

TEXT BOOK EXERCISE 7.5

Q. 1. In what time ₹ 1600 will amount to ₹ 1760 at rate 5% per annum simple interest.

Solution. Here, Principal (P) = ₹ 1600

Amount (A) = ₹ 1760

Simple Interest (SI) = Amount – Principal
= ₹ 1760 – ₹ 1600 = ₹ 160

Rate = 5% per annum

We know that

$$SI = \frac{P \times R \times T}{100}$$

$$\Rightarrow T = \frac{SI \times 100}{P \times R} = \frac{160 \times 100}{1600 \times 5}$$

= 2 years **Ans.**

Q. 2. At what rate of simple interest will a sum double itself in two years.

Solution. Let Principal (P) = ₹ x

∴ Its sum (A) = 2 × ₹ x = ₹ 2x

∴ SI = A – P = 2x – x = ₹ x

Time (T) = 2 years

We know that $SI = \frac{P \times R \times T}{100}$

$$\Rightarrow R = \frac{SI \times 100}{P \times T} = \frac{x \times 100}{x \times 2}$$

= 50% **Ans.**

Q. 3. Find simple interest and amount to be paid on ₹ 15000 at 5% per annum after two years.

Solution. Here, Principal (P) = ₹ 15000

Rate (R) = 5% per annum

Time (T) = 2 years

$$\therefore SI = \frac{P \times R \times T}{100}$$

$$= \frac{15000 \times 5 \times 2}{100} = ₹ 1500$$

Amount (A) = P + SI = ₹ 15000 + ₹ 1500
= ₹ 16500 **Ans.**