

② S.I.

$$P = \text{Rs } 5000$$

$$r = 9\% \text{ p.a.}$$

$$t = 2 \text{ years}$$

S.I for I/II year

$$= \frac{prt}{100}$$

$$= \frac{5000 \times 9 \times 1}{100}$$

$$= \text{Rs } 450$$

CI

CI for I year = SI for I year = Rs 450

$$P_2 = 5000 + 450$$

$$= \text{Rs } 5450$$

CI for II year = $\frac{P_2 r t}{100}$

$$= \frac{5450 \times 9 \times 1}{100}$$

$$= 490.50$$

\therefore diff in CI and SI = $490.50 - 450$
= Rs 40.50

④ loan (P_1) = Rs 25000, rate = 8% pa, time = 2y

CI₁ for I year = $\frac{P_1 r t}{100} = \frac{25000 \times 8 \times 1}{100}$
= Rs 2000

$$P_2 = 25000 + 2000$$

$$= \text{Rs } 27000$$

CI₂ for II year = $\frac{P_2 r t}{100}$

$$= \frac{27000 \times 8 \times 1}{100}$$

$$= \text{Rs } 2160$$

amount for clearing loan

$$= P_1 + CI_1 + CI_2$$

$$= 25000 + 2000 + 2160$$

$$= \text{Rs } 29160.00$$