Goodwill: Nature and Valuation

Question 1.

Goodwill is to be valued at three years' purchase of four years' average profit. Profits for last four (ending on 31st March of the firm were: 2013 – Rs.12,000; 2014 – Rs.18,000; 2015 – Rs.16,000; 2016- Rs.14,000.

Calculate amount of Goodwill.

Solution:

Goodwill = Average profit × number of years's purchase

$$\text{Average Profit} = \frac{\text{Total Profit for past given years}}{\text{Number}}$$

$$= \frac{12,000 + 18,000 + 16,000 + 14,000}{4} = \frac{60,000}{4}$$

$$= ₹15,000$$

Number of Year's purchase = 3

∴ Goodwill = 15,000 × 3 = ₹45,000

Question 2.

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

Year	2005-16	2014-15	2013-14	2012-2013	2011-2012
Profit	8,00,000	15,00,000	18,00,000	4,00,000(Loss)	13,00,000

Solution:

Goodwill = Average profit × Number of years' purchase

Average profit

$$= \frac{8,00,000 + 15,00,000 + 18,00,000 - 4,00,000 + 13,00,000}{5}$$

$$= \frac{50,00,000}{5}$$

$$= ₹10,00,000$$

Number of years' purchase = 3

∴ Goodwill = 10,00,000 × 3 = ₹30,00,000

Question 3.

A and B are partners sharing profits in the ratio of 3:2. They decided to admit C as a partner from, 1st April, 2016 on the following terms:

i. C 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 profits of the firm.

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

2016- Profit Rs.30,000 (after debiting loss of stock by fire Rs.40,000).

2015 – Loss Rs.80,000 (includes voluntary retirement compensation paid 1, 10,000).

2014 – Profit Rs.1,10,000 (including a profit of 30,000 on the sale of fixed assets).

You are required to value the goodwill.

Solution:

Goodwill = Normal Average Profit x Number of years' purchase

Year	Actual Profit	+	Abnormal Loss Non-Recurring	-	Abnormal Gain Non-Recurring	=	Normal Profit
2016	30,000	+	40,000	-	Nil	=	70,000
2015	(80,000)	+	1,10,00	-	Nil	=	30,000
2014	1,10,000	+	Nil	-	30,000	=	80,000
Normal Profits for last 3 years						=	1,80,000

$$\text{Normal Average Profit} = \frac{\text{Normal Profit for last 3 years}}{3}$$

$$= \frac{1,80,000}{3}$$

$$= ₹\ 60,000$$

Number of years' purchase is 2

∴ Goodwill = 60,000 x 2 = ₹1,20,000

Question 4.

X and Y are partners sharing profits and losses in the ratio of 3: 2. They admit Z into partnership for 1/4th share in goodwill. Z brings in his 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:

2014 – Profit Rs.50,000 (including profits on sale of assets Rs.5,000).

2015 – Loss Rs.20,000 (including loss by fire Rs.30,000).

2016- Profit Rs.70,000 (including insurance claim received Rs.18,000 and interest on investments and Dividend received Rs.8,000).

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

[Ans.: Goodwill-Rs.66,000; Z shall bring 1/4th of Rs.66,000 = Rs.16,500 as Goodwill]

Solution:

Year	Actual Profit	+	Abnormal Loss Non-Recurring	-	Abnormal Gain Non-Recurring	=	Normal Profit
2014	50,000	+	Nil	-	5,000		45,000
2015	(20,000)	+	30,000	-	Nil		10,000
2016	70,000	+	Nil	-	18,000 + 8,000		44,000
Normal Profits for last 3 years							99,000

$$\text{Normal Average Profit} = \frac{\text{Normal Profit for last 3 years}}{3}$$

$$= \frac{99,000}{3} = \text{Rs } 33,000$$

Number of years' purchase is 2

∴ Goodwill = 33,000 x 2 = ₹ 66,000

Z's Share of Goodwill = Goodwill of the Firm Z's Share of Profit

$$= 66,000 \times \frac{1}{4} = ₹16,500$$

Question 5.

A and B are partners in a firm sharing profits and losses in the ratio of 2:1. They decide to take C into partnership for 1/4th share on 1st April, 2016. For this purpose, goodwill is to be valued at four times the average annual profit of the previous four or five years whichever is higher. The agreed profits for goodwill purpose of the past five years are:

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Profit (₹)	14,000	15,500	10,000	16,000	15,000

Find the value of goodwill.

Solution:

Calculation of Average Profit for Five Years

Year	Profit
2011-12	14,000
2012-13	15,500
2013-14	10,000
2014-15	16,000
2015-17	15,000
Total Profit	70,500

Average Profit of Five Years $= \dfrac{70,500}{5} = ₹\,14,000$

Calculation of Average Profit for Five Years

Year	Profit
2012-13	15,500
2013-14	10,000
2014-15	16,000
2015-17	15,000
Total Profit	56,500

Average Profit of Four Years $= \dfrac{56,500}{4} = ₹\,14,125$

Average Profit of four years is taken to compute the value of goodwill of the firm. This is because Average Profit of four years is more then the Average Profit of five years.

∴ Goodwill = Average Profit × Number of years' purchase

14,125 × 4 = ₹56,500

Question 6.

A and B are partners sharing profits and losses in the ratio of 5:3. On 1st April, 2016, C is admit the partnership for 1/4th share of profits. For this purpose, goodwill is to be valued at two purchases of last three years' profits (after allowing partners' remuneration). Profits to be weightier 1:2:3, the greatest weight being given to last year. Net profit before partners' remuneration 2013-14: Rs.2,00,000; 2014-15: Rs.2,30,000; 2015-16: Rs.2,50,000. The remuneration of the part estimated to be Rs.90,000 p.a. Calculate amount of goodwill.

Solution:

Year	Profit before Partners' Remuneration	-	Partners' Remuneration	=	Profit after Partners' Remuneration
2013-14	50,000	-	90,000	=	1,10,000
2014-15	(20,000)	-	90,000	=	1,40,000
2015-16	70,000	-	90,000	=	1,60,000

Year	Profit	×	Weight	=	Product
2013-14	1,10,000	×	1	=	1,10,000
2014-15	1,40,000	×	2	=	2,80,000
2015-16	1,60,000	×	3	=	4,80,000
Total			6		8,70,000

Weighted Average Profit $= \dfrac{\text{Total Product of Profits}}{\text{Total of Weights}}$

or, Weighted Average Profit $= \dfrac{8,70,000}{6} = ₹1,45,000$

Goodwill = Weighte Average Profit × Number of years' purchase

= 1,45,000 × 2

= ₹2,90,000

Question 7.

Profit of the firm for the year ended 31st March for the last five years were:

Year ended	31 March, 2012	31 March, 2013	31 March, 2014	31 March, 2015	31 March, 2016
Profit (₹)	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, 2012, 2014, 2015 and 2016

Solution:

Year	Profit	x	Weight	=	Product
2012	20,000	x	1	=	20,000
2013	24,000	x	2	=	48,000
2014	30,000	x	3	=	90,000
2015	25,000	x	4		1,00,000
2016	18,000	x	5		90,000
Total			15		3,48,000

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

$$= \frac{3,48,000}{15} = ₹23,200$$

Goodwill = Weighte Average Profit × Number of years' purchase

= 23,200 × 3 = ₹69,600

Question 8.

Gupta and Bose had a firm in which they had invested Rs.50,000. On an average, the profits where Rs.16,000. The usual rate of earning 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.

Solution:

Goodwill = Super Profit × Number of Years' Purchase

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

$$= 50,000 \times \frac{15}{100} = ₹7,500$$

Actual Profit = ₹16,000

Super Profit = Actual Profit − Normal Profit

= 16,000 − 7,500 = ₹8,500

Number of years purchase = 4

∴ Goodwill = 8,500 × 4

= ₹34,000

Question 9.

Rakesh and Ashok earned a profit of Rs.5,000. They employed capital of Rs.25,000 in the firm. It is expected that the average rate of profit is 15% of the capital. Calculate amount of goodwill if goodwill is value at three years' purchase of super profit.

Solution:

Goodwill = Super Profit × Number of Years' Purchase

Normal Profit = Capital Employed × $\dfrac{\text{Normal Rate Return}}{100}$

$\qquad = 25,000 \times \dfrac{15}{100} = ₹3,750$

Actual Profit = ₹5,000

Super Profit = Actual Profit − Normal Profit

$\qquad = 5,000 - 3,750 = ₹1,250$

Number of years purchase = 3

∴ Goodwill = 1,250 × 3

$\qquad = ₹3,750$

Question 10.

The average net profits expected in the future by XYZ firm are Rs.36,000 per year. The average capital employed in the business by the firm is Rs.2,00,000. The rate of interest expected from capital invested in this class of business is 10%. The remuneration of the partners is estimated to be 6,000 p.a. Find out the value of goodwill on the basis of two years' purchase of super profit.

Solution:

Goodwill = Super Profit × Number of Years' Purchase

Normal Profit = Expected Capital Employed × $\dfrac{\text{Normal Rate Return}}{100}$

$\qquad = 2,00,000 \times \dfrac{15}{100} = ₹20,000$

Actual Expected Profit = 36,000 − 6,000 = ₹30,000

Super Profit = Actual Expected Profit − Normal Expected Profit

$\qquad = 30,000 - 20,000$

$\qquad = ₹10,000$

Number of years purchase = 2

∴ Goodwill = 10,000 × 2

$\qquad = ₹20,000$

Question 11.

A partnership firm earned the net profits during the last three years ended 31st March as following:

2014 – Rs.17,000; 2015 – Rs.20,000; 2016 – Rs.23,000.

The capital investment in the firm throughout the above-mentioned period has been Rs.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' purchases of average super profit earned during the above-mentioned three years

Solution:

Goodwill = Super Profit × Number of Years' Purchase

Average Actual Profit = $\dfrac{17,000 + 20,000 + 23,000}{3} = \dfrac{60,000}{3}$

$\qquad = ₹20,000$

Normal Profit = Capital Employed × $\dfrac{\text{Fair Rate Return}}{100}$

$\qquad = 80,000 \times \dfrac{15}{100}$

$\qquad = ₹12,000$

Super Profit = Average Actual Profit − Normal Profit

$\qquad = 20,000 - 12,000$

$\qquad = ₹8,000$

Number of years purchase = 2

∴ Goodwill = 8,000 × 2 = ₹6,000

Question 12.

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

Year Ended	Net Profit (₹)
31st March 2016	2,30,000
31st March 2015	2,00,000
31st March 2014	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 above-mentioned three years.

Solution:

Goodwill = Super Profit × Number of Years' Purchase

Normal Profit = Capital Employed × $\dfrac{\text{Normal Rate Return}}{100}$

$$= 4,00,000 \times \dfrac{15}{100} = ₹60,000$$

Year	Profit before Partners' Remuneration	–	Partners' Remuneration	=	Profit after Partners' Remuneration
2014	1,70,000	-	1,00,000	=	70,000
2015	2,00,000	-	1,00,000	=	1,00,000
2016	2,30,000	-	1,00,000	=	1,30,000

Average Actual Profit after Remuneration

$$= \dfrac{70,000 + 1,00,000 + 1,30,000}{3} = \dfrac{3,00,000}{3}$$

= ₹1,00,000

Super Profit = Average Actual Profit Remuneration – Normal Profit

= 1,00,000 – 60,000

= ₹40,000

Number of years purchase = 2

∴ Goodwill = 40,000 × 2 = ₹80,000

Question 13.

A business earned an average profit of 8,00,000 during the last few years. The normal rate of profit in the similar type of business is 10%. The total value of assets and liabilities of the business were Rs.22,00,000 and Rs.5,60,000 respectively. Calculate the value of goodwill of the firm by super profit method if it is valued at 2½ years' purchase of super profits.

Solution:

Average Profit = ₹8,00,000

Normal Profit = Capital Employed × $\dfrac{\text{Normal Rate}}{100}$

$$= 16,40,000 \times \dfrac{10}{100} = ₹1,64,000$$

Capital Employed = Total Assets – outside Liabilities

= 22,00,000 – 5,60,000

= ₹16,40,000

Super Profit = Average Profit – Normal Profit

= 8,00,000 – 1,64,000

= ₹6,36,000

Goodwill = Super Profit × No. of Years' Purchase

= 6,36,000 × 2.5

= ₹15,90,000

Question 14.

A firm earned net profits during the last five years as follows: I-Rs.7,000; II – Rs.6,500; III-Rs.8,000; IV- Rs.7,500 and V-

Rs.6,000. Capital investment of the firm is Rs.40,000. Fair return on capital in the market is 12%. Find value of goodwill of the business if it is based on three years' purchase of average super profit of the past five years.

Solution:

Goodwill = Super Profit × Number of Years' Purchase

$$\text{Actual Average Profit} = \frac{7,000 + 6,500 + 8,000 + 7,500 + 6,000}{5}$$

$$= \frac{35,000}{5}$$

$$= ₹7,000$$

$$\text{Normal Profit} = \text{Capital Investment} \times \frac{\text{Return on Investment}}{100}$$

$$= 40,000 \times \frac{12}{100} = ₹4,800$$

Super Profit = Actual Average Profit − Normal Profit

$$= 7,000 - 4,800$$

$$= ₹2,200$$

Number of years purchase = 3

∴ Goodwill = 2,200 × 3 = ₹6,600

Question 15.

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

Solution:

Goodwill = Super Profit × Number of Years' Purchase

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

$$= 2,00,000 \times \frac{15}{100} = ₹30,000$$

Year	Profit before Partners' Salary	−	Partners' Salary	=	Actual Profit after Salary
1	60,000	-	24,000	=	36,000
2	72,000	-	24,000	=	48,000
2	84,000	-	24,000	=	60,000

Average Actual Profit after Salary Partners

$$= \frac{36,000 + 48,000 + 60,000}{3}$$

$$= \frac{1,44,000}{3}$$

$$= ₹48,000$$

Super Profit = Average Actual Profit after Salaries − Normal Profit

$$= 48,000 - 30,000$$

$$= ₹18,000$$

Number of years purchase = 2

∴ Goodwill = 18,000 × 2

$$= ₹36,000$$

Question 16.

A and B are equal partners. They decide to admit C for 1/3rd share. For the purpose of admission of C, goodwill of the firm is to be valued at four years' purchase of super profit. Average capital employed In the firm is Rs.1,50,000. Normal rate of return may be taken as 15% p.a. Average profit of the firm is Rs.40,000. Calculate value of goodwill.

Solution:

Goodwill = Super Profit × Number of Years' Purchase

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

$$= 1,50,000 \times \frac{15}{100}$$

$$= ₹22,500$$

Super Profit = Average Maintainable Profit − Normal Profit

$$= 40,000 - 22,500$$

$$= ₹17,500$$

Number of years purchase = 4

∴ Goodwill = 17,500 × 4 = ₹70,000

Question 17.

On 1st April, 2016, an existing firm had assets of Rs.75,000 including cash of Rs.5,000 Its creditors amounted to Rs.5,000 on that date. The firm had a Reserve of Rs.10,000 while Partners' Capital Accounts showed a balance of Rs.60,000. If Normal Rate of Return is 20% and goodwill of the firm Rs.24,000 at four years' purchase of super profit, find average profit per year of the existing firm.

Solution:

Average Profit = Normal Profit + Super Profit

Capital Employed = Total Assets − Creditors

$$= 75,000 - 5,000$$

$$= ₹70,000$$

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

$$= 70,000 \times \frac{20}{100}$$

$$= ₹14,000$$

Goodwill of the firm = ₹24,000

Number of years purchase = 4

$$\text{Super Profit} = \frac{24,000}{4}$$

$$= ₹6,000$$

∴ Average Profit = Normal Profit + Super Profit

$$= 14,000 + 6,000$$

$$= ₹20,000$$

Question 18.

The average profit earned by a firm is Rs.1,00,000 which includes overvaluation of stock of Rs.40,000 on an average basis. The capital invested in the business is Rs.6,30,000 and the normal rate of return is 15%. Calculate goodwill of the firm on the basis of 5 times the super profit.

Solution:

Average Profit earned by a firm = ₹1,00,000

Undervaluation of Stock = ₹40,000

Average Actual Profit

= Average Profit earned by a firm + Undervaluation of Stock

= 1,00,000 + 40,000

= ₹1,40,000

$$\text{Normal Profit} = \text{Capital Investment} \times \frac{\text{Normal Rate of Return}}{100}$$

$$= 6,30,000 \times \frac{5}{100} = ₹31,500$$

Super Profit

= Actual Average Profit − Normal Profit

= 1,40,000 − 31,500 = ₹1,08,500

Goodwill

= Super Profit × Number of Times

= 1,08,500 × 5

= ₹5,42,500