied by different classes on a train. Numbers in the bracket represent the total seats available in a particular class.





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Day	2nd Class Non – AC (900)	1st Class Non – AC (500)	AC III Tier (500)	AC II Tier (250)	AC 1st Class (150)
Monday	850	460	480	240	145
Tuesday	840	400	450	230	120
Wednesday	830	390	480	220	130
Thursday	790	480	490	250	125
Friday	840	470	500	210	130

How many seats remained vacant taking all the days together in non - AC classes?

1. 650
2. 715
3. 600
4. 585

**Q:18**  $\Delta ABC \sim \Delta DEF$  and the area of  $\Delta ABC$  is  $13.5 \text{ cm}^2$  and the area of  $\Delta DEF$  is  $24 \text{ cm}^2$ . If  $BC = 3.15 \text{ cm}$ , then the length (in cm) of  $EF$  is:

1. 4.8
2. 5.1
3. 4.2
4. 3.9

**Q:19** If  $3\sec \theta + 4 \cos \theta - 4\sqrt{3} = 0$  where  $\theta$  is an acute angle then the value of  $\theta$  is:

1.  $45^\circ$
2.  $60^\circ$
3.  $20^\circ$



4.  $30^\circ$

**Q:20** The area of a circular park is  $12474 \text{ m}^2$ , There is 3.5 m wide path around the park. What is the area (in  $\text{m}^2$ ) of the path? (Take  $\pi = 22/7$ )

1. 1424.5
2. 1435.5
3. 1440.5
4. 1380.5

**Q:21** A man and a woman, working together can do work in 66 days. The ratio of their working efficiencies is 3 : 2. In how many days 6 men and 2 women working together can do the same work?

1. 14
2. 12
3. 15
4. 18



**Q:22** In  $\Delta ABC$ ,  $\angle C = 90^\circ$  and Q is the midpoint of BC. If  $AB = 10 \text{ cm}$  and  $AC = 2\sqrt{10} \text{ cm}$ , then the length of AQ is:

1.  $5\sqrt{5} \text{ cm}$
2.  $3\sqrt{5} \text{ cm}$
3.  $\sqrt{55} \text{ cm}$
4.  $5\sqrt{3} \text{ cm}$

**Q:23** If  $x - 1/x = 1$ , then what is the value of  $x^8 + 1/x^8$ ?

1. 123
2. -1
3. 3
4. 47

**Q:24** If  $3 \tan \theta = 2\sqrt{3} \sin \theta$ ,  $0^\circ < \theta < 90^\circ$ , then find the value of  $2\sin^2 2\theta - 3\cos^2 \theta - 3$ .

1.  $-3/2$
2.  $1/2$



3.  $3/2$

4. 1

**Q:25** A circle touches all the four sides of a quadrilateral ABCD whose sides are  $AB = 8.4$  cm,  $BC = 9.8$  cm and  $CD = 5.6$  cm. The length of side AD, in cm, is:

1. 2.8

2. 4.2

3. 3.8

4. 4.9

## SSC CGL 2021 Quant Previous Year Paper - Answer Key

You can check your score for this test here.

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

Each question carries 2 marks.

- Scored above 45? Great job! You're clearly on the right track to cracking the exam. Keep up the momentum and stay consistent.
- Scored between 35 and 45? Well done! You're building a strong foundation. With continued practice and focus, you'll see even greater improvement.
- Scored below 30? Don't worry. Take this as a chance to identify your weak areas and work on them with targeted revision and practice.

To boost your performance, be sure to review the detailed solutions provided with this paper. They'll help you grasp the correct methods and sharpen your problem-solving approach.

Remember, consistency and smart strategies are key—practice regularly, analyze your mistakes, and manage your time effectively.

For more SSC CGL 2021 question papers, along with answer keys and in-depth explanations, make sure to follow **Quant Sir** and continue your preparation with confidence.