

Question 1.

Estimated Annual Income (i) = Rs. 60,000

Rate of Capitalisation in the market (r) = 12.5%

$$\therefore \text{Amount of Capitalisation (C)} = \frac{i}{r} = \frac{60,000}{12.5\%} = \text{Rs. 4,80,000}$$

Question 2.

Normal Rate of Return = 10%

Capital Employed = Sundry Assets - External Liabilities

$$= \text{Rs. 1,50,000} - \text{Rs. 50,000} = \text{Rs. 1,00,000}$$

(i) Estimated Income = Rs. 8,000

$$\begin{aligned} \therefore \text{Actual Rate of Return} &= \frac{\text{Estimated Income}}{\text{Capital Employed}} \times 100 \\ &= \frac{8,000}{1,00,000} \times 100 = 8\% \end{aligned}$$

Therefore, if the estimated earnings are Rs. 8,000 then it is the position of over-capitalisation because Actual Rate of Return (8%) < Normal Rate of Return (10%).

(ii) Estimated Income = Rs. 12,500

$$\therefore \text{Actual Rate of Return} = \frac{12,500}{1,00,000} \times 100 = 12.5\%$$

Hence, It is the position of under-capitalisation because Actual Rate of Return (12.5%) > Normal Rate of Return (10%).

(iii) Estimated Income = Rs. 10,000

$$\therefore \text{Actual Rate of Return} = \frac{10,000}{1,00,000} \times 100 = 10\%$$

Hence, It is the position of optimum-capitalisation because Actual Rate of Return (10%) = Normal Rate of Return (10%).

Question 3.

Actual Amount of Capitalisation = Rs. 2,00,000

Average Annual Income = Rs. 30,000

Rate of Capitalisation in the market = 20%

$$\begin{aligned} \therefore \text{Actual Rate of Return} &= \frac{\text{Average Annual Income}}{\text{Amount of Capitalisation}} \times 100 \\ &= \frac{30,000}{2,00,000} \times 100 = 15\% \end{aligned}$$

(i) Yes, the company is over-capitalised because Actual Rate of Return (15%) < Rate of Capitalisation in the market (20%).

(ii) Actual Amount of Capitalisation = Rs. 2,00,000

$$\begin{aligned} \text{Amount for Fair Capitalisation} &= \frac{\text{Average Annual Income (i)}}{\text{Rate of Capitalisation in the market (r)}} \\ &= \frac{30,000}{20\%} = \text{Rs. 1,50,000} \end{aligned}$$

∴ Extent of Over-Capitalisation :

$$= \text{Actual Capitalisation} - \text{Fair Capitalisation}$$

$$= \text{Rs. } 2,00,000 - \text{Rs. } 1,50,000 = \text{Rs. } 50,000$$

(iii) Level of Income required for fair Capitalisation

$$\text{We know, } C = i/r$$

$$\therefore i (\text{Income}) = C \times r$$

$$= 2,00,000 \times 20\% = \text{Rs. } 40,000$$

∴ Increase to be made in existing income

$$= \text{Rs. } 40,000 - \text{Rs. } 30,000$$

$$= \text{Rs. } 10,000$$

Question 4.

$$\text{Actual Amount of Capitalisation} = \text{Rs. } 20,00,000$$

$$\text{Average Annual Income} = \text{Rs. } 5,00,000$$

$$\text{Rate of Capitalisation in the market} = 20\%$$

$$\begin{aligned} \text{(i) Actual Rate of Return} &= \frac{\text{Average Annual Income}}{\text{Amount of Capitalisation}} \times 100 \\ &= \frac{5,00,000}{20,00,000} \times 100 = 25\% \end{aligned}$$

Yes, the company is under-capitalised because Actual Rate of Return (25%) > Rate of Capitalisation in the market (20%).

$$\text{(ii) Actual Amount of Capitalisation} = \text{Rs. } 20,00,000$$

$$\begin{aligned} \text{Amount for Fair Capitalisation} &= \frac{\text{Average Annual Income (i)}}{\text{Rate of Capitalisation in the market (r)}} \\ &= \frac{5,00,000}{20\%} = \text{Rs. } 25,00,000 \end{aligned}$$

∴ Extent of Under-Capitalisation :

$$= \text{Fair Capitalisation} - \text{Actual Capitalisation}$$

$$= \text{Rs. } 25,00,000 - \text{Rs. } 20,00,000 = \text{Rs. } 5,00,000$$