

Simple and Compound Interest Questions for Bank Exams Pdf

1. A sum of money becomes Rs. 20925 in 2 years and Rs. 24412.50 in 5 years. Find the rate of interest and the sum of money.

- a. 6.25%, Rs, 18600
- b. 6.75%, Rs. 17775
- c. 7%, Rs. 18000
- d. 8%, Rs. 17560

Ans: A

$$\text{S.I. for 3 years} = ₹ (24412.50 - 20925) = ₹ 3487.50.$$

$$\text{S.I. for 2 years} = ₹ \left(\frac{3487.50}{3} \times 2 \right) = ₹ 2325.$$

$$\therefore \text{Principal} = ₹ (20925 - 2325) = ₹ 18600.$$

$$\text{Hence, rate} = \left(\frac{100 - 2325}{18600 \times 2} \right) \% = 6.25\%.$$

2. A sum of Rs. 10 is lent to be returned in 11 monthly installments of Rs. 1 each, interest being simple. The rate of interest is

(a) $9\frac{1}{11}\%$

(b) 10%

(c) 11%

(d) $21\frac{9}{11}\%$

Ans: D

$$₹ 10 + \text{S.I. on ₹ 10 for 11 months}$$

$$= ₹ 11 + \text{S.I. on ₹ 1 for } (1 + 2 + 3 + 4 + \dots + 10) \text{ months}$$

$$\Rightarrow ₹ 10 + \text{S.I. on ₹ 1 for 110 months}$$

$$= ₹ 11 + \text{S.I. on ₹ 1 for 55 months}$$

$$\Rightarrow \text{S.I. on ₹ 1 for 55 months} = ₹ 1.$$

$$\therefore \text{Rate} = \left(\frac{100 \times 12}{1 \times 55} \right) \% = 21\frac{9}{11}\%.$$

3. A person borrows Rs. 5000 for 2 years at 4% p.a. simple interest. He immediately lends it to another person at $6\frac{1}{4}\%$ p.a. for 2 years. Find his gain in the transaction per year.

- a. 112.50
- b. 125
- c. 150
- d. 167.50

Ans: A

$$\begin{aligned}\text{Gain in 2 yrs} &= \left[\left(5000 \times \frac{25}{4} \times \frac{2}{100} \right) - \left(\frac{5000 \times 4 \times 2}{100} \right) \right] \\ &= ₹ (625 - 400) = ₹ 225. \\ \therefore \text{Gain in 1 year} &= ₹ \left(\frac{225}{2} \right) = ₹ 112.50.\end{aligned}$$

4. How long will it take a sum of money invested at 5% p.a. S.I. to increase its value by 40%?

- a. 5 years
- b. 6 years
- c. 7 years
- d. 8 years

Ans: D

Let the sum be x .

Then, S.I. = 40% of $x = \frac{2x}{5}$; Rate = 5%.

$$\therefore \text{Time} = \left(100 \times \frac{2x}{5} \times \frac{1}{x \times 5} \right) = 8 \text{ years.}$$

5. A person takes a loan of Rs. 200 at 5% simple interest. He returns Rs. 100 at the end of 1 year. In order to clear his dues at the end of 2 years, he would pay

- a. Rs. 105
- b. Rs. 110
- c. Rs. 115
- d. Rs. 115.50

Ans: C

$$\begin{aligned}\text{Amount to be paid} &= ₹ \left(100 + \frac{200 \times 5 \times 1}{100} + \frac{100 \times 5 \times 1}{100} \right) \\ &= ₹ 115.\end{aligned}$$

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