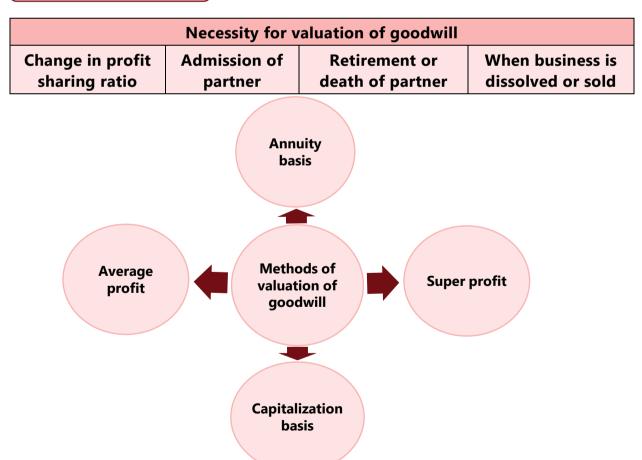
UNIT – 2: TREATMENT OF GOODWILL IN PARTNERSHIP ACCOUNTS

LEARNING OUTCOMES

After studying this unit, you will be able to:

- Understand when does the need for valuation of goodwill arise.
- Learn the accounting of goodwill.

UNIT OVERVIEW



GOODWILL

Goodwill is the value of reputation of a firm in respect of profits expected in future over and above the normal rate of profits.

In simpler terms, Goodwill is nothing more than the probability that old customer will resort to old place again and again. The capacity of a business to earn super profits in the future is basically what is meant by term goodwill. **Goodwill is an intangible asset;** it cannot be seen; it cannot be felt; it cannot be transported physically. Even then it is very real. From accounting point of view, it is necessary that it has some monetary or saleable value. The implication of the term over and above is that there is always a certain normal rate of profits earned by similar firms in the same locality. The excess profit earned by a firm may be due to its locational advantage, better customer service, possession of a unique patent right, personal reputation of the partner or for similar other reasons. The necessity for valuation of goodwill in a firm arises in the following cases:

- a) When the profit sharing ratio amongst the partners is changed;
- When a new partner is admitted; b)
- When a partner retires or dies; and c)
- d) When the business is dissolved or sold.

Let us take a simple example. There is a small Book business owned by a firm. Its net worth i.e. Asset–liabilities, is ₹ 140,000. Now if a purchaser is willing to pay ₹ 150,000 for it, the extra ₹ 10,000 is known in accounting as goodwill. The next question is: Why the purchaser is willing to pay ₹ 10,000 for goodwill.

One reason may be the future capability of the business to earn more profit than the normal profit. It may be on account of favourable location.

The major factors which affect value of goodwill are as follows:

The list is in no way exhaustive but only provides the basic guidelines:

- (i) The quality of the goods sold.
- (ii) The personal reputation of the owners i.e., their ability to attract the customers.
- (iii) The location of the business premises e.g., a good position in a congested market.
- The possession of near monopoly right e.g. main agent for a particular vehicle like, (iv) Maruti car, Bajaj scooter, etc.
- (v) The possession of trademarks and patents.
- (vi) The presence of managerial skill.

- (vii) The cost of research and development which enables the production at low cost and of good quality.
- (viii) The possession of special contracts for the availability of materials

RECOMMENDATION OF ACCOUNTING STANDARD

Accounting Standards require an enterprise to recognize an intangible asset, only if and only if, certain conditions are satisfied, namely:

- (i) An intangible asset must have the **characteristics of an asset.** It means that it must have some value and must be clearly identifiable, so that it can be sold without disposing other assets or future benefits flowing from other assets.
- (ii) An intangible asset should be recognized only if the **future probable economic benefits** (i.e., increased revenue from sales) will flow to the business enterprise and not to others. It means that management can make reasonable estimates of future benefits.
- (iii) The cost of the intangible asset can **be measured reliably,** that is, the cost is objectively verifiable. If the cost cannot be measured reliably, then it cannot be recognized as an asset.

It is thus clear that none of the conditions is satisfied by internally generated goodwill or inherent goodwill. The reasons are simple to explain. First, it is not an identifiable resource like patent, trademark or copyright. Second, it is very difficult to assess its future benefits. Finally, the cost of internally generated goodwill cannot be reliably measured in the absence of any consideration in money or money' worth. There is no documentary evidence to support the value of goodwill as a resource.

Goodwill should be recorded in the books only when some consideration in money or money' worth has been paid for it. Accordingly, on admission or retirement/death of a partner or even when there is a change in profit sharing ratio amongst the existing partners, goodwill should not be raised in the books of account of the partnership firm because no consideration in money or money' worth has been paid for it. The conclusion is that only purchased goodwill should be recorded in the books of account whether the payment is made directly in cash or money' worth. For example, 'A' and 'B' purchase the net assets (assets minus liabilities) of 'C' amounting to ₹ 2,50,000 for ₹ 3,00,000 in cash, the additional payment of ₹ 50,000 is a payment for goodwill in cash. It is a case of purchased goodwill (an asset) and can be validly recorded in the books of A and B. When no payment is made for the purchase of goodwill and goodwill account is raised in the books, it is a case of internally generated goodwill or inherent goodwill and as per Accounting Standards, it is not permitted. For example, in the event of reconstitution of the firm due to admission, or retirement or death of a partner or even a change in the profit sharing ratio without reconstitution, goodwill of the firm is evaluated. In

such a situation, the value of goodwill should not be brought into books of account because it is inherent or self-generated goodwill since no money or money' worth has been paid for it. The only way out is that the value of goodwill as calculated with the help of different valuation methods should be adjusted through capital accounts of the partner(s) of the firm. In no case the goodwill account is to be raised in the books of account, either on the reconstitution of the firm or change in the profit sharing ratio.

The amount of goodwill is written off over a period of time. In case when the goodwill account exists at the time of reconstitution of firm, it should be written off immediately whether it is internally generated or goodwill has been bought for some consideration.

2.2 METHODS FOR GOODWILL VALUATION

There are three methods for valuation of goodwill

- 1) Average profit basis,-Simple and Weighted
- Super profit basis,-Number of Year Purchase, Annuity basis, and Capitalization of Super Profit
- 3) Capitalization basis- Average Profits
- (1) Average Profit Basis: In this case the average profits of past years are adjusted for any expected change in future. The number of year are decided on the basis of judgement and negotiation.
- For averaging the past profit, either simple average or weighted average may be employed depending upon the circumstances. If there exists clear increasing or decreasing trend of profits, it is better to give more weight to the profits of the recent years than those of earlier years. But, if there is no clear trend of profit, it is better to go by simple average.
- Let us suppose profits of a partnership firm for the last five years were ₹ 30,000, ₹ 40,000, ₹ 50,000, ₹ 60,000 and ₹ 70,000. In this case, a clear increasing trend is noticed and therefore, average profit may be arrived at by assigning appropriate weights as shown below:

1	2	3	4 = 2 × 3	
Year	Profit	Weight	Weighted Profit	
	₹		₹	
1	30,000	1	30,000	
2	40,000	2	80,000	

PARTNERSHIP AND LLP ACCOUNTS

3	50,000	3	1,50,000
4	60,000	4	2,40,000
5	70,000	5	3,50,000
		15	8,50,000

So, Weighted Average Profit =
$$\frac{8,50,000}{15}$$
 = ₹ 56,667 (approx)

If goodwill is valued at three years' purchase of profit, then in this case the value of goodwill is 56,667 (approx) $\times 3 =$ 71,70,000.

However, if any such trend is not visible from the figures of past profits, then one should take simple average profit and calculate goodwill accordingly. Let us suppose, profits of a partnership firm for five years were ₹ 30,000, ₹ 25,000, ₹ 20,000, ₹ 30,000 and ₹ 28,000. In this case, there is no clear increasing or decreasing trend of profit. So average profit comes to ₹ 26,600 (arrived at by taking simple average). If the goodwill is valued by taking three years' of purchase of profit, the ninth is case, value of goodwill becomes ₹ 79,800.

Weighted average is used when profit has increasing or decreasing Trend. Highest weight is always given to current year, as it reflects the more realistic view of the future profitability

Example

The past profits of five years of a partnership firm are: ₹ 50,000; ₹ 40,000; ₹ 52,000; ₹ 48,000 and ₹ 56,000 respectively. Calculate the value of goodwill on the basis of 4 years' purchase of the average profits of the last five years.

Answer

Total profits for five years = ₹ (50,000 + 40,000 + 52,000 + 48,000 + 56,000) = ₹ 2,46,000

Average profit = Sum of profits/No. of years

Average Profit = ₹ 2,46,000 \div 5 = ₹ 49,200

Value of goodwill (being four years' purchase of the average profit of five years) = $4 \times 49,200 = ₹ 1,96,800$.

Super Profit Basis: In case of super profit method, goodwill is valued on the basis of super profits earned by the firm.

Super Profit=Actual Profit-Normal Profit

Actual Profit is average maintainable profit

Normal Profit=Normal rate of Return (NRR) x Capital Employed

The rationale for using the super profit is the partner who gains excess earning owing to reconstitution of firm should compensate to partners sacrificing their share in the reconstitution. Super profit means, excess profit that can be earned by a firm over and above the normal profit usually earned by similar firms under similar circumstances. Under this method, the partner who gains in terms of profit sharing ratio has to contribute only for excess profit because normal profit he can earn by joining any partnership firm. Under super profit method, what excess profit a partnership firm can earn is to be determined first.

Calculation of super profit:

- (i) Identify the capital employed by the partnership firm;
- (ii) Identify the average profit earned by the partnership firm based on past few years' figures;
- (iii) Determine normal rate of return prevailing in the locality of similar firms;
- (iv) Apply normal rate of return on capital employed to arrive at normal profit;
- (v) Deduct normal profit from the average profit of the firm. If the average profit of the firm is more than the normal profit, there exists super profit and goodwill.

Let us suppose, total capital employed by a partnership firm was ₹ 1,00,000 and its average profit was ₹ 25,000. Normal rate of return is 22% in case of similar firms working under similar conditions. So, normal profit is ₹ 22,000 and average profit is ₹ 25,000. The partnership firm earns ₹ 3,000 super profit.

(a) Number of Years Purchase Method: Goodwill is generally valued by multiplying the amount of super profit by certain number of years depending upon the expectation about the maintenance of such profit in future. If it is expected that the super profit can be maintained for another five years in future, then value of goodwill may be taken as $\stackrel{?}{\sim} 3.000 \times 5 = \stackrel{?}{\sim} 15.000$.

Example

A firm of A, B and C has a total capital investment of ₹ 4,50,000. The firm earned net profits during the last four years as: I-₹ 70,000; II-₹ 80,000; III-₹ 1,20,000 and IV-₹ 1,00,000. The reasonable expected return is 15 per cent having regard to the risk involved. The value of goodwill of the business, if it is based on 3 years' purchase of the average super profits of the past four years is as follows:

Average Profit = Sum of profits/no. of years

Normal Profit = NRR x Capital Employed

Super Profit = Average maintable profit Normal Profit

	₹		
Total profits earned during four years :	3,70,000		
Average annual profit ₹ 3,70,000 ÷ 4	92,500		
Normal Profit (15% of ₹ 4,50,000)	67,500		
Super Profit ₹ 92,500–₹ 67,500	25,000		
Value of goodwill (being 3 years' purchase of the average super profit:			
₹ 25,000 x 3 = 75,000			

(b) Annuity Method: The major drawback of number of number of years purchase method is that time value of money is not considered. Although it was expected that super profit would be earned in five future years, still no devaluation was done on the value of money for the time difference. In fact when money will be received in different points of time, its value should be different depending upon the rate of interest. If 15% rate of interest is considered appropriate, then discounted value of super profit to be earned in different future years will be as follows:

Year	Super Profit ₹	Discount Factor @15%	Discounted value of Super Profit
1	3,000	.8696	2,608.80
2	3,000	.7561	2,268.30
3	3,000	.6575	1,972.50
4	3,000	.5718	1,715.40
5	3,000	.4972	1,491.60
		3.3522	10,056.60

So, under the annuity method, discounted value of total super profit becomes ₹ 10,056.60 and not ₹ 15,000 as was done under super profit method.

The word annuity is used to mean identical annual amount of super profit. So, for discounting it is possible to refer to annuity table. As per the annuity table, present value of $\ref{totallow}$ 1 to be received at the end of each year for 5 years @15% interest p.a. is 3.3522. So value of goodwill under annuity method is $\ref{totallow}$ 3,000×3.3522 = $\ref{totallow}$ 10,056.60.

ACCOUNTING

Example

Calculate the goodwill by annuity method of super profit from the following facts:

- (a) Annual maintainable profit after tax is ₹ 65,000.
- (b) Capital employed is ₹ 4,00,000.
- (c) Normal rate of return is expected at 12% p.a.
- (d) Present value of an annuity of ₹ 1 for five years @ 12% interest is 3.604776.

Answer

	₹
Annual maintainable profit	65,000
Less: Normal profit based on capital employed and normal rate of return i.e., 12% of ₹ 4,00,000	(48,000)
Super profit	17,000
The present value of an annuity of ₹ 1 for five years at 12% compound interest is	3.604776

The present value of annuity of ₹ 17,000 for five years at 12% compound interest = 17,000 x 3.604776 = ₹ 61,281 (Approx.)

Capitalization of Super Profit:

- **Capitalization Basis:** Under this basis, value of whole business is determined applying normal rate of return. If such value (arrived at by applying normal rate of return) is higher than the capital employed in the business, then the difference is goodwill. The steps to be followed under this method are given below:
- a. Determine the normal rate of return.
- b. Find out the average profit of the partnership firm for which goodwill is to be determined.
- c. Determine the capital employed by the partnership firm for which goodwill is to be determined.
- d. Find out normal value of the business by dividing average profit by normal rate of return.

e. Deduct average capital employed from the normal value of the business to arrive at goodwill.

Goodwill = Normal Capital-Actual Capital

Normal capital = Average Profit/NRR

Let us suppose capital employed by a partnership firm is ₹ 1,00,000. Its average profit is ₹ 20,000. Normal rate of return is 15%.

Normal Value of business= $\frac{20,000}{15\%}$ = ₹ 1,33,333 Value of goodwill = ₹ 1,33,333 – ₹ 1,00,000 = ₹ 33,333

Example

The net tangible assets of a firm are worth ₹ 4,10,000 and the average profit of last four years amounts to ₹ 60,000. Find out of the value of goodwill under capitalization method if the reasonable return on capital invested is 12%.

Answer

	₹
Capital invested in the business	4,10,000
Normal rate of return	12%
Average profit earned by the firm	60,000
Value of the firm (Capitalization of average profit): 60,000/12%=	5,00,000
Goodwill = Value of the firm –Net Assets = ₹ 5,00,000 – ₹ 4,10,000	90,000

Above methods are explained below with the help of following illustrations:

ILLUSTRATION 1

Lee and Lawson are in equal partnership. They agreed to take Hicks as one-fourth partner. For this it was decided to find out the value of goodwill. M/s. Lee and Lawson earned profits during 2019-2022 as follows:

Year	Profits (₹)
2019	1,20,000
2020	1,25,000
2021	1,30,000
2022	1,50,000

On 31.12.2022 capital employed by M/s. Lee and Lawson was ₹5,00,000. Rate of normal profit is 20%.

Required

Find out the value of goodwill following various methods.

SOLUTION

Average Profit:

Year	Profit	Weight	Weighted Profit ₹	
2019	1,20,000	1	1,20,000	
2020	1,25,000	2	2,50,000	
2021	1,30,000	3	3,90,000	
2022	1,50,000	4 6,00,000		
		10	13,60,000	

Weighted Average Profit = ₹ 13,60,000 divided by 10 = ₹ 1,36,000

Method (1): Average Profit Basis

Assumption: Goodwill is valued at 3 year's purchase

Valuation of Goodwill: ₹ 1,36,000 ×3 = ₹ 4,08,000

Method (2): Super Profit Basis

		₹
Averag	ge Profit	1,36,000
Less:	Normal Profit	
	20% on ₹ 5,00,000	(1,00,000)
		₹ 36,000

Assumption: Goodwill is valued at 3 years' purchase.

Value of Goodwill = ₹ 36,000 × 3 = ₹ 1,08,000

Method (3): Annuity Basis

Assumptions:

(a) Interest rate is equivalent to normal profit rate i.e. 20%p.a.

(b) Goodwill is valued at 3 years' purchases

Valuation of Goodwill: ₹ 36,000 × 2.1065 =₹ 75,834

Method (4): Capitalisation Basis

Normal Value of business:
$$\frac{₹1,36,000}{20} \times 100$$
 = $₹6,80,000$

Less: Capital Employed in M/s. Lee and Lawson =
$$(₹ 5,00,000)$$

Goodwill = $₹ 1,80,000$

ILLUSTRATION 2

The following particulars are available in respect of the business carried on by Rathore

			₹
(1)	Capital Invested		1,50,000
(2)	Trading Results:		
	2019	Profit	40,000
	2020	Profit	36,000
	2021	Loss	6,000
	2022	Profit	50,000
(3)	Market Rate of interest on investment	10%	
(4)	Rate of risk return on capital invested in business	2%	
(5)	Remuneration from alternative		
	employment of the proprietor	₹ 6,000	
	(if not engaged in business).	per annum	

You are required to compute the value of goodwill on the basis of 5years' purchase of super profit of the business calculated on the average profits of the last four years.

SOLUTION

Average maintainable profits:		₹
Trading profit during	2019	40,000
	2020	36,000
	2021	50,000
		1,26,000

Less: Loss during	2022	(6,000)
Total		1,20,000
Average Profits		30,000
Less: Remuneration for the proprietor		(6,000)
Average maintainable Profit		24,000
Less: Normal Profit (12% on capital employed of ₹ 1,50,000)		(18,000)
Super Profit		6,000
Goodwill at 5 year's purchase of super Profit		30,000

Hidden or Inferred or implied Goodwill

Sometimes the value of goodwill is not specifically given and has to be inferred or implied from the arrangement of capital or profit-sharing ratio. For example A's capital is $\stackrel{?}{_{\sim}}$ 20,000 and B's Capital is $\stackrel{?}{_{\sim}}$ 15,000 and they share profits equally. C is admitted as a partner with $\stackrel{?}{_{\sim}}$ 18,000 as his capital for 1/4 share in the profits. The total capital of the firm now ought to be $\stackrel{?}{_{\sim}}$ 72,000 for the simple reason that if C contributes $\stackrel{?}{_{\sim}}$ 18,000 for 1/4 share, then for full or unit profit he ought to have contributed $\stackrel{?}{_{\sim}}$ 72,000 (18,000 x 4). But the total capital of A, B and C becomes only $\stackrel{?}{_{\sim}}$ 53,000. So the hidden value of the goodwill should be taken as $\stackrel{?}{_{\sim}}$ 19,000 so that the total capital becomes $\stackrel{?}{_{\sim}}$ 72,000

(L) 2.3 NEED FOR VALUATION OF GOODWILL

Whenever there is any change in the existing relationship of the partners in terse, some partners have to sacrifice their future profit and some others would gain. Those who are sacrificing future profit should be compensated by the others who are gaining. This adjustment of the partnership rights may arise due to admission of a new partner, change in the profit sharing ratio, retirement or death of a partner and a dissolution of the partnership. The partners, who gain in terms of profit sharing ratio, have to pay for such gain as a proportion to the value of goodwill. The partners, who lose in terms of profit sharing ratio, receive payments for the sacrifice as a proportion to the value of goodwill.

(•2.4 VALUATION OF GOODWILL IN CASE OF ADMISSION OF A PARTNER

When a new partner is admitted into a partnership, certain adjustments in accounts become necessary. Chiefly, this is because the new partner will acquire a share in the profits of the firm and because of this, the old partners will stand to lose. Suppose, A and B are partners sharing profits in the ratio of 3:2. If their profits are ₹ 20,000, A will get ₹ 12,000 and B will get ₹ 8,000. If C is admitted and given one fourth share in profits, then out of ₹ 20,000 he will get ₹ 5,000. The remaining ₹ 15,000 will be divided between A and B; A will get ₹ 9,000 and B will get ₹ 6,000. Thus on C's admission A loses ₹ 3,000 per year and B loses ₹ 2,000 per year. C will have to compensate A and B for this loss. It is no argument to say that on C's admission the profits will not remain at ₹ 20,000; extra profits will arise and therefore, A and B will both get more than what they previously got. But it should be noted that the additional profits will be earned by the combined efforts of all the partners A, B and C. Therefore, if A and B get a share of the extra profits they are not particularly obliged to C. Out of the present profits of ₹ 20,000 they have to give up a share in favour of C and, therefore, they are entitled to a compensation. The problem of compensation is the chief problem while dealing with admission of a partner. This is tackled through goodwill.

But one point should be made clear here. Goodwill is a compensation to old partners for their sacrifice in connection with admission of a new partner. So it is to be credited to the partners according to their profit sacrificing ratio. Whatever share the new partner is getting, it may be sacrificed by the old partners in proportion to their old profit sharing ratio or in different proportion.

For example, Nigam and Dhameja are in partnership sharing profits and losses equally. They agreed to take Ghosh as one-third partner. Now one-third share of Ghosh may come out of sacrifice made by Nigam and Dhameja equally (i.e. at their old profit sharing ratio). See the following profit sharing pattern:

Profit Sharing Pattern

Partners	Old Share	New Share	Sacrifice	Gain
Nigam	1/2	$\frac{1}{2} \left[1 - \frac{1}{3} \right] = \frac{2}{3} \times \frac{1}{2} = \frac{1}{3}$	$\frac{1}{2} - \frac{1}{3} = \frac{1}{6}$	-
Dhameja	1/2	$\frac{1}{2} \left[1 - \frac{1}{3} \right] = \frac{2}{3} \times \frac{1}{2} = \frac{1}{3}$	$\frac{1}{2} - \frac{1}{3} = \frac{1}{6}$	-
Ghosh	-		-	1/3

In other words, one-third share of Ghosh was borne by Nigam and Dhameja at their old profit sharing ratio. By this process Nigam sacrificed 1/2-1/3 = 1/6 in share and Dhameja sacrificed

ACCOUNTING

1/2-1/3 = /1/6 in share. So the profit sacrificing ratio becomes:

Nigam = Dhameja

1/6 = 1/6

1 : 1

Which is the same as old profit sharing ratio.

But if the new profit sharing ratio of Nigam, Dhameja and Ghosh becomes 4:2:3, then profit sacrificed by Nigam and Dhameja on Ghosh's admission is not at the old profit sharing ratio. In this case profit sacrificing ratio is as follows:

Nigam = 1/2 - 4/9 = 1/18

Dhameja = 1/2 - 2/9 = 5/18

i.e. 1 : 5

If Ghosh pays goodwill of ₹ 24,000, then in the first case, Nigam and Dhameja should share it equally; but in second case Nigam should get ₹ 4,000 and Dhameja should get ₹ 20,000.

Take another example: Nigam and Dhameja are equal partners. They agreed to take Ghosh as one-third partner. The new profit sharing ratio is 4:2:3. Nigam and Dhameja agreed ₹ 27,000 as value of goodwill.

Journal Entry

Ghosh's Capital Account	Dr.	9,000	
To Nigam's Capital Account			1,500
To Dhameja's Capital Account			7,500
(Goodwill adjustment in the profit sacrificing ratio)			

Nigam - ₹ 27,000 × 1/18

Dhameja - ₹ 27,000 × 5/18

As per the Accounting Standards, it is not recommended to raise goodwill account but to show the adjustment of goodwill through partners' capital accounts.

(b2.5 ACCOUNTING TREATMENT OF GOODWILL IN CASE OF ADMISSION OF A NEW PARTNER

The goodwill should be recorded in the books only when some consideration in money or money's worth has been paid for it. Therefore, only purchased goodwill should be recorded in the books of the firm. In case of admission of a partner, goodwill cannot be raised in the books of the firm because no consideration in money or money's worth is paid for it. If the incoming partner brings any premium over and above his capital contribution at the time of his admission, such premium should be distributed to other existing partners. When a new partner is admitted to a firm, the old partners generally sacrifice in favour of the new partner in terms of lower profit sharing ratio in the future. Therefore, the premium for goodwill brought in by the new partner shall be given to the existing partners on the basis of profit sacrificing ratio. The profit sacrificing ratio is computed by deducting the new profit sharing ratio from the old profit sharing ratio. If the difference is positive, then there is a profit sacrifice and in case the difference is negative, then there is a gain in terms of higher future profit sharing ratio. In case of admission of a partner, only those existing partners are entitled to a share for goodwill who have sacrificed a part of their profits in favour of the new partner. Sometimes, goodwill may be evaluated in case of admission of a partner when incoming partner is unable to bring in cash any premium for goodwill. In that situation also, the value of goodwill should not be raised in the books since it is inherent goodwill. Rather it is preferable that such value of goodwill should be adjusted through partners' capital accounts. It may also be noted that when the incoming partner pays any premium for goodwill privately to the existing partners, no entry is required in the books of the firm. In that case, the amount to be paid to each partner should be calculated as per the profit sacrificing ratio. If only new partner's profit sharing is given then profit sacrificing ratio of old paterns would be same as old profit sharing ratio.

Example 1: A, B & C are in partnership sharing profits and losses in the ratio 2:2:1. They want to admit D into partnership with one-fifth share. D brings in ₹ 30,000 as capital and ₹ 10,000 as premium for goodwill.

The necessary journal entry will be:

Bank A/c	Dr.	₹ 40,000	
To A's Capital A/c			₹ 4,000
To B's Capital A/c			₹ 4,000
To C's Capital A/c			₹ 2,000

To D's Capital A/c	₹ 30,000
(Amount brought in by D as Capital and premium for goodwill which is credited to the old partners' Capital accounts in profit sacrificing ratio which is same as old profit sharing ratio)	

Example 2: A & B are equal partners. They wanted to take C as a third partner and for this purpose goodwill was valued at ₹ 1,20,000. The journal entry for adjustment of value of goodwill through partners' capital accounts will be:

C's Capital A/c	Dr.	₹ 40,000	
To A's Capital A/c			₹ 20,000
To B's Capital A/c			₹ 20,000
(Adjustment for goodwill)			

The net effect in partners' capital accounts is shown on the basis of profit sacrificing ratio:

$$A = 1/6 \times 7,20,000 = 20,000$$

(Cr.)

$$B = 1/6 \times 7,20,000 = 20,000$$

(Cr.)

(Dr.)

Example 3: A & B are equal partners. They wanted to admit C as 1/6th partner who brought ₹ 60,000 as goodwill. The new profit sharing ratio is 3:2:1. Profit sacrificing ratio is to be computed as follows:

Old Share - New Share = Share Sacrificed

$$A = 1/2 - 3/6 = 0$$

$$B = 1/2 - 2/6 = 1/6$$

So the entire goodwill should be credited to B's Capital A/c.

Cash A/c

Dr.

₹ 60,000

To B's Capital A/c

₹ 60,000

(Goodwill brought in by C credited to B's Capital A/c)

Example 4: A, B & C are equal partners. They decided to take D who brought in ₹ 36,000 as goodwill. The new profit sharing ratio is 3:3:2:2.

Old Share - New Share = Share Sacrificed

$$A = 1/3 - 3/10 = 1/30$$

$$B = 1/3 - 3/10 = 1/30$$

$$C = 1/3 - 2/10 = 4/30$$

So goodwill should be shared in the ratio 1:1:4

Bank A/c Dr.	₹ 36,000	
To A's Capital A/c		₹ 6,000
To B's Capital A/c		₹ 6,000
To C's Capital A/c		₹ 24,000
(Goodwill brought in by D credited to old partners' accounts in their profit sacrificing ratio 1:1:4)		

ILLUSTRATION 3

The following is the Balance Sheet of Yellow and Green as at 31st December, 2022:

Liabilities	₹	Assets	₹
Trade payables	20,000	Cash at Bank	10,000
Capital:		Sundry Assets	55,000
Yellow	25,000		
Green	20,000		
	65,000		65,000

The partners shared profits and losses in the ratio 3:2. On the above date, Black was admitted as partner on the condition that he would pay ₹ 20,000 as Capital. Goodwill was to be valued at 3 years' purchase of the average of four years' profits which were:

	₹		₹
2019	9,000	2021	12,000
2020	14,000	2022	13,000

The new profit sharing ratio is 6:5:5.

Give journal entries and Balance Sheet if goodwill is adjusted through partners' capital accounts.

SOLUTION

			₹	₹
(i)	Bank Account	Dr.	20,000	
	To Black's Capital Account			20,000
	(Amount brought in by Black as capital)			
(ii)	Black's Capital Account	Dr.	11,250	
	To Yellow's Capital Account			8,100
	To Green's Capital Account			3,150
	(Black's share of goodwill adjusted through old partners' capital accounts in the profit sacrificing ratio 18:7)			

Balance Sheet as on.31st December, 2022

Liabilities	₹	₹	Assets	₹
Trade payables		20,000	Cash at Bank	30,000
Capital:			Sundry Assets	55,000
Yellow	33,100			
Green	23,150			
Black	8,750	65,000		
		85,000		85,000

Note: Calculation of Profit Sacrificing Ratio

Old Share - New Share = Share Sacrificed

Yellow
$$\frac{3}{5} - \frac{6}{16} = \frac{18}{80}$$

Green
$$\frac{2}{5} - \frac{5}{16} = \frac{7}{80}$$

Calculation of Goodwill

Average profit =
$$\frac{9,000+14,000+12,000+13,000}{4}$$
 = 12,000

Goodwill of the firm = $3 \times 12,000 = 36,000$

Black share =
$$\left(\frac{36,000}{16}\right) \times 5 = 11,250$$

ILLUSTRATION 4

With the information given in illustration 3, let us give journal entries and prepare balance sheet assuming that goodwill is brought in cash.

SOLUTION

Goodwill brought in cash

Bank Account	Dr.	31,250	
To Black's Capital Account			20,000
To Yellow's Capital Account			8,100
To Green's Capital Account			3,150
(Amount brought in by Black as capital and as goodwill; goodwill credited to Yellow and Green's Capital accounts in the profit sacrificing ratio)			

Balance Sheet as on 31st December, 2022

Liabilities	₹	₹	Assets	₹
Trade payables		20,000	Cash at Bank	41,250
Capital:			Sundry Assets	55,000
Yellow	33,100			
Green	23,150			
Black	20,000	76,250		
		96,250		96,250

ILLUSTRATION 5

Continuing with the same illustration 3, let us give journal entries and prepare balance sheet assuming that goodwill is brought in cash, but withdrawn.

SOLUTION

Goodwill brought in cash, but withdrawn

In addition to the treatment under Illustration 3 the following additional entry will be made:

Yellow's Capital Account	Dr.	8,100	
Green's Capital Account	Dr.	3,150	
To Bank Account			11,250
(Amount withdrawn by Yellow and Green in respect of goodwill credited to them)			

Balance Sheet as on 31st December, 2022

Liabilities	₹	₹	Assets	₹
Trade payables		20,000	Cash at Bank	30,000
Capital:			Sundry Assets	55,000
Yellow	25,000			
Green	20,000			
Black	20,000	65,000		
		85,000		85,000

ILLUSTRATION 6

On the basis of information given in illustration 3, let us give journal entries and prepare balance sheet assuming that goodwill is paid privately.

SOLUTION

There will be no entry for goodwill but Black will pay ₹ 8,100 to Yellow and ₹ 3,150 to Green. For capital brought in by Black, the entry is:

Bank Account	Dr.	20,000	
To Black's Capital Account			20,000
(Amount brought in by Black as capital)			

Balance Sheet as on.....

Liabilities	₹	₹	Assets	₹
Trade payables		20,000	Cash at Bank	30,000
Capital:			Sundry Assets	55,000
Yellow	25,000			
Green	20,000			
Black	20,000	65,000		
		85,000		85,000

© 2.6 ACCOUNTING TREATMENT OF GOODWILL IN CASE OF CHANGE IN PROFIT SHARING RATIO

In case of change in profit sharing ratio, the value of goodwill should be determined and preferably adjusted through capital accounts of the partners on the basis of profit sacrificing ratio.

ILLUSTRATION 7

A, B & C are equal partners. They wanted to change the profit sharing ratio into 4:3:2. Make the necessary journal entries. Goodwill of the firm is valued at ₹ 90,000.

SOLUTION

Journal Entry

	₹	₹
A's Capital Dr.	10,000	
To C's Capital A/c		10,000

In this case due to change in profit sharing ratio

A's gain is = 4/9 less 1/3 = 1/9B's gain is = 1/3 less 1/3 = 0C's loss is = 1/3 less 2/9 = 1/9

So, A should compensate C to the extent of 1/9th of goodwill i.e. ₹ 90,000 × 1/9 = ₹ 10,000

ILLUSTRATION 8

A, B and C are in partnership sharing profits and losses in the ratio of 4:3:3. They decided to change the profit sharing ratio to 7:7:6. Goodwill of the firm is valued at ₹20,000. Calculate the sacrifice / gain by the partners and make the necessary journal entry.

SOLUTION

Partner	New Share		Old Share		Difference
А	7/20	_	4/10	=	$\left(\frac{1}{20}\right)$
В	$\frac{7}{20}$	_	3 10	=	1/20
С	<u>6</u> 20	_	3 10	=	0

Thus, B gained 1/20th share while A sacrificed 1/20th share i.e. $\stackrel{?}{\underset{?}{?}}$ 20,000 x $\frac{1}{20}$ = $\stackrel{?}{\underset{?}{?}}$ 1,000. For C there was no loss no gain.

Journal Entry

		₹	₹
B's Capital A/c	Dr.	1,000	
To A's Capital A/c			1,000
(Being goodwill adjusted through partners' capital accounts in sacrificing/gaining ratio)			

ILLUSTRATION 9

A, B, C and D are in partnership sharing profits and losses equally. They mutually agreed to change the profit sharing ratio to 3:3:2:2. Goodwill of the firm is valued at ₹ 20,000. Give necessary journal entry.

SOLUTION

A gains by
$$\frac{3}{10} - \frac{1}{4} = \frac{1}{20}$$

B gains by
$$\frac{3}{10} - \frac{1}{4} = \frac{1}{20}$$

C loses by
$$\frac{1}{4} - \frac{2}{10} = \frac{1}{20}$$

D loses by
$$\frac{1}{4} - \frac{2}{10} = \frac{1}{20}$$

A and B should pay @₹ 1,000 each (i.e., ₹ 20,000×1/20) as compensation to C and D respectively for their sacrifice.

Journal Entry

A's Capital Account	Dr.	1,000	
B's Capital Account	Dr.	1,000	
To C's Capital Account			1,000
To D's Capital Account			1,000
(Being goodwill adjusted through partners' capital A/cs at sacrificing/gaining ratio)			

2.7 ACCOUNTING TREATMENT OF GOODWILL IN CASE OF RETIREMENT OR DEATH OF A PARTNER

In case of retirement of a partner, the continuing partners will gain in terms of profit sharing ratio. Therefore, they have to pay to retiring partner for his share of goodwill in the firm in the gaining ratio. Similarly, in case of death of the partner, the continuing partners should bear the share of goodwill due to the heirs of the deceased partner. For this purpose, the goodwill is valued on the date of the retirement or death and adjusted through the capital accounts of the partners.

Example: A, B & C are equal partners. C wanted to retire for which value of goodwill is considered as ₹ 90,000. The necessary journal entry will be:

A's Capital A/c	Dr.	₹ 15,000	
B's Capital A/c	Dr.	₹ 15,000	
To C's Capital A/c			₹ 30,000
(C's share of goodwill adjusted to existing partner capital accounts in profit gaining ratio)	rs'		

ILLUSTRATION 10

Antoo, Bantoo and Chintoo were in partnership sharing profits and losses 3:4:3 respectively. The accounts of the firm are made up to 31st March every year. The partnership provided, interalia, that: On the retirement of a partner the goodwill was to be valued at three years' purchase of average profits of the past four years up to the date of the retirement after deducting interest @12%p.a. on capital employed and remuneration of ₹2,000 p.m.to each partner. On 1st April 2022, Antoo retired and it was agreed on his retirement to adjust goodwill in the capital accounts without showing any amount of goodwill in the Balance Sheet. It was agreed that the capital employed would be ₹6,50,000. Bantoo and Chintoo were to continue the partnership, sharing profits and losses equally after the retirement of Antoo. The following were the amounts of profits of earlier years before charging salary to partners and interest on capital employed.

Year	Profit
2018-19	2,60,000
2019-20	2,75,000
2020-21	2,65,000
2021-22	2,80,000

You are required to compute the value of goodwill and show the adjustment there of in the books of the firm.

SOLUTION

Valuation of Goodwill

Calculation of Average Profit

2018-19	2,60,000	
2019-20	2,75,000	
2020-21	2,65,000	
2021-22	2,80,000	
Total	10,80,000	
Average Profit (10,80,00	00/4)	2,70,000
Less: Interest on capital	@ 12%p.a.	78,000
Less: Salaries of partners	'(3 x 12 x 2,000)	72,000
Adjusted Average profit		1,20,000
Goodwill (3 years purcha	ase =3 x 1,20,000)	3,60,000
Antoo's Share of Goodw	ill (3/10) <i>i.e</i> .	1,08,000

Adjustment Journal entry for Goodwill

Particulars	Dr.₹	Cr. ₹
Bantoo's Capital Account Dr.	36,000	
Chintoo's Capital Account Dr.	72,000	
To Antoo's Capital Account		1,08,000
(Adjusting entry passed for share of goodwill of Antoo through remaining partners' capital accounts in gaining ratio)		

Working Note:

Partner	New Share		Old Share		Difference
Antoo	0	_	3/ 10	=	-3/ 10
Bantoo	1/ 2	_	4/ 10	=	1/ 10
Chintoo	1/ 2	_	3/ 10	=	2/ 10

ILLUSTRATION 11

Cu and Au were in partnership sharing profits and losses in the ratio 5:3. On 1st April 2022, they decided to admit Ag the partnership on the following terms:

- 1. Ag will bring ₹2,00,000/- as capital for ¼ share.
- 2. New profit sharing ratio shall be 2:1:1 among Cu, Au and Ag.
- 3. Cu was entitled to salary of ₹ 2,000/- p.m., it was revised to ₹ 3,000 p.m. from 1st October 2020.
- 4. Interest on capital was paid at 8% p.a.
- 5. Capitals as on 31st March 2022 were Cu ₹4,00,000 Au ₹3,00,000, which had remained unchanged since last four years.
- 6. Goodwill was to be valued on the basis of 3 years purchase of average adjusted weighted average profits of past 4 years. The profits of previous four years, before charging interest on capital and salary to Cu were as follows:

Year	Profit
2018-19	2,10,000
2019-20	2,60,000
2020-21	2,10,000
2021-22	3.05.000

These profits were subject to following rectification

- (a) A machine costing ₹40,000 purchased on 1st October, 2020 was wrongly charged to revenue. The machinery was depreciated at 20% p.a. on written down value method
- (b) Stock on 31st March 2020 was over valued by ₹20,000/-
- (c) There was a loss by fire amounting to ₹10,000/- in the year 2018-19 which was not considered in trading account but correctly debited in the Profit & Loss a/c for that year.
- (d) Debtors as on 31st March 2022 included bad debts of ₹5,800/-
- 7. Ag shall bring his share of goodwill in cash.

You are required to calculate amount of goodwill Ag is supposed to bring and journal entry for the same.

SOLUTION

Valuation of goodwill

Particulars	2018-19	2019-20	2020-21	2021-22
Profits	2,10,000	2,60,000	2,10,000	3,05,000
Less: Salary to Cu	(24,000)	(24,000)	(30,000)	(36,000)
Less: Interest on Capital of Partners	(56,000)	(56,000)	(56,000)	(56,000)
Add: Machine to be capitalised			40,000	
Less: Depreciation on above			(4,000)	(7,200)
Less: Over valuation of closing stock		(20,000)		
Add: Over valuation of opening stock			20,000	
Add: Loss by fire	10,000			
Less: Bad debts to be written off				(5,800)
Adjusted profits	1,40,000	1,60,000	1,80,000	2,00,000
Weights	1	2	3	4
Product	1,40,000	3,20,000	5,40,000	8,00,000

Weighted Average profit = total product/ total weights

= 18,00,000/10 = 1,80,000

Goodwill (3 years purchase) = $3 \times 1,80,000 = 5,40,000$

Ag's share $\frac{1}{4}$ th = 5,40,000/4 = 1,35,000

Adjustment Journal entry for Goodwill

Particulars	Dr.₹	Cr. ₹
Bank A/c Dr.	1,35,000	
To Cu's Capital Account		67,500
To Au's Capital Account		67,500
(Adjusting amount brought in by Ag towards goodwill credited to remaining partners' capital accounts in sacrifice ratio)		

Working Note:

Partner	New Share		Old Share		Difference
Cu	2/4	_	5/8	=	1/8
Au	1/4	_	3/8	=	1/8
Ag	1/4	_		=	1/4

SUMMARY

- **Goodwill** is the value of reputation of a firm in respect of profits expected in future over and above the normal rate of profits.
- Necessity for valuation of goodwill in a firm arises in the following cases:
 - When the profit sharing ratio amongst the partners is changed;
 - When a new partner is admitted;
 - When a partner retires or dies, or
 - When the business is dissolved or sold.
- Methods for valuation of goodwill:-
 - (1) Average profit basis:

Average Profit = Total profit/Number of years

Goodwill = Average Profit x No. of Years' purchased

The profits taken into consideration are adjusted with abnormal losses, abnormal gains, return on non-trade investments and errors. The average can be simple average or weighted average depending upon the circumstances.

(2) Super profit basis:

Less: Liability

Calculate Capital En	nployed
----------------------	---------

Assets

Capital Employed

- Find the normal Rate of Return (NRR)
- Find Normal Profit=Capital Employed X Normal rate of Return
- Find Average Actual Profit
- Find Super Profit=Average Actual Profit-Normal Profit
- Find Goodwill=Super Profit X Number of Years Purchased
- (3) Annuity basis:

Goodwill=Super Profit x Annuity Number

(4) Capitalization basis:

Goodwill = Super Profit / Normal Rate of Return

TEST YOUR KNOWLEDGE

True and False

- 1. Goodwill is intangible asset therefore it cannot be valued.
- 2. Goodwill is valued whenever there is change in the profit sharing ratio among the partners.
- 3. Goodwill is the value of reputation of a firm in respect of profits expected in future over and above the normal rate of profits.
- 4. At the time of admission or retirement of a partner, goodwill can be raised in the books of accounts and shown as an asset.
- 5. Only simple average method can be used for valuation of goodwill.
- 6. Super profit means excess of actual average profit over normal profit.
- 7. Normal profit means profit earned by similar companies in the same industry.
- 8. Normal profit depends upon Normal Rate of Return and past profits.
- 9. At the time of admission/retirement of a partner, since goodwill can not be raised in the books of accounts is recorded through capital accounts of the partners.
- 10. At the time of admission of a partner, goodwill brought in by the new partner is shared equally by old partners.

Multiple Choice Questions

- 1. Goodwill brought in by incoming partner in cash for joining in a partnership firm is taken away by the old partners in their......ratio.
 - (a) Capital.
 - (b) New Profit Sharing.
 - (c) Sacrificing.
- 2. A & B are partners sharing profits and losses in the ratio 5:3. On admission, C brings ₹70,000 cash and ₹48,000 against goodwill. New profit sharing ratio between A, B and C are 7:5:4. Find the sacrificing ratio of A:B.
 - (a) 3:1.
 - (b) 4:7.
 - (c) 5:4.

- 3. Following are the factors affecting goodwill except:
 - (a) Nature of business.
 - (b) Efficiency of management.
 - (c) Location of the customers.
- 4. Weighted average method of calculating goodwill should be followed when:
 - (a) Profits has increasing trend.
 - (b) Profits has decreasing trend.
 - (c) Either 'a' or 'b'.
- 5. In the absence of any provision in the partnership agreement, profits and losses are shared
 - (a) In the ratio of capitals.
 - (b) Equally.
 - (c) In the ratio of loans given by them to the partnership firm.
- 6. The profits and losses for the last 4 years are 2018-19 Losses ₹ 10,000; 2019-20 Losses ₹ 2,500; 2020-21 Profits ₹ 98,000 & 2021-22 Profits ₹ 76,000. The average capital employed in the business is ₹2,00,000. The rate of interest expected from capital invested is 12%.

The remuneration of partners is estimated to be \raiseta 1,000 per month not charged in the above losses/profits. Calculate the value of goodwill on the basis of two years purchase of super profits based on the average of four years.

- *(a)* ₹9,000.
- *(b)* ₹8,750.
- (c) ₹8,250.
- 7. A, B and C are partners sharing profits and losses in the ratio 3:2:1. They decide to change their profit sharing ratio to 2:2:1. To give effect to this new profit sharing ratio they decide to value the goodwill at ₹ 30,000. Pass the necessary journal entry if Goodwill not appearing in the old balance sheet and should not appear in the new balance sheet.
 - (a) B's Capital Account Dr. ₹2,000C's Capital Account Dr. ₹1,000
 - To A's Capital Account ₹3,000

(b) Goodwill Account Dr. ₹30,000

To A's Capital Account ₹15,000

To B's Capital Account ₹ 10,000

To C's Capital Account ₹5,000

(c) A's Capital Account Dr. ₹ 12,000

B's Capital Account Dr. ₹12,000

C's Capital Account Dr. ₹6,000

To Goodwill Account ₹30,000

Theory questions

- 1. Write short note on methods for valuation of goodwill.
- 2. Explain Accounting treatment of goodwill in case of change in profit sharing ratio.

 Distinguish between Super profit basis and Capitalisation Basis.

Practical questions

1. Wise, Clever and Dull were trading in partnership sharing profits and losses 4:3:3 respectively. The accounts of the firm are made upto 31st December every year.

The partnership provided, interalia, that:

On the death of a partner the goodwill was to be valued at three years' purchase of average profits of the three years upto the date of the death after deducting interest @8 percent on capital employed and a fair remuneration of each partner. The profits are assumed to be earned evenly throughout the year.

On 30th June, 2022, Wise died and it was agreed on his death to adjust goodwill in the capital accounts without showing any amount of goodwill in the Balance Sheet.

It was agreed for the purpose of valuation of goodwill that the fair remuneration for work done by each partner would be $\stackrel{?}{=}$ 15,000 per annum and that the capital employed would be $\stackrel{?}{=}$ 1,56,000. Clever and Dull were to continue the partnership, sharing profits and losses equally after the death of Wise.

The following were the amounts of profits of earlier years before charging interest on capital employed.

	₹
2019	67,200
2020	75,600
2021	72,000
2022	62,400

You are required to compute the value of goodwill and show the adjustment there of in the books of the firm.

ANSWERS/HINTS

True and False

- **1.** False: Even though Goodwill is intangible asset it can be valued in terms of money.
- **2.** True: Goodwill has to be valued every time whenever there is a reconstitution.
- 3. True: Goodwill is the brand image the firm has in the market due to which it enjoys an advantageous position over the other players in the market.
- **4.** False: At the time of admission or retirement of a partner, goodwill should not be raised in the books of account of partnership firm because no consideration in money or money worth has been paid for it.
- **5.** False: Weighted average profit method, capitalisation method, super profits methods also can be used for valuation of Goodwill.
- **6.** True: Super profit means excess profit that can be earned by the firm over and above the normal profit usually earned by similar firms under similar circumstances.
- 7. True: The rate of return is considered as an average for the industry, which is applied to the capital employed in the concerned firm.
- **8.** False: Normal profit depends upon Normal rate of return only and not on past profits.
- **9.** True: Generally, the goodwill at the time of admission is adjusted through the capital accounts and not shown in the books of the firm.
- **10.** False: Goodwill brought in by new partner is shared by old partners in sacrificing ratio and not equally.

Multiple Choice Questions

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

Theoretical Questions

- **1.** There are three methods for valuation of goodwill
 - (i) Average profit basis Simple and Weighted
 - (ii) Super profit basis Number of Year Purchase, Annuity basis, and Capitalization of Super Profit
 - (iii) Capitalization basis
- 2. In case of change in profit sharing ratio, the value of goodwill should be determined and preferably adjusted through capital accounts of the partners on the basis of profit sacrificing ratio.
- **3. Super Profit Basis:** In case of average profit basis, goodwill is calculated on the basis of average profit multiplied by certain number of years.

Super Profit=Actual Profit-Normal Profit

Actual Profit is average profit and Normal Profit = Normal rate of Return (NRR)

Capitalization Basis: Under this basis, value of whole business is determined applying normal rate of return. If such value (arrived at by applying normal rate of return) is higher than the capital employed in the business, then the difference is goodwill.

Practical Questions

1. Computation of the value of goodwill:

(i)	Average Profit for three years, ending 30th June; before death:				
	Year ending 30th June, 2020:	₹	₹		
	1/2 of 2019 profits	33,600			
	1/2 of 2020 Profits	37,800	71,400		

	Year ending 30th June, 2021:		
	1/2 of 2020	37,800	
	1/2 of 2021 Profits	36,000	73,800
	Year ending 30th June, 2022:		
	1/2 of 2021	36,000	
	1/2 of 2022 Profits	31,200	67,200
	Total		2,12,400
	Average Profits		
	Alternatively it can be calculated as below:		
	1/2 profit of 2019 + profit of 2020 + profit of 2021 + 33,600+75,600+72,000+31,200		70,800
	profit of 2022 = $\frac{35,000+75,000+72,000+31,200}{3}$ =		
	70,800		
(ii)	Average future maintainable profit :		
	Average profits earned		70,800
	Less: Partner's remuneration	45,000	
	Less: 8% on capital employed	12,480	(57,480)
			13,320
(iii)	Goodwill of the firm @ three years' purchase		39,960
(iv)	Wise's share of Goodwill = 4/10 of 39,960 = 15,984		

Adjustment entry for Goodwill

Journal Entry

		Dr. ₹	Cr. ₹
Clever's Capital Account	Dr.	7,992	
Dull's Capital Account	Dr.	7,992	
To Wise's Capital Account			15,984
(Adjusting entry passed for share of goodwill of Wise through remaining partners' capital accounts in gaining ratio)			

Working Note:

Partner	New Share	Old Share	Difference
Wise	-	4/10	4/10
Clever	1/2	3/10	2/10
Dull	1/2	3/10	2/10

There is no change in profit sharing ratio of containing partners therefore gain ratio will be same as profit sharing ratio.