Class7 Chapter Simple interest Solved paper-1

1. In how much time will a sum become double of itself at 12.5% per annum simple interest?

2. A sum of money become $\frac{8}{5}$ of itself in 5years at a creation rate of simple interest. Find the rate per cent

3. Karim deposit a sum of Rs. 9000 in a bank after 2 year he withdraw Rs 4000 and at the end of he received Rs.7640. Find the rate

4. Divide Rs 3000 into two parts so that the simple interest on the first part for 4 years at 8% per annum is equal to the simple interest on the second part for 2 years at 9% per annum.

5. Divide Rs 6000 into two parts so that the simple interest on the first part for 9 months at 12% per annum is equal to the simple interest on the second part for $1\frac{1}{2}$ years at 10% per annum.

6. Divide 3600 into two parts such that if one part be lent at 9% per annum and other at 10% per annum .The total annual income is Rs 333.

7. Minakshi deposited a sum of Rs 8000 in a bank. After one year she withdraws Rs 2000. At the end of 3yrs. She received Rs 7800. Find the rate?

8. Had and Ajit borrowed Rs 8000 and Rs 6250 respectively at same rate of interest for 3 years. If Had paid an interest of Rs 735 more than Ajit . Find the rate?

9. A merchant borrowed Rs 25000 from two money tenders. For one loan he paid 12% per annum simple interest and for the other he paid 14% per annum. The total interest paid by him in one year was Rs 3260. How much did he borrow at each rate?

10. Kanti borrowed some money from bank at 8% per annum simple interest and lent the entire Amount to Satish on the same day at 12% per annum after 3 years, He gained Rs 420. Find the sum.

11. The interest on a sum of money at the end of 5 years is $\frac{3}{5}^{th}$ of the sum. Find the rate of interest,

12. A sum of money lent at sin-10e interest amount to Rs. 3224 in 2 year and Rs, 4160 in 5 year. Find the sum and the rate of interest.

13. Simple interest on a certain sum for 3 years at 8% per annum is Rs. 96 more than the SI on the same sum for 9% per annum .Find the sum.

14. At what rate per cent per annum SI will a sum double itself in 10 yrs?

15, x, y, z are three sums of money such that y is SI on x and z is the SI on y for same time and same rate. Find value of sum y $[ans: y = \sqrt{zx}]$

7th sample Question
Ch:- Simple Interest

1. Let $P = x$, $\Rightarrow A$ = double $= 2x$, $R = 12.5\%$.

$SI = A - P = 2x - x = x$

$T = \frac{SI \times 100}{P \times R} = \frac{x \times 100^{40} \times 8}{x \times 1215} = 8$ yrs.

2. Let $P = x$, $A = 8/5\,x$ $\quad SI = \frac{8x}{5} - x = \frac{3x}{5}$

$T = 5$ yrs $\quad \therefore R = \frac{SI \times 100}{P \times T} =$

$= \frac{\frac{3x}{5} \times 100}{x \times 5} = \frac{3x \times 100^{4}}{8x \times 2 \times 8} = 12\%$

3. Let Rate $= R\%$, P for 2yr $= 9000$.

SI for 2yr $= \frac{9000 \times 2 \times R}{100} = 180R$

P for last 3yrs $= 9000 - 4000 = 5000$

SI for 3yrs $= \frac{5000 \times 3 \times R}{100} = 150R$

Money received at the end of 5th yrs

$7640 = 5000 + 180R + 150R$.

$\Rightarrow 7640 - 5000 = 330R$

$\Rightarrow 2640 = 330R$

$\Rightarrow \frac{2640^{8}}{330} = R$

$\therefore R = 8\%$.

4. Let first Part $P = x$ | Secon part $P = 3000 - x$

$T = 4$ yrs, $R = 8\%$ | $T = 2$ yrs, $R = 9\%$.

$SI = \frac{x \times 4 \times 8}{100} = \frac{32x}{100}$ | $SI = \frac{(3000 - x) \times 2 \times 9}{100}$

$= \frac{8x}{25}$ | $= \frac{(27000 - 9x)}{50}$

A/Q SI on both parts are equal

$\Rightarrow \frac{8x}{25} = \frac{27000 - 9x}{50}$

$\Rightarrow x = 1080 \quad \therefore P_1 = 1080, P_2 = 1020$

6. SI on first part + SI on 2nd part = 333

$$\frac{x \times 1 \times 9}{100} + \frac{(3600-x) \times 1 \times 10}{100} = 333$$

$$\Rightarrow \frac{9x}{100} + \frac{36000 - 10x}{100} = 333$$

$$\Rightarrow \frac{9x + 36000 - 10x}{100} = 333$$

$$\Rightarrow -x + 36000 = 333 \times 100 = 33300$$

$$\Rightarrow 36000 - 33300 = x$$

$$\Rightarrow 2700 = x$$

$\therefore P_1 = 2700$, $P_2 = 3600 - 2700 = 900$

7. Let rate of interest = R% p.a,

SI for 1 yrs $= \frac{8000 \times 1 \times R}{100} = 80R$

P for last 2 yrs $= 8000 - 2000 = 6000$

SI for 2 yrs $= \frac{6000 \times 2 \times R}{100} = 120R$

Amount received at the end of 3rd yrs $= 6000 + 80R + 120R$

$$\Rightarrow 7800 = 6000 + 200R \Rightarrow R = \frac{2800}{200} = 14$$

8. Let Rate = R%.

SI of Hari - SI of Ajit = 735

$$\left(\frac{8000 \times R \times 3}{100}\right) - \left(\frac{6250 \times R \times 3}{100}\right) = 735$$

$$\Rightarrow \frac{24,000R - 18,750R}{100} = 735$$

$$\Rightarrow 5250R = 735 \times 100$$

$$R = 73500 \div 5250 = 14\%.$$

9. SI for 1st part + SI for 2nd part = 3260

$$\frac{x \times 12 \times 1}{100} + \frac{(25000-x) \times 14 \times 1}{100} = 3260$$

$$\Rightarrow \frac{12x}{100} + 350000 - 14x = 3260$$

$$\Rightarrow -2x + 350000 = 326000$$

$$\Rightarrow 350000 - 326000 = 2x$$

$$\Rightarrow 24,000 \div 2 = x$$

$$\Rightarrow P_1 = 12000 \quad P_2 = 13000.$$

10. SI paid by Kanti $= \frac{P \times 8 \times 3}{100} = \frac{24P}{100}$

SI Paid by Satish $= \frac{P \times 12 \times 3}{100} = \frac{36P}{100}$

A/q Gain $= \frac{36P}{100} - \frac{24P}{100} = 420$.

$$\Rightarrow \frac{12P}{100} = 420 \Rightarrow P = \frac{420 \times 100}{12}$$

$$\Rightarrow \boxed{P = 3500}$$

— x —