

## VIII, ex 11B, P9

Solutions by Dev Anoop (Bathinda)

⑮  $P = ₹4000$ ,  $A = ₹4410$ ,  $t = 2$  years

$$A = P \left(1 + \frac{r}{100}\right)^n$$

$$4410 = 4000 \left(1 + \frac{r}{100}\right)^2$$

$$\Rightarrow \left(\frac{21}{20}\right)^2 = \left(1 + \frac{r}{100}\right)^2$$

$$\Rightarrow 1 + \frac{r}{100} = \frac{21}{20}$$

$$(\times 100) \quad 100 + r = 105$$

$$\Rightarrow r = 105 - 100$$

$$\Rightarrow r = 5$$

$$\text{rate} = 5\% \text{ p.a.}$$

⑯  $P = ₹640$ ,  $A = ₹774.40$ ,  $t = 2$  years

$$\frac{A}{P} = \left(1 + \frac{r}{100}\right)^n$$

$$\frac{774.40}{640} = \left(1 + \frac{r}{100}\right)^2$$

$$\Rightarrow \frac{77440}{64000} = \left(1 + \frac{r}{100}\right)^2$$

$$\Rightarrow \left(\frac{11}{10}\right)^2 = \left(1 + \frac{r}{100}\right)^2$$

$$\Rightarrow 1 + \frac{r}{100} = \frac{11}{10}$$

$$(\times 100) \quad 100 + r = 110$$

$$\Rightarrow r = 110 - 100$$

$$= 10$$

$$\text{rate} = 10\% \text{ p.a.}$$