



Important Maths Questions for SSC CGL - Practice Set of 10 Questions

Welcome to Dhronas, your trusted partner in SSC CGL exam preparation. We recognize the importance of a well-structured study plan, which is why we're excited to present to you this blog 'Important Maths Questions for SSC CGL'. For aspiring CGL candidates, practicing a variety of questions is essential, and that's exactly what we will be offering you here. These practice questions are a treasure trove of insights into the exam pattern, question types, and overall difficulty level. With our comprehensive answer key, you can assess your performance and fine-tune your preparation.

By working through these questions, you'll gain valuable exposure to the types of questions appearing in the SSC CGL exam and deepen your understanding of its nuances. At Dhronas, we believe that building a strong foundation with these questions is crucial to your success. Whether you're a first-time CGL aspirant or aiming to improve your score, this resource is an invaluable addition to your study toolkit. Use it to practice, monitor your progress, and sharpen your exam strategy.

## Important Maths Questions for SSC CGL

We have provided 10 questions of the Quantitative Aptitude section of the SSC CGL examination. Solve these Important Maths Questions for SSC CGL to flourish your knowledge and skills for the examination. So, All the best!

**Question:1** In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

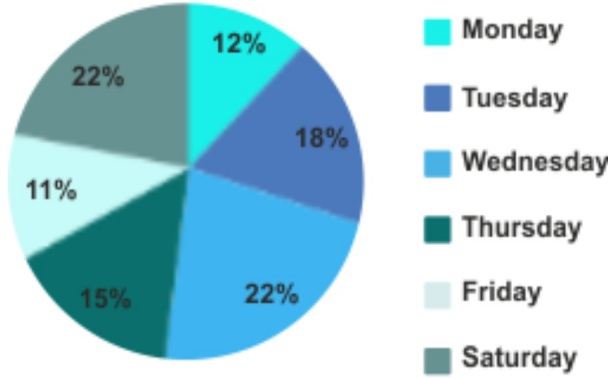
A packet contains 12 tablets out of which 5 are blue in colour and rest of them are red in colour. If 2 tablets are picked from the packet, then what is the probability that both of them are of the same colour?

1.  $31/66$
2.  $19/43$
3.  $25/41$
4.  $35/71$
5. None of the above

**Question: 2 Directions:** Pie chart given below gives the number of persons coming into a hotel in a week starting from Monday and ending on Saturday. Read the pie chart carefully and answer the questions that follow.

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Total visitors = 2800



If the total revenue on Monday is Rs 96250, then find the average revenue per person on Monday.

1. Rs 260
2. Rs 295
3. Rs 286.45
4. Rs 303.65
5. Rs 292.55

**Question: 3** Find the area of the ceiling and the floor of the cubical room with a length of wall 12 m.

1. 144 m<sup>2</sup>
2. 288 m<sup>2</sup>
3. 156 m<sup>2</sup>
4. 24 m<sup>2</sup>

**Question: 4** Area of the equilateral triangle is  $49\sqrt{3}$  m<sup>2</sup> and the length of the rectangle is 6m more than the side of the equilateral triangle. If the breadth of the rectangle is 25 m, then find the area of the rectangle.

1. 450 m<sup>2</sup>
2. 500 m<sup>2</sup>
3. 600 m<sup>2</sup>
4. 400 m<sup>2</sup>

**Question: 5** If  $\cot\theta = 1/\sqrt{3}$ , then find the value of  $[(2 - \sin 2\theta)/(1 - \cos 2\theta)] + (\operatorname{cosec} 2\theta + \sec\theta)$ .

1. 4
2. 5
3. 6
4. 7



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**Question: 6** How much time will it take for a sum of Rs.10800 to yield Rs 117 as interest at 6.5% per annum of simple interest?

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

**Question: 7** A pipe can fill a tank in 24 hours, B can fill a tank in 60 hours and a pipe C can empty a tank in 40 hours. If all the pipe open simultaneously, in how much time will they fill a tank?

1. 12 hours
2.  $120/7$  hours
3. 40 hours
4. 30 hours

**Question:8** A can complete a job in 20 hours and B can do the same job in 25 hours. Along with C, they can complete the job in 5 hours. In how much time can C alone complete the job?

1.  $1/11$  hours
2.  $11 \frac{1}{11}$  hours
3.  $11 \frac{1}{9}$  hours
4. 10 hours

**Question:9** Arun always reaches his office 45 minutes after the School starting time. When he increased his bike speed by 37.5%, he arrived at the School starting time. But when He increased his bike speed by 12.5 km/h he failed to reach the School on time and only arrived at the School 20 minutes after the starting time. What could be the usual bike speed (in m/s)?

1. 29.17
2. 22.17
3. 25.17
4. 15.17

**Question:10** A train travels 300 km. If it travels half the distance at 75 kmph and the remaining half at 50 kmph. How much time did it take to cover the total distance?

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





## Important Maths Questions for SSC CGL - Answer Key

Before jumping on to the detailed solutions, please check out your score in this test. And drop your honest scores in the comment section below.

1. (1)	6. (1)
2. (3)	7. (4)
3. (2)	8. (1)
4. (2)	9. (3)
5. (2)	10. (1)

Now, let us provide you with the detailed solutions of these Important Maths Questions for SSC CGL in the upcoming segment.

## Important Maths Questions for SSC CGL - Detailed Solutions

In this section, we've provided detailed solutions to the Important Maths Questions for SSC CGL, aimed at equipping you with the knowledge and confidence needed for success. By going through these solutions, you'll not only gain insights into the types of questions featured in the SSC CGL exam but also understand the level of difficulty you can anticipate.



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**Question:1** The correct answer is **option 1** i.e. **31/66**.

Number of red tablets =  $12 - 5 = 7$

Required probability =  $\frac{5C_2}{12C_2} + \frac{7C_2}{12C_2}$

=  $\frac{10}{66} + \frac{21}{66}$

=  $\frac{31}{66}$

**Question:2** The correct answer is **option 3** i.e. **Rs 286.45**

Total Visitors = 2800

Percentage of people coming on Monday = 12%

Number of people coming on Monday = 12% of 2800 = 336

Total Revenue = Rs 96250

Revenue per person =  $\frac{96250}{336} = \text{Rs } 286.45$

**Question:3** The correct answer is **option 2** i.e. **288 m<sup>2</sup>**

Here, the Area of the ceiling = Area of the floor

Area =  $l \times b$

$l = b = 12$

Thus, Total area of ceiling and floor =  $2(12)(12) = 288 \text{ m}^2$

**Question:4** The correct answer is **Option 2** i.e. **500 m<sup>2</sup>**.

Area of the equilateral triangle =  $49\sqrt{3} \text{ m}^2$

$\frac{\sqrt{3}}{4} \times a^2 = 49\sqrt{3}$

$a^2 = 196$

$a = 14 \text{ m}$

Then Length of the rectangle =  $14 + 6 = 20 \text{ m}$

Area of the rectangle =  $20 \times 25 = 500 \text{ m}^2$

**Question:5** The correct answer is **option 2** i.e. **5**.

Given  $\cot\theta = \frac{1}{\sqrt{3}}$

Hence,  $\theta = 60^\circ$

$[(2 - \sin 2\theta)/(1 - \cos 2\theta)] + (\operatorname{cosec} 2\theta + \sec\theta)$

Putting  $\theta = 60^\circ$ ,

$\Rightarrow [(2 - 3/4)/(1 - 1/4)] + (4/3 + 2)$

$\Rightarrow [(5/4)/(3/4)] + (4/3 + 2)$

$\Rightarrow 5/3 + 4/3 + 2$

$\Rightarrow 9/3 + 2 = 15/3$

$\Rightarrow 5$

**Question:6** The correct answer is **option 1** i.e. **2 months**

Given: Principal = 10800, simple interest = 117, Rate = 6.5

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$$\text{Simple interest} = \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$$

$$117 = \frac{10800 \times 6.5 \times \text{Time}}{100}$$

$$117 = 702 \times \text{Time}$$

$$\frac{117}{702} = \text{Time}$$

$$\frac{1}{6} = \text{Time}$$

$$\text{Required time} = \frac{1}{6} \text{ years}$$

⇒ 2 months

**Question:7** The correct answer is **option 4** i.e **30 hours**.

Understanding	Application
<p>If a pipe can fill a tank in x hours.</p> <p>Then, it can fill the 1/x part in 1 hour. Pipe A can fill a tank = 24 hours</p> <p>Pipe B can fill a tank = 60 hours</p> <p>Pipe C can empty a tank = 40 hours</p>	<p>Pipe A can fill 1/24 part in 1 hour</p> <p>Pipe B can fill 1/60 part in 1 hour.</p> <p>Pipe C can empty 1/40 part in 1 hour.</p> <p>If pipes are open together,</p> $1/24 + 1/60 - 1/40$ $= (5 + 2 - 3)/120$ $= 4/120 = 1/30 \text{ part can fill a tank by all the pipes in 1 hour.}$ <p>So, A tank can be filled in 30 hours, if all the pipes open together.</p>



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**Question:8** The correct answer is **option 1** i.e. **9 1/11 hours**.

**Given:**

Time taken by A = 20 hours

Time taken by B = 25 hours

Time taken by (A + B + C) = 5 hours

Concept Used:

Total work = Efficiency × total time

**Explanation:**

Let the total work to be done be LCM of (20, 25, and 5) = 100 units

Now, efficiency of A =  $100/20 = 5$  units/hour

Efficiency of B =  $100/25 = 4$  units/hour

Efficiency of (A + B + C) =  $100/5 = 20$  units/hour

Now, efficiency of C =  $20 - (5 + 4) = (20 - 9) = 11$  units/hour

So, the time taken by C to complete the whole work alone =  $100/11$  hours

Hence, the time taken by C to complete the work alone is  $9 \frac{1}{11}$  hours

**Question:9** The correct answer is **option 3** i.e. **25.17**.

Speed = Distance/time

Speed is inversely proportional to the time

Increased speed 37.5% =  $3/8$

The ratio of his Usual speed : New speed = 8 : 11

So, Ratio of time = 11 : 8

Difference in time = 45 minutes = 3

1 = 15 minutes

Usual time =  $11 \times 15 = 165$  min

Correct school arrival time =  $8 \times 15 = 120$  min

When he increased his bike speed by 12.5 km/h he arrived at the School 20 minutes after the starting time

So, time =  $165 - 20 = 145$  min

Ratio in usual time and new time =  $165 : 145 = 33 : 29$

So, Ratio of speed = 29 : 33

4 = 12.5 km/h(Given)

1 =  $12.5/4 = 3.125$

So, his usual speed =  $29 \times 3.125 = 90.625 \times 5/18 = 25.17$  m/s

**Question: 10** The correct answer is **option 1** i.e. **5**.

**Given :**

Speed1 = 75 kmph

Speed2 = 50kmph

**Formula used :**

Distance = speed × time ---- (1)





## Best Maths Book for SSC CGL 2024

"Quant Sir" by Raja Bhattacharjee is an essential guide for mastering quantitative aptitude for SSC CGL Tier 1. It offers chapter-wise coverage, time-saving shortcuts, past exam questions, and expert advice on which questions to skip, along with detailed weightage analysis. With over 4,000 questions organized by difficulty- easy, moderate, and hard - the book is specifically crafted to elevate your preparation and boost your performance.

- **Comprehensive and Unique Content:** "Quant Sir" provides a complete approach to confidently tackle every aspect of the SSC CGL Tier I exam.
- **8 Layers of Coverage:** The book is organized into 8 structured layers, ensuring thorough coverage of each topic.
- **Chapter-Specific Questions:** Strengthen your understanding with chapter-specific questions that emphasize key concepts.
- **Previous Year's Questions:** Includes solved questions from the past 5 years to familiarize you with the types of questions commonly asked.
- **Difficulty-Based Practice:** With over 4,000 questions categorized by difficulty level, you can practice according to your current proficiency.
- **New Question Types and Skipping Strategies:** Features new question types and offers expert advice on which questions to skip, helping you focus on the most important areas.

You can also download a sample of "

[Quant Sir](#)

" by clicking on the embedded link. This sample will give you a glimpse of the book's content and help you assess whether the author's approach fits your learning style.

## Tips to Prepare for SSC CGL Maths Section

Are you eager to enhance your numerical skills for the SSC CGL exam? Prepare to explore a range of tips, tricks, and strategies to elevate your preparation!

- Ensure you cover the entire syllabus thoroughly, leaving no topic untouched.
- Regularly take practice tests to gauge your progress accurately.
- Identify and focus on areas of weakness, prioritizing them in your study plan.
- Spend time solving

[mock tests](#)

and previous years' question papers to become familiar with the exam patterns.

- Use effective time management techniques to ensure all topics are covered comprehensively.
- Maintain a consistent daily study routine and dedicate yourself to diligent effort.
- Schedule regular revision sessions after completing each topic to reinforce your understanding.

In summary, recognizing the significance of Maths for SSC CGL, along with regular practice and correct resources are