



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

Preparing for the **SSC CGL Tier I** exam demands more than just hard work—it requires a strategic mindset, strong conceptual clarity, and quick problem-solving abilities. This guide is designed to elevate your preparation through an in-depth analysis of the **SSC CGL 2021 Quant Previous Year Paper - 23 Aug 2021 - Shift 2**, complete with accurate answer keys and step-by-step solutions.

At **Quant Sir**, we provide you with the actual exam paper and expertly crafted explanations to help you grasp the pattern, difficulty level, and the most effective approaches to each type of question. By practicing with real exam questions, you gain familiarity with the format and build the confidence needed to tackle the exam with precision.

Whether you're just starting out or aiming to fine-tune your strategy, this guide serves as your go-to resource for improving accuracy, speed, and overall performance. With **Quant Sir** by your side, you're not just studying 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 provides a topic-wise breakdown of the SSC CGL 2021 Quant Previous Year Paper - 23 Aug 2021 - Shift 2. It highlights the major focus areas along with the number of questions from each topic, offering clear insights into the exam pattern and helping you fine-tune your preparation strategy with greater precision.

Topic	Count
Trigonometry	3
Algebra	4
Geometry & Mensuration	5
Number System & Divisibility	1
Profit, Loss, Discount	2
Time, Speed & Work	2
Data Interpretation	4
Averages	1
Simple/Compound Interest	1
Ratio & Percentage	1

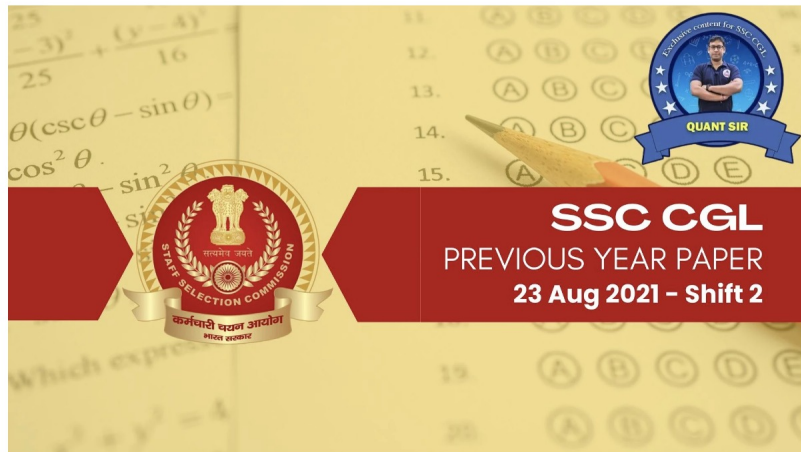
SSC CGL 2021 Quant Previous Year Paper - Tips to Solve

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

- **Understand the Question Clearly:** Don't jump straight into solving. Take a moment to carefully read and interpret the question to avoid unnecessary errors caused by misreading.
- **Start with Your Strongest Areas:** Tackle the topics you're most confident in—such as Simplification or Ratio & Proportion. These questions are typically quicker to solve and can boost your confidence early on.
- **Use Time Strategically:** Set a time limit per question. If one takes too long, skip it and return later. This ensures you cover more ground without getting stuck.
- **Learn and Apply Smart Shortcuts:** Master time-saving tricks for frequently tested topics like Percentages, Profit & Loss, and Mensuration to improve your speed and efficiency.
- **Prioritize Accuracy Over Speed:** While speed is crucial, accuracy is what scores. Use estimation when appropriate and double-check your answers if time allows.



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Consistent practice, a solid understanding of core concepts, and familiarity with the question pattern are your best tools for mastering the Quant section and steadily improving your score.

SSC CGL 2021 Quant Previous Year Paper - 23 Aug 2021 - Shift 2

Q:1 If the six-digit number $5z3x4y$ is divisible by 7, 11 and 13, then what is the value of $(x + y - z)$?

1. 3
2. 6
3. 5
4. 4

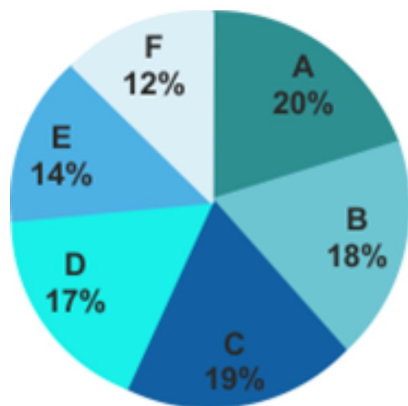
Q:2 $(\operatorname{cosec} A - \cot A)(1 + \cos A) = ?$

1. $\cos A$
2. $\sin A$
3. $\cot A$
4. $\operatorname{cosec} A$

Q:3 The following Pie chart represents the percentage-wise distribution of 800 students of class XII in a school in six different sections A, B, C, D, E and F.



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The table given below shows the number of girls in class XII in six different sections A, B, C, D, E and F.

Section	A	B	C	D	E	F
No. of girls	102	80	104	98	0	60

The total number of girls in sections B, C and D together is what percent more than the total number of boys in sections A, B and D together?

1. 50
2. 76.25
3. 65.75
4. 80

Q:4 If $0^\circ < \theta < 90^\circ$, $\sqrt{\frac{\sec^2 \theta + \operatorname{cosec}^2 \theta}{\tan^2 \theta - \sin^2 \theta}}$ is equal to:

1. $\sec^3 \theta$
2. $\operatorname{cosec}^3 \theta$
3. $\sin^2 \theta$
4. $\sec^2 \theta$

Q:5 The cost price of an article is Rs250. A shopkeeper gains 20% by selling it at a discount of 36% on its marked price. What is the marked price (in Rs) of the market?



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1. 450
2. 380.50
3. 275
4. 468.75

Q:6 The value of $423 \div \left[270 \div \frac{2}{7} \times 35 + \left(17 \div \frac{1}{3} \right) - \left(8\frac{1}{2} - \frac{5}{2} \right) \right]$ is:

1. 51/2455
2. 47/3680
3. 43/2455
4. 41/2455

Q:7 If $x + 1/x = 2\sqrt{5}$, then what is the value of $\frac{(x^4 + \frac{1}{x^2})}{x^2 + 1}$?

1. 14
2. 17
3. 20
4. 23

Q:8 A square has a perimeter equal to the circumference of a circle having a radius 7 cm. What is the ratio of the area of the circle to area of the square? (Use $\pi = 22/7$)

1. 121 : 44
2. 7 : 2
3. 14 : 11
4. 7 : 11

Q:9 In $\triangle ABC$, D is a point on BC such that $\angle BAD = 1/2 \angle ADC$ and $\angle BAC = 77^\circ$ and $\angle C = 45^\circ$. What is the measures of $\angle ADB$?



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1. 77°
2. 64°
3. 58°
4. 45°

Q:10 A car can cover a distance of 144 km in 1.8 hours . In what time (in hours) will it cover double the distance when its speed is increased by 20%?

1. 3
2. 2.5
3. 2
4. 3.2

Q:11 The average weight of students in sections A and B having 40 students each is 45.5kg and 44.2 kg respectively. Two students of section A having an average weight of 48.75 kg were shifted to section B and 2 students of section B were shifted to section A, making the average weight of both the section equal. What is the average weight (in kg) of students who were shifted from section B to section A?

1. 35.75
2. 34.25
3. 34.5
4. 35

Q:12 If $x^4 + x^2y^2 + y^2 = 21$ and $x^2 + xy + y^2 = 3$, then what is the value of $(-xy)$?

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



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Q:13 Radha bought a fridge and washing machine together for Rs. 57300. she sold the fridge at a profit of 15% and the washing machines at a loss of 24% and both are sold at the same price. The cost price of washing machine (in Rs) is:

1. 28650
2. 34500
3. 24500
4. 22800

Q:14 In triangles ABC, D and E are the midpoints of AB and BC respectively. If area ($\triangle CED$) = 8 cm^2 , then what is the area (ADEC) in cm^2 ?

1. 24
2. 21
3. 32
4. 16



Q:15 If $(x + 6)^3 + (2x + 3)^3 + (3x + 5)^3 = (3x + 18)(2x + 3)(3x + 5)$, then what is the value of x?

1. $-5/3$
2. $5/3$
3. $-7/3$
4. $7/3$

Q:16 Study the following table and answer the question:

Number of students enrolled for Vocational Course (VC) in institutes A, B, C, D, E & F.



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Years/institutes	2014	2015	2016	2017	2018
A	110	150	165	180	205
B	120	180	176	200	220
C	140	220	180	175	225
D	125	210	175	180	230
E	150	200	160	200	240
F	165	230	200	220	210

The total number of students enrolled for VC in institutes D and F in 2014 is what percent of the total number of students enrolled in institutes A, B and C in 2018? (correct to one decimal point)

1. 43.2
2. 42.8
3. 43.8
4. 44.6



Q:17 At what rate percent per annum will Rs7200 amount to Rs7938 in one year, if interest is compounded half yearly?

1. 5
2. 8
3. 12
4. 10

Q:18 To do a certain work, efficiencies of A and B are in the ratio of 7 : 5 , Working together, they can complete the work in $17\frac{1}{2}$ days. In how many days, will B alone complete 50% of the same work?

1. 42
2. 21
3. 15
4. 30



Q:19 If x is subtracted from each of 24, 40, 33 and 57, the number, so obtained are in proportion. The ratio of $(5x + 12)$ to $(4x + 15)$ is:

1. 7 : 4
2. 4 : 3
3. 14 : 13
4. 7 : 5

Q:20 Three persons A, B, and C donate 10% , 7%, and 9% respectively of their monthly salaries to a charitable trust. The monthly salaries of A and B are equal and the difference in the donation of A and B is Rs 900. If the total donation by A and B is Rs 600 more than of C, then what is the monthly salary (in Rs) of C?

1. 45000
2. 55000
3. 50000
4. 60000

Q:21 The area of a circular path enclosed by two concentric circulars is 3080m^2 . If the difference between the radius of the outer edge and of the inner edge of the circular path is 10 m, what is the sum (in m) of the two radii? (Taken $\pi = 22/7$)

1. 112
2. 70
3. 84
4. 98

Q:22 If $\frac{\sin^2 \theta}{\tan^2 \theta - \sin^2 \theta} = 5$, θ is an acute angle, then the value of $\frac{24\sin^2 \theta - 15\sec^2 \theta}{6\csc^2 \theta - 7\cot^2 \theta}$ is:

1. -2



2. 2
3. -14
4. 14

Q:23 Study the following table and answer the question:

The number of students enrolled for Vocational Courses (VC) in institute F in 2015,2017 and 2018 and the average number of students enrolled in all the six institutions A, B, C, D, E & F.

Years/Institution	2014	2015	2016	2017	2018
A	110	150	165	180	205
B	120	180	176	200	220
C	140	220	180	175	225
D	125	210	175	180	230
E	150	200	160	200	240
F	165	230	200	220	210

The difference between the average number of students enrolled for VC in institute F in 2015, 2017 and 2018 and the average number of students enrolled in all the six institutions in 2014 is:

1. 89
2. 88
3. 82
4. 85

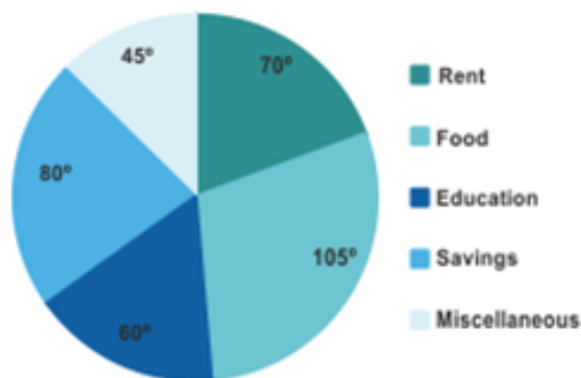
Q:24 A tangent is drawn from a point P to a circle, which meets the circle at T such $PT = 8$ cm. A secant PAB intersects the circles in points A and B. If $PA = 5$ cm, which is the length (in cm) of the chord AB?

1. 8.0
2. 8.4
3. 6.4



4. 7.8

Q:25 Pie - Chart shows the degree wise breakup of expenditure of family in a month. Total income of the family is Rs144000.



What is the expenditure (in Rs) on education?

1. 12000
2. 24000
3. 36000
4. 20000

SSC CGL 2021 Quant Previous Year Paper - Answer Key

You can check your score for this test here.

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

Each question is worth 2 marks.



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- Scored above 45? Excellent work! You're clearly on the right track to cracking the exam—keep up the momentum and stay focused.
- Scored between 35 and 45? A good effort! You're building a solid foundation. With continued practice, you'll be well-positioned to improve further.
- Scored below 30? Don't be disheartened. Use this as a valuable opportunity to pinpoint areas that need more attention and strengthen them with focused revision.

To enhance your performance, make sure to go through the detailed solutions provided with this paper. They'll help you understand the correct methods and sharpen your problem-solving skills.

Consistency and smart strategy are your best tools—practice regularly and manage your time wisely.

And don't forget to follow **Quant Sir** for more SSC CGL 2021 question papers, complete with answer keys and explanations, to support your ongoing preparation journey.

