

Goodwill: Concept and Mode of Valuation

LEARNING OBJECTIVES

The Study of this Chapter would enable you to understand:

- Meaning of Goodwill
- Characteristics or Features of Goodwill
- Need for Valuing Goodwill
- Factors Affecting the Value of Goodwill
- Classification of Goodwill
- Mode or Methods of Valuation of Goodwill
 - (a) Average Profit Method
 - Simple Average Profit Method
 - Weighted Average Profit Method
 - (b) Super Profit Method
 - (c) Capitalisation Method
 - Capitalisation of Average Profit
 - Capitalisation of Super Profit

MEANING OF GOODWILL

Goodwill can be said to be positive impression in the mind of the customers about the firm who continue to patronise it. For example, 'Apple' computer and mobile phones and HO completers.

"Goodwill is nothing more than the profitability that the old customers will resort to the old place" —Lord Eldon.

"When a man pays for Goodwill, he pays for something which place him in the position of being able to earn more than he would be able to do by his own unaided efforts" —Dicksee

"Goodwill may be said to be that element arising from the reputation, connection or other advantages possessed by a business which enable it to earn greater profit than the return normally to be expected on capital represented by the net tangible employed in the business"

Stating differently, Goodwill is the value of reputation of a firm in respect of the profits expected in future over and above the normal profits earned by other similar firm belonging to the industry.

Characteristics or Features of Goodwill

The Characteristics or Features of Goodwill are:-

- ★ It is an intangible assets, i.e. an asset which can't be seen or touched.
- ★ It does not have an existence separate from that of an enterprise. This it has realisable value when business is sold.
- ★ It helps in earning higher profits or super profits.
- ★ It is an attractive forces which brings in customer to old place of business.
- ★ It comes into existence due to various factors such as locational advantages, favourable contracts, brands, trademark, patents, market reputation etc,
- ★ In the context of partnership, it is the value of share or profit sacrificed by the sacrificing partner.
- ★ Value of Goodwill is subjective as it depends on the assessment orlf the valuer.

Need for Valuing Goodwill

The need for valuation of Goodwill arises:-

- ✓ When there is a change in the profit-sharing ratio.
- ✓ When a new partner is admitted.
- ✓ When a partner retires or dies.
- ✓ When partnership firm is sold as a going concern.
- ✓ When two or more firm's amalgamate.
- ✓ When a partnership firm is converted into a company.

Factors Affecting the Value of Goodwill

Goodwill of a firm is affected by all the factors which increase the earning capacity of the firm. These factors are:

1. **Efficient Management:** If the management is experienced capable and competent, the firm will earn higher profits as compared to other firms. It will, thus, increase the value of goodwill.
2. **Favourable Location:** If the business is located at a favourable place, resulting in increased customer walk-in and, therefore, increased sale, the value of goodwill will be higher.
3. **Favourable Contracts:** Sometimes, a firm has long-term contracts for sale and purchase of goods at favourable prices. This will also affect profits and goodwill of the firm.
4. **Longer Establishment of Business:** Business established for long are likely to have wide customer base resulting in higher sale and profit. As a result, it will have higher value of goodwill.
5. **Advantage of Patents:** Normally, patents are necessary for the manufacture or production of certain types of articles. A firm which possesses the necessary patents will have a better value for its goodwill.
6. **Access to Supplies:** When supplies of materials are difficult to get, there will be a high value of goodwill for a firm which has good arrangements for getting supplies.
7. **Quality:** If a firm enjoys good reputation for the quality of its products, there will be a ready sale and the value of its goodwill, therefore, will be high.
8. **Market Situation:** If a firm is in a business wherein demand for the products dealt in is higher than the supply, it will lead to lower capital requirement and higher profit. It will, thus, increase the value of its goodwill.
9. **Risks Associated with Business:** If the risks faced by the business are higher than normal, the business will have less value for goodwill. On the contrary if the business faces lower risks, it will have higher value of goodwill.
10. **Nature of Business:** If the business of a firm is of the nature where the products dealt in are in high demand although not short in supply, the profit will be higher. It will, thus, increase the value of its goodwill.
11. **Past Performance:** The firms earning higher profits year after year, will have better value for goodwill as compared to firms earning lesser profits or incurring losses with similar amount of capital employed.
12. **Other Factors:** (a) After sale service, (b) Good customer relations, and (c) Good labour relations, etc.

CLASSIFICATION OF GOODWILL

Goodwill is two types:-

1. Purchased Goodwill, and
2. Non purchased Goodwill of self generated Goodwill.

- 1. Purchased Goodwill:** Purchased Goodwill is that goodwill which is acquired by a firm for a consideration, whether paid in cash or kind. For example, when a business is purchased and purchase consideration is more than the value of net assets (i.e., Assets – Liabilities), the difference amount is the value of purchased goodwill.

Let us take an example. AB Business House acquires Mahagun Business for a net consideration of ₹ 10,00,000. Assets acquired were valued at ₹ 20,00,000 and liabilities taken over were of ₹ 12,00,000. ₹ 2,00,000 paid in excess of net assets, i.e., ₹ 8,00,000 (₹ 20,00,000 – ₹ 12,00,000) is towards goodwill, which is purchased goodwill.

AS-26, Intangible Assets prescribes that purchased goodwill should be accounted in the books of account and written off at the earliest.

Features of Purchased Goodwill

- (i) It arises on the purchase of a business.
- (ii) Since the consideration is paid for it, it is recorded in the books of account.
- (iii) It is shown in the Balance Sheet as an asset.
- (iv) Value of Goodwill is a subjective assessment but it is ascertained when both purchaser and seller agree to its valuation.
- (v) It is amortised at the earliest but not later than its useful life.
- (vi) Value of goodwill depends upon the purchaser's expectation of future profits.

Illustration 1 (Purchased Goodwill).

Amrit Daily Needs acquired the business of Shri Shivam for a purchase consideration of ₹ 5,00,000 payable by cheque. The assets acquired and liabilities taken over are:

| | | | |
|----------------|----------|----------------------|----------|
| Assets: | ₹ | Liabilities: | ₹ |
| Furniture | 10,000 | Creditors | 5,20,000 |
| Inventory | 7,50,000 | Salaries Payable | 75,000 |
| Debtors | 1,50,000 | Outstanding Expenses | 15,000 |

Pass the necessary Journal entries.

Solution:

**Amrit Daily Needs
JOURNAL**

| Date | Particulars | L.F. | Dr. (₹) | Cr. (₹) |
|------|--|------|----------|----------|
| | Furniture A/c ...Dr. | | 10,000 | |
| | Inventory A/c ...Dr. | | 7,50,000 | |
| | Debtors A/c ...Dr. | | 1,50,000 | |
| | Goodwill A/c (Balancing Figure) ...Dr. | | 2,00,000 | |
| | To Creditors A/c | | | 5,20,000 |
| | To Salaries Payable A/c | | | 75,000 |
| | To Outstanding Expenses A/c | | | 15,000 |
| | To Shivam | | | 5,00,000 |
| | (Being the business of Shivam acquired for a net consideration of ₹ 5,00,000; ₹ 2,00,000 being towards goodwill) | | | |
| | Shivam ...Dr. | | 5,00,000 | |
| | To Bank A/c | | | 5,00,000 |
| | (Being the cheque issued to Shivam) | | | |

2. Non-Purchased Goodwill or Self-generated Goodwill:- Self-generated goodwill is that goodwill which is not purchased for a consideration but is earned by the efforts of the management (or partners). It is an internally generated goodwill which arises from a number of factors (such as favourable location, efficient management, good quality of products, etc.) that a running business possesses due to which it is able to earn higher profit.

Features of Non-purchased Goodwill or Self-generated Goodwill

- (i) It is generated internally, generally over the years.
- (ii) Its valuation is subjective assessment of the valuer, being not based on an evidence.
- (iii) AS-26, Intangible Assets prescribes that self-generated goodwill is not recognised as an asset, i.e., not accounted in the books of account.

METHODS OF VALUATION OF GOODWILL

Value of goodwill is personal assessment of the valuer and is usually agreed among the partners. It is valued as per the method stated in the Partnership Deed or as per the method of valuation agreed by the partners. However, following three methods are followed for valuing goodwill.

1. Average Profit Method:

(i) Simple Average Profit Method; and (ii) Weighted Average Profit Method;

2. Super Profit Method; and

3 Capitalisation Method:

(i) Capitalisation of Average Profit Method; and (ii) Capitalisation of Super Profit.

1. Average Profit Method

Goodwill under Average Profit Method can be calculated either by:

- (i) Simple Average Profit Method; or
- (ii) Weighted Average Profit Method.

(i) Simple Average Profit Method

Under Simple Average Profit Method, normal business profits earned by the business for the specified number of years are considered. While calculating normal business profit or future maintainable profit on the basis of past profits *any abnormal gain is excluded by deducting from and any abnormal loss is included by adding to the past profits*. Normal profits earned are totalled and average is determined. Average profit as calculated is multiplied by number of years' purchase to determine the value of goodwill. In the form of formula,

$$\text{Goodwill} = \text{Average Profit} \times \text{Number of Years' Purchase.}$$

Number of years' purchase means the number of years for which the firm is likely to earn the same amount of profit after change of ownership because of the efforts put in the past.

This method is based on the assumption that a newly started business will not earn any profit during the initial years of its operation. Hence, one who purchases a running business pays goodwill for being in a position to earn profit in the initial years of business.

Valuation of Goodwill

Step 1: Calculate Normal Profit

Goodwill under this method is calculated on average normal profit of each of the past years considered for calculating goodwill.

Normal Business Profit (or Future Maintainable Profit) is calculated for each year as follows:

| | ₹ |
|---|----------|
| <i>Profit/(Loss) of Past Year (Before Adjustment) (Given):</i> | — |
| Add: | |
| (i) Abnormal Losses (e.g., Loss by fire, Loss by theft, etc.) | — |
| (ii) Loss on Sale of Fixed Assets (Since it is not a normal business activity) | — |
| (iii) Overvaluation of Opening Stock or Undervaluation of Closing Stock (Since it would have reduced the profit) | — |
| (iv) Non-recurring Expenses (Such expenses are not expected in future) | — |
| (v) Capital Expenditure charged as Revenue Expenditure (e.g., Purchase of machinery wrongly debited to Purchases Account) | — |
| | — |
| Less: | |
| (i) Abnormal Gains (e.g., Gain (Profit) on Sale of Fixed Assets) | (-) |
| (ii) Overvaluation of Closing Stock or undervaluation of Opening Stock (As it would have increased the profit) | (-) |
| (iii) Non-recurring Incomes (Such incomes are not expected in future) | (-) |
| (iv) Income from Non-trade Investments (As it is not related to normal business activities) | (-) |
| (v) Partners' Remuneration or Management Cost, if it is not deducted (As it is the value of their services to be paid in future years) | (-) |
| (vi) Any expense that should have been incurred but not incurred, like insurance premium | (-) |
| Adjusted Profit (Future Maintainable Profit) | <u>—</u> |

Step 2: Find Average Profit

Add the normal profit (as calculated in Step 1) for all the years and divide the sum of it by the number of years for which profit is determined to calculate the average profit.

$$\text{Average Profit} = \text{Total of Profits/No. of Years}$$

Step 3: Determine the Number of Years' Purchase

Number of years' purchase means the years for which the firm is likely to earn that much profit because of the efforts made in the past. It is estimated for valuation of goodwill.

Step 4: Find Value of Goodwill

Value of Goodwill is calculated by applying the following formula:

$$\text{Goodwill} = \text{Average Profit (as per Step 2)} \times \text{Number of Years' Purchase (as per Step 3)}$$

For example, goodwill of a firm is to be valued at three years' purchase of four years' average profit. The firm earned profits in the previous four years' as ₹ 15,000; ₹ 11,000; ₹ 18,000 and ₹ 16,000. Goodwill will be valued as follows:

$$\text{Average Profit} = \frac{\text{₹ } 15,000 + \text{₹ } 11,000 + \text{₹ } 18,000 + \text{₹ } 16,000}{4} = \text{₹ } 15,000$$

$$\text{Goodwill} = \text{Average Profit} \times \text{Number of Years' Purchase} \\ = \text{₹ } 15,000 \times 3 = \text{₹ } 45,000.$$

Illustration 2 (Average Profit Method when Adjustments are Made).

Aman purchased Bharatendu's business with effect from 1st April, 2020. It was agreed that the firm's goodwill will be valued at two years' purchase of average normal profit of the last three years. The profits of Bharatendu's business for last three years ended 31st March, were:

| | |
|------|---|
| 2018 | : ₹ 1,00,000 (including an abnormal gain of ₹ 10,000); |
| 2019 | : ₹ 1,10,000 (after charging an abnormal loss of ₹ 20,000); |
| 2020 | : ₹ 85,000 (including interest of ₹ 5,000 from non-trade investment). |

Calculate value of the firm's goodwill.

| Solution: | Years | Adjustments | Normal Profit (₹) |
|-----------|---|-------------------------|-------------------|
| | Profit for the year ended 31st March, 2018 | (₹ 1,00,000 – ₹ 10,000) | 90,000 |
| | Profit for the year ended 31st March, 2019 | (₹ 1,10,000 + ₹ 20,000) | 1,30,000 |
| | Profit for the year ended 31st March, 2020* | (₹ 85,000 – ₹ 5,000) | 80,000 |
| | Total Normal Profit for last three years | | <u>3,00,000</u> |

$$\text{Average Normal Profit} = \frac{\text{Total Normal Profit}}{\text{Number of Years}} = \frac{\text{₹ } 3,00,000}{3} = \text{₹ } 1,00,000$$

$$\text{Goodwill} = \text{Average Profit} \times \text{No. of Years' Purchase} \\ = \text{₹ } 1,00,000 \times 2 = \text{₹ } 2,00,000.$$

*For valuation of goodwill, Net Profit will not include interest on non-trade investment because, it does not give profit from business.

Illustration 3 (Average Profit Method when Past Adjustments are Made).

Simran purchased Anita's business on 1st April, 2020. It was agreed to value goodwill at three years' purchase of average normal profit of the last four years. The profits of Anita's business for the last four years were:

| Year Ended | 31st March, 2017 | 31st March, 2018 | 31st March, 2019 | 31st March, 2020 |
|------------|------------------|------------------|------------------|------------------|
| Profit (₹) | 90,000 | 1,60,000 | 1,80,000 | 2,20,000 |

It was observed from the books of account that:

1. During the year ended 31st March, 2017, an asset was sold at a gain (profit) of ₹ 10,000.
2. During the year ended 31st March, 2018, a machine got destroyed in accident and ₹ 30,000 was written off as loss in Profit and Loss Account.
3. In the year ended 31st March, 2019, firm's assets were not insured due to oversight. Insurance premium being ₹ 10,000.

Calculate the value of goodwill.

Solution:

CALCULATION OF NORMAL PROFIT

| Year Ended | Profit (₹) | Adjustment (₹) | Normal Profit (₹) |
|------------------|------------|----------------|-------------------|
| 31st March, 2017 | 90,000 | (10,000) | 80,000 |
| 31st March, 2018 | 1,60,000 | 30,000 | 1,90,000 |
| 31st March, 2019 | 1,80,000 | (10,000) | 1,70,000 |
| 31st March, 2020 | 2,20,000 | — | 2,20,000 |
| | | | <u>6,60,000</u> |

$$\text{Average Profit} = \frac{\text{Total Normal Profit}}{\text{Number of Years}} = \frac{\text{₹ 6,60,000}}{4}$$

$$= \text{₹ 1,65,000}$$

$$\text{Goodwill} = \text{Average Profit} \times \text{Number of Years' Purchase}$$

$$= \text{₹ 1,65,000} \times 3 = \text{₹ 4,95,000.}$$

Note: Insurance premium towards insuring assets is a regular/recurring expense. Had the firm insured the assets, its profit would have been lower by ₹ 10,000. Therefore, it is deducted from the profit for the year ended 31st March, 2019.

Illustration 5 (Average Profit Method when Past Adjustments are Made).

Luv and Kush are partners sharing profits equally. They admit Shubh into partnership for equal share. Goodwill was agreed to be valued at two years' purchase of average profit of last four years. Profits for the last four years were:

| Year Ended | ₹ |
|------------------|----------------|
| 31st March, 2017 | 70,000; |
| 31st March, 2018 | 1,00,000; |
| 31st March, 2019 | 55,000 (Loss); |
| 31st March, 2020 | 1,45,000. |

The books of account of the firm revealed as follows:

- The firm had abnormal gain of ₹ 10,000 during the year ended 31st March, 2017.
- The firm incurred abnormal loss of ₹ 20,000 during the year ended 31st March, 2018.
- Repairs to car amounting to ₹ 50,000 was wrongly debited to vehicles on 1st April, 2018. Depreciation was charged on vehicles @ 10% on Straight Line Method.

Calculate the value of Goodwill.

Solution:

CALCULATION OF NORMAL PROFIT

| Year Ended | Profit/(Loss) (₹) | Adjustments* (₹) | Normal Profit (₹) |
|------------------|-------------------|------------------|-------------------|
| 31st March, 2017 | 70,000 | (10,000) | 60,000 |
| 31st March, 2018 | 1,00,000 | 20,000 | 1,20,000 |
| 31st March, 2019 | (55,000) | (45,000) | (1,00,000) |
| 31st March, 2020 | 1,45,000 | 5,000 | 1,50,000 |
| | | | <u>2,30,000</u> |

$$\text{Average Profit} = \frac{\text{Total Normal Profit}}{\text{Number of Years}} = \frac{\text{₹ 2,30,000}}{4} = \text{₹ 57,500}$$

$$\text{Value of Goodwill} = \text{Average Profit} \times \text{Number of Years' Purchase}$$

$$= \text{₹ 57,500} \times 2 = \text{₹ 1,15,000.}$$

***Adjustments:**

| | ₹ |
|--|-----------------|
| 1. Repairs expenses that should have been debited to Profit and Loss Account as expense but accounted as capital expenditure. Loss to increase by ₹ 50,000 | (50,000) |
| 2. Depreciation wrongly debited to Profit and Loss Account as expense for the Year ended 31st March, 2019 | 5,000 |
| Adjustment to be made in profit for the year ended 31st March, 2019 | <u>(45,000)</u> |
| 3. Adjustment to be made for depreciation for the year ended 31st March, 2020 that was wrongly charged (10% of ₹ 50,000) | 5,000 |

(ii) Weighted Average Profit Method

Under Weighted Average Profit Method, profit for each year is multiplied with the weight assigned to each year to determine the product. The product as well as the weights are totalled. Product total is divided by the total of weights to determine Weighted Average Profit. More Weightage is assigned to the profit of recent year as it indicates the most likely profits in future.

The Weighted Average Profit determined is multiplied by the 'Number of Years' Purchase' to determine the value of goodwill.

Valuation of Goodwill

Step 1: Calculate Normal Profit

Normal Profit is calculated as follows:

1. Take profit for each year.
2. Deduct abnormal gain (profit), if any, credited to Profit and Loss Account. Such as gain (profit) on sale of fixed assets.
3. Deduct recurring expenses not incurred during the year, if any.
4. Add abnormal loss, if any, incurred during the year and debited to Profit and Loss Account.

At this stage, normal profit for each year will be determined.

Step 2: Select the Weight to be Assigned (given) to each year's profit

Step 3: Calculate Weighted Average Normal Profit

1. Profit for each year (determined as per Step 1) be multiplied by the weight assigned for that year and find the product (weighted profit).
2. Total the Weighted Profit (Product) and also the weights.
3. Divide the Total of Weighted Profit (Product) with the total of weights.

$$\text{Weighted Average Profit} = \frac{\text{Total of Weighted Profit}}{\text{Total of Weights}}$$

Step 4: Find the Value of Goodwill

Multiply Weighted Average Profit (as determined in Step 3) by the 'Number of Years' Purchase'. It is the value of goodwill. Expressed as a formula, it is

$$\text{Goodwill} = \text{Weighted Average Profit} \times \text{Number of Years' Purchase.}$$

Reason for using Weighted Average Profit: Past profits show the trend of financial performance (sale) which in turn, indicates the trend of profits. Profits earned by an entity in recent years is more relevant as compared to earlier years. Therefore, more weightage should be given to recent profits which is followed under the method.

Weighted Average Profit Method is considered better as compared to Simple Average Profit Method as it gives more weightage to the profits of recent years. This method is particularly effective when profits show rising or falling trends.

Illustration 7.

The profits of a firm for the last five years were:

| Year Ended | 31st March, 2016 | 31st March, 2017 | 31st March, 2018 | 31st March, 2019 | 31st March, 2020 |
|-------------|------------------|------------------|------------------|------------------|------------------|
| Profits (₹) | 40,000 | 48,000 | 60,000 | 50,000 | 36,000 |

Calculate value of goodwill on the basis of three years' purchase of the weighted average profit after assigning weights 1, 2, 3, 4 and 5 respectively to the profits for years ended 31st March, 2016, 2017, 2018, 2019 and 2020.

Solution:

CALCULATION OF WEIGHTED PROFIT

| Year Ended A | Profit (₹) B | Weights C | Weighted Profit (₹) D = B × C |
|------------------|-----------------|--------------|----------------------------------|
| 31st March, 2016 | 40,000 | 1 | 40,000 |
| 31st March, 2017 | 48,000 | 2 | 96,000 |
| 31st March, 2018 | 60,000 | 3 | 1,80,000 |
| 31st March, 2019 | 50,000 | 4 | 2,00,000 |
| 31st March, 2020 | 36,000 | 5 | 1,80,000 |
| Total | | 15 | 6,96,000 |

$$\text{Weighted Average Profit} = \frac{\text{Total of Weighted Profit}}{\text{Total of Weights}} = \frac{₹ 6,96,000}{15} = ₹ 46,400.$$

$$\begin{aligned} \text{Goodwill} &= \text{Weighted Average Profit} \times \text{Number of Years' Purchase} \\ &= ₹ 46,400 \times 3 = ₹ 1,39,200. \end{aligned}$$

Illustration 8 (Weighted Average Profit Method when Past Adjustments are Made).

Akhil and Nikhil are partners sharing profits equally. They admitted Dinesh into partnership. It was agreed to value goodwill at three years' purchase following Weighted Average Profit Method on the basis of past five years' profits. Weights assigned to each year would be—years ended 31st March, 2016–1, 2017–2, 2018–3, 2019–4 and 2020–5. The profits for these years were:

| Year Ended | 31st March, 2016 | 31st March, 2017 | 31st March, 2018 | 31st March, 2019 | 31st March, 2020 |
|-------------|------------------|------------------|------------------|------------------|------------------|
| Profits (₹) | 90,000 | 80,000 | 1,25,000 | 1,50,000 | 1,75,000 |

Scrutiny of books of account revealed the following:

1. There was an abnormal loss of ₹ 15,000 during the year ended 31st March, 2016.
2. There was an abnormal gain of ₹ 10,000 during the year ended 31st March, 2018.
3. Closing Stock as on 31st March, 2019 was overvalued by ₹ 15,000.

Calculate value of goodwill.

Solution:

CALCULATION OF NORMAL PROFIT

| Year Ended | Profit (₹) | Adjustment (₹) | Normal Profit (₹) |
|------------------|------------|----------------|-------------------|
| 31st March, 2016 | 90,000 | 15,000 | 1,05,000 |
| 31st March, 2017 | 80,000 | — | 80,000 |
| 31st March, 2018 | 1,25,000 | (10,000) | 1,15,000 |
| 31st March, 2019 | 1,50,000 | (15,000)* | 1,35,000 |
| 31st March, 2020 | 1,75,000 | 15,000* | 1,90,000 |

*Closing Stock being overvalued on 31st March, 2019 means that profit for the year is shown at higher amount. It has effect on the profit for the next year. Profit for next year is shown at lower amount as Closing Stock of previous year is carried forward as Opening Stock of next year.

CALCULATION OF WEIGHTED PROFIT

| Year Ended | Profit (₹) | Weights | Weighted Profit (₹) |
|------------------|------------|---------|---------------------|
| 31st March, 2016 | 1,05,000 | 1 | 1,05,000 |
| 31st March, 2017 | 80,000 | 2 | 1,60,000 |
| 31st March, 2018 | 1,15,000 | 3 | 3,45,000 |
| 31st March, 2019 | 1,35,000 | 4 | 5,40,000 |
| 31st March, 2020 | 1,90,000 | 5 | 9,50,000 |
| | | 15 | 21,00,000 |

$$\text{Weighted Average Profit} = \frac{\text{Total of Weighted Profit}}{\text{Total of Weights}} = \frac{\text{₹ } 21,00,000}{15} = \text{₹ } 1,40,000$$

$$\begin{aligned} \therefore \text{Value of Goodwill} &= \text{Weighted Average Profit} \times \text{Number of Years' Purchase} \\ &= \text{₹ } 1,40,000 \times 3 = \text{₹ } 4,20,000. \end{aligned}$$

Illustration 10 (Weighted Average Profit Method when Past Adjustments are Made).

Calculate the goodwill of a firm on the basis of three years' purchase of the weighted average profit of the last four years. Profits of these four years ended 31st March, were:

| Year Ended | 31st March, 2017 | 31st March, 2018 | 31st March, 2019 | 31st March, 2020 |
|------------|------------------|------------------|------------------|------------------|
| Profit (₹) | 40,400 | 49,600 | 40,000 | 60,000 |

The weights assigned to each year ended 31st March, are: 2017 – 1; 2018 – 2; 2019 – 3 and 2020 – 4.

You are provided with the following additional information:

- On 31st March, 2019, a major plant repair was undertaken for ₹ 12,000 which was charged to revenue. The said sum is to be capitalised for goodwill calculation subject to adjustment of depreciation of 10% p.a. on Reducing Balance Method.
- The Closing Stock for the year ended 31st March, 2018 was overvalued by ₹ 4,800.
- To cover management cost an annual charge of ₹ 9,600 should be made for the purpose of goodwill valuation.

Solution:

CALCULATION OF ADJUSTED PROFIT

| Particulars | 31st March, 2017 (₹) | 31st March, 2018 (₹) | 31st March, 2019 (₹) | 31st March, 2020 (₹) |
|--|----------------------|----------------------|----------------------|----------------------|
| Given Profits | 40,400 | 49,600 | 40,000 | 60,000 |
| Less: Annual Management Cost | 9,600 | 9,600 | 9,600 | 9,600 |
| | 30,800 | 40,000 | 30,400 | 50,400 |
| Add: Capital Expenditure on Plant | — | — | 12,000 | — |
| | 30,800 | 40,000 | 42,400 | 50,400 |
| Less: Unprovided Depreciation on Plant | — | — | — | 1,200 |
| | 30,800 | 40,000 | 42,400 | 49,200 |
| Less: Overvaluation of Closing Stock | — | 4,800 | — | — |
| | 30,800 | 35,200 | 42,400 | 49,200 |
| Add: Overvaluation of Opening Stock | — | — | 4,800 | — |
| Adjusted Profits | 30,800 | 35,200 | 47,200 | 49,200 |

CALCULATION OF WEIGHTED PROFIT

| Year Ended | Profits (₹) | Weights | Weighted Profit (₹) |
|------------------|-------------|---------|---------------------|
| 31st March, 2017 | 30,800 | 1 | 30,800 |
| 31st March, 2018 | 35,200 | 2 | 70,400 |
| 31st March, 2019 | 47,200 | 3 | 1,41,600 |
| 31st March, 2020 | 49,200 | 4 | 1,96,800 |
| Total | | 10 | 4,39,600 |

$$\text{Weighted Average Profit} = \frac{\text{Total of Weighted Profit}}{\text{Total of Weights}} = \frac{₹ 4,39,600}{10} = ₹ 43,960$$

$$\text{Goodwill} = \text{Weighted Average Profit} \times \text{Number of Years' Purchase}$$

$$= ₹ 43,960 \times 3 = ₹ 1,31,880.$$

Working Notes:

- Depreciation on Plant for the year ended 31st March, 2019 is NIL as the major repairs were carried out on 31st March, 2019 itself.
- Depreciation on Plant for the year ended 31st March, 2020 = 10% of ₹ 12,000 = ₹ 1,200.
- Closing Stock of the year ended 31st March, 2018 will become Opening Stock of the year ended 31st March, 2019.

2. Super Profit Method

Similar amount of capital employed yields different profits for different enterprises. When a similar type of business earns profit at a certain percentage of the capital employed, it is called **normal return**. But a buyer's advantage lies in the excess of the normal return on capital employed. The excess of actual/average profit over normal profit is known as **super profit**. For example, a firm has capital employed of ₹ 10,00,000 and its return on capital employed is 15%, i.e., ₹ 1,50,000. Normal return on capital employed in similar business is 10%, i.e., ₹ 1,00,000. The firm has super profit of ₹ 50,000 (i.e., ₹ 1,50,000 – ₹ 1,00,000).

Capital Employed: Capital employed means capital invested in the firm to carry on business. It is calculated to determine the value of goodwill. Capital employed may be calculated by:

(i) **Starting with Partners' Capital (Liabilities Side Approach):**

Capital Employed = Capital + Reserves – Goodwill, if any existing in the books – Non-trade Investments – Fictitious Assets

(ii) **Starting with Assets (Assets Side Approach):**

Capital Employed = All Assets (except goodwill, non-trade investments and fictitious assets) – Outside Liabilities

Example 1 (When Investments are Trade Investments).

Calculate capital employed by the above two approaches with the help of following Balance Sheet:

| Liabilities | | ₹ | Assets | | ₹ |
|----------------------|----------|----------|-------------------------------|--|----------|
| Capital A/cs: | | | Land and Building | | 1,50,000 |
| Aman | 1,00,000 | | Goodwill | | 30,000 |
| Bhaskar | 1,00,000 | 2,00,000 | Investments (Trade) | | 50,000 |
| General Reserve | | 90,000 | Stock | | 50,000 |
| Sundry Creditors | | 90,000 | Sundry Debtors | | 70,000 |
| Outstanding Expenses | | 10,000 | Cash at Bank | | 30,000 |
| | | | Deferred Revenue Expenditure: | | |
| | | | Advertisement Suspense | | 10,000 |
| | | | | | 3,90,000 |
| | | 3,90,000 | | | |

Solution:

Capital Employed

(i) **Starting with Partners' Capitals (Liabilities Side Approach):**

| | ₹ | ₹ |
|---|----------|----------|
| Partners' Capitals | | |
| Aman | 1,00,000 | |
| Bhaskar | 1,00,000 | 2,00,000 |
| Add: General Reserve | | 90,000 |
| | | 2,90,000 |
| Less: Fictitious Asset (Advertisement Suspense) | 10,000 | |
| Goodwill | 30,000 | 40,000 |
| Capital Employed | | 2,50,000 |

(ii) **Starting with Assets (Assets Side Approach):**

| | ₹ | ₹ |
|--|--------|----------|
| All Assets (Total of Assets Side) | | 3,90,000 |
| Less: Fictitious Assets (Advertisement Suspense) | 10,000 | |
| Goodwill | 30,000 | |
| Sundry Creditors | 90,000 | |
| Outstanding Expenses | 10,000 | 1,40,000 |
| Capital Employed | | 2,50,000 |

While calculating Capital Employed, Trade Investments are taken as part of capital employed whereas Non-trade Investments are not.

MEANING OF TRADE INVESTMENTS AND NON-TRADE INVESTMENTS

Trade Investments are those investments that are made in another enterprise for the furtherance of own business.

Non-trade Investments are those investments that are made to earn revenue by investing surplus funds and not for the purpose of furtherance of own business.

Note: Unless investments are specified to be trade investments, they are taken as Non-trade Investments.

Example 2 (When Investments are Non-trade Investments).

Calculate capital employed by Liabilities Approach and Assets Approach from the following Balance Sheet:

| Liabilities | ₹ | Assets | ₹ |
|----------------------|----------|-------------------------------|----------|
| Capital A/cs: | | Land and Building | 3,00,000 |
| Amrit | 2,00,000 | Goodwill | 60,000 |
| Sudhir | 2,00,000 | Investments | 1,00,000 |
| Reserves | | Stock | 1,00,000 |
| Sundry Creditors | | Sundry Debtors | 1,40,000 |
| Outstanding Expenses | | Cash at Bank | 60,000 |
| | | Deferred Revenue Expenditure: | |
| | | Advertisement Suspense | 20,000 |
| | 7,80,000 | | 7,80,000 |

Solution:

(i) Calculation of Capital Employed by Liabilities Side Approach:

| | ₹ | ₹ |
|--|----------|----------|
| Partners' Capitals | | |
| Amrit | 2,00,000 | |
| Sudhir | 2,00,000 | 4,00,000 |
| Add: Reserves | | 1,80,000 |
| | | 5,80,000 |
| Less: Investments (Non-trade) | 1,00,000 | |
| Fictitious Assets—Deferred Revenue Expenditure (Advertisement Suspense) | 20,000 | |
| Goodwill | 60,000 | 1,80,000 |
| Capital Employed | | 4,00,000 |

(ii) Calculation of Capital Employed by Assets Side Approach:

| | | |
|--|----------|----------|
| Total Assets | | 7,80,000 |
| Less: Fictitious Assets—Deferred Revenue Expenditure (Advertisement Suspense) | 20,000 | |
| Goodwill | 60,000 | |
| Investments (Non-trade)* | 1,00,000 | |
| Sundry Creditors | 1,80,000 | |
| Outstanding Expenses | 20,000 | 3,80,000 |
| Capital Employed | | 4,00,000 |

*Unless Investments are stated to be trade investments, they are considered to be non-trade investments. They are, therefore, deducted to calculate Capital Employed.

Sometimes average capital employed is considered for calculating value of goodwill on the basis that profit is earned during the year and capital employed changes from time to time. Goodwill under this method is calculated by multiplying super profit with the agreed number of years' purchase. For calculating goodwill under this method, the steps are:

Step 1: Calculate Average Capital Employed as follows:

$$\frac{\text{Opening Capital Employed} + \text{Closing Capital Employed}}{2}$$

Capital Employed = Capital + Reserves – Fictitious Assets (if any)
– Non-trade Investments

Or

= All Assets (except goodwill, non-trade investments and fictitious assets) – Outside Liabilities.

Step 2: Calculate actual profit, i.e., actual average profit. Profit earned by a firm for the year is adjusted for abnormal gains and losses, if any and recurring expenses that have not been incurred. The profit so determined is totalled and is averaged.

Step 3: Calculate normal profit or return on average capital employed by applying the following formula:

$$\text{Average Capital Employed} \times \frac{\text{Normal Rate of Return}}{100}$$

Note: Normal Rate of Return means the rate of return normally earned by other firms in the similar industry.

Step 4: Calculate Super Profit, i.e., Actual Average Profit – Normal Profit.

Step 5: Calculate value of goodwill as follows:

$$\text{Goodwill} = \text{Super Profit} \times \text{Number of Years' Purchase.}$$

Illustration 11 (Super Profit Method).

A firm earned net profits during the last three years as:

| Year | I | II | III |
|------------|--------|--------|--------|
| Profit (₹) | 18,000 | 20,000 | 22,000 |

The capital investment of the firm is ₹ 60,000. Normal return on the capital is 10%. Calculate value of goodwill on the basis of three years' purchase of the average super profit for the last three years.

Solution:

(i) Average Profit = $\frac{₹ 18,000 + ₹ 20,000 + ₹ 22,000}{3} = ₹ 20,000$

(ii) Normal Profit = ₹ 60,000 × 10/100 = ₹ 6,000

(iii) Super Profit = Average Profit – Normal Profit
= ₹ 20,000 – ₹ 6,000 = ₹ 14,000

(iv) Goodwill = Super Profit × Number of Years' Purchase
= ₹ 14,000 × 3 = ₹ 42,000.

Illustration 14.

Average profit earned by a firm is ₹ 75,000 which includes undervaluation of stock of ₹ 5,000 on average basis. Capital invested in the business is ₹ 7,00,000 and the normal rate of return is 7%. Calculate goodwill of the firm on the basis of 5 times the super profit.

Solution: Actual Average Profit = ₹ 75,000 + ₹ 5,000 (undervalued stock) = ₹ 80,000
 Normal Profit = Capital Employed (Investment) × Normal Rate of Return/100
 = ₹ 7,00,000 × 7/100 = ₹ 49,000
 Super Profit = Actual Average Profit – Normal Profit
 = ₹ 80,000 – ₹ 49,000 = ₹ 31,000
 Goodwill = ₹ 31,000 × 5 = ₹ 1,55,000.

Note: Undervaluation of stock decreases net profit. Hence, it is added to determine actual average profit.

Illustration 15.

Average profit earned by a firm is ₹ 2,50,000 which includes overvaluation of stock of ₹ 10,000 on an average basis. Capital invested in the business is ₹ 14,00,000 and the normal rate of return is 15%. Calculate goodwill of the firm on the basis of 4 times the super profit.

Solution:

Average Profit = ₹ 2,50,000
 Overvaluation of Stock = ₹ 10,000
 Actual Average Profit = ₹ 2,50,000 – ₹ 10,000 (Note) = ₹ 2,40,000
 Normal Profit = Capital Employed (Investment) × Normal Rate of Return/100
 = ₹ 14,00,000 × $\frac{15}{100}$ = ₹ 2,10,000
 Super Profit = Actual Average Profit – Normal Profit
 = ₹ 2,40,000 – ₹ 2,10,000 = ₹ 30,000
 Goodwill = Super Profit × 4
 = ₹ 30,000 × 4 = ₹ 1,20,000.

Note: Overvaluation of stock is deducted as it increased the net profit.

Illustration 16 (Calculation of Average Profit).

On 1st April, 2019, a firm had assets of ₹ 3,00,000 including cash of ₹ 5,000. The Partners' Capital Accounts showed a balance of ₹ 2,00,000 and the Reserve constituted the rest. If the normal rate of return is 10% and the goodwill of the firm is valued at ₹ 2,00,000 at four years' purchase of super profit, find the average profit of the firm.

Solution: Goodwill = Super Profit × Number of Years' Purchase

$$₹ 2,00,000 = \text{Super Profit} \times 4$$

$$\text{Super Profit} = \frac{₹ 2,00,000}{4} = ₹ 50,000$$

$$\begin{aligned} \text{Normal Profit} &= \text{Capital Employed} \times \text{Normal Rate of Return}/100 \\ &= ₹ 3,00,000 \times 10/100 = ₹ 30,000 \\ \text{Super Profit} &= \text{Average Profit} - \text{Normal Profit} \\ ₹ 50,000 &= \text{Average Profit} - ₹ 30,000 \\ \text{Average Profit} &= ₹ 50,000 + ₹ 30,000 = ₹ 80,000. \end{aligned}$$

Note: As outside liabilities are not given, they are assumed to be nil. Thus, capital employed is equal to Total Asset.

Illustration 19 (Calculation of Capital Employed and Valuation of Goodwill when Non-trade Investments are given).

Balance Sheet of M/s Super Stores as at 31st March, 2020 was as follows:

| Liabilities | ₹ | Assets | ₹ |
|----------------------|-----------|-------------------------------|-----------|
| Capital A/cs: | | Land and Building | 4,00,000 |
| Alia | 1,50,000 | Computers | 70,000 |
| Ranbir | 1,50,000 | Furniture | 30,000 |
| Rishi | 1,50,000 | Investments | 1,00,000 |
| Reserves | 2,50,000 | Stock | 2,00,000 |
| Sundry Creditors | 3,00,000 | Sundry Debtors | 1,50,000 |
| Outstanding Expenses | 10,000 | Bills Receivable | 50,000 |
| Cash Credit (Bank) | 90,000 | Cash in Hand | 50,000 |
| | | Deferred Revenue Expenditure: | |
| | | Advertisement Suspense | 50,000 |
| | 11,00,000 | | 11,00,000 |

Average Profit was ₹ 1,25,000. You are to calculate goodwill at 3 years' purchase of Super Profits, if the Normal Rate of Return is 15% of Capital Employed.

Solution: (i)

CALCULATION OF CAPITAL EMPLOYED

| Liabilities Side Approach | ₹ | Assets Side Approach | ₹ |
|------------------------------|----------|----------------------------|-----------|
| Partners' Capitals: | | Total Assets | 11,00,000 |
| Alia | 1,50,000 | Less: Investments (Note) | 1,00,000 |
| Ranbir | 1,50,000 | Deferred Revenue Expenses | 50,000 |
| Rishi | 1,50,000 | (Advertisement Suspense) | |
| Add: Reserves | 2,50,000 | | 9,50,000 |
| | 7,00,000 | Less: Current Liabilities: | |
| Less: Investments (Note) | 1,00,000 | Sundry Creditors | 3,00,000 |
| Deferred Revenue Expenditure | 50,000 | Outstanding Expenses | 10,000 |
| (Advertisement Suspense) | | Cash Credit (Bank) | 90,000 |
| | 5,50,000 | | 4,00,000 |
| | | | 5,50,000 |

- (ii) Normal Profit = 15% of ₹ 5,50,000 = ₹ 82,500
 Average Profit = ₹ 1,25,000
 Super Profit = ₹ 1,25,000 – ₹ 82,500 = ₹ 42,500
 Goodwill = No. of years' purchase × Super Profit
 = 3 × ₹ 42,500 = ₹ 1,27,500.

Note: Unless investments are specified to be trade investments, they are considered to be Non-trade Investments. They are, therefore, deducted to calculate Capital Employed.

Difference between Average Profit and Super Profit

| Basis | Average Profit | Super Profit |
|---|---|--|
| 1. Meaning | It is average of the profits of past agreed years. | It is the excess of average profit over normal profit. |
| 2. Normal Rate of Return | Normal rate of return is not relevant in the calculation of average profit. | Normal rate of return is considered while calculating the super profit. |
| 3. Average Capital Employed | Average capital employed is not considered while calculating average profit. | Average capital employed is taken into account while calculating the super profit. |
| 4. Relevance of Valuing Goodwill | Average profit is relevant for Average Profit Method, Super Profit Method and Capitalisation Method of valuation of goodwill. | Super profit is relevant for Super Profit Method and Capitalisation Method of valuation of goodwill. |

3. Capitalisation Method

Under the Capitalisation Method, goodwill can be valued using two methods:

- (i) Capitalisation of Average Profit; or
 (ii) Capitalisation of Super Profit.

(i) Capitalisation of Average Profit

Under this method, goodwill is calculated by deducting capital employed (i.e., Net Assets as on the date of valuation) in the business from the capitalised value of average profit on the basis of Normal Rate of Return. Capitalised value of the business is ascertained by capitalising average profit earned at the normal rate of profit.

For calculating goodwill under this method, the steps are as follows:

Step 1: Calculate average normal profit earned.

Step 2: Calculate capitalised value of the firm by using the formula given below:

$$\text{Capitalised Value of the Business} = \frac{\text{Average Profit} \times 100}{\text{Normal Rate of Return (Profit)}}$$

If a firm earns a profit of ₹ 16,000 annually and firms normally earn 10%, the total capitalised value of the firm will be ₹ 1,60,000 (i.e., ₹ 16,000 × 100/10).

Step 3: Determine the value of Net Assets, on the date of valuation of goodwill.

Net Assets = All Assets (other than goodwill, non-trade investments and fictitious assets) at their current values minus outside liabilities.

Step 4: Goodwill = Capitalised Value of the Business (as per Step 2) – Net Assets (as per Step 3)

Illustration 20 (Capitalisation Method).

A firm earned ₹ 60,000 as profit, the normal rate of return being 10%. Assets of the firm are ₹ 7,20,000 (excluding goodwill) and Liabilities are ₹ 2,40,000. Find the value of goodwill by Capitalisation of Average Profit Method.

Solution:

$$\begin{aligned}\text{Total Capitalised Value of the Firm} &= \frac{\text{Average Profit} \times 100}{\text{Normal Rate of Return}} \\ &= \frac{\text{₹ } 60,000 \times 100}{10} = \text{₹ } 6,00,000\end{aligned}$$

$$\begin{aligned}\text{Net Assets of the Firm} &= \text{Total Assets} - \text{Liabilities} \\ &= \text{₹ } 7,20,000 - \text{₹ } 2,40,000 = \text{₹ } 4,80,000\end{aligned}$$

$$\begin{aligned}\text{Goodwill} &= \text{Total Capitalised Value of the Firm} - \text{Net Assets} \\ &= \text{₹ } 6,00,000 - \text{₹ } 4,80,000 = \text{₹ } 1,20,000.\end{aligned}$$

Illustration 21.

Puneet and Tarun are in restaurant business having credit balance in their fixed Capital Accounts as ₹ 2,50,000 each. They have credit balances in their Current Accounts of ₹ 30,000 and ₹ 20,000 respectively. The firm does not have any liability. They are regularly earning profits and their average profit of last 5 years is ₹ 1,00,000. If the normal rate of return is 10%, find the value of goodwill by Capitalisation of Average Profit Method.

Solution:

$$\begin{aligned}\text{Capitalised Value of the Business} &= \frac{\text{Average Profit} \times 100}{\text{Normal Rate of Return}} \\ &= \text{₹ } 1,00,000 \times \frac{100}{10} = \text{₹ } 10,00,000\end{aligned}$$

$$\begin{aligned}\text{Capital Employed} &= \text{₹ } 2,50,000 + \text{₹ } 2,50,000 + \text{₹ } 30,000 + \text{₹ } 20,000 = \text{₹ } 5,50,000 \\ \text{Goodwill} &= \text{₹ } 10,00,000 - \text{₹ } 5,50,000 = \text{₹ } 4,50,000.\end{aligned}$$

Illustration 22.

Bharat and Bhushan are partners in a retail business. Balances in Capital and Current Accounts as on 31st March, 2020 were:

| | Capital Account | Current Account |
|---------|-----------------|-----------------|
| Bharat | ₹ 2,00,000 | ₹ 50,000 (Cr.) |
| Bhushan | ₹ 2,40,000 | ₹ 10,000 (Dr.) |

The firm earned an average profit of ₹ 90,000. If the normal rate of return is 10%, find the value of goodwill.

Solution:

$$\begin{aligned}\text{Capitalised Value of the Business} &= \frac{\text{Average Profit} \times 100}{\text{Normal Rate of Return}} \\ &= \text{₹ } 90,000 \times \frac{100}{10} = \text{₹ } 9,00,000\end{aligned}$$

$$\begin{aligned}\text{Capital Employed} &= \text{₹ } 2,00,000 + \text{₹ } 2,40,000 + \text{₹ } 50,000 - \text{₹ } 10,000 = \text{₹ } 4,80,000 \\ \text{Goodwill} &= \text{₹ } 9,00,000 - \text{₹ } 4,80,000 = \text{₹ } 4,20,000.\end{aligned}$$

(ii) Capitalisation of Super Profit

Under this method, goodwill is calculated by capitalising super profit at the normal rate of return. For calculating the goodwill, the steps are:

Step 1: Calculate Capital Employed (Note) (*i.e.*, Net Assets as on the date of valuation) of the firm:

$$\text{Net Assets} = \text{All Assets (except goodwill, non-trade investments and fictitious assets)} \\ - \text{Outside Liabilities.}$$

Step 2: Calculate Normal Profit on Capital Employed by using the following formula:

$$\text{Normal Profit} = \text{Capital Employed} \times \text{Normal Rate of Return}/100.$$

Step 3: Calculate Average Profit of past years, *i.e.*, three to five years.

Step 4: Calculate Super Profit, *i.e.*, Average Profit – Normal Profit.

$$\text{Step 5: Goodwill} = \text{Super Profit} \times \frac{100}{\text{Normal Rate of Return}}$$

For example, where average profit is ₹ 60,000 and the normal profit is ₹ 48,000, super profit will be ₹ 12,000 (*i.e.*, ₹ 60,000 – ₹ 48,000). Normal Rate of Return is 10%. Thus, value of goodwill will be ₹ 1,20,000 (*i.e.*, ₹ 12,000 × 100/10).

Note: Unless investments are specified to be Trade Investments, they are considered to be Non-trade Investments. They are, therefore, deducted to calculate Capital Employed (Refer to Pages 2.15 and 2.16).

Illustration 23.

Average profit of the firm is ₹ 1,50,000. Total tangible assets in the firm are ₹ 14,00,000 and outside liabilities are ₹ 4,00,000. In the same type of business, the normal rate of return is 10% of the capital employed.

Calculate value of goodwill by Capitalisation of Super Profit Method.

Solution:

$$\begin{aligned} \text{Capital Employed} &= \text{Total Tangible Assets} - \text{Outside Liabilities} \\ &= ₹ 14,00,000 - ₹ 4,00,000 = ₹ 10,00,000 \end{aligned}$$

$$\begin{aligned} \text{Normal Profit} &= \text{Capital Employed} \times \text{Normal Rate of Return}/100 \\ &= ₹ 10,00,000 \times \frac{10}{100} = ₹ 1,00,000 \end{aligned}$$

$$\begin{aligned} \text{Super Profit} &= \text{Average Profit} - \text{Normal Profit} \\ &= ₹ 1,50,000 - ₹ 1,00,000 = ₹ 50,000 \end{aligned}$$

$$\begin{aligned} \text{Goodwill} &= \frac{\text{Super Profit} \times 100}{\text{Normal Rate of Return}} \\ &= \frac{₹ 50,000 \times 100}{10} = ₹ 5,00,000. \end{aligned}$$

Illustration 24.

From the following Balance Sheet of Vinod Enterprises as at 31st March, 2020, calculate the value of goodwill by capitalisation of Super Profits, if the normal rate of return is 20% of the Capital Employed and Average Profit is ₹ 1,50,000:

| Liabilities | ₹ | Assets | ₹ |
|----------------------|-----------|----------------|-----------|
| Capital A/cs: | | Computers | 1,50,000 |
| Vinod | 2,00,000 | Furniture | 50,000 |
| Vimal | 3,00,000 | Goodwill | 1,50,000 |
| Reserves | | Investments | 2,00,000 |
| Bank Overdraft | 2,00,000 | Sundry Debtors | 5,00,000 |
| Sundry Creditors | 3,00,000 | Stock | 2,50,000 |
| Outstanding Expenses | 50,000 | Cash in Hand | 50,000 |
| | 13,50,000 | | 13,50,000 |

Solution:

Capital Employed (Liabilities Side Approach):

| | ₹ | ₹ |
|---|----------|----------|
| Capital A/cs: | | |
| Vinod | 2,00,000 | |
| Vimal | 3,00,000 | 5,00,000 |
| Add: Reserves | | 3,00,000 |
| | | 8,00,000 |
| Less: Investments being Non-trade Investments | 2,00,000 | |
| Goodwill | 1,50,000 | 3,50,000 |
| | | 4,50,000 |

Capital Employed (Assets Side Approach):

| | ₹ | ₹ |
|-------------------------------------|----------|-----------|
| Total Assets | | 13,50,000 |
| Less: Investments (Being Non-trade) | 2,00,000 | |
| Goodwill | 1,50,000 | 3,50,000 |
| | | 10,00,000 |
| Less: Bank Overdraft | 2,00,000 | |
| Sundry Creditors | 3,00,000 | |
| Outstanding Expenses | 50,000 | 5,50,000 |
| | | 4,50,000 |

$$\begin{aligned} \text{Normal Profit} &= \text{Capital Employed} \times \text{Normal Rate of Return} \\ &= ₹ 4,50,000 \times 20/100 = ₹ 90,000 \end{aligned}$$

$$\text{Average Profit} = ₹ 1,50,000$$

$$\begin{aligned} \text{Super Profit} &= \text{Average Profit} - \text{Normal Profit} \\ &= ₹ 1,50,000 - ₹ 90,000 = ₹ 60,000 \end{aligned}$$

$$\begin{aligned} \text{Goodwill} &= \frac{\text{Super Profit} \times 100}{\text{Normal Rate of Return}} \\ &= \frac{₹ 60,000 \times 100}{20} = ₹ 3,00,000. \end{aligned}$$

Illustration 28.

From the following information, calculate value of goodwill of M/s Sharma & Gupta:

- (i) At three years' purchase of Average Profit.
- (ii) At three years' purchase of Super Profit.
- (iii) On the basis of Capitalisation of Super Profit.
- (iv) On the basis of Capitalisation of Average Profit.

Information:

- (a) Average Capital Employed — ₹ 10,00,000.
- (b) Net Profit/Loss of the firm for the past years: 2018—₹ 1,60,000 (Profit); 2019—₹ 1,40,000 (Profit); 2020—₹ 2,70,000 (Profit).
- (c) Normal Rate of Return on capital is 11%.
- (d) Remuneration to each partner for his service to be treated as a charge on profit—₹ 2,500 per month.
- (e) Assets (excluding goodwill)—₹ 11,00,000; Liabilities—₹ 1,00,000.

Solution:

(i) Calculation of Goodwill at three years' purchase of Average Profit:

$$\begin{aligned} \text{Average Profit} &= \frac{\text{₹ } 1,60,000 + \text{₹ } 1,40,000 + \text{₹ } 2,70,000}{3} \\ &= \frac{\text{₹ } 5,70,000}{3} = \text{₹ } 1,90,000 \end{aligned}$$

$$\begin{aligned} \text{Average Normal Profit} &= \text{₹ } 1,90,000 - \text{Remuneration of Partners} \\ &= \text{₹ } 1,90,000 - (\text{₹ } 2,500 \times 2 \times 12) \\ &= \text{₹ } 1,90,000 - \text{₹ } 60,000 = \text{₹ } 1,30,000 \end{aligned}$$

$$\begin{aligned} \text{Goodwill} &= \text{Average Normal Profit} \times \text{No. of Years' Purchase} \\ &= \text{₹ } 1,30,000 \times 3 = \text{₹ } 3,90,000. \end{aligned}$$

(ii) Calculation of Goodwill at three years' purchase of Super Profit:

$$\begin{aligned} \text{Normal Profit} &= \text{Capital Employed} \times \text{Normal Rate of Return}/100 \\ &= \text{₹ } 10,00,000 \times 11/100 = \text{₹ } 1,10,000 \end{aligned}$$

$$\begin{aligned} \text{Super Profit} &= \text{Average Profit} - \text{Normal Profit} \\ &= \text{₹ } 1,90,000 - \text{₹ } 1,10,000 = \text{₹ } 80,000 \end{aligned}$$

$$\begin{aligned} \text{Goodwill} &= \text{Super Profit} \times \text{No. of Years' Purchase} \\ &= \text{₹ } 80,000 \times 3 = \text{₹ } 2,40,000. \end{aligned}$$

(iii) Calculation of Goodwill under Capitalisation of Super Profit:

$$\begin{aligned} \text{Goodwill} &= \text{Super Profit} \times \frac{100}{\text{Normal Rate of Return}} \\ &= \text{₹ } 80,000 \times 100/11 = \text{₹ } 7,27,272.73 \text{ or } \text{₹ } 7,27,273. \end{aligned}$$

(iv) Calculation of Goodwill under Capitalisation of Average Profit:

$$\text{Goodwill} = \text{Total Capitalised Value of Business} - \text{Net Assets}$$

$$\begin{aligned} \text{Total Capitalised Value of the Firm} &= \frac{\text{Average Normal Profit} \times 100}{\text{Normal Rate of Return}} \\ &= \frac{\text{₹ } 1,30,000 \times 100}{11} = \text{₹ } 11,81,818.18 \text{ or } \text{₹ } 11,81,818 \end{aligned}$$

$$\begin{aligned} \text{Net Assets} &= \text{Total Assets (excluding goodwill)} - \text{Outside Liabilities} \\ &= \text{₹ } 11,00,000 - \text{₹ } 1,00,000 = \text{₹ } 10,00,000 \end{aligned}$$

$$\text{Goodwill} = \text{₹ } 11,81,818 - \text{₹ } 10,00,000 = \text{₹ } 1,81,818.$$

Illustration 29.

From the following information, calculate value of goodwill of M/s Amit & Sumit:

- (i) At three years' purchase of Average Profit.
- (ii) At the two years' purchase of Super Profit.
- (iii) On the basis of Capitalisation of Super Profit.
- (iv) On the basis of Capitalisation of Average Profit.

Information:

- (a) Average Capital Employed—₹ 6,00,000.

- (b) Net Profit/Loss of the firm for the past three years: 2018—₹ 2,00,000 (Profit); 2019—₹ 1,00,000 (Loss); 2020—₹ 2,30,000 (Profit).
- (c) Normal Rate of Return on capital is 12%.
- (d) Remuneration of each partner ₹ 30,000 per annum to be considered as a charge against profit.
- (e) Assets—₹ 6,50,000; Partners' Capital—₹ 6,00,000.

Solution:

- (i) Calculation of Goodwill at three years' purchase of Average Profit:

$$\text{Average Profit} = \frac{\text{₹ } 2,00,000 - \text{₹ } 1,00,000 + \text{₹ } 2,30,000}{3} = \text{₹ } 1,10,000$$

$$\begin{aligned} \text{Average Normal Profit} &= \text{Average Profit} - \text{Partners' Remuneration} \\ &= \text{₹ } 1,10,000 - \text{₹ } 60,000 = \text{₹ } 50,000 \end{aligned}$$

$$\begin{aligned} \text{Value of Goodwill} &= \text{Average Normal Profit} \times \text{Numbers of Years' Purchase} \\ &= \text{₹ } 50,000 \times 3 = \text{₹ } 1,50,000. \end{aligned}$$

- (ii) Calculation of Goodwill at three years' purchase of Super Profit:

$$\begin{aligned} \text{Normal Profit} &= \text{Capital Employed} \times \text{Normal Rate of Return}/100 \\ &= \text{₹ } 6,00,000 \times \frac{12}{100} = \text{₹ } 72,000 \end{aligned}$$

$$\begin{aligned} \text{Super Profit} &= \text{Average Profit} - \text{Normal Profit} \\ &= \text{₹ } 50,000 - \text{₹ } 72,000 = (\text{₹ } 22,000) \end{aligned}$$

Since the firm does not have Super Profit, the value of goodwill is nil.

- (iii) On the basis of Capitalisation of Super Profit:

The firm does not have Super Profit. Hence, the value of goodwill is nil.

- (iv) On the basis of Capitalisation of Average Profit:

$$\text{Goodwill} = \text{Total Capitalised Value of the Business} - \text{Net Assets}$$

$$\text{Total Capitalised Value of the Business} = \frac{\text{Average Normal Profit} \times 100}{\text{Normal Rate of Return}}$$

$$= \frac{\text{₹ } 50,000 \times 100}{12}$$

$$= \text{₹ } 4,16,666 \text{ or } \text{₹ } 4,16,667 \text{ (say)}$$

$$\text{Net Assets} = \text{Total Assets} - \text{Outside Liabilities}$$

$$\begin{aligned} \text{Outside Liabilities} &= \text{Total Assets} - \text{Partners' Capital} \\ &= \text{₹ } 6,50,000 - \text{₹ } 6,00,000 = \text{₹ } 50,000 \end{aligned}$$

$$\therefore \text{Net Assets} = \text{₹ } 6,50,000 - \text{₹ } 50,000 = \text{₹ } 6,00,000$$

$$\text{Value of Goodwill} = \text{₹ } 4,16,667 - \text{₹ } 6,00,000 = (\text{₹ } 1,83,333)$$

The value of goodwill is nil since capitalised value of business is less than the net assets.

QUESTIONS

Higher Order Thinking Skills (HOTS) Questions

Q. 1. Define Goodwill.

Ans. Goodwill is an intangible asset that a business possesses having value over and above the realisable value of its other tangible and intangible assets.

Goodwill is the value of reputation of a firm in respect of the profits expected in future over and above the normal profit earned by other similar firms belonging to the same industry.

Q. 2. Name **two** factors affecting the value of Goodwill of a firm.

Ans. (i) Favourable location and (ii) Efficient management.

Q. 3. What type of asset is Goodwill?

Ans. Goodwill is an intangible asset.

Q. 4. Why is Goodwill considered as an Intangible Asset but not a Fictitious Asset?

Ans. It is not a fictitious asset because it has a realisable value. It is an intangible asset because it cannot be seen and touched.

Q. 5. State **two** occasions when there is a need for valuation of Goodwill.

Ans. (i) When a new partner is admitted.

(ii) When there is a change in profit-sharing ratio among the existing partners.

Q. 6. How does location affect the Goodwill of a business?

Ans. If the business is located at a favourable and prominent location then it increases the value of Goodwill. It is the location of the business in the market which, to a great extent, helps in attracting the customers. Thus, a favourable location of business enhances its Goodwill.

Q. 7. How does the factor 'efficiency of management' affect the Goodwill of a firm?

Ans. If the manager is capable and competent, the firm will earn high profits which will increase the value of Goodwill.

Q. 8. How does the factor 'quality of product' affect the Goodwill of a firm?

Ans. Better quality of products will increase turnover and profit resulting in an increase in the value of goodwill of the firm.

Q. 9. Name **two** methods of valuation of Goodwill.

Ans. (i) Average Profit Method and

(ii) Super Profit Method.

Q. 10. Give the formula for valuation of Goodwill by Average Profit Method.

Ans. $\text{Goodwill} = \text{Average Profit} \times \text{Number of Years' Purchase}$.

Q. 11. Give the formula for valuation of Goodwill by Super Profit Method.

Ans. $\text{Goodwill} = \text{Super Profit} \times \text{Number of Years' Purchase}$.

Q. 12. What is meant by Super profit?

Ans. Super profit means the profit earned in excess of the normal profit, i.e., $\text{Average profit} - \text{Normal Profit}$.

Q. 13. What is meant by Normal profit?

Ans. Normal profit means the profit earned by the business in standard business conditions.

Q. 14. What is meant by Normal Rate of Return?

Ans. Normal Rate of Return refers to the rate of return normally earned by an average firm in the same industry.

Q. 15. How is Normal Profit calculated?

Ans. Normal Profit = $\frac{\text{Capital Employed} \times \text{Normal Rate of Return}}{100}$

Q. 16. What is meant by number of years' purchase in the valuation of a firm's Goodwill? (ISC 2014)

Ans. Number of years' purchase means the number of years for which the firm is likely to earn the similar amount of profit after change of ownership because of its past efforts.

Q. 17. What is meant by capitalised value of Average Profits? Give the formula for determining it.

(ISC Sample Question Paper 2015)

Ans. It is a method under which capitalised value of the business is determined by capitalising the average profit by the normal rate of return. Out of the value so determined, value of net assets is deducted to determine the value of Goodwill.

$$\text{Capitalised Value of the Business} = \frac{\text{Average Profit} \times 100}{\text{Normal Rate of Return (Profit)}}$$

Net Assets = All Assets (Other than goodwill, non-trade investments and fictitious assets) at their current values *minus* Outsiders' Liabilities.

Goodwill = Capitalised Value of the Business – Net Assets

Q. 18. State the amount of Goodwill if it is calculated on the basis of three years' purchase of last four years' average profit. Four years' average profit = ₹ 1,25,000.

Ans. Goodwill = Average Profit × No. of Years' Purchase = ₹ 1,25,000 × 3 = ₹ 3,75,000.

Q. 19. If super profits are ₹ 15,000 and rate of return is 15%, state the value of Goodwill on the basis of capitalising the super profit.

Ans. Goodwill = $\frac{\text{Super Profit} \times 100}{\text{Normal Rate of Return}}$

$$= \frac{₹ 15,000 \times 100}{15} = ₹ 1,00,000$$

Q. 20. Give the formula for valuation of goodwill by the Capitalisation of Average Profit Method. (ISC 2018)

Ans. Capitalised Value of the Business = $\frac{\text{Average Profit} \times 100}{\text{Normal Rate of Return (Profit)}}$

Net Assets = All Assets (Other than goodwill, non-trade investments and fictitious assets) at their current values *minus* Outsiders' Liabilities.

Goodwill = Capitalised value of the Business – Net Assets.

Q. 21. What is Purchased Goodwill?

Ans. When one business is taken over by another business, the excess of purchase consideration over its net assets value is referred to as Purchased Goodwill.

Q. 22. Why Non-trade Investments are not included in Capital Employed?

Ans. Non-trade Investments are investments made not for the furtherance of own business but it is an investment of surplus funds. Since these investments are not for business purposes, they are excluded from Capital Employed.

Q. 23. Why Trade Investments are included in Capital Employed?

Ans. They are included in Capital Employed because the amount is invested for the purposes of business.

Short Answer Type Questions

1. Define Goodwill.
2. When does the need for valuing goodwill arise?
3. Give **any two** features of Goodwill.
4. What is meant by Purchased Goodwill?
5. Why is Purchased Goodwill accounted in the Books of Account?
6. What is meant by Self-generated Goodwill?
7. Why is self-generated Goodwill not accounted in the Books of Account?
8. What is meant by Average Profit?
9. What is meant by Super Profit in relation to valuation of goodwill?
10. What is Super Profit?
11. What is meant by Capitalisation of Average Profit?
12. What is meant by Capitalisation of Super Profit?
13. Why is goodwill considered as an intangible asset but not a fictitious asset?
14. State **any two** factors affecting the value of goodwill of a firm.
15. How does the factor 'efficiency of management' affect the Goodwill of a firm?
16. How does the factor 'quality of product' affect the Goodwill of a firm?
17. How does location affect the Goodwill of the business?
18. How does the market situation affect the value of goodwill of a firm?
19. How does the nature of business affect the value of goodwill of a firm?
20. Name **any four** factors which affect the goodwill of a partnership firm.

PRACTICAL PROBLEMS

Average Profit Method

1. Goodwill is to be valued at three years' purchase of four years' average profit. Profits for last four years ending on 31st March, of the firm were:

2017—₹ 12,000; 2018—₹ 18,000; 2019—₹ 16,000; 2020—₹ 14,000.

Calculate the amount of Goodwill.

2. Annu, Baby and Chetan are partners in a firm sharing profits and losses equally. They decide to take Deep into partnership from 1st April, 2020 for 1/5th share in the future profits. For this purpose, goodwill is to be valued at 100% of the average annual profits of the previous three or four years, whichever is higher.

The annual profits for the purpose of goodwill for the past four years were:

| Year ended | Profit (₹) |
|------------------|------------|
| 31st March, 2020 | 2,88,000; |
| 31st March, 2019 | 1,81,800; |
| 31st March, 2018 | 1,87,200; |
| 31st March, 2017 | 2,53,200. |

Calculate the value of goodwill.

3. Calculate the value of goodwill on the basis of three years' purchase of average profit of the preceding five years which were as follows:

| Year ended | Profit (₹) |
|------------------|------------------|
| 31st March, 2020 | 8,00,000; |
| 31st March, 2019 | 15,00,000; |
| 31st March, 2018 | 18,00,000; |
| 31st March, 2017 | 4,00,000 (Loss); |
| 31st March, 2016 | 13,00,000. |

Average Profit Method when Past Adjustments are made

4. Divya purchased Jyoti's business with effect from 1st April, 2020. Profits shown by Jyoti's business for the last three financial years were:

2017-18 : ₹ 1,00,000 (including an abnormal gain of ₹ 12,500).

2018-19 : ₹ 1,25,000 (after charging an abnormal loss of ₹ 25,000).

2019-20 : ₹ 1,12,500 (excluding ₹ 12,500 as insurance premium on firm's property—now to be insured).

Calculate the value of firm's goodwill on the basis of two years' purchase of the average profit of the last three years.

5. Abhay, Babu and Charu are partners sharing profits and losses equally. They agree to admit Daman for equal share of profit. For this purpose, the value of goodwill is to be calculated on the basis of four years' purchase of average profit of last five years. These profits for the year ended 31st March, were:

| Year | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------|----------|----------|----------|----------|------------|
| Profit/(Loss) (₹) | 1,50,000 | 3,50,000 | 5,00,000 | 7,10,000 | (5,90,000) |

On 1st April, 2019, a car costing ₹ 1,00,000 was purchased and debited to Travelling Expenses Account, on which depreciation is to be charged @ 25%. Interest of ₹ 10,000 on Non-trade Investments is credit to Income for the year ended 31st March, 2019 and 2020.

Calculate the value of goodwill after adjusting the above.

6. Bharat and Bhushan are partners sharing profits in the ratio of 3 : 2. They decided to admit Manu as a partner from 1st April, 2020 on the following terms:

(i) Manu will be given 2/5th share of the profit.

(ii) Goodwill of the firm will be valued at two years' purchase of three years' normal average profit of the firm.

Profits of the previous three years ended 31st March, were:

2020—Profit ₹ 30,000 (after debiting loss of stock by fire ₹ 40,000).

2019—Loss ₹ 80,000 (includes voluntary retirement compensation paid ₹ 1,10,000).

2018—Profit ₹ 1,10,000 (including a gain (profit) of ₹ 30,000 on the sale of fixed assets).

You are required to value the goodwill.

7. Bhaskar and Pillai are partners sharing profits and losses in the ratio of 3 : 2. They admit Kanika into partnership for 1/4th share in profit. Kanika brings in her share of goodwill in cash. Goodwill for this purpose is to be calculated at two years' purchase of the average normal profit of past three years. Profits of the last three years ended 31st March, were:

2018—Profit ₹ 50,000 (including profit on sale of assets ₹ 5,000).

2019—Loss ₹ 20,000 (including loss by fire ₹ 30,000).

2020—Profit ₹ 70,000 (including insurance claim received ₹ 18,000 and interest on investments and Dividend received ₹ 8,000).

Calculate value of goodwill. Also, calculate goodwill brought in by Kanika.

8. Sumit purchased Amit's business on 1st April, 2020. Goodwill was decided to be valued at two years' purchase of average normal profit of last four years. The profits for the past four years were:

| Year Ended | 31st March, 2017 | 31st March, 2018 | 31st March, 2019 | 31st March, 2020 |
|-------------|------------------|------------------|------------------|------------------|
| Profits (₹) | 80,000 | 1,45,000 | 1,60,000 | 2,00,000 |

Verification of books of account revealed the following:

- Abnormal loss of ₹ 20,000 was debited to Profit and Loss Account for the year ended 31st March, 2017.
- A fixed asset was sold on 1st April, 2017 and gain (profit) of ₹ 25,000 was credited to Profit and Loss Account.
- In the year ended 31st March, 2019 assets of the firm were not insured due to oversight. Insurance premium not paid was ₹ 15,000.

Calculate the value of goodwill.

9. Parul and Rahul are partners in a firm. They admit Param into partnership for equal share. It was agreed that goodwill will be valued at three years' purchase of average profit of last five years. Profits for the last five years were:

| Year Ended | 31st March, 2016 | 31st March, 2017 | 31st March, 2018 | 31st March, 2019 | 31st March, 2020 |
|-------------|------------------|------------------|------------------|------------------|------------------|
| Profits (₹) | 90,000 (Loss) | 1,60,000 | 1,50,000 | 65,000 | 1,77,000 |

Books of Account of the firm revealed that:

- The firm had gain (profit) of ₹ 50,000 from sale of machinery sold in the year ended 31st March 2017. The gain (profit) on sale of machinery was credited to Profit and Loss Account.
- There was an abnormal loss of ₹ 20,000 incurred in the year ended 31st March, 2018 because of a machine becoming obsolete in accident.
- Overhauling cost of second-hand machinery purchased on 1st July, 2018 amounting to ₹ 1,00,000 was debited to Repairs Account. Depreciation is charged @ 20% p.a. on Written Down Value Method.

Calculate the value of goodwill.

Weighted Average Profit Method

10. Profits of a firm for the year ended 31st March for the last five years were:

| Year Ended | 31st March, 2016 | 31st March, 2017 | 31st March, 2018 | 31st March, 2019 | 31st March, 2020 |
|-------------|------------------|------------------|------------------|------------------|------------------|
| Profits (₹) | 20,000 | 24,000 | 30,000 | 25,000 | 18,000 |

Calculate value of goodwill on the basis of three years' purchase of Weighted Average Profit after assigning weights 1, 2, 3, 4 and 5 respectively to the profits for years ended 31st March, 2016, 2017, 2018, 2019 and 2020.

11. Amitabh and Bachan are partners sharing profits and losses in the ratio of 5 : 3. On 1st April, 2020, Chaman is admitted to the partnership for 1/4th share of profits. For this purpose, goodwill is to be valued at two years' purchase of last three years' profits (after allowing partners' remuneration). Profits to be weighted 1 : 2 : 3, the greatest weight being given to last year. Net profits before partners' remuneration for the year ended 31st March, 2018, 2019 and 2020 were: ₹ 2,00,000; ₹ 2,30,000; and ₹ 2,50,000 respectively. The remuneration of the partners is estimated to be ₹ 90,000 p.a. Calculate the amount of goodwill.

12. Raman and Daman are partners sharing profits in the ratio of 60 : 40 and for the last four years they have been getting annual salaries of ₹ 50,000 and ₹ 40,000 respectively. The annual accounts have shown the following net profit before charging partners' salaries:

Year ended 31st March, 2018—₹ 1,40,000; 2019—₹ 1,01,000 and 2020—₹ 1,30,000.

On 1st April, 2020, Zeenu is admitted to the partnership for 1/4th share in profit (without any salary). Goodwill is to be valued at four years' purchase of weighted average profit of last three years (after partners' salaries); Profits to be weighted as 1 : 2 : 3, the greatest weight being given to the last year.

Calculate the value of Goodwill.

Weighted Average Profit Method when Past Adjustments are Made

13. Calculate goodwill of a firm on the basis of three years' purchase of the Weighted Average Profit of the last four years. The profits of the last four financial years ended 31st March, were: 2017—₹ 25,000; 2018—₹ 27,000; 2019—₹ 46,900 and 2020—₹ 53,810. The weights assigned to each year are: 2017—1; 2018—2; 2019—3; 2020—4. You are supplied the following information:

(i) On 1st April, 2017, a major plant repair was undertaken for ₹ 10,000 which was charged to revenue. The said sum is to be capitalised for goodwill calculation subject to adjustment of depreciation of 10% on Reducing Balance Method.

(ii) The Closing Stock for the years ended 31st March, 2018 and 2019 were overvalued by ₹ 1,000 and ₹ 2,000 respectively.

(iii) To cover management cost an annual charge of ₹ 5,000 should be made for the purpose of goodwill valuation.

14. Dinesh and Mahesh are partners sharing profits and losses in the ratio of 3 : 2. They admit Ramesh into partnership for 1/4th share in profits. Ramesh brings in his share of goodwill in cash. Goodwill for this purpose shall be calculated at two years' purchase of the weighted average normal profit of past three years. Weights being assigned to each year 2018—1; 2019—2 and 2020—3. Profits of the last three years were:

2018—Profit ₹ 50,000 (including profits on sale of assets ₹ 5,000).

2019—Loss ₹ 20,000 (including loss by fire ₹ 35,000).

2020—Profit ₹ 70,000 (including insurance claim received ₹ 18,000 and interest on investments and dividend received ₹ 8,000).

Calculate the value of goodwill. Also, calculate the goodwill brought in by Ramesh.

15. Manbir and Nimrat are partners and they admit Anahat into partnership. It was agreed to value goodwill at three years' purchase on Weighted Average Profit Method taking profits of last five years. Weights assigned to each year as 1, 2, 3, 4 and 5 respectively to profits for the year ended 31st March, 2016 to 2020. The profits for these years were: ₹ 70,000, ₹ 1,40,000, ₹ 1,00,000, ₹ 1,60,000 and ₹ 1,65,000 respectively.

Scrutiny of books of account revealed following information:

- (i) There was an abnormal loss of ₹ 20,000 in the year ended 31st March, 2016.
- (ii) There was an abnormal gain (profit) of ₹ 30,000 in the year ended 31st March, 2017.
- (iii) Closing Stock as on 31st March, 2019 was overvalued by ₹ 10,000.

Calculate the value of goodwill.

16. Mahesh and Suresh are partners and they admit Naresh into partnership. They agreed to value goodwill at three years' purchase on Weighted Average Profit Method taking profits for the last five years. They assigned weights from 1 to 5 beginning from the earliest year and onwards. The profits for the last five years were as follows:

| Year Ended | 31st March, 2016 | 31st March, 2017 | 31st March, 2018 | 31st March, 2019 | 31st March, 2020 |
|-------------|------------------|------------------|------------------|------------------|------------------|
| Profits (₹) | 1,25,000 | 1,40,000 | 1,20,000 | 55,000 | 2,57,000 |

Scrutiny of books of account revealed the following:

- (i) A second-hand machine was purchased for ₹ 5,00,000 on 1st July, 2018 and ₹ 1,00,000 were spent to make it operational. ₹ 1,00,000 were wrongly debited to Repairs Account. Machinery is depreciated @ 20% p.a. on Written Down Value Method.
- (ii) Closing Stock as on 31st March, 2019 was undervalued by ₹ 50,000.
- (iii) Management Cost ₹ 40,000 p.a. was to be considered as charge against profit.

Calculate the value of goodwill.

17. Calculate the goodwill of a firm on the basis of three years' purchase of the weighted average profit of the last four years. The appropriate weights to be used and profits are:

| Year | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|-------------|----------|----------|----------|----------|
| Profits (₹) | 1,01,000 | 1,24,000 | 1,00,000 | 1,40,000 |
| Weights | 1 | 2 | 3 | 4 |

On a scrutiny of the accounts, the following matters are revealed:

- (i) On 1st December, 2018, a major repair was made in respect of the plant incurring ₹ 30,000 which was charged to revenue. The said sum is agreed to be capitalised for goodwill calculation subject to adjustment of depreciation of 10% p.a. on Reducing Balance Method.
- (ii) The closing stock for the year ended 31st March, 2018 was overvalued by ₹ 12,000.
- (iii) To cover management cost, an annual charge of ₹ 24,000 should be made for the purpose of goodwill valuation.
- (iv) On 1st April, 2017, a machine having a book value of ₹ 10,000 was sold for ₹ 11,000 but the proceeds were wrongly credited to Profit and Loss Account. No effect has been given to rectify the same. Depreciation is charged on machine @ 10% p.a. on Reducing Balance Method.

Super Profit Method

18. Average profit earned by a firm is ₹ 80,000 which includes undervaluation of stock of ₹ 8,000 on an average basis. The capital invested in the business is ₹ 8,00,000 and the normal rate of return is 8%. Calculate goodwill of the firm on the basis of 7 times the super profit.
19. Gupta and Bose had a firm in which they had invested ₹ 50,000. On an average, the profits were ₹ 16,000. The normal rate of return in the industry is 15%. Goodwill is to be valued at four years' purchase of profits in excess of profits @ 15% on the money invested. Value the goodwill.
20. Rakesh and Ashok earned a profit of ₹ 5,000. They employed capital of ₹ 25,000 in the firm. It is expected that the normal rate of return is 15% of the capital. Calculate amount of goodwill if goodwill is valued at three years' purchase of super profit.

21. Average net profit expected in future by Zee & Co. is ₹ 36,000 per year. Average capital employed in the business by the firm is ₹ 2,00,000. The normal rate of return from capital invested in this class of business is 10%. Remuneration of the partners (Management Cost) is estimated to be ₹ 6,000 p.a. Find out the value of goodwill on the basis of two years' purchase of super profit.
22. A partnership firm earned net profits during the last three years ended 31st March, as follows:
2018—₹ 17,000; 2019—₹ 20,000; 2020—₹ 23,000.
The capital investment in 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 the capital. Calculate value of goodwill on the basis of two years' purchase of average super profit earned during the above-mentioned three years.
23. A partnership firm earned net profits during the past three years as follows:

| Year Ended | Net Profit (₹) |
|------------------|----------------|
| 31st March, 2020 | 2,30,000; |
| 31st March, 2019 | 2,00,000; |
| 31st March, 2018 | 1,70,000. |

Capital investment in the firm throughout the above-mentioned period has been ₹ 4,00,000. Having regard to the risk involved, 15% is considered to be a fair return on the capital. The remuneration of the partners (Management Cost) during this period is estimated to be ₹ 1,00,000 p.a. Calculate value of goodwill on the basis of two years' purchase of average super profit earned during the above-mentioned three years.

24. Ideal Marketing earned an average profit of ₹ 4,00,000 during the last five years. Normal rate of return on capital employed is 10%. Balance Sheet of the firm as at 31st March, 2020 was as follows:

| Liabilities | ₹ | Assets | ₹ |
|----------------------|-----------|-------------------|-----------|
| Capital A/cs: | | Land and Building | 10,00,000 |
| Shyam | 5,00,000 | Furniture | 2,00,000 |
| Sunder | 5,00,000 | Investments | 1,00,000 |
| Current A/cs: | | Sundry Debtors | 5,00,000 |
| Shyam | 2,00,000 | Bills Receivable | 50,000 |
| Sunder | 2,00,000 | Closing Stock | 3,00,000 |
| Reserves | | Cash in Hand | 50,000 |
| Sundry Creditors | | Cash at Bank | 1,00,000 |
| Bills Payable | | | |
| Outstanding Expenses | | | |
| | 23,00,000 | | 23,00,000 |

Calculate the value of goodwill, if it is valued at three years' purchase of Super Profits.

25. Varuna and Karuna are partners for equal shares. They admit Lata into partnership for 1/4th share. It was agreed to value goodwill of the firm at 4 years' purchase of super profit. Normal rate of return is 15% of the capital employed. Average profit of the firm is ₹ 4,00,000. Balance Sheet of the firm as at 31st March, 2020 was as follows:

| Liabilities | ₹ | Assets | ₹ |
|-------------------------|-----------|-------------------------------|-----------|
| Capital A/cs: | | Furniture | 4,00,000 |
| Varuna | 5,00,000 | Computers | 3,00,000 |
| Karuna | 5,00,000 | Electrical Fittings | 1,00,000 |
| Reserves and Surplus | | Investments (Trade) | 2,00,000 |
| Sundry Creditors | | Stock | 3,00,000 |
| Outstanding Expenses | | Sundry Debtors | 3,00,000 |
| Advances from Customers | | Bills Receivable | 50,000 |
| | | Cash in Hand | 50,000 |
| | | Cash at Bank | 2,00,000 |
| | | Deferred Revenue Expenditure: | |
| | | Advertisement Suspense | 50,000 |
| | 19,50,000 | | 19,50,000 |

Calculate the value of goodwill.

26. On 1st April, 2020, an existing firm had assets of ₹ 75,000 including cash of ₹ 5,000. Its creditors amounted to ₹ 5,000 on that date. The firm had a Reserve of ₹ 10,000 while Partners' Capital Accounts showed a balance of ₹ 60,000. If Normal Rate of Return is 20% and goodwill of the firm is valued at ₹ 24,000 at four years' purchase of super profit, find average profit per year of the existing firm.

Super Profit Method when Past Adjustments are made

27. Average profit earned by a firm is ₹ 1,00,000 which includes undervaluation of stock of ₹ 40,000 on an average basis. The capital invested in the business is ₹ 6,30,000 and the normal rate of return is 5%. Calculate goodwill of the firm on the basis of 5 times the super profit.
28. The average profit earned by a firm is ₹ 7,50,000 which includes overvaluation of stock of ₹ 30,000 on an average basis. The capital invested in the business is ₹ 42,00,000 and the normal rate of return is 15%. Calculate goodwill of the firm on the basis of 3 times the super profit.
29. Ayub and Amit are partners in a firm and they admit Jaspal into partnership w.e.f. 1st April, 2020. They agreed to value goodwill at 3 years' purchase by Super Profit Method for which they decided to average profit of last 5 years. The profits for the last 5 years were:

| Year Ended | Net Profit (₹) |
|------------------|--|
| 31st March, 2016 | 1,50,000; |
| 31st March, 2017 | 1,80,000; |
| 31st March, 2018 | 1,00,000 (Including abnormal loss of ₹ 1,00,000); |
| 31st March, 2019 | 2,60,000 (Including abnormal gain (profit) of ₹ 40,000); |
| 31st March, 2020 | 2,40,000. |

The firm has total assets of ₹ 20,00,000 and Outside Liabilities of ₹ 5,00,000 as on that date. Normal Rate of Return in similar business is 10%.

Calculate value of goodwill.

Capitalisation Method

30. From the following information, calculate value of goodwill of the firm by applying Capitalisation Method:
Total Capital of the firm ₹ 16,00,000.
Normal rate of return 10%.
Profit for the year ₹ 2,00,000.
31. A firm earns ₹ 3,00,000 as its annual profit, the rate of return being 12%. Assets and liabilities of the firm amounted to ₹ 36,00,000 and ₹ 12,00,000 respectively. Calculate value of goodwill by Capitalisation Method.
32. Average profits of the firm are ₹ 3,00,000. Total tangible assets in the firm are ₹ 28,00,000 and outside liabilities are ₹ 8,00,000. In the same type of business, the normal rate of return is 10% of the capital employed. Calculate the value of goodwill by Capitalisation of Super Profit Method.
33. From the following particulars, calculate value of goodwill of a firm by applying Capitalisation of Average Profit Method:
- Profits of last five consecutive years ending 31st March, are: 2020—₹ 54,000; 2019—₹ 42,000; 2018—₹ 39,000; 2017—₹ 67,000 and 2016—₹ 59,000.
 - Capitalisation rate 20%.
 - Net assets of the firm ₹ 2,00,000.
34. Ravi and Kant are partners in a business with balances in their Capital and Current Accounts as on 31st March, 2020 were:

| | Capital Account | Current Account |
|------|-----------------|-----------------|
| Ravi | ₹ 2,50,000 | ₹ 50,000 (Cr.) |
| Kant | ₹ 3,00,000 | ₹ 25,000 (Dr.) |

The firm earned an average profit of ₹ 1,25,000. If the normal rate of return is 10%, find the value of goodwill by Capitalisation Method.

Capitalisation of Super Profit

35. Average profit of the firm is ₹ 2,00,000. Total assets of the firm are ₹ 15,00,000 whereas Partners' Capital is ₹ 12,00,000. If normal rate of return in a similar business is 10% of the capital employed, what is the value of goodwill by Capitalisation of Super Profit?
36. Average profit of GS & Co. is ₹ 50,000 per year. Average capital employed in the business is ₹ 3,00,000. If the normal rate of return on capital employed is 10%, calculate goodwill of the firm by:
- Super Profit Method at three years' purchase; and
 - Capitalisation of Super Profit Method.
37. From the following information, calculate the value of goodwill of M/s Ram & Rahim:
- At three years' purchase of Average Profit.
 - At three years' purchase of Super Profit.
 - On the basis of Capitalisation of Super Profit.
 - On the basis of Capitalisation of Average Profit.
- Information:*
- Average capital employed in the business—₹ 7,50,000.
 - Net Trading results of the firm for the past years: Profit for 2017-18—₹ 2,25,000; Loss for 2018-19—₹ 1,87,500; Profit 2019-20—₹ 6,37,500.
 - Rate of interest expected from capital having regard to the risk involved—15%.
 - Remuneration to each partner for his service treated as a charge on profits—₹ 3,750 per month.
 - Assets (excluding goodwill)—₹ 9,00,000; Liabilities—₹ 75,000.
38. A business has earned average profit of ₹ 4,00,000 during the last few years and the normal rate of return in similar business is 10%. Find value of goodwill by:
- Capitalisation of Super Profit Method, and
 - Super Profit Method if the goodwill is valued at 3 years' purchase of super profit.
- Assets of the business were ₹ 40,00,000 and its external liabilities ₹ 7,20,000.
39. Ajeet and Baljeet are partners in a firm. Their capitals are ₹ 9,00,000 and ₹ 6,00,000 respectively. During the year ended 31st March, 2020 the firm earned a profit of ₹ 4,50,000. Assuming that the normal rate of return is 20%, calculate value of goodwill of the firm:
- By Capitalisation Method; and
 - By Super Profit Method if the goodwill is valued at 2 years' purchase of super profit.
40. A firm earns profit of ₹ 5,00,000. Normal Rate of Return in a similar type of business is 10%. The value of total assets (excluding goodwill) and total outsiders' liabilities as on the date of goodwill are ₹ 55,00,000 and ₹ 14,00,000 respectively. Calculate value of goodwill according to Capitalisation of Super Profit Method as well as Capitalisation of Average Profit Method.



Scan QR Code for Master Question



Scan QR Code for Key Terms and Chapter Summary

GUIDE TO ANSWERS

1. Goodwill—₹ 45,000.
2. Goodwill—₹ 2,27,550.
3. Goodwill—₹ 30,00,000.
4. Goodwill—₹ 2,25,000.
5. Goodwill—₹ 9,40,000.
6. Goodwill—₹ 1,20,000.
7. Goodwill—₹ 66,000; Kanika shall bring 1/4th of ₹ 66,000 = ₹ 16,500 as Goodwill.
8. Goodwill—₹ 2,82,500.
9. Goodwill—₹ 3,00,000.
10. Goodwill—₹ 69,600.
11. Goodwill—₹ 2,90,000.
12. Goodwill—₹ 1,28,000.
13. Goodwill—₹ 1,20,000.
14. Goodwill—₹ 69,000; Ramesh shall bring 1/4th of ₹ 69,000 = ₹ 17,250 as Goodwill.
15. Goodwill—₹ 4,17,000.
16. Goodwill—₹ 3,75,000.
17. Goodwill—₹ 3,12,702.
18. Goodwill—₹ 1,68,000.
19. Goodwill—₹ 34,000.
20. Goodwill—₹ 3,750.
21. Goodwill—₹ 20,000.
22. Goodwill—₹ 16,000.
23. Goodwill—₹ 80,000.
24. Capital Employed = ₹ 16,40,000; Normal Profit = ₹ 1,64,000; Super Profit = ₹ 2,36,000; Goodwill = ₹ 7,08,000.
[Hint: Capital Employed = ₹ 23,00,000 (Total Assets) – ₹ 5,60,000 (Outside Liabilities) – ₹ 1,00,000 (Investments, being Non-trade).]
25. Goodwill—₹ 7,00,000.
[Hint: Capital Employed = Total Assets – Fictitious Assets – Current Liabilities
= ₹ 19,50,000 – ₹ 50,000 – ₹ 4,00,000 = ₹ 15,00,000.]
26. Capital Employed = ₹ 70,000; Normal Profit = ₹ 14,000; Super Profit = ₹ 6,000;
Average Profit = Normal Profit + Super Profit = ₹ 20,000.
27. Goodwill—₹ 5,42,500.
28. Goodwill—₹ 2,70,000.
29. Goodwill—₹ 1,44,000.
30. Goodwill—₹ 4,00,000.
31. Goodwill—₹ 1,00,000.
32. Goodwill—₹ 10,00,000.
33. Goodwill—₹ 61,000.
34. Goodwill—₹ 6,75,000.
35. Goodwill—₹ 8,00,000.
36. Goodwill—(i) ₹ 60,000; (ii) ₹ 2,00,000.
37. Goodwill—(i) ₹ 4,05,000; (ii) ₹ 67,500; (iii) ₹ 1,50,000; (iv) ₹ 75,000.
[Hint: Average Profit after partners' remuneration = ₹ 1,35,000.]
38. Goodwill—(i) ₹ 7,20,000; (ii) ₹ 2,16,000.
39. Goodwill—(i) ₹ 7,50,000; (ii) ₹ 3,00,000.
40. Goodwill—₹ 9,00,000 in both cases.