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UNIT 4

GOODWILL IN PARTNERSHIP ACCOUNTS

I. Choose the correct answer :

1. Which of the following statements is true?
   (a) Goodwill is an intangible asset (b) Goodwill is a current asset
   (c) Goodwill is a fictitious asset (d) Goodwill cannot be acquired
2. Super profit is the difference between
   (a) Capital employed and average profit (b) Assets and liabilities
   (c) Average profit and normal profit (d) Current year's profit and average profit
3. The average rate of return of similar concerns is considered as
   (a) Average profit (b) Normal rate of return
   (c) Expected rate of return (d) None of these
4. Which of the following is true?
   (a) Super profit = Total profit / number of years
   (b) Super profit = Weighted profit / number of years
   (c) Super profit = Average profit – Normal profit
   (d) Super profit = Average profit × Years of purchase
5. Identify the incorrect pair
   a) Goodwill under Average profit method - Average profit × Number of years of Purchase
   (b) Goodwill under Super profit method - Super profit × Number of years of purchase
   (c) Goodwill under Annuity method - Average profit × Present value annuity factor
   (d) Goodwill under Weighted average profit method - Weighted average profit × Number of years of purchase
6. When the average profit is ₹ 25,000 and the normal profit is ₹ 15,000, super profit is
   (a) ₹ 25,000 (b) ₹ 5,000
   (c) ₹ 10,000 (d) ₹ 15,000
7. Book profit of 2017 is ₹ 35,000; non-recurring income included in the profit is ₹ 1,000 and abnormal loss charged in the year 2017 was ₹ 2,000, then the adjusted profit is

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(a) ₹ 36,000 (b) ₹ 35,000

(c) ₹ 38,000 (d) ₹ 34,000

8. The total capitalised value of a business is ₹ 1,00,000; assets are ₹ 1,50,000 and liabilities are ₹ 80,000. The value of goodwill as per the capitalisation method will be

(a) ₹ 40,000 (b) ₹ 70,000

(c) ₹ 1,00,000 (d) ₹ 30,000

Answers :

1 (a) 2(c) 3(b) 4(c) 5 (c) 6(c) 7(a) 8(d)

II. Very short answer questions :

1. What is goodwill ?
   i. Goodwill is the good name or reputation of the business which brings benefit to the business. It enables the business to earn more profit.
   ii. It is the present value of a firm's future excess earnings. It is an intangible asset as it has no physical existence.
2. What is acquired goodwill ?
   i. Goodwill acquired by making payment in cash or kind is called acquired or purchased goodwill.
   ii. The excess of purchase consideration over the value of net assets acquired is treated as acquired goodwill.
3. What is super profit ?
   i. Super profit is the excess of average profit over the normal profit of a business.

   Super profit = Average profit – Normal profit
   ii. Average profit is calculated by dividing the total of adjusted actual profits of certain number of years by the total number of such years. Normal profit is the profit earned by the similar business firms under normal conditions.
4. What is normal rate of return ?

   Normal rate of return refers to the rate at which profit is earned by similar business entities in the industry under normal circumstances.
5. State any two circumstances under which goodwill of a partnership firm is valued.
   i. When there is a change in the profit sharing ratio
   ii. When a new partner is admitted into a firm

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III. Short answer questions :

1. State any six factors determining goodwill.
   (i) Profitability of the firm - The profit earning capacity of the firm determines the value of its goodwill. A firm earning higher profits and having potential to generate higher profits in future will have higher value of goodwill.
   (ii) Good quality of goods or services offered - If a firm enjoys good reputation among the customers and general public for the good quality of its products or services, the value of goodwill for the firm will be high.
   (iii) Tenure of the business enterprise - A firm which has carried on business for several years will have higher reputation among its customers as it is better known to the customers. Such a firm will have higher earnings and higher value of goodwill when compared to a new firm.
   (iv) Efficiency of management - A firm having efficient management will earn more profits and the value of its goodwill will be higher compared to a firm with less efficient managerial personnel.
   (v) Degree of competition - In the case of business enterprises having no competition or negligible competition, the value of goodwill will be high.
   (vi) Other factors - There are other factors which add to the value of goodwill of a business such as popularity of the proprietor, impressive advertisements and publicity, good relations with customers, etc.
2. How is goodwill calculated under the super profit method ?
   i. Under these methods, super profit is the base for calculation of the value of goodwill. Super profit is the excess of average profit over the normal profit of a business. Super profit = Average profit – Normal profit
   ii. Average profit is calculated by dividing the total of adjusted actual profits of certain number of years by the total number of such years. Normal profit is the profit earned by the similar business firms under normal conditions.
   iii. Normal profit = Capital employed × Normal rate of return
   iv. Capital employed = Fixed assets + Current assets – Current liabilities
   v. Normal rate of return = It is the rate at which profit is earned by similar business entities in the industry under normal circumstances.
3. How is the value of goodwill calculated under the capitalisation method ?

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i. Under this method, goodwill is the excess of capitalised value of average profit of the business over the actual capital employed in the business.

ii. Goodwill = Total capitalised value of the business – Actual capital employed

iii. The total capitalised value of the business is calculated by capitalising the average profits on the basis of the normal rate of return.

iv. Capitalised value of the business = $\frac{\text{Average profit}}{\text{Normal rate of return}} \times 100$

v. Actual capital employed = Fixed assets (excluding goodwill) + Current assets – Current liabilities

4. Compute average profit from the following information.

2016: ₹ 8,000; 2017: ₹ 10,000; 2018: ₹ 9,000

Solution :

$$\text{Average profit} = \frac{\text{Total profit}}{\text{Number of years}}$$

$$= \frac{8,000 + 10,000 + 9,000}{3}$$

= ₹ 9,000

5. Calculate the value of goodwill at 2 years purchase of average profit when average profit is ₹ 15,000.

Solution :

Goodwill = Average profit x Number of years of purchase

= 15,000 x 2

= **₹ 30,000**

IV. Exercise :

Simple average profit method

i. The following are the profits of a firm in the last five years: 2014: ₹ 10,000; 2015: ₹ 11,000; 2016: ₹ 12,000; 2017: ₹ 13,000 and 2018: ₹ 14,000

Calculate the value of goodwill at 2 years purchase of average profit of five years.

Solution :

$$\text{Average profit} = \frac{\text{Total profit}}{\text{Number of years}}$$

$$= \frac{10,000 + 11,000 + 12,000 + 13,000 + 14,000}{5}$$

$$= \frac{60,000}{5} = ₹\ 12,000$$

Goodwill = Average profit x Number of years of purchase

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= 12,000 x 2

= **₹ 24,000**

ii. From the following information, calculate the value of goodwill on the basis of 3 years purchase of average profits of last four years.

Year	Result	Amount ₹
2015	Profit	5,000
2016	Profit	8,000
2017	Loss	3,000
2018	Profit	6,000

Solution :

$$\text{Average profit} = \frac{\text{Total profit}}{\text{Number of years}}$$

$$= \frac{5,000 + 8,000 - 3,000 + 6,000}{4}$$

$$= \frac{16,000}{4} = ₹\ 4,000$$

Goodwill = Average profit x Number of years of purchase

= 4,000 x 3

= **₹ 12,000**

3. From the following information relating to a partnership firm, find out the value of its goodwill based on 3 years purchase of average profits of the last 4 years:

(a) Profits of the years 2015, 2016, 2017 and 2018 are ₹ 10,000, ₹ 12,500, ₹ 12,000 and ₹ 11,500 respectively.

(b) The business was looked after by a partner and his fair remuneration amounts to ₹ 1,500 per year. This amount was not considered in the calculation of the above profits.

Solution :

$$\text{Average profit} = \frac{\text{Total profit}}{\text{Number of years}}$$

$$= \frac{10,000 + 12,500 + 12,000 + 11,500}{4}$$

$$= \frac{46,000}{4} = ₹\ 11,500$$

Average profit before adjusting fair remuneration of the partner = ₹ 11,500
Less: Fair remuneration of partners = ₹ 1,500

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Average profit = ₹ 10,000

Goodwill = Average profit x Number of years of purchase

= 10,000 x 3

= **₹ 30,000**

4. From the following information relating to Sridevi enterprises, calculate the value of goodwill on the basis of 4 years purchase of the average profits of 3 years.
   a) Profits for the years ending 31st December 2016, 2017 and 2018 were ₹ 1,75,000, ₹ 1,50,000 and ₹ 2,00,000 respectively.
   b) A non-recurring income of ₹ 45,000 is included in the profits of the year 2016.
   c) The closing stock of the year 2017 was overvalued by ₹ 30,000.

Solution : Calculation of adjusted profit

Particulars	2016 ₹	2017 ₹	2018 ₹
Profit	1,75,000	1,50,000	2,00,000
Less: Non-recurring income	45,000	-	-
	1,30,000	1,50,000	2,00,000
Less: Over valuation of closing stock	-	30,000	-
	1,30,000	1,20,000	2,00,000
Add: Over valuation of opening stock	-	-	30,000
Profit after adjustments	1,30,000	1,20,000	2,30,000

$$\text{Average profit} = \frac{\text{Total profit}}{\text{Number of years}}$$

$$= \frac{1,30,000 + 1,20,000 + 2,30,000}{3}$$

$$= \frac{4,80,000}{3} = ₹\ 1,60,000$$

Goodwill = Average profit x Number of years of purchase

= 1,60,000 x 4

= **₹ 6,40,000**

5. The following particulars are available in respect of the business carried on by a partnership firm:
   i. Profits earned: 2016: ₹ 25,000; 2017: ₹ 23,000 and 2018: ₹ 26,000.
   ii. Profit of 2016 includes a non-recurring income of ₹ 2,500.

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iii. Profit of 2017 is reduced by ₹ 3,500 due to stock destroyed by fire.

iv. The stock was not insured. But, it is decided to insure the stock in future. The insurance premium is estimated to be ₹ 250 per annum.

You are required to calculate the value of goodwill of the firm on the basis of 2 years purchase of average profits of the last three years.

Solution : Calculation of adjusted profit

Particulars	2016 ₹	2017 ₹	2018 ₹
Profit	25,000	23,000	26,000
Less: Non-recurring income	2,500	-	-
	22,500	23,000	26,000
Add: Stock destroyed by fire (abnormal loss)	-	3,500	-
Profit after adjustments	22,500	26,500	26,000

$$\text{Average profit} = \frac{\text{Total profit}}{\text{Number of years}}$$

$$= \frac{22,500 + 26,500 + 26,000}{3}$$

$$= \frac{75,000}{3} = ₹\ 25,000$$

	₹
Average profit before adjusting insurance premium payable in future	25,000
Less: Insurance premium payable in future	250
Average profit	**24,750**

Goodwill = Average profit x Number of years of purchase

= 24,750 x 2

= **₹ 49,500**

Weighted average profit method :

6. Find out the value of goodwill at three years purchase of weighted average profit of last four years.

Year	Profit ₹	Weight

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2015	10,000	1
2016	12,000	2
2017	16,000	3
2018	18,000	4

Solution : Calculation of weighted average profit

Year	Profit (a) ₹	Weights (b)	Weighted profit (a x b) ₹
2015	10,000	1	10,000
2016	12,000	2	24,000
2017	16,000	3	48,000
2018	18,000	4	72,000
Total		10	1,54,000

$$\text{Weighted average profit} = \frac{\text{Total weighted profit}}{\text{Total of weights}}$$

$$= \frac{1,54,000}{10} = ₹\ 15,400$$

Weighted average profit = ₹ 15,400

Goodwill = Weighted average profit x Number of years of purchase

= 15,400 x 3

Goodwill = **₹ 46,200**

Purchase of Super profit method :

7. From the following details, calculate the value of goodwill at 2 years purchase of super profit: (a) Total assets of a firm are ₹ 5,00,000

(b) The liabilities of the firm are ₹ 2,00,000

(c) Normal rate of return in this class of business is 12.5 %.

(d) Average profit of the firm is ₹ 60,000.

Solution :

Goodwill = Super profit x Number of years of purchase

Super profit = Average profit – Normal profit

Normal profit = Capital employed x Normal rate of return

Capital employed = Fixed asset + Current assets – Current liabilities

= 5,00,000 – 2,00,000

= ₹ 3,00,000

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Normal profit = 3,00,000 x 12.5%

= ₹ 37,500

Super profit = 60,000 – 37,500

= ₹ 22,500

Goodwill = 22,500 x 2

= **₹ 45,000**

8. A partnership firm earned net profits during the last three years as follows:
2016 : ₹ 20,000; 2017 : ₹ 17,000 and 2018 : ₹ 23,000
The capital investment of the firm throughout the above mentioned period has been ₹ 80,000. Having regard to the risk involved, 15% is considered to be a fair return on capital employed in the business. Calculate the value of goodwill on the basis of 2 years purchase of super profit.

Solution :

$$\text{Average profit} = \frac{\text{Total profit}}{\text{Number of years}}$$

$$= \frac{20,000 + 17,000 + 23,000}{3}$$

$$= \frac{60,000}{3}$$

= ₹ 20,000

Normal profit = Capital employed x Normal rate of return

= 80,000 x 15%

= ₹ 12,000

Super profit = Average profit – Normal profit

= 20,000 – 12,000

= ₹ 8,000

Goodwill = Super profit x Number of years of purchase

= 8,000 x 2

= **₹ 16,000**

Annuity method :

9. From the following information, calculate the value of goodwill under annuity method:

(i) Average profit ₹ 14,000

(ii) Normal Profit ₹ 4,000

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(iii) Normal rate of return 15%

(iv) Years of purchase of goodwill 5

Present value of ₹ 1 for 5 years at 15% per annum as per the annuity table is 3.352

Solution :

Super profit = Average profit – Normal profit

= 14,000 – 4,000

= ₹ 10,000

Goodwill = Super profit x Value of annuity

= 14,000 x 3.352

= **₹ 33,520**

Capitalisation of super profit method :

10. Find out the value of goodwill by capitalising super profits:

(a) Normal Rate of Return 10%

(b) Profits for the last four years are ₹ 30,000, ₹ 40,000, ₹ 50,000 and ₹ 45,000.

(c) A non-recurring income of ₹ 3,000 is included in the above mentioned profit of ₹ 30,000.

(d) Average capital employed is ₹ 3,00,000.

Solution :

$$\text{Average profit} = \frac{\text{Total profit}}{\text{Number of years}}$$

$$= \frac{30,000 + 40,000 + 50,000 + 45,000 - 3,000}{4}$$

$$= \frac{1,62,000}{4}$$

= ₹ 40,500

Normal profit = Capital employed x Normal rate of return

$$= 3,00,000 \times \frac{10}{100}$$

= ₹ 30,000

Super profit = Average profit – Normal profit

= 40,500 – 30,000

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= ₹ 10,500

Goodwill = $\frac{\text{Super profit}}{\text{Normal rate of return}} \times 100$

= $\frac{10,500}{10} \times 100$

= **₹ 1,05,000**

Capitalisation method :

11. From the following information, find out the value of goodwill by capitalisation method: (i)Average profit ₹ 20,000

(ii) Normal rate of return 10%

(iii) Capital employed ₹ 1,50,000

Solution :

Capitalised value of the business = $\frac{\text{Average profit}}{\text{Normal rate of return}} \times 100$

= $\frac{20,000}{10} \times 100$

= **₹ 2,00,000**

Goodwill = Total capitalised value of the average profit – Capital employed

= 2,00,000 – 1,50,000

= **₹ 1,50,000**

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