Exercise 12A

Q1

Answer :

$$P = \text{Rs. } 6400,\ R = 6\%,\ T = 2 \text{ years}$$

$$\text{S.I.} = \frac{P \times R \times T}{100} = \frac{6400 \times 6 \times 2}{100}$$

$$= \text{Rs. } 768$$

$$\text{Amount} = P + \text{S.I.}$$

$$= 6400 + 768$$

$$= \text{Rs. } 7168$$

Q2

Answer :

$$P = \text{Rs. } 2650,\ R = 8\%,\ T = 2\frac{1}{2} \text{ years} = \frac{5}{2} \text{ years}$$

$$\text{S.I.} = \frac{P \times R \times T}{100} = \frac{2650 \times 8 \times 5}{100 \times 2}$$

$$= \text{Rs. } 530$$

$$\text{Amount} = P + \text{S.I.}$$

$$= 2650 + 530$$

$$= \text{Rs. } 3180$$

Q3

Answer :

$$P = \text{Rs. } 1500,\ R = 12\%,\ T = 3 + \frac{3}{12} = \frac{13}{4} \text{ years}$$

$$\text{S.I.} = \frac{P \times R \times T}{100} = \frac{1500 \times 12 \times 13}{100 \times 4}$$

$$= \text{Rs. } 585$$

$$\text{Amount} = P + \text{S.I.}$$

$$= 1500 + 585$$

$= \text{Rs . } 2085$

Q4

Answer :

$\text{P} = \text{ Rs. } 9600$

$\text{R} = 7\frac{1}{2}\,\%$

$\text{T} = 5 \text{ months } = \frac{5}{12} \text{ years}$

$\text{S.I.} = \frac{\text{P} \times \text{R} \times \text{T}}{100}$

$= \frac{9600 \times 15 \times 5}{100 \times 2 \times 12}$

$= \text{Rs. } 300$

$\text{Amount} = \text{ P} + \text{ S.I.}$

$= 9600 + 300$

$= \text{Rs. } 9900$

Q5

Answer :

$\text{P} = \text{Rs.} 5000 \text{ , } \text{R} = 9\% \text{ , } \text{T} = 146 \text{ days} = \frac{146}{365} \text{ years}$

$\text{S .I.} = \frac{\text{P} \times \text{R} \times \text{T}}{100} = \frac{5000 \times 9 \times 146}{100 \times 365}$

$= \text{Rs. } 180$

$\text{Amount} = \text{P} + \text{S .I.}$

$= 5000 + 180$

$= \text{Rs. } 5180$

Q6

Answer :

$\text{P} = \text{Rs. } 6400, \text{ S.I.} = \text{Rs. } 1152, \text{ R} = 6\%$

$$T = \frac{S.I. \times 100}{P \times R} = \frac{1152 \times \cancel{100}}{\cancel{6400} \times 6}$$

$$= \frac{1152}{384}$$

$$= 3 \text{ years}$$

Q7

Answer :

$$P = \text{Rs. } 9540\ ,\ \ S.I. = \text{Rs. } 1908, R = 8\%$$

$$T = \frac{S.I. \times 100}{P \times R} = \frac{1908 \times 100}{9540 \times 8}$$

$$= \frac{10}{4}$$

$$= 2\frac{1}{2} \text{ years}$$

Q8

Answer :

$$P = \text{Rs. } 5000,\ \ A = \text{Rs. } 6450,\ R = 12\%$$

$$S.I. = A - P$$

$$= 6450 - 5000$$

$$= \text{Rs. } 1450$$

$$T = \frac{S.I \times 100}{P \times R} = \frac{1450 \times 100}{5000 \times 12}$$

$$= \frac{29}{12}$$

$$= 2\frac{5}{12}$$

$$= 2 \text{ years } 5 \text{ months}$$

Q9

Answer :

$$P = \text{Rs. } 8250,\ S.I. = \text{Rs. } 1100,\ T = 2 \text{ years}$$

$$R = \frac{S.I. \times 100}{P \times T} = \frac{1100 \times 100}{8250 \times 2}$$

$$= \frac{1100}{165} = 6.67\%$$

Q10

Answer :

$$P = \text{Rs. } 5200,\ S.I. = \text{Rs. } 975 \quad [T = 2\tfrac{1}{2} \text{ years} = \tfrac{5}{2} \text{ years}]$$

$$R = \frac{S.I. \times 100}{P \times T} = \frac{975 \times 100 \times 2}{5200 \times 5}$$

$$= \frac{195}{26}$$

$$= 7.5\%$$

Q11

Answer :

$$P = \text{Rs. } 3560,\ A = \text{Rs. } 4521.20,\ T = 3 \text{ years}$$

$$S.I. = A - P = 4521.20 - 3560$$

$$= \text{Rs. } 961.20$$

$$R = \frac{S.I. \times 100}{P \times T} = \frac{961.20 \times 100}{3560 \times 3}$$

$$= \frac{96120 \times 100}{100 \times 3560 \times 3}$$

$$= 9\%$$

********** END **********