



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

Cracking the **SSC CGL Tier I** exam demands more than just hard work—it calls for strategic preparation, strong conceptual understanding, and efficient problem-solving techniques. This guide is designed to boost your preparation with an in-depth analysis of the **SSC CGL 2024 Quant Previous Year Paper – 17 Sep 2024 – Shift 3**, complete with accurate answer keys.

At **Quant Sir**, we provide you with the actual question paper from the exam, accompanied by clear, step-by-step solutions. Our goal is to help you decode the exam pattern, understand the reasoning behind each answer, and develop the skills needed to approach even the toughest problems with confidence. By practicing with real exam questions, you'll gain valuable familiarity with question types and learn to solve them effectively under timed conditions.

Whether you're attempting SSC CGL for the first time or aiming to refine your strategy, this guide will support you in sharpening your skills and enhancing your performance. With **Quant Sir**, you're not just studying—you're preparing smart, preparing right, and moving closer to success.

## SSC CGL 2024 Quant Previous Year Paper - Exam Pattern

Here's the exam pattern for SSC CGL Tier I exam held in 2024.

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	



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## SSC CGL 2024 Quant Previous Year Paper - Topicwise Weightage

The table below presents a topic-wise breakdown of the SSC CGL 2024 Quant Previous Year Paper - 17 Sep 2024 - Shift 3. It outlines the major focus areas along with the number of questions from each topic, giving you clear insights into the exam pattern and helping you fine-tune your preparation strategy for maximum effectiveness.

Topic	No. of Questions
Number System	2
Algebra & Polynomials	3
Percentage, Profit & Loss	3
Simple Interest	2
Ratio & Proportion	1
Average	1
Time, Speed & Work	2
Geometry & Mensuration	3
Trigonometry	2
Data Interpretation (DI)	3
Coordinate Geometry	1

## SSC CGL 2024 Quant Previous Year Paper - Tips to Solve

**Understand the Paper Pattern First:** Before jumping into solving, quickly glance through the paper to get a sense of topic distribution—Algebra, Geometry, Arithmetic, etc. This helps you identify high-weightage areas to focus on.



**Start with Easy and High-Scoring Questions:** Begin with simpler topics like Simplification, Number System, and Percentages. These questions are quick wins that build confidence and save valuable time.

**Apply Smart Tricks and Shortcuts:** Use Vedic math tricks and topic-specific shortcuts to reduce calculation time. Memorizing squares, cubes, and fraction-to-percentage conversions can help with quick estimations.

**Skip Time-Consuming Problems Initially:** Don't get stuck on lengthy calculations. Mark such questions and return to them if time allows. Managing time efficiently is key to maximizing your score.

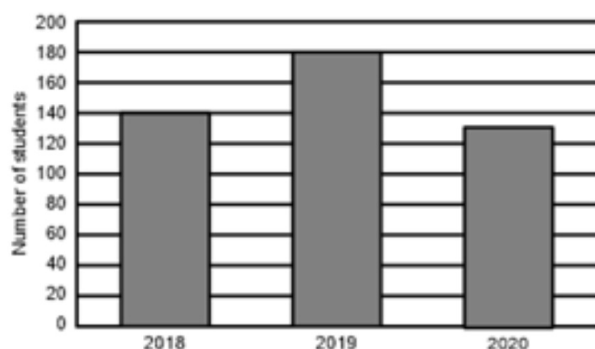
**Balance Speed with Accuracy:** While practicing, use a timer to simulate exam pressure. Work on solving questions faster without compromising accuracy—it's the winning combination.

## SSC CGL 2024 Quant Previous Year Paper - 17 Sep 2024 - Shift 3

**Q:1** Two pipes can fill a tank in 12 hours and 18 hours, respectively, while a third pipe can empty it in 8 hours. How long (in hours) will it take to fill the empty tank if all three pipes are opened simultaneously?

1. 48
2. 24
3. 36
4. 72

**Q:2** The following bar graph shows the number of students who passed the exam of GATE in the given years.



What was the percentage increase in the number of students in 2019 over 2018 (rounded off to two decimal places)?

1. 35.79%





2. 29.52%

3. 28.57%

4. 32.25%

**Q:3** If a triangle has a perimeter of 52 units, then all its sides have length \_\_\_\_\_ units.

1. < 26

2. < 20

3. < 24

4. < 18

**Q:4** There are  $y$  yellow marbles and  $b$  blue marbles in a box. 18% of the yellow marbles were added to 24% of the blue marbles, and the total was 30. Three times the number of yellow marbles exceeds two times the number of blue marbles by 200. What is the ratio of  $y^2$  to  $b^2$ ?

1. 6 : 5

2. 4 : 1

3. 2 : 1

4. 5 : 2

**Q:5** When  $f(m) = m^5 + 5m^4 - 3m + 7$  is divided by  $(m - 2)$ , then the remainder is \_\_\_\_\_.

1. 7

2. 5

3. 0

4. 113

**Q:6** A circular arc makes an angle of  $15^\circ$  at the centre. If the radius of the circular arc is 14 cm, what is the perimeter (correct up to two decimal places) of the sector so formed? ( $\pi = 3.14$ )?

1. 17.66 cm

2. 21.32 cm

3. 35.32 cm

4. 31.66 cm



**Q:7** Simplify

$$-\frac{7}{6} + \frac{4}{9} \div \frac{5}{3} \times \frac{1}{16}$$

1.  $-\frac{23}{20}$

2.  $-\frac{23}{18}$

3.  $-\frac{23}{23}$

4.  $-\frac{18}{23}$

**Q:8** If  $\sin\theta + \cos\theta = \sqrt{3} \cos\theta$ , then the value of  $\cot\theta$  is:

1.  $\sqrt{3}-1$

2.  $\frac{\sqrt{3}+1}{2}$

3.  $\frac{-1}{2}$

4.  $\sqrt{3} + 1$



**Q:9** The below table shows the sales of motorbikes of four manufacturers from 2016 to 2020 (All the figures are in thousands). Study the table and answer the question that follows.

Manufacturer	2016	2017	2018	2019	2020
P	220	225	235	240	260
Q	280	290	310	310	330
R	350	375	385	390	400
S	400	420	430	440	450

Find the ratio of the total number of motorbike sales of manufacturer Q to the total number of motorbike sales of manufacturer S from 2016 to 2020.

1. 72 : 105

2. 76 : 107

3. 74 : 103

4. 78 : 107

**Q:10** If  $\tan(A) = \frac{3}{5}$ , then  $\cos(A)$  is equal to:



1.  $-\frac{5}{\sqrt{34}}$

2.  $-\frac{9}{\sqrt{34}}$

3.  $\frac{3}{\sqrt{34}}$

4.  $\frac{25}{\sqrt{34}}$

**Q:11** In how many years will ₹7,200 amount to ₹8,928 at a simple interest rate of 8% per annum?

1. Four
2. Three
3. Two
4. Five

**Q:12** A function of two variables varies directly with x and inversely with y. Determine function when x = 5 and y = 3. Given that, for x = 0 and y = 1, f = 15 and for x = 1 and y = 15, f = 2.

1. 10
2. 2
3. 5
4. 15

**Q:13** Ajay spends  $66\frac{2}{3}\%$  of his income on different household items. If his income increases by 25% and expenditure increase by 20%, then the effect on his savings will be:

1. 28%
2. 61%
3. 49%
4. 35%

**Q:14** The marked price of a TV set is ₹18,500. If the dealer allows two successive discounts of 20% and 5%, for how much is the TV available?

1. ₹14,000
2. ₹15,000
3. ₹15,060



4. ₹14,060

**Q:15** In triangle ABC, D is the midpoint of BC. If DL is perpendicular to AB and DM is perpendicular to AC such that DL = DM, then the triangle will be:

1. isosceles triangle
2. right angled triangle
3. obtuse angle triangle
4. equilateral triangle

**Q:16** 42 litres of milk at ₹25 per litre is mixed with 28 litres of milk at ₹40 per litre. Find the average price of the mixture.

1. ₹31.5
2. ₹32.5
3. ₹32
4. ₹31

**Q:17** If  $\operatorname{cosec} x = \frac{5}{4}$ , then the value of is:

1.  $\frac{33}{91}$
2.  $\frac{77}{30}$
3.  $\frac{55}{87}$
4.  $\frac{99}{47}$

**Q:18** The following table shows the expenditure of a factory (in ₹ lakh) per annum on different heads over the given years.

Year/Expenditure Head	Salary	Transport	Bonus	Loan Interest
1998	125	38	8	25
1999	135	45	18	37
2000	149	57	37	39
2001	153	63	50	43

What was the average expenditure (in ₹ lakh) on transport per year that the factory had to pay during the given period?

1. 56.63



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2. 48.75
3. 50.75
4. 45.58

**Q:19** In a bank, 6% interest is given on the deposited amount. The bank then invests the money in the stock market and is able to earn ₹30,000 for every ₹3,00,000. How much money is the bank earning finally if the total amount deposited in the bank is ₹60,00,000?

1. ₹3,00,000
2. ₹6,40,000
3. ₹2,40,000
4. ₹3,60,000

**Q:20** If P is a digit such that 6954P is divisible by 11, then P equals:

1. 2
2. 8
3. 6
4. 7

**Q:21** The below table gives shares traded on Hyderabad, Mumbai, and Bengaluru stock exchanges (in ₹). Study the table and answer the question that follows.

	Hyderabad		Mumbai		Bengaluru	
Name of company	High	Low	High	Low	High	Low
A	150	140	180	165	160	155
B	250	225	325	315	300	290
C	180	175	195	180	190	185
D	350	325	410	395	390	375

For C, the low rates of shares are less than the average of the low rates of shares of the same company in the stock exchange (s) at \_\_\_\_\_.

1. Mumbai





2. Bengaluru
3. Hyderabad
4. Hyderabad and Mumbai

**Q:22** Arvind and Chetan started running simultaneously from the same point in the same direction on a circular track of length 210 m. If Arvind takes 180 seconds to complete one round, and Chetan takes 420 seconds to complete one round, after how much time will they meet for the first time at the starting point on the track?

1. 10 minutes
2. 15 minutes
3. 21 minutes
4. 28 minutes

**Q:23** In a triangle, the lengths of the sides are 6 units, 12 units, and  $x$  units. How many possible integer values are there for  $x$ ?

1. 9
2. 12
3. 11
4. 10

**Q:24** If  $x$  is an integer such that  $x + \frac{1}{x} = \frac{65}{8}$ , then find the value of  $x - \frac{1}{x}$ .

1.  $\frac{63}{6}$
2.  $\frac{63}{8}$
3.  $\frac{36}{6}$
4.  $\frac{32}{6}$

**Q:25** Find the length of the longest diagonal (in cm) of a cuboidal box of dimensions  $1.2 \text{ cm} \times 1.3 \text{ cm} \times 1.5 \text{ cm}$  (correct to two decimal places).

1. 2.22 cm
2. 2.32 cm
3. 2.23 cm
4. 2.35 cm



## SSC CGL 2024 Quant Previous Year Paper - Answer Key

You can view your score for this test here.

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

Each question is worth 2 marks.

- Scored above 45? Excellent work! You're well on your way to acing the exam. Keep pushing forward with the same dedication.
- Scored between 35 and 45? That's a strong showing—use this momentum to fine-tune your preparation and aim even higher.
- Scored below 30? Don't worry—see this as a learning experience. Identify your weaker areas and focus your efforts to turn them into strengths.

To enhance your performance, be sure to review the detailed solutions provided. They'll help you understand the right methods and sharpen your problem-solving approach.

Consistency is key—keep practicing and work on time management to maximize your score on exam day.

Stay tuned with **Quant Sir** for more SSC CGL 2024 question papers, complete with answer keys and step-by-step explanations, to level up your preparation journey.