

Simple and Compound Interest Questions with detailed PDF solutions

Simple and Compound Interest questions are a major type of questions asked in competitive exams. These questions carry a weightage of 1-2 questions (2-4 marks) in SSC exams and 1-2 questions in bank exams. To get a good rank in competitive exams, you should have a great practice of solving this type of questions as they are calculative and can cost you valuable seconds.

Here are some tips for solving Simple and Compound Interest questions: Clear the basic concepts, Use the appropriate formula as there are many different formulas, Practice with diverse examples to enhance calculation speed. Prioritize clarity and accuracy while solving, as mistakes can be costly and avoid get stuck in hefty calculations, instead use shortcuts and tricks.

So, we have attached 10 questions of Simple and Compound Interest for you to practice with. You should aim to solve these questions in less than half a minute for each.

Practice Questions on Simple and Compound Interest

You can also download the Simple and Compound Interest questions and answers pdf. Just click on the **Download PDF** button. So let's start with the very first question.

Q:1 A person lent a sum of 12000 rupees at 5%. Find the interest after 3 years (compounded annually).

1. 1891.5 rupees
2. 1880.5 rupees
3. 1902 rupees
4. 1878 rupees

(**Difficulty: 2, Estimated Time: 15 Seconds**) This was an easy one. Did get it right?

Q:2 A certain sum amounts to Rs 297754 in three years at 6% per annum compound interest. What is the value of the sum?

1. Rs 225000
2. Rs 230000
3. Rs 240000
4. Rs 250000

(**Difficulty: 2, Estimated Time: 15 Seconds**) Another piece of cake....Let's score more!

Q:3 Find the interest on Rs.20000 in 1 year compounded half-yearly at the rate of 8%.

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1. Rs. 1864
2. Rs.3328
3. Rs.1632
4. Rs.1600

(Difficulty: 3, Estimated Time: 20 Seconds) This was not a simple one, don't get stuck in unnecessary calculations!

Q:4 A lends Rs.1,00,000 each to his friends B and C. But he provided the loan to B at 8% p.a. for simple interest and C at 8% p.a. for compound interest. After three years both B and C return the loan with interest. How much more money will C have to pay more than B?

1. Rs.1971.2
2. Rs.1917.6
3. Rs.1972.3
4. Rs.1927.8

(Difficulty: 4, Estimated Time: 25 Seconds) It is not an easy one but I think now you're prepared for it.

Q:5 Raju deposited a certain amount in scheme A where interest is compounded annually. He also deposited an equal amount in scheme B at simple interest. The difference between the compound interest and simple interest for 3 years in both the schemes at a 10% rate of interest obtained from the schemes is Rs 2821. Find the amount deposited in scheme A.

1. Rs. 91000
2. Rs. 36000
3. Rs. 48000
4. Rs. 96000

(Difficulty: 3, Estimated Time: 20 Seconds) We're halfway through. Have you got all your questions correct so far?

Q:6 A and B invested different funds at the rate of 20% per year and after 1 year both got Rs 10890 where A invested in half-yearly compound interest and B invested in simple interest. Find the difference between the amount invested by A and B.

1. Rs 75
2. Rs 90
3. Rs 120

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4. Rs 108

(**Difficulty:** 3, **Estimated Time:** 20 Seconds) Should we raise the level of questions?

Q:7 What is the interest accumulated on Rs 75000 invested at compound interest of 10% p.a. compounded annually in 40 months?

1. Rs 28152.5

2. Rs 29256.5

3. Rs 30486.5

4. Rs 32568.5

(**Difficulty:** 2, **Estimated Time:** 15 Seconds) This is a common question! You might have done it in 10 seconds

Q:8 Rs 7000 invested in compound interest would have yielded Rs 44.8 more than the money invested in simple interest for the same rate of interest after two years. What is the rate of interest?

1. 6%

2. 8%

3. 10%

4. 11%

(**Difficulty:** 3, **Estimated Time:** 20 Seconds) The time is ticking. Hurry up!

Q:9 The Simple Interest on a sum of money will be Rs. 600 after 10 years. If the principal is increased three times after 5 years, what will be the total interest at the end of 10 years?

1. Rs. 300

2. Rs. 600

3. Rs. 900

4. Rs. 1200

(**Difficulty:** 4, **Estimated Time:** 25 Seconds) Practice and get fast with your calculations!

Q:10 Murari who is an investment banker invested a sum at a rate of 20% interest compounded annually for 2 years. He replicated the same process but instead of investing in the compound interest, he invested the same sum in simple interest at the same interest rate. What is the ratio of the original sum to the difference between his two investments?

1. 16

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2. 1 : 25

3. 1 : 16

4. 25 : 1

(Difficulty: 3, Estimated Time: 20 Seconds) Did you guess them all correctly?

Answer Key

Let's check out your score in this test.

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

Comment below your score, considering each question has 1 mark only. If you scored 8 to 10, congratulations! You are one step closer to selection. If you have scored 5 to 8 marks, then you are doing well, keep it up. If you have scored less than 5 marks then you need to work a little harder on this subject. But don't worry, we are here to help you master the subject.

Let's check the answers and solutions and try to find out what went wrong.

Answers and Solutions

Q:1 The correct answer is **option 1** i.e. **1891.5 rupees**.

$$\text{Amount} = P(1 + R/100)^3$$

$$\text{Compound interest} = (\text{Amount} - \text{Principal})$$

$$\text{Amount} = 12000(1 + 5/100)^3$$

$$\text{Amount} = 12000(21/20)^3 = 12000 \times 9261/8000 = 13891.5$$

$$\text{CI} = (13891.5 - 12000) = 1891.5$$

Q:2 The correct answer is **Option 4** i.e. **Rs 250000**.

$$\text{Amount} = \text{Principal} \times (1 + \text{Rate}/100)^n$$

$$297754 = \text{Principal} \times (1 + 6/100)^3$$

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$$297754 = \text{Principal} \times 1.191016$$

$$\text{Principal} = \text{Rs } 250000$$

Q:3 The correct answer is **option 3** i.e. **Rs.1632**.

$$\text{Compound Interest} = (\text{Amount} - \text{Principal})$$

$$\Rightarrow A = P(1 + R/100)^t$$

If the interest is compounded half-yearly, then Rate becomes half and time becomes twice

R = rate and T = time

$$\text{Principal} = \text{Rs.}20000$$

$$\text{Rate} = 8\%,$$

$$\text{Time} = 1 \text{ year}$$

If interest is compounded half-yearly,

$$\text{Then } R = 8/2 = 4\%$$

$$\text{Time} = (1 \times 2) = 2 \text{ years}$$

$$\Rightarrow A = 20000(1 + 4/100)^2 = 20000(1 + 1/25)^2$$

$$\Rightarrow 20000(26/25)^2 = 21632$$

$$\text{CI} = (21632 - 20000) = 1632$$

$$\text{So, CI} = \text{Rs.}1632$$

Q:4 The correct answer is **Option 1** i.e. **Rs.1971.2**.

$$\text{Compound interest received at the end of } n \text{ years} = P \{(1 + R/100)^n - 1\}$$

$$\text{Simple interest received at the end of } n \text{ years} = P \times n \times R/100$$

$$\text{Compound interest to be paid by } C = 100000 \times \{(1 + 8/100)^3 - 1\}$$

$$\Rightarrow 100000 \times \{1.259712 - 1\} = \text{Rs.}25971.2$$

$$\text{Simple interest to be paid by } B = 100000 \times 8 \times 3/100 = \text{Rs.}24000$$

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Difference in the amount paid = $25971.2 - 24000 = \text{Rs.}1971.2$

Q:5 The correct answer is **option 1** i.e. **Rs. 91000**

Rate = 10%, Let Principal = P

$$\text{S.I.} = (P \times 10 \times 3) / 100 = 3P/10$$

$$\text{C.I.} = P\{(1 + 1/10)^3 - 1\}$$

$$\text{C.I.} - \text{S.I.} = 2821$$

$$P\{(1 + 1/10)^3 - 1\} - 3P/10 = 2821$$

$$P\{(11/10)^3 - 1 - 3/10\} = 2821$$

$$P\{(1331 - 1000 - 300) / 1000\} = 2821$$

$$P\{31/1000\} = 2821$$

$$P = \text{Rs. } 91,000$$

Q:6 The correct answer is **Option 1** i.e. **Rs.75.**

A = Compounded half-yearly and B = Simple interest

Rate = 20%

When Compounded half-yearly at 20% p.a

$$\Rightarrow 10\% + 10\% + 1\% = 21\% \text{ (in a year)}$$

$$\Rightarrow A = (100 + 21)\% = 10890$$

$$\Rightarrow 100\% = \text{Principal}$$

$$\Rightarrow 121\% = 10890$$

$$\Rightarrow 100\% = (10890/121) \times 100 = \text{Rs } 9000$$

$$\text{And, } \Rightarrow B = (100 + 20)\% = 10890$$

$$\Rightarrow 100\% = \text{CP}$$

$$\Rightarrow 120\% = 10890$$

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$$\Rightarrow 100\% = (10890/120) \times 100 = \text{Rs } 9075$$

Hence,

$$\text{Difference} = \text{Rs } (9075 - 9000) = \text{Rs.75}$$

Q:7 The correct answer is **option 1** i.e. **Rs 28152.5**.

$$40 \text{ months} = 3 \text{ years} + 4 \text{ months}$$

Total interest = Compound interest for 3 years + Simple interest for 4 months

$$\text{Compound interest for 3 years} = P \times \{(1 + r/100)^3 - 1\}$$

$$\Rightarrow 75000 \times \{(1 + 10/100)^3 - 1\} = \text{Rs.24825}$$

$$\text{Principal for S.I.} = (24825 + 75000) = \text{Rs.99825}$$

$$\text{Simple interest for 4 months} = Pnr/100$$

$$\Rightarrow 99825 \times 4/12 \times 10/100 = \text{Rs.3327.5}$$

$$\text{Total interest} = \text{Rs.24825} + \text{Rs.3327.5} = \text{Rs.28152.5}$$

Q:8 The correct answer is **option 2** i.e. **8%**.

$$\text{C.I. after two years} = P(1 + r/100)^2 - P$$

$$\Rightarrow P(r/50 + r^2/10000)$$

$$\text{S.I. after two years} = Pnr/100$$

$$\Rightarrow P \times 2 \times r/100 = Pr/50$$

$$\text{Difference} = Pr^2/10000$$

$$\Rightarrow 44.8 = 7000 \times r^2/10000$$

$$\Rightarrow 64 = r^2$$

$$\therefore r = 8$$

Rate of interest = 8%

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Q:9 The correct answer is **option 4** i.e. **Rs.1200**.

$$SI = \text{Rs. } 600$$

$$T = 10 \text{ years}$$

$$\text{So, } 600 = 10PR/100 \Rightarrow PR = 6000$$

The principal is increased three times (P to 3P) after 5 years

First 5 years: Principal = P

$$SI = 5PR/100 = PR/20$$

Last 5 years: Principal = 3P

$$SI = 15PR/100 = 3PR/20$$

We have:

$$PR = 6000$$

$$\text{Total SI for 10 years} = PR/20 + 3PR/20 = 4PR/20 = PR/5$$

$$\text{So, Total SI for 10 years} = 6000/5 = \text{Rs. } 1200$$

Q:10 The correct answer is **Option 4** i.e. **25 : 1**.

$$\text{Difference between compound interest and simple interest} = P(r/100)^2$$

Where P is the principal and r is the rate of interest

$$\Rightarrow P(20/100)^2$$

$$\Rightarrow P/25$$

$$\text{Original sum} = P$$

$$\text{Required ratio} = P/(P/25) = 25 : 1$$

Hence, the ratio will be 25 : 1

So, this is it for today. We will meet again with another new topic. Till then, you can practice the questions again by downloading the PDF of Simple and Compound Interest.