

# CHAPTER 7

## SIMPLE AND COMPOUND INTEREST

### More Questions for Practice

1. At what rate per cent of simple interest per annum will a sum of money earn interest equal to  $\frac{3}{5}$  of the principal in 4 years?
2. A man borrowed ₹ 700 for 3 years at a certain rate of interest and ₹ 400 for 5 years at the same rate of interest. If he pays a total interest of ₹ 246 for both the loans, find the rate of interest.
3. The simple interest on a sum of money is  $\frac{1}{9}$  of the principal and the number of years is equal to the rate per cent per annum. Find the rate per cent.
4. A certain sum of money was lent at 5% for 3 years and double the sum was lent at 4% for  $4\frac{1}{2}$  years. If the total interest collected was ₹ 510, find the sum lent at 5%.
5. Bharat Singh borrows ₹ 3000 on compound interest with the condition that interest for the first year will be at 13% per annum and for second year at 12% per annum. Find how much interest he has to pay if the compound interest is payable annually.
6. Find the difference between the compound interest and the simple interest on ₹ 12000 at 9% per annum for 2 years, the compound interest being payable annually.
7. Alka deposited ₹ 10000 at 10% per annum for 2 years and Amina deposited ₹ 8000 at 8% for 3 years, the interest in each case is compounded annually. Find who will get more interest and how much more.
8. Simple interest on a sum of money for 3 years at 5% per annum is ₹ 1200. Compute the compound interest at the same rate for the same time period, when the interest is compounded annually.
9. A man bought some mangoes for his factory. 10% of the mangoes got damaged during transportation. With 40% of the remaining he made *jam* and the remaining were used for preparing *juice*. If 162 kg mangoes were used for making *juice*, how much mangoes did he buy?
10. A wholesaler allows a discount of 15% on the list price (marked price) of an article to a retailer. The retailer sells it at 5% discount on the list price. If the customer pays ₹ 342 for an article, what is the profit made by the retailer?
11. Jeevan deposited ₹ 2500 in his bank for buying Magnum certificates issued by the State Bank of India. Unfortunately, his application for the certificates was rejected. However, his money was refunded on 27th March, 2006. He was paid simple interest on his money at the rate of 8% per annum for the period starting from 13th January, 2006. How much money did he get back in all?

12. A sum of ₹ 4000 is invested for 3 years at 8% per annum at compound interest.
- What is the sum due at the end of the first year?
  - What is the sum due at the end of the second year?
  - Find the compound interest earned in two years.
  - Find the difference between the answers in (ii) and (i) and find the interest on this sum for one year.
  - Hence, write down the compound interest for the third year.
13. A sum of ₹ 2600 is lent out in two parts in such a way that the interest on one part at 10% for 5 years is equal to that on another part at 9% for 6 years. Find the two sums.
14. A man spends 75% of his income. His income increased by 20% and he increased his expenditure by 10%. Find by how much per cent his savings are increased.

### ANSWERS

1. 15%      2. 6%      3.  $3\frac{1}{3}\%$       4. ₹ 1000      5. ₹ 796.80      6. ₹ 97.20
7. Alka, ₹ 22.30      8. ₹ 1261.      9. 300 kg      10. ₹ 36      11. ₹ 2540
12. (i) ₹ 4320      (ii) ₹ 4665.60      (iii) ₹ 665.60      (iv) ₹ 345.60; ₹ 27.65      (v) ₹ 373.25
13. ₹ 1350, ₹ 1250      14. 50%.