



## Simple and Compound Interest Questions PDF with detailed 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** There is 30% increase in an amount in 3 years at simple interest. What will be the compound interest of Rs. 18,000 after 3 years at the same rate?

1. Rs. 4852
2. Rs. 3939
3. Rs. 5958
4. Rs. 6397

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

**Q:2** Bharat took a loan of 22 Lakh from the Indus Bank of India for his MBA course for two years. The interest rate applied for the duration of his studies was 8.5% at simple interest and after that, the interest rate is 12% at compound interest. If Bharat decides to pay half of the amount paid immediately after the completion of the course and the remaining amount after 5 years from the completion of the course, then what is the total amount paid by Bharat?

1. Rs.38,74,178.3
2. Rs.45,27,444.4
3. Rs.42,51,151.7
4. Rs.49,12,872.9

**Simple and Compound Interest Questions PDF with detailed solutions**

(**Difficulty: 4, Estimated Time: 25 Seconds**) This was a tough one.....

**Q:3** Different sums of money are invested on compound and simple interest at the rate of 10% per annum. If the amounts of interest earned on the sums in 2 years are Rs. 4095 and Rs. 4660 respectively then find the sum of total money invested in two schemes.

1. Rs. 42000
2. Rs. 42800
3. Rs. 42500
4. Rs. 41800

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

**Q:4** Three person A, B and C invested some money in a scheme at a simple interest of 6%, 4% and 3% respectively and got equal interest after a year. Find the money invested by A, B & C, if the total amount invested was Rs 26000.

1. 7000, 13000, 6000
2. 10000, 9000, 7000
3. 12000, 8000, 6000
4. 15000, 6000, 5000

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

**Q:5** Mr. Gopal lends a sum of Rs 15000 for 2 years at 8% per annum. If the interest is compounded yearly, then find the sum he has to repay by the end of the second year.

1. Rs 17496
2. Rs 18542
3. Rs 19355
4. Rs 16547

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

**Q:6** Rahul borrowed a certain sum of money at simple interest. His rate of interest was 20% for 7 years. Gopal borrowed a certain sum of money at a rate of 14% for 15 years. Find the ratio of sum, if they paid equal interest.

1. 2 : 3
2. 3 : 2

**Simple and Compound Interest Questions PDF with detailed solutions**

3. 1 : 1

4. 6 : 5

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

**Q:7** At what rate percent per annum compound interest, will be Rs. 5,000 amounts to Rs.9765.625 in three years?

1. 20%

2. 25%

3. 30%

4. None of these

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

**Q:8** At  $r\%$  per annum simple interest, a sum of Rs 1650 fetches interest of Rs 371.25 in 2 years. What would be the interest if new rate is  $(r + 3.75)\%$  in time of 3 years for a sum of Rs 4650.

1. Rs 2084.5

2. Rs 2115.5

3. Rs 2056.5

4. Rs 2092.5

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

**Q:9** What will be the interest collected on Rs 50000 invested at compound interest at 8% p.a. in 9 months if the amount is compounded quarterly?

1. Rs 2820.2

2. Rs 3060.4

3. Rs 3240.6

4. Rs 3480.8

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

**Q:10** What is the compound interest on a sum of Rs. 18,000 for  $2\frac{3}{8}$  years at 8% p.a. when the interest is compounded annually (nearest to a rupee)?

1. Rs 3925

## Simple and Compound Interest Questions PDF with detailed solutions

2. Rs 3625

3. Rs 3125

4. Rs 2925

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

## Answer Key

Let's check out your score in this test.

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

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 3** i.e. **Rs. 5958**.

Let principal be Rs. 100.

Simple interest =  $PRT/100$  = Rs. 30

Time = 3 years

$(100 \times r \times 3)/100 = 30$

$r = 10\%$

Principal = Rs. 18000

Rate = 10%

Time = 3 years

Compound Interest =  $[P(1 + r/100)^t - P]$

**Simple and Compound Interest Questions PDF with detailed solutions**

$$= [18000(1 + 10/100)^3 - 18000]$$

$$= [18000(11/10)^3 - 18000]$$

$$= [18000(1331/1000) - 18000]$$

$$= [18000\{(1331 - 1000)/1000\}]$$

$$= [18000 \times 331/1000]$$

$$\text{C.I.} = \text{Rs. } 5958$$

**Q:2** The correct answer is **option 3** i.e. **Rs.42,51,151.7**

Let the principal, interest rate, and time period be P, r, and T respectively.

$$\text{Simple interest} = (P \times r \times t)/100$$

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

$$\Rightarrow \text{Amount} = P(1 + r/100)^T$$

$$\text{Simple interest} = (22,00,000 \times 8.5 \times 2)/100$$

$$\Rightarrow \text{Rs. } 374,000$$

$$\text{Amount after 5 years} = 22,00,000 \times (1.12)^5$$

$$\Rightarrow \text{Rs. } 38,77,151.7$$

As he will pay half the amount just after completion of the course,

$$\text{Amount paid by him at the end of the course} = 38,77,151.7/2$$

$$\Rightarrow \text{Rs. } 19,38,575.85$$

$$\text{Total amount paid} = 38,77,151.7 + 3,74,000$$

$$\Rightarrow \text{Rs. } 42,51,151.7$$

**Q:3** The correct answer is **option 2** i.e. **Rs. 42800**

Suppose sums of money are invested on compound and simple interest are 'x' and 'y' respectively.

$$\text{So, } \Rightarrow [x(1 + 10/100)^2 - x] = 4095$$

**Simple and Compound Interest Questions PDF with detailed solutions**

$$\Rightarrow [1.21x - x] = 4095$$

$$\Rightarrow 0.21x = 4095$$

$$\Rightarrow x = 19500$$

And

$$\Rightarrow (y \times 10 \times 2)/100 = 4660$$

$$\Rightarrow y = 23300$$

Hence,

$$\text{Required sum} = 19500 + 23300 = \text{Rs. } 42800$$

**Q:4** The correct answer is **option 3** i.e. **12000, 8000, 6000**

The ratio of amount invested is equal to the the ratio of product of rate of interest and time period.

$$\text{The ratio of product of interest rate and time period} = 6 \times 1 : 4 \times 1 : 3 \times 1 = 6 : 4 : 3$$

So, the ratio of amount invested = 6 : 4 : 3

Let the amount invested by A, B and C is 6x, 4x and 3x respectively.

A/Q,

$$\Rightarrow 6x + 4x + 3x = 26000$$

$$\Rightarrow 13x = 26000$$

$$\Rightarrow x = 2000$$

So, the amount invested A, B and C are 12000, 8000 and 6000 respectively.

**Q:5** The correct answer is **option 1** i.e. **Rs 17496**.

Principal = Rs 15000

Rate (r) = 8%

Time (t) = 2 years

Formula,

**Simple and Compound Interest Questions PDF with detailed solutions**

$$\text{Amount} = P(1 + r/n)^{nt}$$

$$\text{Amount} = 15000(1 + 8\%)^{(1 \times 2)}$$

$$\Rightarrow 15000 \times (1 + 8/100)^2$$

$$\Rightarrow 15000 \times (108/100)^2$$

$$\Rightarrow 15000 \times (108/100) \times (108/100)$$

$$\Rightarrow (3 \times 54 \times 108) = \text{Rs } 17496$$

**Q:6** The correct answer is **option 2** i.e. **3 : 2**.

$$SI = (\text{Principal} \times \text{Rate} \times \text{time})/100$$

$$\text{Rate of interest for 7 years} = 20\%$$

$$\text{Rate of interest for 15 years} = 14\%$$

$$\text{Let Principal of Rahul} = P_1$$

$$\text{Let Principal of Gopal} = P_2$$

$$\text{The interest of Rahul} = \text{Interest of Gopal}$$

$$(P_1 \times 20 \times 7)/100 = (P_2 \times 14 \times 15)/100$$

$$P_1/P_2 = 210/140 = 3/2$$

$$\text{So, the ratio of their sum} = 3 : 2$$

**Q:7** The correct answer is **option 2** i.e. **25%**.

$$\text{Amount} = P(1 + r/100)^T$$

Where P, r, and T are principal, rate of interest, and time period

$$\Rightarrow 9765.625 = 5000(1 + r/100)^3$$

$$\Rightarrow (1 + r/100)^3 = 1.953125 \quad (\sqrt[3]{1.953125} = 1.25)$$

$$\Rightarrow 1 + r/100 = 1.25$$

$$\Rightarrow r/100 = 0.25$$

**Simple and Compound Interest Questions PDF with detailed solutions**

$$\Rightarrow r = 25$$

**Q:8** The correct answer is **option 4** i.e. **Rs 2092.5**

Principal = Rs 1650

Rate = r%

Interest = Rs 371.25

Time = 2 years.

$$\text{Interest} = (P \times r \times t)/100$$

$$\Rightarrow 371.25 = (1650 \times r \times 2)/100$$

$$\Rightarrow 37125 = 3300 \times r$$

$$\Rightarrow r = 11.25\%$$

$$\text{New rate} = 11.25 + 3.75 = 15\%$$

Hence,

$$\text{Interest} = (4650 \times 15 \times 3)/100 = \text{Rs } 2092.5$$

**Q:9** The correct answer is **Option 2** i.e. **Rs 3060.4**

9 months =  $3/4$  years

$$\text{Compound interest for quarterly compounding} = P \times \{(1 + r/400)^{4n} - 1\}$$

$$\Rightarrow 50000 \times \{(1 + 8/400)^{4 \times 3/4} - 1\}$$

$$\Rightarrow 50000 \times \{1.02^3 - 1\}$$

$$\Rightarrow \text{Rs } 3060.4$$

**Q:10** The correct answer is **Option 2** i.e. **Rs. 3625.**

The interest rate for first 2 years = 8%

Interest rate for  $3/8$  year =  $3/8 \times 8 = 3\%$



## Simple and Compound Interest Questions PDF with detailed solutions

Principal(P) = 18000

Amount =  $P (1 + r/100)^3$

$A = 18000 \times (108/100) \times (108/100) \times (103/100)$

$A = 180 \times (27/25) \times (27/25) \times (103)$

$A = 13515660/625 = 21625.056$

Compound Interest =  $A - P = 21625.056 - 18000 = \text{Rs. } 3625$

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.

