1. 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 2021–1; 2022–2 and 2023–3. Profits of the last three years were:

2021—Profit ₹ 50,000 (including profits on sale of assets ₹ 5,000).

2022—Loss ₹ 20,000 (including loss by fire ₹ 35,000).

2023—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.

[**Ans.:** *Goodwill—₹ 69,000; Ramesh shall bring 1/4th of ₹ 69,000, i.e., ₹ 17,250 as Goodwill.*]

2. 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, 2019 to 2023. 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, 2019.

(ii) There was an abnormal gain (profit) of ₹ 30,000 in the year ended 31st March, 2020.

(iii) Closing Stock as on 31st March, 2022 was overvalued by ₹ 10,000.

Calculate the value of goodwill. [**Ans.:** *Value of Goodwill—₹ 4,17,000.*]

3. 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, 2019	31st March, 2020	31st March, 2021	31st March, 2022	31st March, 2023
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, 2021 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, 2022 was undervalued by ₹ 50,000.

(iii) Remuneration to partners was to be considered as charge against profit and remuneration of ₹ 20,000 p.a. for each partner was considered appropriate.

Calculate the value of goodwill. [**Ans.:** *Goodwill—₹ 3,75,000.*]

4. 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	2019–20	2020–21	2021–22	2022–23
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, 2021, 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 2020–21 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, 2020, a machine having a book value of ₹ 10,000 was sold for ₹ 11,000 but the proceeds were wrongly credited to Profit & Loss Account. No effect has been given to rectify the same. Depreciation is charged on machine @ 10% p.a. on reducing balance method.

[**Ans.:** *Value of Goodwill—₹ 3,12,702.*]

5. *A* and *B* are partners sharing profits and losses in the ratio of 5 : 3. On 1st April, 2023, *C* 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 profit before partners' remuneration were: 2020–21: ₹ 2,00,000; 2021–22: ₹ 2,30,000; 2022–23: ₹ 2,50,000. The remuneration of the partners is estimated to be ₹ 90,000 p.a. Calculate amount of goodwill. [**Ans.:** *Goodwill—₹ 2,90,000.*]

6. A partnership firm earned net profits during the past three years as follows:

Year Ended	31st March, 2023	31st March, 2022	31st March, 2021
Net Profit (₹)	2,30,000	2,00,000	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 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. [**Ans.:** *Goodwill—₹ 80,000.*]

7. 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, 2023 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	10,00,000	Investments	1,00,000
Current A/cs:			Sundry Debtors	5,00,000
Shyam	2,00,000		Bills Receivable	50,000
Sunder	2,00,000	4,00,000	Closing Stock	3,00,000
Reserves		3,40,000	Cash in Hand	50,000
Sundry Creditors		4,00,000	Cash at Bank	1,00,000
Bills Payable		1,00,000		
Outstanding Expenses		60,000		
		23,00,000		23,00,000

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

[**Ans.:** *Capital Employed—₹ 16,40,000; Normal Profit—₹ 1,64,000; Super Profit—₹ 2,36,000; Goodwill—₹ 7,08,000.*]

[**Hint:** Capital Employed = Total Assets – Investments (being Non-trade) – Outside Liabilities
= ₹ 23,00,000 – ₹ 1,00,000 – ₹ 5,60,000 = ₹ 16,40,000.]

8. 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, 2023 was as follows:

Liabilities		₹	Assets	₹
Capital A/cs:			Furniture	4,00,000
Varuna	5,00,000		Computers	3,00,000
Karuna	5,00,000	10,00,000	Electrical Fittings	1,00,000
Reserves and Surplus		5,50,000	Investments (Trade)	2,00,000
Sundry Creditors		2,00,000	Stock	3,00,000
Outstanding Expenses		50,000	Sundry Debtors	3,00,000
Advances from Customers		1,50,000	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. [**Ans.:** *Goodwill—₹ 7,00,000.*]

9. Supreet and Subham are equal partners. They decide to admit Akriti for 1/3rd share. For the purpose of admission of Akriti, goodwill of the firm is to be valued at four years' purchase of super profit. Average capital employed in the firm is ₹ 1,50,000. Normal rate of return may be taken as 15% p.a. Average profit of the firm is ₹ 40,000. Calculate value of goodwill. [**Ans.:** *Goodwill—₹ 70,000.*]

10. 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. [**Ans.:** *Goodwill—₹ 1,00,000.*]

11. 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. [**Ans.:** *Goodwill—₹ 10,00,000.*]

12. 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? [**Ans.:** *Value of Goodwill—₹ 8,00,000.*]

13. Geet and Meet are partners in a firm. They admit Jeet 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, 2019	31st March, 2020	31st March, 2021	31st March, 2022	31st March, 2023
Profits (₹)	90,000 (Loss)	1,60,000	1,50,000	65,000	1,77,000

Books of Account of the firm revealed that:

(i) The firm had gain (profit) of ₹ 50,000 from sale of machinery sold in the year ended 31st March, 2020. The gain (profit) was credited in Profit & Loss Account.

(ii) There was an abnormal loss of ₹ 20,000 incurred in the year ended 31st March, 2021 because of a machine becoming obsolete in accident.

(iii) Overhauling cost of second hand machinery purchased on 1st July, 2021 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. [**Ans.:** *Value of Goodwill—₹ 3,00,000.*]

14. Rakesh and Ashok earned 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.

[**Ans.:** *Goodwill—₹ 3,750.*]

15. Capital of the firm of Sharma and Verma is ₹ 2,00,000 and the market rate of interest is 15%. Annual salary to partners is ₹ 12,000 each. The profits for the last three years were ₹ 60,000; ₹ 72,000 and ₹ 84,000. Goodwill is to be valued at 2 years' purchase of last 3 years' average super profit.

Calculate goodwill of the firm. *(Delhi 2013 C)*

[**Ans.:** *Goodwill—₹ 36,000.*]

16. From the following information, calculate value of goodwill of the firm by applying Capitalisation Method:

Total Capital of the firm ₹ 24,00,000.

Normal rate of return 10%. Profit for the year ₹ 3,00,000. [**Ans.:** *Goodwill—₹ 6,00,000.*]

17. A business has earned average profit of ₹ 1,00,000 during the last few years. Find out the value of goodwill by capitalisation method, given that the assets of the business are ₹ 10,00,000 and its external liabilities are ₹ 1,80,000. The normal rate of return is 10%. *(NCERT)*

[**Ans.:** *Goodwill—₹ 1,80,000.*]

18. 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: 2020—₹ 25,000; 2021—₹ 27,000; 2022—₹ 46,900 and 2023—₹ 53,810. The weights assigned to each year are: 2020—1; 2021—2; 2022—3; 2023—4. You are supplied the following information:

(i) On 1st April, 2020, 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% p.a. on Written Down Value Method.

(ii) The Closing Stock for the years ended 31st March, 2021 and 2022 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. [**Ans.:** *Goodwill—₹ 1,20,000.*]

19. 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, 2023, the firm earned a profit of ₹ 4,50,000. The normal rate of return is 20%, calculate value of goodwill of the firm:

(i) By Capitalisation Method; and

(ii) By Super Profit Method if the goodwill is valued at 2 years' purchase of super profit.

[**Ans.:** *Goodwill—(i) ₹ 7,50,000; (ii) ₹ 3,00,000.*]

20. Calculate value of goodwill on the basis of three years' purchase of average profit of the preceding five years ended 31st March, which were as follows:

Year	2022	2021	2020	2019	2018
Profits (₹)	8,00,000	15,00,000	18,00,000	4,00,000 (Loss)	13,00,000

[**Ans.:** *Goodwill—₹ 30,00,000.*]

21. Calculate the value of firm's goodwill on the basis of one and half years' purchase of the average profit of the last three years. The profit for first year was ₹ 1,00,000, profit for the second year was twice the profit of the first year and for the third year profit was one and half times of the profit of the second year.

[**Ans.:** *Goodwill—₹ 3,00,000.*]

Missing Value Questions

22. Goodwill of the firm is valued at ₹ 5,00,000 at 2 years' purchase of average profit. Determine the missing values:

Total Normal Profit = ₹ 2,50,000 + ₹ **?** + ₹ 3,00,000 – ₹ 1,00,000 + ₹ 3,50,000 = ₹ **?**

$$\text{Average Profit} = \frac{\text{Total Normal Profit}}{\text{Number of Years}} = \frac{₹\ \textbf{...}}{5} = ₹\ \textbf{...}$$

Goodwill = ₹ **?** × 2 = ₹ 5,00,000.

Solution:

Total Normal Profit = ₹ 2,50,000 + ₹ **4,50,000** + ₹ 3,00,000 – ₹ 1,00,000 + ₹ 3,50,000

= ₹ **12,50,000** (Step 3)

$$\text{Average Profit} = \frac{₹\ 12,50,000}{5} = ₹\ \textbf{2,50,000}\ \text{(Step 2)}$$

Goodwill = ₹ **2,50,000** × 2 = ₹ 5,00,000 (Step 1).

Note: Total Normal Profit = Average Profit × 5 = ₹ 12,50,000.

23. The goodwill of a firm is valued at ₹ 1,35,000 at 3 years' purchase of super profit. Determine the missing values:

$$\text{Average Profit} = \frac{₹\ 3,60,000}{3} = ₹\ 1,20,000$$

$$\text{Normal Profit} = ₹\ \textbf{?} \times \frac{15}{100} = ₹\ \textbf{?}$$

Super Profit = Average Profit – Normal Profit

= ₹ 1,20,000 – ₹ **?** = ₹ **?**

Goodwill = Super Profit × No. of Years' Purchase.

Solution:

$$\text{Average Profit} = \frac{₹\ 3,60,000}{3} = ₹\ 1,20,000$$

₹ 75,000 (Normal Profit) = ₹ **?** (Capital Employed) × 15/100

Capital Employed = ₹ 75,000 × 100/15 = ₹ **5,00,000** (Step 3)

Goodwill = Super Profit × No. of Years' Purchase

₹ 1,35,000 = Super Profit × 3

$$\text{Super Profit} = \frac{₹\ 1,35,000}{3} = ₹\ \textbf{45,000}\ \text{(Step 2)}$$

Normal Profit = Average Profit – Super Profit

= ₹ 1,20,000 – ₹ **45,000** = ₹ **75,000** (Step 1).