



FINANCIAL ACCOUNTING - II

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Financial Accounting - II

(As per the Revised Syllabus 2016-17 of Mumbai University for
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Preface

It give us an immense pleasure to come up with a book on “**Financial Accounting - II**” for the students and teachers of F.Y. BBI, Semester II.

The book provides simple language so as to make understanding simple for the students or any new learner of quantitative methods.

We, the authors, will be more happy to receive any suggestions or recommendation for further betterment of contents written in the book.

We thank one and all who knowingly or unknowingly supported to make this book possible.

Authors



Syllabus

Modules at a Glance

Sr. No.	Modules	No. of Lectures
1	Valuation of Goodwill and Shares	15
2	Buyback of Equity Shares	15
3	Redemption of Preference Shares	15
4	Redemption of Debentures	15
	Total	60

Sr. No.	Modules/Units
1	Valuation of Goodwill and Shares
	<p>Valuation of Goodwill Maintainable Profit Method, Super Profit Method Capitalization Method, Annuity Method</p> <p>Valuation of Shares Intrinsic Value Method, Yield Method and Fair Value Method.</p>
2	Buyback of Equity Shares
	Introduction to Issue of Shares, Company Law/Legal Provisions (including Related Restrictions, Power, Transfer to Capital Redemption Reserve Account and Prohibitions) Compliance of Conditions including Sources, Maximum Limits and Debt Equity Ratio.
3	Redemption of Preference Shares
	Company Law/Legal Provision for Redemption of Preference Shares in Companies Act Sources of Redemption including Divisible Profits and Proceeds of Fresh Issue of Shares Premium on Redemption from Security Premium and Profits of Company Capital Redemption Reserve Account – Creation and Use, Excluding Revised Schedule VI Balance Sheet.
4	Redemption of Debentures
	Redemption of Debentures by Payment from Sources including out of Capital and/or out of Profits. Debenture Redemption Reserve and Debenture Redemption Sinking Fund Excluding Insurance Policy and Revised Schedule VI Balance Sheet. Redemption of Debentures by Conversion into New Class of Shares or Debentures with Option including at Par, Premium and Discount.

Paper Pattern

Duration: 2½ Hours

Maximum Marks: 75

Questions to be Set: 05

All questions are compulsory carrying 15 Marks each.

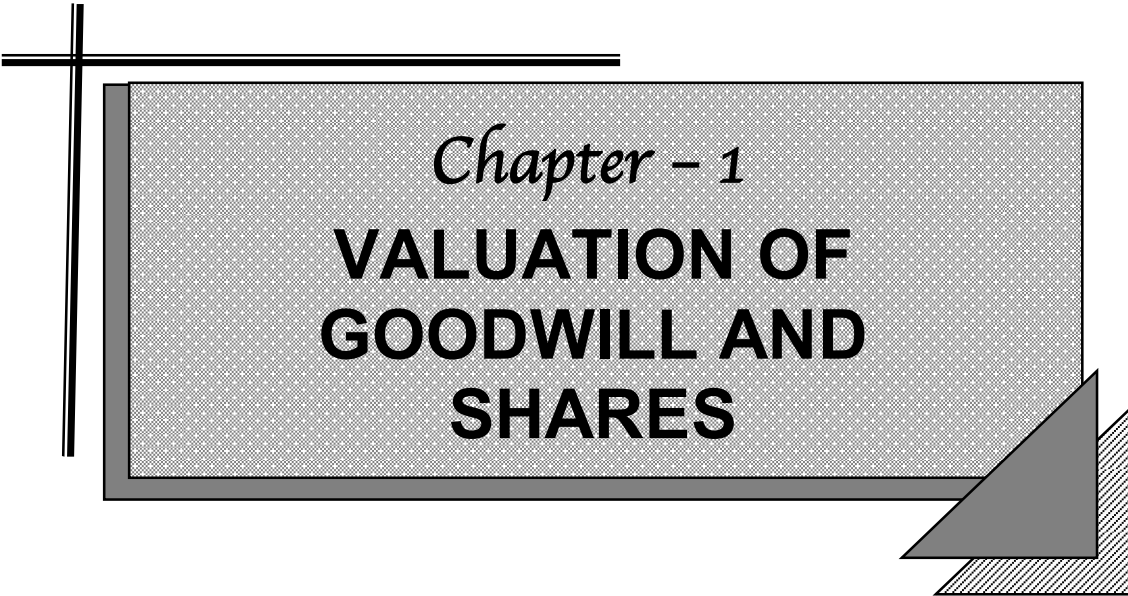
Question No.	Particulars	Marks
Q.1	Objective Questions (a) Sub-questions to be asked (10) and to be answered (any 08) (b) Sub-questions to be asked (10) and to be answered (any 07) (*Multiple Choice/True or False/Match the Columns/Fill in the Blanks	15
Q.2	Full Length Question <i>OR</i>	15
Q.2	Full Length Question	15
Q.3	Full Length Question <i>OR</i>	15
Q.3	Full Length Question	15
Q.4	Full Length Question <i>OR</i>	15
Q.4	Full Length Question	15
Q.5	(a) Theory Question (b) Theory Question <i>OR</i>	08 07
Q.5	Short Notes To be asked (05) To be answered (03)	15

Note: Theory question of 15 Marks may be divided into two sub-questions of 7/8 and 10/5 Marks.

Contents

1. Valuation of Goodwill and Shares	1 – 34
2. Buyback of Equity Shares	35 – 49
3. Redemption of Preference Shares	50 – 94
4. Redemption of Debentures	95 – 136





Chapter - 1

VALUATION OF GOODWILL AND SHARES

Meaning of Goodwill

Goodwill is an intangible but not fictitious assets which means it has some realisable value. From the accountants' point of view goodwill, in the sense of attracting custom, has little significance unless it has a saleable value. To the accountant, therefore, goodwill may be said to be that element arising from the reputation, connection, or other advantages possessed by a business which enables it to earn greater profits than the return normally to be expected on the capital represented by the net tangible assets employed in the business. In considering the return normally to be expected, regard must be had to the nature of the business, the risks involved, fair management remuneration and any other relevant circumstances.

The goodwill possessed by a firm may be due, *inter alia*, to the following:

1. The location of the business premises, the nature of the firm's products or the reputation of its service.
2. The possession of favourable contracts, complete or partial monopoly, etc.
3. The personal reputation of the promoters.
4. The possession of efficient and contented employees.
5. The possession of trade marks, patents or a well-known business name.
6. The continuance of advertising campaigns.
7. The maintenance of the quality of the firm's product and development of the business with changing conditions

The need for evaluating goodwill may arise in the following cases:

1. When the business or when the company is to be sold to another company or when the company is to be amalgamated with another company;
2. When, stock exchange quotations not being available, shares have to be valued for taxation purposes, gift tax, etc.;

3. When a large block of shares, so as to enable the holder to exercise control over the company concerned, has to be bought or sold; and
4. When the company has previously written off goodwill and wants its write back.

In valuation of goodwill, consideration of the following factors will have a bearing:

- (a) Nature of the industry, its history and the risks to which it is subject to.
- (b) Prospects of the industry in the future.
- (c) The company's history — its past performance and its record of past profits and dividends.
- (d) The basis of valuation of asset of the company and their value.
- (e) The ratio of liabilities to capital.
- (f) The nature of management and the chance for its continuation.
- (g) Capital structure or gearing.
- (h) Size, location and reputation of the company's products.
- (i) The incidence of taxation.
- (j) The number of shareholders.
- (k) Yield on shares of companies engaged in the same industry, which are listed in the Stock Exchanges.
- (l) Composition of purchasers of the products of the company.
- (m) Size of block of shares offered for sale since large blocks very few buyers would be available and that has a depressing effect on the valuation. Question of control, however, may become important, when large blocks of shares are involved.
- (n) The major factor of valuation of goodwill is the profits of the company. One who pays for goodwill looks to the future profit. The profits that are expected to be earned in future are extremely important for valuation of goodwill. The following are the important factors that have a bearing on future profits:
 - (i) Personal skill in management
 - (ii) Nature of business
 - (iii) Favourable location
 - (iv) Access to supplies
 - (v) Patents and trade marks protection
 - (vi) Exceptionally favourable contracts.
 - (vii) Capital requirements and arrangement of capital.
- (o) Estimation of the profits expected to be earned by the firm and the amount of capital employed to earn such profits, are to be computed carefully.
- (p) Market reputation which the company and its management enjoys.
- (q) Returns expected by investors in the industry to which the firm or company belongs.

Concept of Goodwill

When one company buys another company, the purchasing company may pay more for the acquired company than the fair market value of its net identifiable assets (tangible assets plus identifiable intangibles, net of any liabilities assumed by the purchaser). The amount by which the purchase price exceeds the fair value of the net identifiable assets is recorded as an asset of the

acquiring company. Although sometimes reported on the balance sheet with a descriptive title such as “excess of acquisition cost over net assets acquired”, the amount is customarily called goodwill.

Goodwill arises only part of a purchase transaction. In most cases, this is a transaction in which one company acquires all the assets of another company for some consideration other than an exchange of common stock. The buying company is willing to pay more than the fair value of the identifiable assets because the acquired company has a strong management team, a favourable reputation in the marketplace, superior production methods, or other unidentifiable intangibles.

The acquisition cost of the identifiable assets acquired is their fair market value at the time of acquisition. Usually, these values are determined by appraisal, but in some cases, the net book value of these assets is accepted as being their fair value. If there is evidence that the fair market value differs from net book value, either higher or lower, the market value governs.

Illustration 1

Company X acquires all the assets of company Y, giving Company Y ₹ 15 lakh cash. Company Y has cash ₹ 50,000 accounts receivable that are believed to have a realisable value of ₹ 60,000, and other identifiable assets that are estimated to have a current market value of ₹ 11 lakhs.

Particulars	₹	₹
Total purchase price		15,00,000
<i>Less:</i>		
Cash acquired	50,000	
Accounts receivable	60,000	
Other identifiable assets (estimated)	11,00,000	
Goodwill		12,10,000
		2,90,000

This extra amount of ₹ 2,90,000 paid over an above, Net worth ₹ 12,10,000 is goodwill, which is a capital loss for purchasing company and to be shown on assets side of Balance Sheet. This entire amount will be written off against revenue profit, i.e., Profit and Loss Account over period of time.

Types of Valuing Goodwill

There are basically two types of valuing goodwill: (a) Simple profit method and (b) Super profit method.

(a) Simple Profit Method: Goodwill is generally valued on the basis of a certain number of years' purchase of the average business profits of the past few years. While calculating average profits for the purposes of valuation of goodwill, certain adjustments are made. Some of the adjustments are as follows:

Trading Profit/Business Profit/Recurring Profit/Normal Profit (of Past Year)

Particulars	1st Year	2nd Year	3rd Year
Net Profit before Adjustment and Tax	xx	xx	xx
<i>Less:</i> Non Trading Income (i.e., Income from investment Asset)	xx	xx	xx
<i>Less:</i> Non-recurring Income (i.e., profit on sale of investment/Asset)	xx	xx	xx
<i>Add:</i> Non-recurring Loss (i.e., Loss on sale of investment/Asset)	(xx)	(xx)	(xx)
Trading Profit after Adjustment and before Tax	xx	xx	xx

Calculation of Average profit:

$$(a) \text{ Simple Average Profit} = \frac{\text{Total profit of (past years)}}{\text{Total number of past years}}$$

(b) Weighted Average profit:

Years	Trading Profit (a)	Weight (b)	Product (a × b)
2007	xx	1	xx
2008	xx	2	xx
2009	xx	3	xx
		6	xxx

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

Notes: If past profits are in increasing trend, then calculate Average Profit by weighted average method or otherwise simple average method.

Calculation of F.M.P. (Future Maintainable Profit):

- (i) All actual expenses and losses not likely to occur in the future are added back to profits.
- (ii) All actual expenses and losses not likely to occur in the future are added back to profits.
- (iii) All profits likely to come in the future are added.

Particulars	₹
Simple/Weighted Average Profit before Tax	xx
<i>Add:</i> Expenses incurred in past not to be incurred in future (i.e., Rent paid in past not payable in future)	xx
<i>Less:</i> Expenses not incurred in past to be incurred in future (i.e., Rent not paid in past payable in future)	(xx)
<i>Less:</i> Notional Management Remuneration	xxx
Future Maintainable Profit before Tax	xx
<i>Less:</i> Tax (if Rate is not given me 50%)	(xx)
Future Maintainable Profit after Tax	xxx

After adjusting profit in the light of future possibilities, average profit are estimated and then the value of goodwill is estimated. If goodwill is to be valued at 3 years' purchase of the average profits which come to ₹ 50,000, the goodwill will be ₹ 1,50,000, i.e., 3 × ₹ 50,000.

This method is a simple one and has nothing to recommend since goodwill is attached to profits over and above what one can earn by starting a new business and not to total profits.

It ignores the amount of capital employed for earning the profit. However, it is usual to adopt this method for valuing the goodwill of the practice of a professional person such as a chartered accountant or a doctor.

Calculation of Capital Employed and Average Capital Employed

Tangible Trading Assets (At Agreed/Adjustment Value) (Except: Intangible, Non-trading/Fictitious Assets)		
Plant and Machinery	XX	XX
Land and Building	XX	
Furniture and Fixtures	XX	
Stock	XX	
Cash/Bank	XX	
<i>Less:</i> External Liability (At Agreed/Adjust Value) (Except: Capital and Reserve and surplus)		
Loans	XX	XXX
Debentures	XX	
Creditors	XX	
Outstanding Expenses, etc.	XX	
Capital Employed		

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

$$= \text{Closing Capital Employed} - \frac{1}{2} \text{ of Current Years' Profit} + \text{Current Years' Dividend}$$

(b) Super Profit Method: The future maintainable profits of the firm are compared with the normal profits for the firm. Normal earnings of a business can be judged only in the light of normal rate of earning and the capital employed in the business. Hence, this method of valuing goodwill would require the following information:

- (i) A normal rate of return for representative firms in the industry.
- (ii) The fair value of capital employed.

The normal rate of earning is that rate of return which investors in general expect on their investments in the particular type of industry. Normal rate of return depends upon the risk attached to the investment, bank rate, market, need, inflation and the period of investment.

Normal Rate of Returns (NRR)

It is the rate at which profit is earned by normal business under normal circumstances or from similar course of business. Normal Rate of Returns means rate of profit on capital employed which is normally earned by others in a similar type of business. It will always be given in the problem in form of percentages.

$$\text{Or NRR} = \text{Rate of Risk} + \text{Rate of Returns or } \frac{\text{Dividend per Share}}{\text{Market Price per Share}} \times 100$$

As the capital employed may be expressed as aggregate of share capital and reserves less the amount of non-trading assets such as investments. The capital employed may also be ascertained by adding up the present values of trading assets and deducting all liabilities. Super profit is the simple difference between future maintainable operating profit and normal profit.

Illustration 2

Rishi Computers Ltd. gives you the following summarised balance sheet as at 31st December, 2009:

Liabilities	₹	Assets	₹	₹
Preference Share Capital	5,00,000	Fixed Assets: Cost	50,00,000	
Equity Share Capital	20,00,000	Depreciation	30,00,000	20,00,000
Reserves and Surplus	25,00,000	Capital Work-in Progress		40,00,000
Long-term Loans	27,00,000	Investment 10%		5,00,000
Current Liabilities and Provisions	15,00,000	Current Assets		25,00,000
		Underwriting Commission		2,00,000
	92,00,000			92,00,000

The company earned a profit of ₹ 18,00,000 before tax in 2009. The capital work-in-progress represents additional plant equal to the capacity of the present plant; if immediately operational, there being no difficulty in sales. With effect from 1st January, 2010, two additional Works Managers are being appointed at ₹ 1,00,000 p.a. Ascertain the future maintainable profit and the capital employed, assuming the present replacement cost of fixed assets is ₹ 1,00,00,000 and the annual rate of depreciation is 10% on original cost.

Solution:

Normal profit: Suppose investors are satisfied with a 180% return, in the above example, the normal profit will be ₹ 11,34,000, i.e., 18% of ₹ 63 lakhs.

The followings are some items which generally require adjustment in arriving at the average of the past earnings:

1. Exclusion of material non-recurring items such as loss of exceptional nature through strikes, fires, floods and theft, etc., profit or loss of any isolated transaction not being part of the business of the company.
2. Exclusion of income and profits and losses from non-trading assets.
3. Exclusion of any capital profit or loss or receipt or expense included in the profit & loss account.
4. Adjustments for any matters suggested by notes, appended to the accounts or by qualifications in the Auditor's Report, such as provision for taxation and gratuities, bad debts, under provision or over provision for depreciation, inconsistency in valuation of stock, etc.
5. Depreciation is an important item that calls for careful review. The valuer may adopt book depreciation provided he is satisfied that the tale was realistic and the method was suitable for the nature of the company and they were consistently applied from year to year. But imbalances do arise in cases where consistently written down value method was in use and heavy expenditure in the recent past has been made in rehabilitating or expanding fixed assets, since the depreciation charges would be unfairly heavy and would prejudice the seller. Under such circumstances, it would be desirable to readjust depreciation suitably as to bring a more equitable charge in the profits meant for averaging.

Another important factor comes up for consideration in averaging past profits and that is the trend of profits earned. It is imperative that estimation of maintainable profits be based on the only available record i.e., the record of past earnings, but indiscrete use of past results may lead to an entirely fallacious and unrealistic result.

Where the profits of a company are widely fluctuating from year to year, an average fails to aid future projection. In such cases, a study of the whole history of the company and of earnings of a fairly long period may be necessary. If the profits of a company do not show a regular trend upward or downward, an average of the cycle can usefully be employed for projection of future earnings.

In some companies, profits may record a distinct rising or falling trend from year; in these circumstances, a simple average fails to consider a significant factor, namely, trend in earnings.

The shares of a company which record a clear upward trend of past profits would certainly be more valuable than those of a company whose trend of past earnings indicates a downtrend. In such cases, a weighted average giving more weight to the recent years than to the past, is appropriate. A simple way of weighing is to multiply the profits by the respective number of the years arranged chronologically so that the largest weight is associated with the most recent past year and the least for the remotest.

Future Profitability Projections: Project is more a matter of intelligent guesswork since it is essentially an estimation of what will happen in the risky and uncertain future. The average profit earned by a company in the past could be normally taken as the average profit that would be maintainable by it in the future, if the future is considered basically as a continuation of the past. If future performance is viewed as departing significantly from the past, then appropriate adjustments will be called for before accepting the past average profit as the future maintainable profit of the company.

There are three methods of calculating goodwill based on super profit. The methods and formulae are as follows:

Purchase of Super Profit Method

Goodwill as per this method is: Super profit multiplied by a certain number of years. Under this method, an important point to note is that the number of years of purchase as goodwill will differ from industry to industry and from firm to firm. Theoretically, the number of years is to be determined with reference to the probability of a new business catching up with an old business. Suppose it is estimated that in two years' time, a business, if started now will be earning about the same profits as an old business is earning now, goodwill will be equivalent to two times the super profits. In the example given above, goodwill will be ₹ 12.12 lakhs, i.e., ₹ 6.06 lakhs × 2 years.

Annuity Method of Super Profit

Goodwill, in this case, is the discounted value of the total amount calculated as per purchase method. The idea behind super profits methods is that the amount paid for goodwill will be recouped during the coming few years. But in this case, there is a heavy loss of interest. Hence, properly speaking what should be paid now is only the present value of super profits paid annually at the proper rate of interest. Tables show that the present value 18% of Re. 1 received annually two years is 1.566. In the above example, the value of goodwill under this method will be $1.3 \times ₹ 6.06$ lakhs or ₹ 9.49 lakhs.

Capitalisation of Super Profit Method

This method tries to find out the amount of capital needed for earning the super profit.

The formula is:
$$= \frac{\text{Surper Profit}}{\text{NRR}} \times 100$$

$$\begin{aligned} \text{In above example, Goodwill will be} &= \frac{6.06 \text{ lakhs} \times 100}{18} \\ &= ₹ 33.67 \text{ lakhs.} \end{aligned}$$

Given in the Problems

1. Information of old firms assets and liabilities.
2. Information regarding past or profit.
3. Adjustment valuation of goodwill.

Required to Prepare

Valuation of goodwill by different methods.

Steps, Method and Formula for Calculation of Goodwill

(I) Goodwill by purchase of average profit method:

Steps:

- (a) Find out average trading profit.
- (b) Find out the number of year purchase (it will always be given in problem).
- (c) Goodwill: Number of year purchase × Average trading profit.

(II) Goodwill by purchase of future maintainable profit method:

Steps:

- (a) Find out future maintainable profit.
- (b) Number of year purchase (given in problem).
- (c) Goodwill: No of years purchase × Future maintainable profit.

(III) Goodwill by capitalisation of future maintainable profit method:

Steps:

- (a) Find out future maintainable profit.
- (b) Find out capitalised value of future maintainable profit.

$$\text{Capitalisation Value of Future Maintainable Profit} = \frac{\text{F.M.P}}{\text{N.R.R}} \times 100$$

- (c) Calculate capital employed.
- (d) Goodwill = Capitalised Value of E.M.P. – Capital Employed

(IV) Goodwill by purchase of super profit method:

Steps:

- (a) Find out average trading profit.
- (b) Find out future maintainable profit.
- (c) Find out capital employed.
- (d) Find out Normal Rate of Return (always given in the problem in terms of %).
- (e) Find out number of year purchase (given in the problem).
- (f) Find out normal profit:

$$\text{Normal Profit} = \frac{\text{Capital Employed} \times \text{N.R.R.}}{100}$$

(g) Find out super profit:

$$\text{Super Profit} = \text{Future Maintainable Profit} - \text{Normal Profit}$$

(h) Goodwill = Number of year purchase \times Super Profit.

(V) Goodwill by capitalisation super profit method:

Steps:

(a) Calculate super profit as discussed above.

$$\text{Goodwill} = \text{Annuity Rate} \times \text{Super Profit}$$

Notes: Annuity Rate will always be given in the problem.

Valuation of Shares

In the cases of shares quoted in the recognised Stock Exchanges, the prices quoted in the Stock Exchanges are generally taken as the basis of valuation of those shares. However, the Stock Exchange prices are determined generally on the demand-supply position of the shares and on business cycle. The London Stock Exchange opines that the Stock Exchange may be linked to a scientific recording instrument which registers not its own actions and options but the actions and options of private institutional investors all over the country/world. These actions and options are the result of fear, guesswork, intelligent or otherwise, good or bad investment policy and many other considerations. The quotations what result definitely do not represent valuation of a company by reference to its assets and its earning potential. Therefore, the accountants are called upon to value the shares by following the other methods.

The value of share of a company depends on so many factors such as:

1. Nature of business.
2. Economic policies of the Government.
3. Demand and supply of shares.
4. Rate of dividend paid.
5. Yield of other related shares in the Stock Exchange, etc.
6. Net worth of the company.
7. Earning capacity.
8. Quoted price of the shares in the stock market.
9. Profits made over a number of years.
10. Dividend paid on the shares over a number of years.
11. Prospects of growth, enhanced earning per share, etc.

Need and Purpose of Valuation of Shares

The need for valuation of shares may be felt by any company in the following circumstances:

1. For assessment of Wealth Tax, Estate Duty, Gift Tax, etc.
2. Amalgamations, absorptions, etc.
3. For converting one class of shares to another class.
4. Advancing loans on the security of shares.

5. Compensating the shareholders on acquisition of shares by the Government under a scheme of nationalisation.
6. Acquisition of interest of dissenting shareholder under the reconstruction scheme, etc.

Factors Influencing Valuation

The valuation of shares of a company is based, *inter alia*, on the following factors:

1. Current stock market price of the shares.
2. Profits earned and dividend paid over the years:
3. Availability of reserves and future prospects of the company.
4. Realisable value of the net assets of the company.
5. Current and deferred liabilities for the company.
6. Age and status of plant and machinery of the company.
7. Net worth of the company.
8. Record of efficiency, integrity and honesty of Board of Directors and other managerial personnel of the company.
9. Quality of top and middle management of the company and their professional competence.
10. Record of performance of the company in financial terms.

Methods of Valuation of Shares

Certain methods have come to be recognised for valuation of shares of a company, *viz.*, (1) Open market price, (2) Stock exchange quotation, (3) Net assets basis, (4) Earnings per share method, (5) Yield or return method, (6) Net worth method, (7) Break-up value, etc.

Intrinsic Value Method

This method is also called as Assets Backing Method, Real Value Method, Balance Sheet Method or Break-up Value Method. Under this method, the net assets of the company including goodwill and non-trading assets are divided by the number of shares issued to arrive at the value of each share.

If the market value of the assets is available, the same is to be considered and in the absence of such information, the book values of the assets shall be taken as the market value. While arriving at the net assets, the fictitious assets such as preliminary expenses, the debit balance in the Profit and Loss A/c should not be considered. The liabilities payable to the third parties and to the preference shareholders is to be deducted from the total asset to arrive at the net assets. The funds relating to equity shareholders such as General Reserve, Profit and Loss Account, Balance of Debenture Redemption Fund, Dividend Equalisation Reserve, Contingency Reserve, etc. should not be deducted.

Illustration 3

From the information given below and the balance sheet of Cipla Limited on 31st December, 2009, find the value of shares by Intrinsic value method.

Balance Sheet

articulars	₹	Particulars	₹
1000, 8% Preference Shares of ₹ 100 each fully paid	1,00,000	Buildings	70,000
4,000 Equity Shares of ₹ 100 fully paid	4,00,000	Furniture	3,000
Reserves	1,50,000	Stock (Market value)	4,50,000
Profit and Loss account	5,10,000	Investment at cost (face value 4,00,000)	3,35,000
Creditors	48,000	Debtors	2,80,000
		Bank	60,000
		Preliminary Expenditure	10,000
	12,08,000		12,08,000

Building is now worth of ₹ 3,50,000 and the Preferential shareholders are having preference as to capital and dividend.

Solution:

Valuation of Equity Share	Intrinsic Value Method
Building	3,50,000
Furniture	3,000
Stock	4,50,000
Investment	3,35,000
Debtors	2,80,000
Bank	60,000
Total Assets	14,78,000
Less: Creditors	(48,000)
Net Assets	14,30,000
Less: Preference Share Capital	(1,00,000)
Assets Available for Equity Shareholders	13,30,000

$$\begin{aligned} \text{Value of Equity Share} &= \frac{\text{Net Assets available to Equity Shareholders}}{\text{No. of Equity Shares}} \\ &= \frac{13,30,000}{4,000} \\ &= ₹ 332.5 \end{aligned}$$

∴ Intrinsic value of each equity share = ₹ 332.50.

Yield Method

The valuation of shares under the Yield Method may be done under two categories:

- (a) **Return on capital employed method:** This method is applied for the purpose of valuation of the shares of majority shareholding. A big investor is more interested in what the company earns and not simply in what the company distributes. Even if the company does not distribute 100% of its earning among its shareholders, it, as a matter of fact, strengthens the financial position of the company. The value of the share under this method is calculated by the formula:

$$\text{Return on Capital Employed} = \frac{\text{Return of Capital Employed}}{\text{Normal Rate of Return}} \times \text{Paid-up Value of Shares}$$

- (b) **Valuation on the basis of dividend:** This method is more suitable for valuation of small block of shares. The method of calculation is:

$$\frac{\text{Expected Rate of Dividend}}{\text{Normal Rate of Dividend}} \times \text{Paid-up Value of Shares}$$

Normal Rate of Dividend

Illustration 4

The following particulars are available in respect of Goodluck Limited:

- Capital 450, 60% preference shares of ₹ 100 each fully paid and 4,500 equity shares of ₹ 10 each fully paid.
- External liabilities: ₹ 7,500.
- Reserves and Surplus ₹ 35,000.
- The average expected profit (after taxation) earned by the company ₹ 8,500.
- The normal profit earned on the market value of equity shares (full paid) of the same type of companies is 9%.
- 10% of the profit after tax is transferred to reserves.

Calculate the intrinsic value per equity share and value per equity share according to dividend yield basis.

Assume that out of total assets, assets worth of ₹ 350 are fictitious.

Solution:

Intrinsic Value of Shares	₹
6% Preference Share Capital (450 × 10)	45,000
Equity Shares (4,500 × 10)	45,000
Reserves and Surplus	3,500
External Liabilities	7,500
Total Liabilities	1,01,000
As Total Liabilities = Total Assets	
Total Assets	1,01,000
Less: Fictitious Assets	(350)
External Liabilities	(7,500)
Preference Shares	(45,000)
Net Assets Available for Equity Shareholders	48,150

$$\begin{aligned} \therefore \text{Intrinsic Value of Share} &= \frac{\text{Net Assets Available Equity Shareholders}}{\text{Number of Equity Shares}} \\ &= \frac{48,150}{4,500} \end{aligned}$$

Yield Basic	=	10.70
Average profit after taxation		₹ 8,500
Transfer to General Reserves (10%)		(850)
		<u>7,600</u>
Less: Preference dividend (6% of 45,000)		2,700
Profit available to equity shareholders		<u>(4,950)</u>
Rate of dividend	=	$\frac{4,950}{45,000} \times 10 = 11\%$
∴ Value of Equity Share	=	$\frac{\text{Rate of Dividend}}{\text{Normal Rate}} \times \text{Paid-up Value of Share}$
	=	$11/9\% \times 10$
	=	12.22.

Illustration 5

The capital structure of company as on 31st March, 2009 was as under:

Equity Share Capital	5,00,000
11% Preference Share Capital	3,00,000
12% Secured Debentures	4,00,000
Reserves	3,00,000

The company on an average earns a profit of ₹ 4,00,000 annually before deduction of interest on Debentures and Income Tax, which works out to 45%. The normal return on equity shares on companies similarly placed is 15% provided:

- The profit after tax covered the fixed interest and fixed dividends at least four times.
- Equity capital and reserves are 150% of debentures and preference capital.
- Yield on shares is calculated at 60% of profits distributed and 5% on undistributed profits.

The company is regularly paying an equity dividend of 18%. Ascertain the value of equity share of the company.

Solution:

Particulars	₹
Average profit of the companies before interest and tax	4,00,000
Less: Debenture interest (12% of 4,00,000)	48,000
Profit after interest but before tax	3,52,000
Less: Tax @ 45%	1,58,400
Profit after Interest and Tax	1,93,600

Evaluation of Conditions given in the question:

- Profit after tax whether covers fixed interest and fixed dividend at least four times.
Profit after tax = 4,00,000 – 1,58,400 = 2,41,600

Fixed interest and fixed dividend interest:

Interest	48,000
Fixed dividend (11% of 3,30,000)	33,000
	<u>81,000</u>

$$\text{Fixed interest and fixed dividend interest} = \frac{2,41,600}{81,000} = 2.9827 \text{ times}$$

∴ Fixed interest and dividend coverage is 2.98 times only and is less than the prescribed 4 times.

(b) Whether equity capital and reserves are of 150% of preference share capital and debentures.

Particulars	₹	Particulars	₹
Equity shares	5,00,000	Preference shares	3,00,000
Reserve	3,00,000	Debentures	4,00,000
	<u>8,00,000</u>		<u>7,00,000</u>

$$\therefore \text{Ratio} = \frac{8,00,000}{7,00,000} \times 100 = 114.28\%$$

∴ Ratio is less than the Prescribed Ratio of 150%.

(c) Yield on Profit:

Particulars	₹	₹
Average Profit after Interest and Tax		1,93,000
Less: Preference Dividend (11% of 3,30,000)	33,000	
18% Equity Dividend (Regularly Paying) = $5,00,000 \times \frac{18}{100}$	90,000	1,23,000
∴ Undistributed profits		70,600
∴ Yield = 60% of Distributed Profit = 60% of 90,000		54,000
5% of on undistributed profit		3,530
		<u>57,530</u>

$$\therefore \text{Yield Rate} = \frac{57,530}{5,00,000} \times 100 = 11.506\%$$

Expected Yield of Equity Shares

Normal Return if conditions (a) and (b) cited above fulfilled	15%
Add: For low coverage of fixed interest and dividend (assumed)	0.5%
For low ratio of Equity share capital and Reserves (assumed)	0.5%
	<u>16%</u>

$$\begin{aligned} \therefore \text{Value of Equity Share} &= \frac{\text{Possible Yield Rate}}{\text{Expected Yield Rate}} \times \text{Paid-up Value of Shares} \\ &= \frac{11.506\%}{16\%} \times 10 \\ &= ₹ 71.91. \end{aligned}$$

Illustration 6

From the following information of Dell Ltd., calculate the value of share by yield basis.

Balance Sheet as on 3/12/09

Particulars	₹	Particulars	₹
800 Equity shares of 100 each	80,000	Land and Building	50,000
4,000 Preference shares of ₹ 10 each	40,000	Plant and Machinery	60,000
6% Debentures	20,000	Patents	20,000
Sundry Creditors	40,000	Sundry Debtors	30,000
		WIP and Stock	50,000
		Cash and Bank	10,000
	2,20,000		2,20,000

Land and Building to be valued at ₹ 90,000. The company's earnings were as follows:

Year	Profit before Tax	Tax
2005	30,000	8,000
2006	40,000	16,000
2007	10,000	(Strike) 4,000
2008	50,000	23,000
2009	55,000	30,000

The company paid managerial remuneration of ₹ 6,000 per annum but it will become ₹ 10,000 in future. There has been no change in capital employed. The company paid dividend of ₹ 9 per share and it will maintain the same in future. The company proposed to build up a plant rehabilitation reserve at 15% of profit after tax. Dividend rate in this type of company is fluctuating and the asset backing of the equity share is about 1½ times. The equity share with an average dividend of 8% sold at par.

Solution:

Average Maintainable Profits:

Year	Weights	Profit	Product
2005	1	30,000	30,000
2006	2	40,000	80,000
2007	(abnormal due to strike)		
2008	3	50,000	1,50,000
2009	4	55,000	2,20,000
	10		4,80,000

$$\text{Weighted Average Profit} = \frac{4,80,000}{10} = 48,000$$

Particulars	₹
Weighted Average Profit	48,000
Less: Increase in the Managerial Remuneration (10,000 – 6,000)	4,000
	44,000

Less: Tax (assuming 50%)	22,000
Profits available for distribution	22,000
Less: Plant Rehabilitation Reserve	3,300
	18,700
Less: Preference Dividend (9% of ₹ 40,000)	3,600
	15,100

Average Backing per Equity Share:

Tangible Trading Asset	₹	₹
Land and Building		90,000
Plant and Machinery		60,000
Patents		20,000
Sundry Debtors		30,000
WIP and Stock		50,000
Cash and Bank		10,000
		2,60,000
Less: Sundry Creditors	40,000	
Preference Share Capital	40,000	
6% Debentures	20,000	1,00,000
∴ Net assets available for equity shareholders		1,60,000

$$\therefore \text{Asset Backing} = \frac{1,60,000}{80,000} = 2 \text{ Times}$$

Dividend Rate:

Normal Dividend Rate	8.0%
Less: For higher dividend rate of 9%	(0.5%)
For higher asset backing (2 times compared to 1.5)	(0.5%)
	<u>7.0%</u>

$$\therefore \text{Capitalisation factor} = \frac{100}{7} = 14.286$$

$$\begin{aligned} \therefore \text{Value of equity share} &= \frac{\text{Profit Available for Equity Shareholders}}{\text{Number of Equity Shares}} \times \text{Capitalisation factor} \\ &= \frac{15,100}{800} \times 14.286 \\ &= 269.64. \end{aligned}$$

Fair Value of a Share

The fair value of a share is the average of the value obtained by the net asset method and the yield method.

$$\text{Fair Value} = \frac{\text{Intrinsic Value} + \text{Yield Value}}{2}$$

Illustration 7

The following is the Balance Sheet of M/s. Mahendra Ltd., as at 31-3-2013.

Liabilities	₹	Assets	₹
Share Capital: Authorised		Fixed Assets:	
50,000 8% Cumulative Preference Shares of ₹ 10 each	5,00,000	Land and Building	2,20,000
40,000 Equity Shares of ₹ 10 each	4,00,000	Plant and Machinery	4,40,000
Issued and Fully Paid up:		Furniture	80,000
40,000 8% Cumulative Preference Shares of ₹ 10 each	4,00,000	Current Assets:	
30,000 Equity shares of ₹ 10 each	3,00,000	Stock in Trade	3,10,000
General Reserve	1,10,000	Debtors	3,50,000
Profit and Loss A/c	1,00,000	Cash and Bank Balance	1,70,000
Current Liabilities and Provision:		Miscellaneous Expenditure:	
Current Liabilities	1,00,000	Deferred Advertising Expenses	70,000
Provision for Depreciation	4,55,000		
Provision for Taxation	90,000		
Proposed Dividend	85,000		
	16,40,000		16,40,000

The Turnover, Net Profit and Dividend paid on Equity shares of the last 3 years ended 31st March, 2012 are as given below:

Year	Turnover ₹	Net Profit ₹	% of Dividend on Equity Shares
2009-2010	31,20,000	3,05,000	15%
2010-2011	40,44,000	4,50,000	15%
2011-2012	50,00,000	5,60,000	18%

Calculate the fair value of Equity Shares of the company, assuming that the fair return in investment in the company doing similar business is 12%.

Ans.:

M/s. Mahindra Ltd.

Particulars	₹	₹
Land and Building		2,20,000
Plant and Machinery		4,40,000
Furniture		80,000
Stock		3,10,000
Debtors		3,50,000
Cash and Bank		1,70,000
<i>Less:</i> Current Liabilities	1,00,000	
Provision for Depreciation	1,55,000	

Provision for Tax	90,000	
Proposed Dividend	85,000	7,30,000
		8,40,000
Less: Preference Sheet Capital		4,00,000
Assets available for equity shareholders		4,40,000

$$\begin{aligned} \text{Intrinsic Value} &= \frac{\text{Profit Available to Equity Shareholders}}{\text{Number of Equity Shares}} \\ &= \frac{4,40,000}{30,000} \\ &= ₹ 14.67. \end{aligned}$$

Yield Value:

$$\begin{aligned} \text{Average Net Profit} &= \frac{3,05,000 + 4,50,000 + 5,60,000}{3} \\ &= \frac{13,15,000}{3} \\ &= ₹ 4,38,333. \end{aligned}$$

$$\begin{aligned} \text{Average Profit of Earning} &= \frac{4,06,383}{3,00,000} \times 100 \\ &= 135.44\% \end{aligned}$$

$$\begin{aligned} \text{Value of Equity Share} &= \frac{\text{Average Rate of Earning}}{\text{Normal Rate of Return}} \times \text{Paid-up Value} \\ &= \frac{135.44}{12} \times 100 \\ &= 112.87 \text{ (Earning Basis)} \end{aligned}$$

$$\begin{aligned} \text{Value of Equity Share} &= \frac{\text{Average Rate of Dividend}}{\text{Normal Rate of Return}} \times \text{Paid-up Value} \\ &= (15 + 15 + 18/3) \\ &= 16/12 \times 10 \\ &= ₹ 13.33 \end{aligned}$$

$$\begin{aligned} \text{Fair Value} &= \frac{14.67 + 112.87}{2} = ₹ 63.77 \text{ or} \\ &= \frac{14.67 + 13.33}{2} \\ &= ₹ 14. \end{aligned}$$

Illustration 8

On 31st March, 2012, the Balance Sheet of Gomati Ltd. was as follows.

Liabilities		₹	Assets		₹
Share Capital			Land and Buildings		3,00,000
Authorised			Plant and Machinery		1,72,500
20,000 equity shares of ₹ 100 each		20,00,000	Stock		4,50,000
Issued and paid up			Sundry Debtors		9,07,500
15,000 equity shares of ₹ 100 each		15,00,000	Cash		20,000
<i>Less: Calls in arrears at ₹ 20 each</i>		<u>2,000</u>	Bank		1,30,000
Profit and Loss Account		1,54,500			
Bank Overdraft		32,000			
Creditors		1,15,500			
Provision for Taxation		67,500			
Proposed Dividend		1,12,500			
Total		19,80,000			19,80,000

The Net profits of the company after providing for tax were as follows:

Year Ended	₹
31st March, 2012	1,72,500
31st March, 2011	1,50,000
31st March, 2010	1,87,500
31st March, 2009	1,80,000
31st March, 2008	1,35,000

On 31st March, 2012, Land and Building were valued at ₹ 3,75,000 and Plant and Machinery were valued at ₹ 2,25,000. Normal rate of return can be considered at 8%. Goodwill is to be valued at 3 years purchase of super profits based on average profit of last 5 years.

Find the intrinsic value of fully paid and partly paid equity shares Consider closing capital employed as average capital employed.

Ans.:

Gomati Ltd.

Valuation of Goodwill

Step 1: Calculation of Average Profit

$$= \frac{1,72,500 + 1,50,000 + 1,87,500 + 1,80,000 + 1,35,000}{5}$$

$$= 1,65,000$$

Step 2: Calculation of Capital Employed

Revised value of all assets

Land & Building	3,75,0000
Machinery	2,25,000
Stock	4,50,000
Debtors	9,07,500

Cash	20,000	
Bank	1,30,000	
		21,07,500
Outside Liabilities		
Bank O/D	32,000	
Creditors	1,15,500	
Provision for Tax	67,500	
Proposed Dividend	1,12,500	
		3,27,500
Capital Employed		17,80,000

Step 3: Calculation of Normal Profit

$$\text{Normal Profit} = 17,80,000 \times 8\% = 1,42,400$$

Step 4: Calculation of Super Profit

$$\text{Super Profit} = 1,65,000 - 1,42,400 = 22,600$$

Step 5: Calculation of Goodwill

$$\text{Goodwill} = 22,600 \times 3 = 67,800$$

Valuation of Shares**Step 1: Net Assets available to Equity Shareholders**

Capital Employed	17,80,000
Add: Goodwill	67,800
Add: Calls in arrears/uncalled	18,47,800
	2,000
Net assets available to Equity shareholders	18,49,800

Step 2: Value per Share

$$\text{Value per Share} = \frac{18,49,800}{15,000} = 123.32$$

$$\text{Totally paid-up share value} = 123.32 - 30 = 103.32.$$

Illustration 9

The following particulars of Amber Ltd. as on 31 st March, 2012 are available:

1. 1,00,000 Equity Shares of ₹ 100 each fully paid	₹ 1,00,00,000
2. 10,000 12% Preference shares of ₹ 100 each fully paid	₹ 10,00,000
3. Securities Premium	₹ 11,50,000
4. Profit and Loss Account	₹ 33,58,000
5. General Reserve	₹ 18,85,000
6. Current liabilities:	
Creditors	₹ 31,20,000
Bills Payable	₹ 10,60,000
	₹ 41,80,000

7. Average Profit after Tax (for last three years) ₹ 5,85,000
 8. 20% of profit after tax is transferred to General Reserve every year
 9. Fictitious Assets ₹ 80,000
 10. Normal Rate of Return is 10%

Considering the above information, compute the value of equity share by:

1. Assets Backing method
2. Yield method
3. Fair value method (ignore goodwill)

Ans.:

Valuation of Shares

Particulars	₹
Net Assets Value Capital Employed	
Equity Capital	1,00,00,000
12% Preference Capital	10,00,000
Reserves and Surplus:	
General Reserve	18,85,000
Securities Premium	11,50,000
Profit & Loss Account	33,58,000
	1,73,93,000
<i>Less:</i> Fictitious Assets	80,000
Net Assets	1,73,13,000
<i>Less:</i> Preference	10,00,000
Net Assets for Equity shareholders	1,63,13,000
Value per share	163.13
Yield Method	
Average Profit after Tax	5,85,000
<i>Less:</i> Preference Dividend (10,00,000 × 12%)	1,20,000
	4,65,000
<i>Less:</i> Transferred to General Reserve	1,17,000
	3,48,000
F.M.P. for Equity Shareholders	3,48,000
Rate of F.M.P. = $3,48,000/1,00,00,000 \times 100$	3.48
F.M.P. Value per share = $\text{Rate of F.M.P.} \times 100/\text{Paid-up Equity Capital}$ = $3.48/10 \times 100$	34.8
Rate of F.M.P. × Amount paid per share	
N.R.R. = 10%	
Fair Value = $\text{Net Assets} + \text{Yield Value}/2 = 163.13 + 34.8/2$	197.93
	98.965

Illustration 10

The Balance Sheet of Sagar Ltd. as on 31st March, 2011 was as follows:

Liabilities	₹ (in Lakhs)	Assets	₹ (in Lakhs)
Equity Share Capital (₹ 10 each)	1,000	Building	440
Profit & Loss A/c	206	Machinery	190
Bank Overdraft	40	Stock	700
Creditors	154	Debtors	310
Provision for Tax	90		
Proposed Dividend	150		
	1,640		1,640

The net profit of the company after deducting all working charges and providing depreciation and taxation were as under:

Year ending	₹ in Lakhs
31-03-2007	170
31-03-2008	192
31-03-2009	180
31-03-2010	200
31-03-2011	190

On 31st March, 2011, Building was valued at ₹ 500 lakhs and Machinery at ₹ 300 lakhs. The other assets and liabilities have been correctly valued. In view of the nature of business, it is assumed that 10% is a reasonable return on tangible capital. Consider closing capital as average capital employed and simple average for computing average profit.

You are required to determine:

- Value of Goodwill on the basis of 5 year's purchase of super profits.
- Intrinsic value of Equity Share.

Ans.:

Sagar Ltd.

(a) Valuation of Goodwill by Super Profit Method

1. Average Capital Employed

Particulars	₹	₹
All assets at revised values excluding Goodwill, Non-trade Investments and Fictitious Assets:		
Building	500	
Machinery	300	
Stock	700	
Debtors	310	1,810
<i>Less:</i> All liabilities at revised values excluding Share Capital and Reserves & Surplus:		
Bank Overdraft	40	
Creditors	154	
Provision for Tax	90	
Proposed Dividend	150	434
Average Capital Employed		1,376

2. Normal Rate of Return 10%
3. Normal Profit = A.C.E. \times N.R.R. = $1376 \times 10\% = 137.60$
4. Future Maintainable Profit

Average Profit for last 5 years ending 31st March	₹
2007	170
2008	192
2009	180
2010	200
2011	190
Total	<u>932</u>

$$\text{Average Profit} = 932/5 = 186.40$$

5. Super Profit = F.M.P. – Normal Profit = $186.40 - 137.60 = 48.80$
6. Goodwill = Number of years purchase \times Super Profit = $5 \times 48.80 = 244.00$

(b) Intrinsic Value of Equity Share

1. Net Assets available to Equity Shareholders

Particulars	₹
Net Assets as above	1,376
Add: Goodwill	244
	1,620

2. Intrinsic value per Equity Share

$$= \frac{\text{Net Assets Available to Equity Shareholders}}{\text{No. of Equity shares}}$$

$$= \frac{1,620}{100} = 16.20.$$

Illustration 11

Solve the following:

- (i) Calculate basic EPS as per AS-20 from the following information:
 Share capital as on 1-4-2009 1 lakh equity shares of ₹ 10 each.
 Issue of right shares for cash on 1-7-2009 in the ratio of 1 share for every 5 shares.
 Issue of Bonus shares (excluding right shares) in the ratio of 1 share for every 5 shares.
 Net profit (before tax) for 2009-10 ₹ 4 lakhs. Income tax rate is 40%.
- (ii) Capital employed ₹ 8.05 lakhs. Normal rate of return is 12%
 Net Profit (before tax) for 3 years: ₹ 2.05 lakhs, ₹ 3.10 lakhs and ₹ 3.04 lakhs.
 Rate of Income Tax is 50%.
 Compute goodwill by capitalisation of F.M.P. Method.

- (iii) On 31-3-2010, Holding Company acquired 75% of shares in subsidiary for ₹ 3.60 lakhs.
On that date, subsidiary had 25,000 shares of ₹ 10 each and Reserves ₹ 1.50 lakhs.

What is the value of goodwill on acquisition?

Ans.: (b)

1. Calculation of Weighted Average Number of Shares.

Particulars	Date of Issue	Period upto 31.3.10	No. of Shares	Weighted Average Shares
Opening Shares	1.04.2009	12	1,00,000	100,000
Bonus Shares (5,000 × 1/5)	1.10.2009	12	20,000	20,000
Right Shares	1.07.2009	9	20,000	15,000
Weighted Average				1,35,000

$$\text{Basic E.P.S.} = \frac{\text{Earnings}}{\text{Weighted Average Number of Shares}} = \frac{2,40,000}{1,35,000} = ₹ 1.78$$

Notes:

- (i) As per AS-20, Date of issue bonus shares not to be considered and period is to be taken from the date of commencement of the year.
(ii) Rate of tax is 40%, then earning = ₹ 4,00,000 – 40% of 4,00,000 = ₹ 2,40,000
2. (i) Average Capital Employed = ₹ 8,05,000
(ii) Normal rate of Return = 12%
(iii) F.M.P.

$$\text{Net Profit before Tax} = \frac{2,50,000 + 3,10,000 + 3,04,000}{3} = 2,88,000$$

Net Profit after Tax is ₹ 1,44,000.

- (iv) Value of Business by Capitalisation of F.M.P. at 12% = $1,44,000/12 \times 100$
= ₹ 12,00,000
- (v) Goodwill = Value of Business – Capital Employed = 12,00,000 – 8,05,000
= ₹ 3,95,000

3. Cost of Control/Goodwill

Cost of Investment of Holding Company	₹ 3,60,000
Less: Paid-up Value of Shares	1,87,500
Less: Share of Capital Profit	1,12,500
	<u>₹ 60,000</u>

Illustration 12

The Balance Sheet of Adesh Ltd. as on 31st March, 2008 is given as under:

Balance Sheet as on 31st March, 2008

Liabilities	₹ in Lakhs	Assets	₹ in Lakhs
Share Capital Equity Shares of ₹ 10 each	400	Goodwill	70
₹ 10% Preference Shares of ₹ 100 each	100	Building (Cost)	150
Reserve and Surplus	115	Machinery(Net)	250
Creditors	183	Inventory	330
Bank Loan	115	Debtors	150
Provision for Tax	37		
	950		950

The after tax profits during the immediately past 5 years were as follows:

Year	₹ in Lakhs	% Dividend
2003-04	20 (Loss)	–
2004-05	68	18
2005-06	133	20
2006-07	120	22
2007-08	135	25

- The loss of 2003-04 was due to strained industrial relations relations, which has since improved satisfactorily.
- The market price of equity shares at present is ₹ 130 per share.
- The profit for 2007-08 was calculated after debiting the Profit & Loss A/c with ₹ 50 lakhs for MD's remuneration. In future, it will be ₹ 6 lakhs for which necessary formalities have been completed.
- A tender submitted in 2006-07 has been accepted and the annual additional earnings for the contract is going to be ₹ 80 lakhs for the next 5 years with an annual growth 5%. For this purpose, new machinery worth ₹ 100 lakhs would be needed and it will be acquired by issuing paid-up shares.

The following revaluation have been agreed upon:

Buildings	₹ 220 lakhs
Inventory	₹ 350 lakhs
Debtors	₹ 165 lakhs

You are required to calculate:

- Goodwill, if any on the basis of 5 year's purchase of average annual super profits.
- Valuation of equity shares on Asset Backing Method (Net Assets Method).
- Valuation of equity shares on earnings basis when normal earnings in similar kind of business is 16%.
- Valuation of equity shares on yield basis.

Ans.:

Working

- Calculation of Capital Employed

Particulars	₹ in Lakhs	₹ in Lakhs
Assets:		
Building	220	
Machinery	250	
Inventory	350	
Debtors	165	
Total Assets		985
Liabilities:		
Bank loan	115	
Creditors	183	
Provision	37	335
		650
<i>Add:</i> Dividend:		
Equity	100	
Preference	10	110
		760
<i>Less:</i> On the Profit during the year (1/2 of ₹1,35,000)		67.50
Net Tangible Assets		692.50

(b) Normal Rate of Return

$$\text{Average Dividend} = \frac{18 + 20 + 22 + 15}{4} = \frac{85}{4} = 21.25\%$$

$$\therefore \text{N.R.R.} = \frac{\text{Dividend}}{\text{Market Price}} \times 100$$

$$= \frac{21.25}{130} \times 100 = 16\%$$

(c) Normal Profit of Average Capital Employed = 16% of 692.5 lakhs = 110.8 lakhs

(d) Future Maintainable Profit = 68 + 133 + 120 + 135 = 456 lakhs

$$\therefore \text{Average Profit} = \frac{456}{4} = 114 \text{ lakhs}$$

$$\text{Annual Average Profit before Tax} = \frac{114}{70} \times 100 = 162.85 \text{ lakhs}$$

Add: Increase in Earnings 80.00 lakhs

Less: Increase in MD's remuneration (10.00) lakhs

232.85 lakhs

Less: Tax @ 30%

69.85 lakhs

F.M.P.

163.00 lakhs

$$\begin{aligned} \text{Super Profit} &= \text{F.M.P.} - \text{Net Profit} \\ &= 163 \text{ lakhs} - 110.8 \text{ lakhs} \\ &= 52.2 \text{ lakhs} \end{aligned}$$

Valuation of Goodwill and Shares

(a) Goodwill = 5 × Super Profit
= 5 × 52.2 lakhs
= ₹ 261 lakhs

(b) Value Per Share

Net Tangible Assets	692.50 lakhs
Add: Goodwill	261.00 lakhs
	<hr/>
	953.50 lakhs
Less: Preference Capital	100.00 lakhs
	<hr/>
Net Assets	853.50 lakhs

Number of shares = 40 lakhs

∴ Value per share = $\frac{\text{Net Assets}}{\text{Number of Shares}}$

 $= \frac{853.50}{40} = ₹ 21.34.$

(c) Value per share on the basis of earnings = $\frac{\text{A.R.R.}}{\text{N.R.R.}} \times \text{Paid-up value per share}$

A.R.R. = $\frac{\text{Average Profit}}{\text{Capital Employed}} \times 100 = \frac{163}{692.32} \times 100 = 23.53\%$

∴ Value per share = $\frac{23.53}{16} \times 10 = ₹ 14.70.$

(d) Yield Value = $\frac{\text{Dividend Per Share}}{\text{Normal Rate}} \times 100 = \frac{2.50}{16} \times 100 = 15.62\%$

Or Alternatively

Workings:

Calculation of Capital Employed:

Total Assets	985 lakhs
Less: Liabilities	335 lakhs
	<hr/>
	650 lakhs
Less: 1/2 of Retained Earnings (125 – 100) = 25	12.50 lakhs
	<hr/>
	637.50 lakhs

Average rate of dividend = 21.25%

N.R.R. = 16%

Normal Profit = 16% of 637.50 = ₹ 102 lakh

Average Profit before Tax = $\frac{114}{70} \times 100 = 162.85\%$

Say	163 lakhs
Normal Profit	<u>102 lakhs</u>
Super Profit	<u>61 lakhs</u>

(a) \therefore Goodwill = 5 \times Selling Price = 5 \times 61 = 305 lakhs.

(b) Value of Equity Share of Net Asset Basis:

Net Assets	760 lakhs
Add: Goodwill	<u>305 lakhs</u>
	1065 lakhs
Less: Profit Capital	<u>100 lakhs</u>
Net Assets	<u>965 lakhs</u>

$$\text{Value per share} = \frac{965}{40} = ₹ 24.125 \text{ lakhs.}$$

$$\begin{aligned} \text{(c) Value of Equity Share on Earning Basis} &= \frac{135 - 10 \text{ Preference Dividend}}{400} \times 10 \\ &= \frac{125}{400} \times 100 \\ &= 31.25 \end{aligned}$$

$$\text{Value per share} = \frac{31.25}{16} \times 10 = ₹ 19.53$$

Or

$$\begin{aligned} &= \frac{135 - 10}{\text{Capital} + \text{R \&S} - \text{Deferred Revenue Expenditure}} \times 100 \\ &= \frac{125}{515} \times 100 = ₹ 24.27 \end{aligned}$$

$$\text{Value per share} = \frac{24.57}{16} \times 10 = ₹ 13.28.$$

$$\text{(d) Yield Basis} = \frac{\text{Average Yield}}{16} \times 10 = \frac{21.25}{16} \times 10 = ₹ 13.28.$$

Objective Questions

A. Multiple Choice Questions

- Goodwill is _____.
 - an intangible asset
 - a fixed asset
 - realisable
 - all of the above
- Goodwill is to be valued when _____.
 - amalgamation takes place
 - one company takes over another company
 - a partner is admitted
 - all of the above

3. Goodwill is paid for obtaining _____.
 - (a) future benefit
 - (b) present benefit
 - (c) past benefit
 - (d) none of the above
4. Super profit is _____.
 - (a) excess of average profit over normal profit
 - (b) extra profit earned
 - (c) average profit earned by similar companies
 - (d) none of the above
5. Normal profit is _____.
 - (a) average profit earned
 - (b) profit earned by similar companies in the same industry
 - (c) (a) and (b)
 - (d) none of the above
6. Normal profit depends on _____.
 - (a) Normal Rate of Return
 - (b) Average capital employed
 - (c) Both (a) and (b)
 - (d) None of the above
7. Goodwill as per purchase of average profit method is equal to _____.
 - (a) Average Profit
 - (b) Average profit \times Amount of purchases
 - (c) Average Profit \times Number of years' purchases
 - (d) All of the above
8. Goodwill as per purchase or super profit method is equal to _____.
 - (a) Super Profit
 - (b) Super Profit \times Amount of purchases
 - (c) Super Profit \times Number of year's purchases
 - (d) None of the above
9. Normal Rate of Return depends on _____.
 - (a) Rate of Interest
 - (b) Rate of Risk
 - (c) Both (a) and (b)
 - (d) None of the above
10. While calculating capital employed, _____.
 - (a) Tangible trading assets should be considered
 - (b) Intangible assets should be considered
 - (c) Fictitious assets should be considered
 - (d) None of the above
11. Any non-trading income included in the profit should be _____.
 - (a) eliminated
 - (b) added
 - (c) ignored
 - (d) none of the above

12. Under capitalisation of super profit method, Goodwill is equal to _____.
- (a) Capitalised value of super profit at NRR
 (b) Capitalised value of maintained profit
 (c) (a) and (b)
 (d) None of the above
13. Capital employed at the end of the year is ₹ 4,20,000. Profit earned ₹ 40,000. Average capital employed is _____.
- (a) ₹ 4,20,000 (b) ₹ 4,00,000
 (c) ₹ 4,40,000 (d) ₹ 4,60,000
14. Rate of interest is 11% and the rate of risk is 9%. The normal rate of return is _____.
- (a) 11% (b) 9%
 (c) 20% (d) 2%
15. Capital employed at the beginning of the year is ₹ 5,20,000 and the profit earned during the year is ₹ 60,000. Average capital employed during the year is _____.
- (a) ₹ 5,50,000 (b) ₹ 5,20,000
 (c) ₹ 5,80,000 (d) ₹ 4,60,000
16. Average profit is ₹ 19,167 and normal profit is ₹ 10,000. The Super Profit is _____.
- (a) ₹ 9,167 (b) ₹ 29,167
 (c) ₹ 19,167 (d) ₹ 10,000
17. Super Profit is ₹ 9,167 and the Normal Rate of Return is 10%. Goodwill as per capitalisation of Super Profit method is equal to _____.
- (a) ₹ 91,670 (b) ₹ 90,600
 (c) ₹ 67,910 (d) ₹ 95,000
18. Capital employed is ₹ 50,000. Trading Profit amounted to ₹ 12,200, ₹ 15,000 and ₹ 2,000 loss for 2008, 2009 and 2010 respectively. Rate of interest is 8% and the rate of risk is 2%. Remuneration from alternative employment of the proprietor is ₹ 3,600 p.a. Amount of Goodwill at 3 years' purchase of Super Profit is _____.
- (a) ₹ 8,000 (b) ₹ 8,800
 (c) ₹ 8,850 (d) ₹ 9,500
19. Shares are to be valued on _____.
- (a) Mergers (b) Sale of shares
 (c) Gift tax (d) All of the above
20. Quoted shares are those shares which are _____.
- (a) listed on the stock exchange (b) quoted daily
 (c) quoted by the seller (d) quoted by the buyer
21. Under net asset method, value of a share depends on _____.
- (a) net assets available to equity shareholders
 (b) net assets available to debentures holders
 (c) net assets available to preference shareholders
 (d) none of the above

22. Net asset value is also called as _____.
- (a) asset backing value (b) intrinsic value
(c) liquidation value (d) (a), (b) and (c)
23. While deciding net asset value, fictitious assets _____.
- (a) should be considered (b) should not be considered
(c) added to total assets (d) none of the above
24. Net asset value method is based on the assumption that the company is _____.
- (a) a going concern (b) going to be liquidated
(c) (a) and (b) (d) none of the above
25. Yield value depends on _____.
- (a) future maintainable profit (b) paid-up equity capital
(c) normal rate of return (d) none of the above
26. F.M.P. for yield valuation is _____.
- (a) future profit
(b) profit that would be available to equity shareholders
(c) past profit
(d) none of the above
27. Yield value is based on the assumption that _____.
- (a) the company is a going concern (b) the company will be liquidated
(c) the company is sick (d) none of the above
28. Fair value of a share is equal to _____.
- (a) intrinsic value only (b) yield value only
(c) average of intrinsic and yield value (d) none of the above
29. Value of a partly paid equity share is equal to _____.
- (a) Value of fully paid share - calls unpaid per share
(b) Calls in arrears per share
(c) Paid-up value per share
(d) None of the above
30. Following details are extracted from the records of a company:
- | | ₹ |
|--|----------|
| 2000 9% Preference Shares of ₹ 100 each | 2,00,000 |
| 50,000 Equity shares of ₹ 10 each, ₹ 8 per share paid up | 4,00,000 |
| Expected Profit | 2,18,000 |
| Tax Rate | 40% |
| Transfer to general reserve | 20% |
| Normal rate of earning | 15% |
- Yield value per share is _____.
- (a) ₹ 15 (b) ₹ 11.55
(c) ₹ 16 (d) ₹ 17.50

31. Gross assets are ₹ 1,01,000, fictitious assets ₹ 350 are included in the gross assets. External liabilities are ₹ 7,500. 6% preference share capital is ₹ 45,000. Equity capital is 4,500 equity shares of ₹ 10 each fully paid. Average expected profit is ₹ 8,500. Transfer to reserves is 10% preference dividend is payable. NRR is 9%. The Net Asset Value Per share is _____.
- (a) ₹ 11 (b) ₹ 10.70
(c) ₹ 15 (d) ₹ 20
32. Refer to Q. No. 94. The yield value is _____.
- (a) ₹ 12 (b) ₹ 22
(c) ₹ 12.22 (d) ₹ 14
33. The company earns a net profit of ₹ 24,000 with a capital of ₹ 1,20,000. The NRR is 10%. Under capitalisation of super profit, goodwill will be _____.
- (a) ₹ 1,20,000 (b) ₹ 70,000
(c) ₹ 12,000 (d) ₹ 24,000
34. Average capital employed ₹ 14,00,000.
- | | |
|-----------------|-----------------|
| Net profit 2011 | 2,50,000 |
| 2012 | 1,00,000 (loss) |
| 2013 | 4,50,000 |
| NRR | 10% |
- Goodwill at 3 years' purchase of super profit will be _____.
- (a) 1,80,000 (b) 1,50,000
(c) 1,20,000 (d) 90,000
35. Refer to Q. No. 97. Goodwill by capitalisation of Super Profit will be _____.
- (a) ₹ 6,00,000 (b) ₹ 4,80,000
(c) ₹ 3,00,000 (d) ₹ 2,40,000
36. Equity shares of ₹ 10 each ₹ 22,00,000
15% Preference shares of ₹ 100 each ₹ 18,00,000
₹ 40,00,000
- Average Net Profit 10,50,000
NRR 20%
- Net tangible assets are revalued by ₹ 2,00,000 more than the amounts at which they are stated in the books. Super Profit of the company will be _____.
- (a) ₹ 2,00,000 (b) ₹ 2,10,000
(c) ₹ 2,50,000 (d) ₹ 2,70,000
37. Refer to Q. No. 99. Goodwill at 3 years' purchase of super profit will be _____.
- (a) 6,30,000 (b) 6,20,000
(c) 5,40,000 (d) 3,80,000
38. Refer to Q. No. 100. Intrinsic value per share will be _____.
- (a) ₹ 10.90 (b) ₹ 10.20
(c) ₹ 15.20 (d) ₹ 40.10

39. Refer to Q. No. 100. Yield value per share will be _____.

- (a) 17.73 (b) 27.70
(c) 15.23 (d) 10.92

40. Refer to Q. No. 100. Fair value per share will be _____.

- (a) ₹ 14.32 (b) ₹ 13.39
(c) ₹ 4.35 (d) ₹ 14.49

Ans.: 1. (d), 2. (d), 3. (a), 4. (a), 5. (b), 6. (c), 7. (c), 8. (c), 9. (c), 10. (a), 11. (a), 12. (a), 13. (b), 14. (c), 15. (a), 16. (a), 17. (a), 18. (c), 19. (d), 20. (a), 21. (a), 22. (d), 23. (b), 24. (b), 25. (d), 26. (b), 27. (a), 28. (c), 29. (a), 30. (b), 31. (b), 32. (c), 33. (a), 34. (a), 35. (a), 36. (b), 37. (a), 38. (a), 39. (a), 40. (a).

B. Fill in the Blanks

- Goodwill is an _____ asset.
- Goodwill has _____ value.
- Goodwill is not a _____ asset.
- Goodwill may be _____ or _____.
- Only _____ goodwill is accounted.
- _____ is calculated on the basis of adjusted average profit.
- _____ is equal to rate of interest plus rate of risk.
- Investments are _____ assets.
- _____ value depends on Net assets.
- Yield value depends on _____.
- Fair value is the _____ of intrinsic value and yield value.
- EPS depends on net profit available to _____ shareholders.
- P/E ratio is a relationship between _____ and _____.

Ans.: 1. Intangible, 2. Realisable, 3. Fictitious, 4. Purchased/Non-purchased, 5. Purchased, 6. F.M.P., 7. NRR, 8. Non-trading, 9. Intrinsic, 10. Net profit, 11. Average, 12. Equity, 13. MP and EPs.

C. Match the Columns

Column A	Column B
1. Goodwill	(i) Intangible having no realisable value
2. Fictitious asset	(ii) Accounted in the Books of Accounts
3. Purchased Goodwill	(iii) Future Maintainable Profit
4. F.M.P.	(iv) Excess of F.M.P. over normal profit
5. Super Profit	(v) Based on Rate of Interest and Rate of Risk
6. NRR	(vi) An Intangible Asset
7. Intrinsic value	(vii) Net Asset Value
8. Yield Value	(viii) Based om F.M.P.

Ans.: 1. (vi), 2. (i), 3. (ii), 4. (iii), 5. (iv), 6. (v), 7. (vii), 8. (viii).

D. True or False

1. Goodwill is an intangible asset but not fictitious asset.
2. NRR stands for Normal Required Return.
3. F.M.P. stands for Future Maintainable Profit.
4. Super Profit is equal to Average Profit.
5. Intrinsic Value Method is also called as Asset Backing Method.

Ans.: 1. True, 2. True, 3. True, 4. False, 5. True

E. Exercise

1. Write note on Goodwill.
2. Write note on Average Profit.
3. Write note on Super Profit.
4. Write note on Intrinsic Method of Valuation.
5. Write note on Yield Method of Valuation.

