

STRICTLY FOR PRIVATE CIRCULATION

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CHP – 1

SCOPE AND OBJECTIVES OF FINANCIAL MANAGEMENT

1. What is Financial Management? Explain two basic functions of FM?

Ans. Financial Management deals with procurement (raising) of funds and their effective utilization of these funds to attain the business objectives. Financial Management can also be defined as planning for the future of a business enterprise to ensure a positive cash flow.

PROCUREMENT OF FUNDS: Funds can be obtained from different sources having different characteristics in terms of risk, cost and control.

- Funds can be raised by issuing equity shares:
 - They are riskless to the company
 - They are quite expensive
 - They may dilute the control of existing shareholders
- By issuing debentures:
 - They involve high risk as they are to be repaid as per the terms of agreement
 - Interest payment has to be made under any circumstances
 - They are relatively cheaper
- From Banks and Financial Institutions
- From instruments like Commercial Paper, Discount bonds
- From international sources like Foreign Direct Investments (FDI), Foreign Institutional Investors (FII etc).

EFFECTIVE UTILISATION OF FUNDS:

- Finance manager should take appropriate actions so that the funds do not remain idle
- If the funds are not utilised properly, cost of obtaining funds will be higher than the income generated from it.

2. Discuss the functions/ responsibilities of Chief Financial Officer (CFO)?

Ans. Functions of CFO are: All decisions involving management and effective utilisation of funds are functions of the CFO. These are namely: (KEY: CID ON BED)

- Cash Management
- Investment Decisions
- Dividend Decisions
- Overall Risk Management
- Neat and Clear evaluation of financial performance
- Budget Preparation
- Estimating requirements of funds
- Decision regarding capital structure

Note: (If the above question is asked for 5 marks, then explain and write each of the 8 points)

3. Explain how the wealth maximisation objective is superior to the profit maximisation objective?

OR

In what ways is the "FIRM VALUE" maximisation objective superior to "PROFIT MAXIMISATION" objective?

OR

Discuss the conflicts in Profits versus Wealth Maximisation principle of the firm?

Ans. Firms Finance Manager has the following objectives:

- (a) Maximisation of firm's profit
- (b) Maximisation of firm's value / wealth

MAXIMISATION OF FIRM'S PROFIT:

- It is an implied objective
- Decisions to obtain this objective is taken by decision makers of the firm who sometimes adopt policies which result in high profits but are unhealthy for growth, survival and overall interest of the firm.
- It is measured in terms of accounting profit of the firm available for shareholders (SHS).

MAXIMISATION OF FIRM'S VALUE / WEALTH:

- Value / wealth of the firm is the market price of the firm's stock.
- Market price represents the judgement of present and prospective future earnings per share, time and risk of the earnings, dividend policy etc.

4. Why is Value maximisation objective superior to its profit maximization?

Ans. Value maximization is superior to the profit maximization due to the following reasons:
(WRITE THE ANSWER IN PARAGRAPH FORM)

	Value Maximization	Profit Maximization
1	This objective considers all future cash flows, dividends, earning per share(EPS), risk etc	This objective does not considers EPS, dividend or any returns to SHS on wealth of SHS
2	May pay regular dividend	May stop itself (Co.) from paying dividend to SHS
3	SHS would prefer in the firms wealth as it beneficial to him	SHS will not prefer profit maximisation as it is not beneficial to him as value maximisation
4	It is a proper goal of a firm	It is considered as a part of wealth maximization strategy.

5. Outline the methods and tools of FM?

Ans. The methods and tools used are:

FOR MAXIMISATION OF WEALTH OF SHS:

- Use of financial leverage or trading on equity to increase the return to SHS
- Decision of optimum (appropriate) capital structure. This is done by having proper mix of debt, equity and retained earnings, EPS analysis, ratios.

IN AREA OF INVESTMENT DECISIONS:

- Pay back method
- Average rate of return
- Net present value, profitability index

IN AREA OF CAPITAL MANAGEMENT:

- ABC analysis
- Economic order quantities
- Cash management models to improve liquidity and to maintain adequate circulating capital

FOR EVALUATION OF FIRM'S PERFORMANCE:

- Ration analysis
- Fund flow statement
- Cash flow statement

6. Inter relationship between investment, financing and dividend decisions?

Ans. Financing options are divided into 3 major decisions:

- Investment
- Financing
- Dividend decisions

These decisions are inter related because the objective of these 3 decisions are same i.e. maximisation of SHS wealth.

Investment Decisions:

The investment of long term funds is more after a careful assessment of various projects through capital budgeting and uncertainty analysis. Only that investment proposal is to be accepted which is expected to give so much return as is adequate to meet its cost of finance.

Financing Decisions:

Funds can be raised from various sources which involve different issues. The finance manager has to maintain a proper balance between long term and short term funds with the total volume of long term funds; he has to ensure proper mix of loan funds and owners' funds.

Dividend Decisions:

The finance manager is also concerned with the decision to pay or declare dividend. He assists the top management in deciding as to what portion of the profit should be paid to SHS by way of dividends and what should be retained in the business. A appropriate dividend (pay-out ratio) maximises SHS wealth. So it is clear that Investment, Financing and Dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the SHS wealth.

7. Distinguish between Procurement of funds and utilisation of funds

Ans.

	Procurement of funds	Utilisation of funds
1	Procurement means obtaining funds through various sources	Utilisation is effective utilisation of the procured funds
2	It involves external forces	It involves internal forces
3	It involves Investment and financing decisions	It involves dividend decisions

8. Distinguish between Traditional Phase and Modern phase?**Ans.**

	Traditional Phase	Modern Phase
1	During this phase, FM is considered necessary only during occasional events like mergers, acquisitions, liquidation, takeovers, expansion etc.	During this phase, FM is considered necessary in all occasions or events of company even for day to day business
2	This is a past phase	This phase is still going on
3	The scope of FM was narrow and limited	The scope of FM is much broader now

9. Distinguish between Financial Management and Financial Accounting?**Ans.**

	Financial Management	Financial Accounting
1	Financial Management is management of all matters related to an organisation's finance and analysis of the financial statements	Financial Accounting generates information relating to operations of the organisation
2	Financial Management follows Financial Accounting	Financial Accounting precedes Financial Management

10. Distinguish between Investment decisions and Dividend decisions?**Ans.**

	Investment decisions	Dividend decisions
1	These decisions determine how scarce resource in terms of funds available are committed to projects -which can range from acquiring piece of land to acquisition of another company	These decisions determine as to how much and frequently cash can be paid out of profits of an organisation as income for its SHS
2	This has influence on the profitability of the company.	This has influence on the wealth maximisation of the co.

11. Explain the limitations of profit maximisation objective of FM?**Ans.** Limitations of profit maximisation are:

- It emphasizes the short terms
- It ignores risk or uncertainty
- It ignores the timing of returns
- It requires immediate resources

CHP – 2

TIME VALUE OF MONEY

1. What is Time Value of Money? What are the reasons for the Time preference of Money? Also give the importance of Time Value of Money

OR

Explain the relevance of time value of money in financial decisions?

- Ans.** Time value of money means that worth of a rupee received today is different from the same received in future. The preference for money now as compared to future is known as time preference of money. The concept is applicable to both individuals and business houses.

Reasons of time preference of money:

- **Risk:** There is uncertainty about the receipt of money in future.
- **Preference for present consumption:** Most of the persons and companies have a preference for present consumption may be due to urgency of need.
- **Investment opportunities:** Most of the persons and companies have preference for present money because of availabilities of opportunities of investment for earning additional cash flows.

Importance of time value of money: The concept of time value of money helps in arriving at the comparable value of the different rupee amount arising at different points of time into equivalent values of a particular point of time, present or future. The cash flows arising at different points of time can be made comparable by using any one of the following:

- By compounding the present money to a future date i.e. by finding out the value of present money.
- By discounting the future money to present date i.e. by finding out the present value (PV) of future money.

2. Explain Compounding Techniques?

- Ans.** Compounding is the process by which interest is earned on interest.

Techniques of compounding:

- i) The future value of a single cash flow is defined as:

$$FV = PV (1 + r)^n$$
 Where, FV = future value
 PV = Present value
 r = rate of interest per annum
 n = number of years for which compounding is done.
- ii) Future value of an annuity: An annuity is a series of periodic cash flows, payments or receipts, of equal amount. The premium payments of a life insurance policy, for instance are an annuity. In general terms the future value of an annuity is given as:

$$FVA_n = A * [(1 + r)^n - 1] / r$$
 Where,
 FVA_n = Future value of an annuity which has duration of n years.
 A = Constant periodic flow
 r = Interest rate per period
 n = Duration of the annuity

Thus, future value of an annuity is dependent on 3 variables, they being, the annual amount, rate of interest and the time period, if any of these variable changes it will change the future value of the annuity. A published table is available for various combination of the rate of interest 'r' and the time period 'n'.

Techniques of discounting:

- i) The present value of a single cash flow is given as: $PV = FV_n (1 / 1 + r)^n$

Where,

FV_n = Future value n years hence

r = rate of interest per annum

n = number of years for which discounting is done.

From above, it is clear that present value of a future money depends upon 3 variables i.e. FV, the rate of interest and time period. ,

- ii) Present value of an annuity: Sometimes instead of a single cash flow, cash flows of same amount is received for a number of years. The present value of an annuity may be expressed as below:

$$PVA_n = \frac{\{(1+r)^n - 1\}}{r(1+r)^n}$$

Where,

PVA_n = Present value of annuity which has duration of n years

A = Constant periodic flow

r = Discount rate.

CHP – 3

TOOLS OF FINANCIAL ANALYSIS AND PLANNING

1. Write a note on Financial Statement Analysis? What is the purpose of Financial Statement Analysis? What are the types of Financial Statement Analysis?

Ans. Financial Statement Analysis is the process of identifying the financial strength and weakness of a firm from the available accounting data and financial statements. It is done by properly establishing relationship between the items of balance sheet and profit and loss account as,

- The task of financial analysts is to determine the information relevant to the decision under consideration from total information contained in the financial statement. To arrange information in a way to highlight significant relationships.
- Interpretation and drawing of inferences and conclusion. Thus, financial analysis is the process of selection, relation and evaluation of the accounting data/information.

Purposes of Financial Statement Analysis: Financial Statement Analysis is the meaningful interpretation of 'Financial Statements' for 'Parties Demanding Financial Information', such as:

- The Government may be interested in knowing the comparative energy consumption of some private and public sector cement companies.
- A nationalised bank may be keen to know the possible debt coverage out of profit at the time of lending.
- Prospective investors may be desirous to know the actual and forecasted yield data.
- Customers want to know the business viability prior to entering into a long-term contract.
- There are other purposes also, in general, the purpose of financial statement analysis aids decision making by users of accounts.

Types of Financial statement analysis: The main objective of financial analysis is to determine the financial health of a business enterprise, which may be of the following types:

- **External analysis:** It is performed by outside parties, such as trade creditors, investors, suppliers of long term debt, etc.
- **Internal analysis:** It is performed by corporate finance and accounting department and is more detailed than external analysis.
- **Horizontal analysis:** This analysis compares financial statements viz. profit and loss account and balance sheet of previous year with that of current year.
- **Vertical analysis:** Vertical analysis converts each element of the information into a percentage of the total amount of statement so as to establish relationship with other components of the same statement
- **Trend analysis:** Trend analysis compares ratios of different components of financial statements related to different period with that of the base year.
- **Ratio Analysis:** It establishes the numerical or quantitative relationship between 2 items/variables of financial statement so that the strengths and weaknesses of a firm as also its historical performance and current financial position may be determined.
- **Funds flow statement:** This statement provides a comprehensive idea about the movement of finance in a business unit during a particular period of time.
- **Break-even analysis:** This type of analysis refers to the interpretation of financial data that represent operating activities.

2. Discuss the various ratios in detail?

Ans. LIQUIDITY RATIOS: 'Liquidity' and 'short-term solvency' are used as synonyms, meaning ability of the business to pay its short-term liabilities. Inability to pay-off short term liabilities affects the concern's credibility and credit rating; continuous default in payments leads to commercial bankruptcy that eventually leads to sickness and dissolution. Short - term lenders and creditors of a business are interested in knowing the concern's state of liquidity for their financial stake. Traditionally current and quick ratios are used to highlight the business 'liquidity'; others may be cash ratio, interval measure ratio and net working capital ratio.

i) Current ratio:

Current ratio = Current Assets/Current Liabilities

Where

Current assets: Inventories + Sundry debtors + Cash and Bank balances + Receivables/Accruals + Loans and advances + Disposable Investments.

Current liabilities: Creditors for goods and services + Short-term Loans + Bank Overdraft + Cash credit + outstanding expenses + Provision for taxation + Proposed dividend + Unclaimed dividend.

Current ratio indicates the availability of current assets to meet current liabilities, higher the ratio, better is the coverage. Traditionally, it is called 2: 1 ratio i.e. 2 is the standard current assets for each unit of current liability. The level of current ratio vary from industry to industry depending on the specific industry characteristics and also a firm differs from the industry ratio due to its policy.

ii) Quick ratio:

Quick ratio or acid test ratio = Quick Assets/Current or Quick liabilities

Where,

Quick assets: Sundry debtors + Cash and Bank balances + Receivables/Accruals + Loans and advances + Disposable Investments (i.e. Current assets - Inventories).

Quick liabilities = Creditors for goods and services + Short-term Loans + Outstanding expenses + Provision for taxation + Proposed dividend + Unclaimed dividend (i.e. Current liabilities - Bank overdraft - Cash credit).

Quick assets are also called liquid assets, they consists of cash and only 'near cash assets'. Inventories are deducted from current assets, as they are not considered as 'near cash assets', but in a seller's market they are not so considered.

iii) Cash ratio:

Cash ratio = (Cash + Marketable securities)/Current liabilities

The cash ratio measures absolute liquidity of the business available with the concern.

iv) Interval measure:

Interval measure = (Current assets - Inventory)/Average daily operating expenses

Where,

Average daily operating expenses:

(Cost of goods + Selling, administrative and general expenses - Depreciation and other non - cash expenditure)/ no. of days in a year.

CAPITAL STRUCTURE/LEVERAGE RATIOS: The capital structure or leverage ratios are defined as, those financial ratios that measure long term stability and structure of the firm and indicate mix of funds provided by owners and lenders, in order to assure lenders of long term funds as to:

- Periodic payment of interest during the period of the loan, and
- Repayment of the principal amount on maturity.

They are classified as:

i) **Capital structure ratios:**

Capital structure ratios provide an insight into the financing techniques used by a business and consequently focus on the long-term solvency position. From the balance sheet one can get absolute fund employed and its sources, but capital structure ratios show relative weight of different sources. Funds on liabilities side of balance sheet are classified as 'owner's equities' and 'external equities' also called 'equity' and 'debt'. Owner's equities or equity means shareholder's funds consisting of equity and preference share capital and reserves and surplus. External equities means all outside liabilities inclusive of current liabilities and provisions, while debt is classified as long term borrowed funds thus, excluding short-term loans, current liabilities and provisions. As per guidelines for issue of 'Debentures by Public Limited Company' debt means term loans, debentures and bonds with an initial maturity period of years or more inclusive of interest accrued thereon, all deferred payment liabilities, proposed debenture issue but excluding short-term bank borrowings and advances, unsecured loans or deposits from the public, shareholders and employees and unsecured loans and deposits from others. Capital structure ratios used are:

a) **Owner's Equity to total Equity:**

Owner's Equity to total equity ratio = $\text{Owner's Equity} / \text{Total Equity}$

It indicates proportion of owners' fund to total fund invested in business. Traditional belief says, higher the proportion of owner's fund lower is the degree of risk.

b) **Debt Equity Ratio:**

Debt-equity ratio = $\text{Debt} / \text{Equity}$

It is the indicator of leverage, showing the proportion of debt fund in relation to equity. It is referred in capital structure decision as also in the legislations dealing with the capital structure decisions i.e. issue of shares and debentures. Lenders are keen to know this ratio as it shows relative weights of debt and equity. As per traditional school, cost of capital firstly decreases due to the higher dose of leverage, reaches minimum and thereafter increases, thus infinite increase in leverage i.e. debt-equity ratio is not possible. However, according to Modigliani-Miller theory, cost of capital and leverage are independent of each other and based on certain restrictive assumptions, namely,

- perfect capital markets
- homogeneous expectations by the present and prospective investors
- presence of homogeneous risk class firms
- 100 % dividend pay-out
- no tax situation and so on

Most of the above assumptions are unrealistic. It is believed that leverage and cost of capital are related! There is no norm for maximum debt-equity ratio, lending institutions usually, set their own norms considering the capital intensity and other factors.

ii) Coverage ratios:

The coverage ratio measures the firm's ability to service fixed liabilities. These ratios establish the relationship between fixed claims and what is usually available out of which these claims are to be paid. The fixed claims consist of:

- Interest on loans
- Preference dividend
- Amortisation of principal or repayment of the instalment of loans or redemption of preference capital on maturity. They are classified as follows:

a) Debt service coverage ratio:

Lenders are interested in judging the firm's ability to pay off current interest and instalments and thus the debt service coverage ratio.

Debt service coverage ratio = $\frac{\text{Earnings available for debt service}}{\text{Interest} + \text{Instalments}}$

Where,

Earnings available for debt service = Net profit - Non-cash operating expenses like depreciation and other amortisations + Non-operating adjustments as loss on sale of fixed assets + Interest on debt fund.

b) Interest coverage ratio:

It is also known as "times interest earned ratio" and indicates the firm's ability to meet interest obligations and other fixed charges.

Interest coverage ratio = $\frac{\text{EBIT}}{\text{Interest}}$

Where,

EBIT = Earnings Before Interest and Tax

EBIT is used in the numerator as the ability to pay interest is not affected by tax burden as interest on debt funds is a deductible expense. This ratio indicates the extent to which earnings may fall without causing any difficulty to the firm regarding the payment of interest charges. A high interest coverage ratio means that an enterprise can easily meet its interest obligations even if EBIT suffer a considerable decline, while a lower ratio indicates excessive use of debt or inefficient operations.

c) Preference dividend coverage ratio:

It measures the firm's ability to pay preference dividend at the stated rate.

Preference dividend coverage ratio = $\frac{\text{EAT}}{\text{Preference dividend liability}}$

Where,

EAT = Earnings after tax

EAT is considered as unlike debt on which interest is a charge on the firm's profit, preference dividend is an appropriation of profit. The ratio indicates margin of safety available to preference shareholders. A higher ratio is desirable from preference shareholders point of view.

iii) Capital Gearing ratio:

Capital gearing ratio = $\frac{\text{Preference Share Capital} + \text{Debentures} + \text{Long term loan}}{\text{Equity share capital} + \text{Reserves \& Surplus} - \text{Losses}}$

It is used in addition to debt equity ratio to show the proportion of fixed interest/dividend bearing capital to funds belonging to equity shareholders.

For the judging of the long-term solvency position, in addition to debt-equity and capital gearing ratios, the following are used:

a) Fixed Assets / Long term fund:

Fixed assets and core working capital are expected to be financed by long term fund. In various industries the proportion of fixed and current assets are different, thus there can be no uniform standard of this ratio, but it should be less than 1. If it is more than 1, it means short-term fund has been used to finance fixed assets, often big companies resort to such practice during expansion. This may be a temporary arrangement but not a long-term remedy.

b) Proprietary ratio:

Proprietary ratio = Proprietary fund/Total assets

Where,

Proprietary fund = Equity share capital + Preference share capital + Reserves & surplus - Fictitious assets

Total assets = All assets, but excludes fictitious assets and losses.

It is possible to reduce equity stake by lowering liquidity ratio i.e current ratio, Example: When current and debt-equity ratios are both 2: 1 each, and the proportion of fixed and current assets is 5: 1 Equity/total assets = 31.67 % but if the current ratio is reduced to 1.5: 1 equity/total assets = 31.11 %.

ACTIVITY RATIOS: The activity ratios also known as turnover or performance ratios are employed to evaluate the efficiency with which the firm manages and utilises its assets. These ratios usually indicate the frequency of sales with respect to its assets, which may be capital assets or working capital or average inventory. These are calculated with reference to sales/cost of goods sold and are expressed in terms of rate or times. They are as follows:

i) Capital turnover ratio:

Capital turnover ratio = Sales/Capital employed

It indicates the firm's ability of generating sales per rupee of long term investment, the higher the ratio, more efficient is the utilisation of the owner's and long-term creditors' funds.

ii) Fixed Assets turnover ratio:

Fixed Assets turnover ratio = Sales/Capital assets

A high fixed assets turnover ratio indicates efficient utilisation of fixed assets in generation of sales. A firm whose plant and machinery are old may show a higher fixed assets turnover ratio than the firm who purchased them recently.

iii) Working capital turnover ratio:

Working capital turnover = Sales/Working Capital

It is further divided as below:

a) Inventory turnover ratio:

Inventory turnover ratio = Sales/Average inventory

Inventory turnover ratio = Cost of sales/Average inventory

Where,

Average inventory = (Opening Stock + Closing stock)/2

It may also be calculated with reference to cost of sales instead of sales, as:

For inventory of raw material,

Inventory turnover ratio = Raw material consumed/Average raw material stock.

This ratio indicates the speed of inventory usage. A high ratio is good from liquidity point of view and vice versa. A low ratio indicates that inventory is not used/sold or is lost and stays in a shelf or in the warehouse for a long time.

b) Debtors turnover ratio:

When a firm sells goods on credit, the realisation of sales revenue is delayed and receivable are created. Cash is realised from these receivables later on, the speed with which it is realised affects the firm's liquidity position. Debtors turnover ratio throws light on the collection and credit policies of the firm.

Debtors turnover ratio = Sales or Credit sales/Average accounts receivable

As account receivable pertains to credit sales only, it is often recommended to compute debtor's turnover with reference to credit sales rather than total sales.

Average collection period = Average accounts receivables/average daily credit sales

Where,

Average daily credit sales = Credit sales/365

The above ratios provide a unique guide for determining the firm's credit policy.

c) Creditors turnover ratio:

It is calculated on same line as debtors turnover ratio and shows the velocity of debt payment by the firm,

Creditors turnover ratio = Credit purchases or Annual net credit purchases/Average accounts payable

A low ratio reflects liberal credit terms granted by suppliers, while a high ratio reflects rapid settlement of accounts.

Average payment period = Average accounts payable/average daily credit purchases

Where,

Average daily credit purchases = credit purchases/365

The firm can compare what credit period it receives from the suppliers and what it offers to the customers. It can also compare the average credit period offered to the customers in the industry to which it belongs.

PROFITABILITY RATIO: The profitability ratios measure profitability or the operational efficiency of the firm reflecting the final results of business operations. The results of the firm may be evaluated in terms of its earnings With reference to a given level of assets or sales or owners interest, etc. Thus, the profitability ratios are broadly classified in following categories:

i) Profitability ratios are required for analysis from owners point of view:

a) Return on equity (ROE): It measures the profitability of equity funds invested in the firm and reveals how profitably the owner's funds are utilised by the business.

$$ROE = \text{Profit after taxes} / \text{Net worth}$$

b) Earnings per share (EPS): The profitability of a firm from view point of ordinary shareholders can be measured in terms of number of equity shares known as earnings per share.

$$EPS = \text{Net profit available to equity holders} / \text{no. of ordinary shares outstanding}$$

c) Dividend per share: EPS as above reflects the profitability of a firm per share, it does not reflect how much profit is paid as dividend and how much is retained by the business. Dividend per share ratio indicates the amount of profit distributed to shareholders per share.

$$\text{Dividend per share} = \text{Total profits distributed to equity share holders} / \text{Number of equity shares}$$

- d) **Price Earning ratio (P/E Ratio):** The price earning ratio indicates the expectation of equity investors about the earnings of the firm and relates to market price and is generally taken as a summary measure of growth potential of an investment, risk characteristics, shareholders orientation, corporate image and degree of liquidity.

$$\text{P/E Ratio} = \text{Market price per share} / \text{EPS}$$
- ii) **Profitability ratios based on assets/investments:**
- a) **Return on capital employed/Return on Investment (ROI):**

$$\text{ROI} = \text{Return} / \text{Capital employed} \times 100$$
 Where,

$$\text{Return} = \text{Net profit} \pm \text{Non-trading adjustments excluding accrual adjustments for amortisation of preliminary expenses, goodwill, etc.} + \text{Interest on long term debts} + \text{Provision for tax} - \text{Interest/Dividend from non-trade investments.}$$

$$\text{Capital employed} = \text{Equity share capital} + \text{Reserves \& Surplus} + \text{Preference share capital} + \text{Debentures and other long term loan} - \text{Miscellaneous expenditure and losses} - \text{Non-trade investments.}$$
 It can be further bifurcated as:

$$\text{ROI} = (\text{Return/sales}) \times (\text{Sales/Capital employed}) \times 100$$
 Where,

$$\text{Return/sales} \times 100 = \text{Profitability ratio}$$

$$\text{Sales / Capital employed} = \text{Capital turnover ratio}$$
 Thus,

$$\text{ROI} = \text{Profitability ratio} \times \text{Capital turnover ratio}$$
 ROI can be improved by improving operating profit or capital turnover or both.
- b) **Return on assets (ROA):**
 The profitability ratio is measured in terms of relationship between net profits and assets employed to earn that profit. It measures the firm's profitability in terms of assets employed in the firm.

$$\text{ROA} = \text{Net profit after taxes} / \text{Average total assets} \text{ or } = \text{Net profit after taxes} / \text{Average tangible assets} \text{ or } = \text{Net profit after taxes} / \text{Average fixed assets.}$$
 The cause of any increase or decrease in ROI can be traced out only after a complete analysis through expenses and turnover ratios.
- iii) **Profitability ratios based on sales of the firm:**
- a) **Gross profit ratio:**
 It is used to compare departmental or product profitability. If costs are classified suitably into fixed and variable elements, then instead of gross profit ratio one may find P/V ratio.

$$\text{Gross profit ratio} = \text{Gross profit/sales} \times 100$$
- b) **Operating profit ratio:**

$$\text{Operating profit ratio} = \text{Operating profit/Sales} \times 100$$
 Where,

$$\text{Operating profit} = \text{Sales} - \text{Cost of sales}$$
- c) **Net profit ratio:**
 It measures the overall profitability of the business.

$$\text{Net profit ratio} = \text{Net profit/sales} \times 100$$

3. Are financial ratios/analysis relevant in financial decision making? What is the importance of Financial ratios/analysis?

Ans. A popular technique of analysing the performance of a business concern is that of financial ratio analysis. Its importance lies in the fact that it presents facts on a comparative basis and enables *drawing of* inferences as regards a firm's performance. It is relevant in assessing the firm's performance in the below mentioned aspects:

(KEY: BILL 00)

Budgeting: In this field ratios are able to provide a great deal of assistance, budget is only an estimate of future activity based on past experience, in the making of which the relationship between different spheres of activities are invaluable. It is usually possible to estimate budgeted figures using financial ratios. Ratios also can be made use of for measuring actual performance with budgeted figures and indicate directions in which adjustments should be made either in the budget or in performance to bring them closer to each other. f

Inter-firm comparison: Ratio analysis not only throws light on the firm's financial position but also serves as a stepping stone to remedial measures. It is made possible by inter-firm comparison/comparison with industry average. It should be reasonably expected that the firm's performance is in broad conformity with that of the industry to which it belongs. An inter-firm comparison demonstrates the relative position vis-à-vis its competitors. Ratios not only perform post mortem of operations, but also serves as barometer for future, they have predictive value and are helpful in forecasting and planning future business activities and helps in budgeting.

Liquidity position: Ratio analysis assists in drawing conclusions as regards the firm's liquidity position. It would be satisfactory if the firm is able to meet its current obligations when they become due. A firm can be said to have the ability to meet its short-term liabilities if it has sufficient liquidity to pay interest on its short-maturing debt, usually within a year as also the principal. This ability is reflected in the liquidity ratios of the firm and liquidity ratios are useful in credit analysis by banks and other suppliers of short-term loans,

Long - term solvency: Ratio analysis is equally helpful for assessing a firm's long-term financial viability. This aspect of the financial position of a borrower is of concern to the long-term creditors, security analysts and the present and potential owners of a business. The long-term solvency is measured by the leverage/capital structure and profitability ratios focusing on earning power and operating efficiency and ratio analysis reveals the strength and weaknesses of a firm in respect thereto.

Operating efficiency: Ratio analysis throws light on the degree of efficiency in the management and utilisation of its assets. Various activity ratios measure this kind of operational efficiency, a firm's solvency is, in the ultimate analysis, dependent on the sales revenues generated by the use of its assets - total as well as its components.

Over-all-profitability: Unlike outside parties, that are interested in one aspect of the financial position of a firm, the management is constantly concerned about the overall profitability of the enterprise i.e. they are concerned about the firm's ability to meet its short-term and long-term obligations to its creditors, to ensure reasonable return to its owners and secure optimum utilisation of the firm's assets. It is possible if an integrated view is taken and all the ratios are considered together.

4. What are the limitations of financial ratios?

Ans.

- **Diversified product lines:** Many businesses operate a large number of divisions in quite different industries. In such cases ratios calculated on the basis of aggregate data cannot be used for inter- firm comparisons.
- **Financial data are badly distorted by inflation:** Historical cost values may be substantially different from true values, such distortions in financial data are also carried in financial ratios.
- **To give good shape to the financial ratios used popularly:** The business may make some year-end adjustments, such window-dressing can change the character of financial ratios that would be different had there been no change.
- Seasonal factors may also influence financial data.
- Differences in accounting policies and accounting period make the accounting data of 2 firms non- comparable as also the accounting ratios.
- There is no standard set of ratios against which a firm's ratios may be compared, sometimes, if a firm decides to be above average then, industry average becomes a low standard. On the other hand, for a below average firm, industry averages become too high as standards to achieve.
- It is difficult to generalise whether a particular ratio is good or bad, for instance, a low current ratio may be 'bad' from the view point of low liquidity, while a high current ratio may be 'bad' as it may result from inefficient working capital management.
- Financial ratios are inter-related and not independent, when viewed in isolation one ratio may highlight efficiency but, as a set of ratios it may speak differently. Such interdependence among the ratios can be taken care of through multivariate analysis. Financial ratios provide clues but not conclusions. These are tools in the hands of experts as there is no standard ready-made interpretation of financial ratios.

5. What are the various ratios based on capital market information?

Ans. Frequently, share prices data are punched with accounting data to generate new set of information, these are:

- i) **Price earning ratio:** It indicates the payback period to investors or prospective investors.
Price earning ratio (PE ratio) = average or closing share prices/EPS
- ii) **Yield:** It indicates return on investment, which may be on average or closing investment.
Dividend % indicates return on paid-up value of shares, but, yield % is the indicator of true return in which share capital is taken at its market value.
Yield = dividend/average or closing share price * 100
- iii) **Market value:** It indicates market response of shareholders' investment. Higher the ratio better is the shareholders position in terms of return and capital gains.
Market value for share = average share price/(net worth/number of equity shares)
or
= closing share price/(net worth/number of equity shares)

6. What are the various ratios computed for investment analysis?

Ans. Investment analysis are published weekly in economic newspapers, some ratios are used by analysis to report performance of selected companies. Let us discuss the following performance indicators:

Book value per share = (equity capital + reserves and surplus excluding revaluation reserves)/number of equity shares

EPS = (net profit - preference dividend)/number of equity shares

Yield % = equity dividend/market price * 100

Payout ratio % = dividend including preference dividend/profit after tax * 100

Gross margin/sales (%)

where, gross margin = profit before depreciation but after interest and before tax

Gross margin/capital employed (%)

where, gross margin = profit before depreciation but after interest and before tax

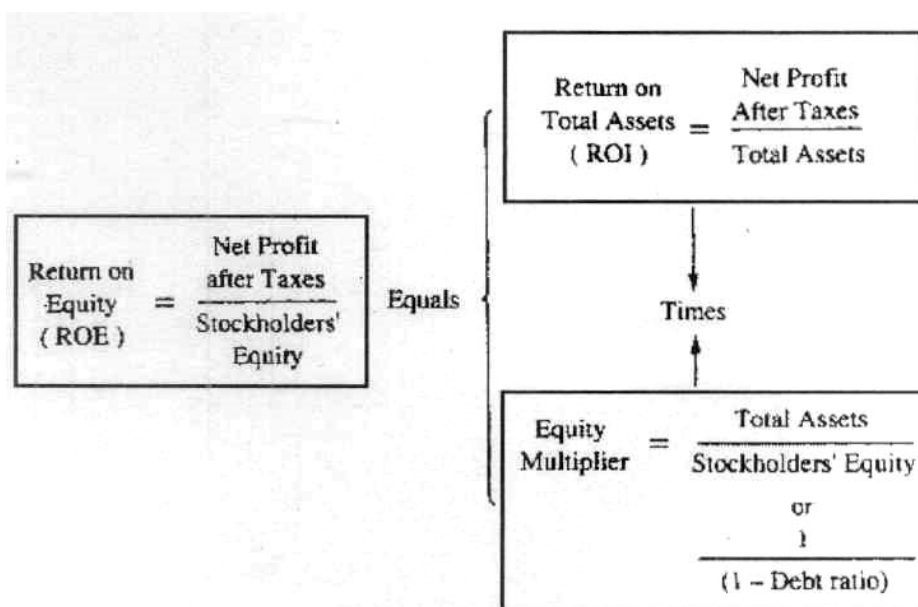
capital employed = fixed assets + capital work-in-progress + investments + current assets i.e. aggregate of fixed assets, capital work-in-progress, investment and current assets but excluding accumulated deficit.

PE ratio = price/earnings

Current ratio = current assets/current liabilities

7. Du Pont Chart for Return on Equity (ROE)

Ans. Refer the diagram.



CHP – 4

CASH FLOW AND FUND FLOW ANALYSIS

1. How does the cash flow analysis help a business entity? What are the importance/advantages of Cash Flow Statement?

Ans. Cash flow analysis is an important tool with the finance manager for ascertaining the changes in cash in hand and bank balances as from one date to another, during the accounting year and also between two accounting periods. It shows inflows and outflows of cash i.e. sources and applications of cash during a particular period. The procedure for preparation of cash flow statement, its objectives and requirements are covered in AS-3. It is an important tool for short-term analysis, like other financial statements, it is analysed to reveal significant relationships. Two major areas, that analysts examine while studying a cash flow statement are discussed as below:

Cash generating efficiency: It is the ability of a company to generate cash from its current or continuing operations. Following ratios are used for the purpose.

- Cash flow yield: $\text{cash flow yield} = \frac{\text{net cash flow from operating activities}}{\text{net income}}$
- Cash flow to sales: $\text{cash flow to sales} = \frac{\text{net cash flow from operating activities}}{\text{net sales}}$
- Cash flows to assets: $\text{cash flow to assets} = \frac{\text{net cash flow from operating activities}}{\text{average total assets}}$

Free cash flow: Strictly cash flow is the amount of cash that remains after deducting funds that the company has to commit to continue operating at its planned level. Such commitment has to cover current or continuing operations, interest, income tax, dividend, net capital expenditures and so on. If the cash flow is positive, it means the company has met all its planned commitment and has cash available to reduce debt or expand. A negative free cash flow means the company will have to sell investments, borrow money or issue stock in short-term to continue at its planned level.

Others: Besides above, with the help of cash flow statement, the financial analysts also calculate a number of ratios based on cash figures rather than on earning figures. Some of which are as below:

- Price per share/free cash flow per share
- Operating cash flow/operating profit: It shows that accrual adjustments are not having severe effect on reported profits.
- Self-financing investment ratio = $\frac{\text{internal funding}}{\text{net investment activities}}$: It indicates how much of the funds generated by the business are re-invested in assets.

Importance/Advantages of Cash Flow Statement:

- Helps in Efficient cash management
- Helps in Internal Financial Management
- Discloses the movement of Cash
- Historical versus future estimates
- Discloses the success or failure of Cash planning
- Comparison between two departments, two companies, etc
- Analysis profitability vis - a - vis Net Cash Flow

2. What do you mean by Fund flow analysis?

Ans. Funds flow analysis is an important long-term analysis tool in the hands of finance manager for ascertaining changes in financial position of firm between two accounting periods. It analyses reasons for changes in financial position between two balance sheets and shows the inflow and outflow of funds i.e. sources and application of funds during a particular period.

It provides information that balance sheet and profit and loss account fail to provide i.e. changes in financial position of an enterprise, which is of great help to the users of financial information. It is of great help to management, shareholders, creditors, brokers, etc. as it helps in answering the following questions:

- Where have the profits gone?
- Why there is an imbalance existing between liquidity and profitability position of the enterprise?
- Why is the concern financially solid inspite of losses?

The projected funds flow statement can be prepared for budgetary control and capital expenditure control in the organisation. A projected funds flow statement may be prepared and resources properly allocated after an analysis of present state of affairs.

The optimum utilisation of available funds is essential for overall growth of the enterprise. The funds flow statement prepared in advance gives a clear-cut direction to the management in this regard.

It is also useful to management for judging the financial operating performance of the company and indicates working capital position that helps the management in taking policy decisions regarding dividend, etc. It helps the management to test whether the working capital is effectively used or not and that working capital level is adequate or inadequate for the requirements of business.

It helps investors to decide whether company has funds managed properly, indicates creditworthiness of a company that helps lenders to decide whether to lend money to the company or not. It helps management to make decisions and decide about the financing policies and capital expenditure programme for future.

3. Distinguish between cash flow statement and fund flow statement

Ans.

	Cash Flow Statement	Fund Flow Statement
1	It ascertains the changes in the balance of Cash in hand and Bank	It ascertains the changes in the financial position between two accounting periods
2	It analysis the reason for the changes in the balance of cash in hand and Bank	It analysis the reason in the financial position between the balance sheet at two different dates
3	It shows the inflows and outflows of cash	It reveals the sources and application of funds
4	It is an important tool for short term analysis	It helps to test whether the Working capital has been used effectively or not.

4. Distinguish between Funds from operations and Cash from operations**Ans.**

	Funds from operations (FFO)	Cash from operations (CFO)
1	FFO is based on the accrual accounting system	All transactions effecting the cash or cash equivalents only is taken into consideration while preparing CFO
2	FFO is more useful in long term planning	CFO is more useful for identifying and correcting the current liquidity problems of the enterprise.

CHP – 5

TYPES OF FINANCING

1. Briefly discuss the different sources of long term finance?

Ans. Owners' capital or equity capital: A public limited company may raise funds from promoters or from the investing public by way of owners' capital or equity capital by issuing ordinary equity shares. Ordinary shareholders are owners of the company and they undertake risks of business. Advantages of raising funds by issue of equity shares are:

- It is a permanent source of finance.
- The issue of new equity shares increases the company's flexibility.
- The company can make further issue of share capital by making a right issue.
- There are no mandatory payments to shareholders of equity shares.

Preference share capital: These are special kind of shares, the holders of which enjoy priority in both, repayment of capital at the time of winding up of the company and payment of fixed dividend. Preference share capital is a hybrid form of financing that takes some characteristics of equity capital and some attributes of debt capital. It is similar to equity because preference dividend, like equity dividend is not a tax deductible payment.

The advantages of taking the preference share capital are as follows:

- No dilution in EPS on enlarged capital base: If equity is issued it reduces EPS, thus affecting the market perception about the company.
- There is leveraging advantage as it bears a fixed charge.
- There is no risk of takeover.
- There is no dilution of managerial control
- Preference capital can be redeemed after a specified period.

Retained Earnings: Long term funds may also be provided by accumulation of company's profits and on ploughing them back into business. Such funds belong to the ordinary shareholders and increases the company's net worth.

Debentures or bonds: Loans can be raised from public on issue of debentures or bonds by public limited companies. As compared with preference shares, debentures provide a more convenient mode of long term funds. Cost of capital raised through debentures is low as the interest can be charged as an expense before tax.

Advantages:

- The cost of debentures is much lower than the cost of preference or equity capital as the interest is tax-deductible.
- Debenture financing does not result in dilution of control.
- In a period of rising prices, debenture issue is advantageous. The fixed monetary outgo decreases in real terms as the price level increases.

Loans from financial institutions: ICICI, LIC, IDBI etc. provided long term loans to companies after satisfying the concerned financial institution regarding the. technical, commercial, economic, financial and managerial viability of the project for which the loan is required. Such loans are available at different rates of interest under different schemes of financial institutions and are to be repaid as per a stipulated repayment schedule.

Loans from commercial banks: The proceeds of term loan from commercial banks are used mostly for fixed assets or expansion in plant capacity. Their repayment is usually scheduled over a long period of time.

Bridge finance:

- It refers to loans taken by a company from commercial banks for a short period, pending disbursement of loans sanctioned by financial institutions.
- Normally, it takes time for financial institutions to disburse loans to companies. However, loans once approved by the term lending institutions pending the signing of regular term loan agreement, that may be delayed due to non-compliance of conditions stipulated by the institutions while sanctioning the loan.
- They are secured by hypothecating movable assets, personal guarantees and demand promissory notes.
- The interest rate on them is higher than on term loans.

2. Explain the importance of trade credit and accruals as source of working capital?

- Ans.**
- Trade credits and accruals as source of working capital refer to credit facility given by supplier.
 - It is short term source of finance. The major advantages of trade credit are - easy availability, flexibility and informality
 - Trade credit involves just implicit cost. The supplier extending trade credit incurs cost in the form of opportunity cost of funds invested in trade receivables.
 - Generally the supplier passes on these costs to the buyer by increasing the price of the goods or alternatively by not extending cash discount facility.

3. What is Debt securitisation? Explain the basics of debt securitisation process?

- Ans.** Debt securitisation is a method of recycling of funds. It is especially beneficial to financial intermediaries to support the lending volumes. Assets generating steady cash flows are packaged together and against this asset pool market securities can be issued. The basic debt securitisation process can be classified in the following 3 functions:
- **The origination function:** A borrower seeks a loan from a finance company, bank, housing company or a lease from a leasing company. The creditworthiness of the borrower is evaluated and a contract is entered into with repayment schedule structured over the life of the loan.
 - **The pooling function:** Similar loans or receivables are clubbed together to create an underlying pool of assets. This pool is transferred in favour of a SPV (Special Purpose Vehicle), which acts as a trustee for the investor. Once the assets are transferred, they are held in the originators' portfolio.
 - **The securitisation function:** It is the SPV's job now to structure and issue the securities on the basis of the asset pool. The securities carry a coupon and an expected maturity which can be asset based or mortgage based. These are generally sold to investors through merchant bankers. The investors interested in this type of securities are generally institutional investors like mutual funds, insurance companies, etc. The originator usually keeps the spread available i.e. difference between yield from secured assets and interest paid to investors.

4. What are the benefits to the originator of Debt securitisation?**Ans. Benefits to the originator:**

The assets are shifted off the balance sheet, thus, giving the originator recourse to off balance sheet funding.

- It converts illiquid assets to liquid portfolio.
- It facilitates better balance sheet management as assets are transferred off balance sheet facilitating satisfaction of capital adequacy norms.
- The originator's credit rating enhances.
- For the investor, securitisation opens up new investment avenues.

5. Discuss the eligibility criteria for issue of commercial paper?

Ans. The companies satisfying the following conditions are eligible to issue commercial paper:

- Tangible net worth is more than or equal to 5 crores as per audited Balance Sheet
- Fund base working capital limit should be equal or more than 5 crores
- The company is required to obtain the necessary credit rating from the rating agencies such as CRISIL, ICRA etc.
- Credit rating at the time of applying to RBI should not be more than 2 months old.
- Minimum current ratio should be 1.33:1
- For public sector companies, there are no listing requirements but for the companies other than public sector, it should be listed on one or more stock exchanges.
- All issue expenses shall be borne by the company issuing commercial paper.

6. Explain Global Depository Receipts

Ans.

- A depository receipt is basically a negotiable certificate, denominated in US Dollars representing a non US company's publicly traded local currency (Indian Rupee) equity shares.
- Theoretically, though a depository receipt can also signify debt instrument, practically it rarely does so. DR's are created when the local currency shares of an Indian company are delivered to the depository's ĩbcālçustōdian bank, against which the depository bank issues DR's in US Dollars.
- These DR\$ may be freely traded in the overseas- markets like any other dollar denominated security via either a foreign stock exchange or through a over the counter market or among a restricted group as Qualified institutional Buyers (QIB).
- Rule 144 A of the Securities and Exchange Commission (SEC) of USA permits companies from outside USA to offer their GDR's to certain institutional buyers, known as QIBs.

7. Explain Euro Convertible bonds (ECB's)

Ans.

- A convertible bond is a debt instrument giving the holders of the bond an option to convert the bonds into a pre-determined number of equity shares of the company.
- Usually, the price of equity shares at the time of conversion will have a premium element.
- They carry a fixed rate of interest and if the issuer company so desires may also include a Call Option, where the issuer company has the option of calling/buying the bonds for redemption prior to the maturity date, or a Put Option, which gives the holder the option to put/sell his bonds to the issuer company at a pre-determined date and price.

8. What do you mean by American Depository Receipts (ADR's)

Ans.

- Depository Receipts issued by a company in USA is known as ADR's. Such receipts have to be issued in accordance with the provisions stipulated by the SEC, USA that is stringent.
- As the regulations are severe, the Indian companies tap the vast American financial market through private debt placement of GDR's listed in London and Luxembourg stock exchanges.
- ADRs are costlier than GDRs. Legal fees are considerably high for US listing.
- An important aspect of GDR is that they are non voting and hence spells no dilution of equity. GDRs are settled through CEDEL and Euro-clear International Book Entry Systems.

9. What is Packing credit?

Ans. It is an advance made available by banks to an exporter. Any exporter who has an export order placed with him by his foreign buyer on a letter of credit in his favour can approach a bank for availing of packing credit. Following are the types of packing credit available:

- **Clean packing credit:** This is an advance available to an exporter only on production of a firm export order or a letter of credit without exercising any charge or control over raw material or finished goods. Each proposal is weighted according to particular requirements of trade and credit worthiness of the exporter.

- **Packing credit against hypothecation of goods:** Export finance is made available on certain terms and conditions where the exporter has pledgeable interest and the goods are hypothecated to the bank as security with stipulated margin.
- **Packing credit against pledge of goods:** Export finance is made available on certain terms and conditions where the exportable finished goods are pledged to the banks with approved clearing agents who would ship the same from time to time as required by the exporter. Possession of goods so pledged lies with the bank and are kept under its lock and key.

10. What are the methods of Venture Capital Financing?

Ans. Venture capital financing refers to financing of new high risky venture promoted by qualified entrepreneurs lacking experience and funds to give shape to their ideas. Under it venture capitalist makes investment to purchase equity or debt securities from inexperienced entrepreneurs undertaking highly risky ventures with a potential of success. The methods are:

- **Equity financing:** The venture capital undertakings usually require funds for a longer period but, may not be able to provide returns to investors during the initial stages. Thus, the venture capital finance is generally provided by way of equity share capital. The equity contribution of venture capital firm does not exceed 49 % of the total equity capital of venture capital undertakings so that the effective control and ownership remains with the entrepreneur.
- **Conditional loan:** It is repayable in the form of a royalty after the venture is able to generate sales. No interest is paid on such loans. In India venture capital financiers charge royalty ranging between 2 and 15 %, actual rate depends on other factors of the venture as gestation period, cash flow patterns, riskiness and other factors of the enterprise. Some venture capital financiers give a choice to the enterprise of paying a high rate of interest, which can be well below 20 %, instead of royalty on sales once it becomes commercially sounds.
- **Income note:** It is a hybrid security combining features of both conventional and conditional loan. The entrepreneur has to pay interest and royalty on sales but, at substantially low rates. IDBI's Venture Capital Fund (VCF) provides funding equal to 80 - 87.5 % of the project cost for commercial application of indigenous technology.
- **Participating debentures:** Such security carries charges in 3 phases - in the start up phase no interest is charged, next stage - a low rate of interest is charged upto a particular level of operation and after that, a high rate of interest is required to be paid.

11. Distinguish Deep Discount Bonds v/s Zero Coupon Bonds?

Ans. Deep Discount Bonds

- Deep Discount Bonds (DDBs) are in the form of zero interest bonds.
- These bonds are sold at a discounted value and on maturity face value is paid to the investors.
- In such bonds, there is no interest payout during lock in period.
- IDBI was first to issue DDBs in India in January 1992

Zero Coupon Bonds

- A zero coupon bond does not carry any interest but is sold by the issuing company at a discount.
- The difference between discounted value and maturing or FV represent the interest to be earned by the investor on such bonds

12. Explain Venture Capital Financing?

Ans. Venture capital financing refers to financing of new high risky venture promoted by qualified entrepreneurs lacking experience and funds to give shape to their ideas.

- Under it venture capitalist makes investment to purchase equity or debt securities from inexperienced entrepreneurs undertaking highly risky ventures with a potential of success. The venture capital industry in India is just a decade old.
- A few venture capital companies operate as both investment and fund management companies; other set up funds and functions as asset Management Company.
- It is hoped that changes in the guidelines for implementation of venture capital schemes in the country would encourage more funds to be set up to give the required momentum for venture capital investment in India.

13. Explain Seed Capital Assistance?

Ans. The seed capital assistance scheme is designed by IDBI for professionally or technically qualified entrepreneurs and/or persons possessing relevant experience, skills and entrepreneurial traits.

- All the projects eligible for financial assistance from IDBI, directly or indirectly through refinance are eligible under the scheme.
- The project cost should not exceed Rs. 2 crores and the maximum assistance under the project will be restricted to 50 % of the required promoter's contribution or Rs. 15 lakhs, whichever is lower.
- Seed capital assistance is interest free, but carries a service charge of 1 % per annum for the first 5 years and at increasing rate thereafter.

14. Explain Inflation Bonds?

Ans.

- They are bonds in which interest rate is adjusted for inflation. The investor, thus, gets an interest free from the effects of inflation.
- For instance, if interest rate is 12 % and inflation rate is 5 %, the investor will earn 17 %, meaning that the investor is protected against inflation.

15. What do you understand by the term 'ploughing back of profits'?

Ans.

- Retained earnings means retention of profit and reinvesting it in the company as long term funds. Such funds belong to the ordinary SHS and increase the networth of the company.
- A public limited company must plough back a reasonable amount of profit every year keeping in view the legal requirements in this regard and its own expansion plans
- Such funds almost do not have any risk. Further, control of present owners is also not diluted by retaining profits.

16. Why are debentures considered cheaper than equity as a source of finance?

Ans.

- The cost of debentures is much lower than the cost of preference of equity share capital as the interest is tax deductible and the floatation costs of equity shares issue is higher.
- Debentures carry fixed rate of interest when there are higher profits, equity shareholders may demand higher demand which can make equity share capital more costly.

17. What is Lease Financing?

Ans.

- Leasing is a general contract between the owner and user of the asset over a specified period of time.
- The asset is purchased initially by the lessor (leasing company) and thereafter leased to the user (Lessee Company) that pays a specified rent at periodical intervals.
- Thus, leasing is an alternative to the purchase of an asset out of own or borrowed funds.
- Moreover, lease financing can be arranged much faster as compared to term loans from financial institutions.

- From the lessee's view point, leasing has the attraction of eliminating immediate cash outflow and the lease rentals can be deducted for computing the total income under the Income tax act.
- As against this, buying has the advantages of depreciation allowance inclusive of additional depreciation and interest on borrowed capital being tax deductible.
- Thus, an evaluation of the 2 alternatives is to be made in order to take a decision.

18. What is commercial paper?

- Ans.**
- Commercial paper is an unsecured money market instrument issued in form of a promissory note
 - RBI introduced it in 1989
 - Corporate, Primary dealers and All India Financial Institutions are allowed to issue commercial paper
 - Commercial papers can be issued for maturities between 15 days and max upto 1 year from the date of issue
 - Individuals, banking company, corporate bodies incorporated in India, NRIs etc. are allowed to invest in commercial paper, minimum amount should be Rs. 5 Lac and these can be issued in denominations of Rs. 5 Lac or multiples

19. Explain the concept of Leveraged Base?

- Ans.**
- Leverage is the amount of debt that a firm uses to finance its assets
 - Company having a leveraged base is the company having amount of debt in its capital structure

20. Discuss the various ways in which Indian companies can raise foreign currency?

- Ans.** **Commercial banks:** Like domestic loans, commercial banks all over the world extend Foreign Currency (FC) loans, for international operations. These banks also provide to overdraw over and above the loan amount.

Development banks: offer long and medium term loans including FC loans. Many agencies at the national level offer a number of concessions to foreign companies to invest within their country and to finance exports from their countries e.g. EXIM Bank of USA.

Discounting of trade bills: This is used as a short term financing method widely, in Europe and Asian countries to finance both domestic and international business.

International agencies: A number of international agencies have emerged over the years to finance international trade and business. The more notable among them includes: International Finance Corporation (IFC), International Bank for Reconstruction & Development (IBRD), Asian Development Bank (ADB), International Monetary Fund (IMF), etc.

Floating Rate Notes: They are issued upto 7 years maturity. Interest rates are adjusted to reflect the prevailing exchange rates. They provide cheaper money than foreign loans.

Euro Commercial Papers (ECP): ECP's are short term money market instruments, with maturity of less than 1 year and designated in US dollars.

Foreign Currency Option: A FC Option is the right to buy or sell, spot or future or forward, a specified foreign currency. It provides a hedge against financial and economic risks.

Foreign Currency Futures: FC Futures are obligations to buy or sell a specified currency in the present for settlement at a future date.

21. Explain Indian Depository Receipts (IDRs)?

- Ans.**
- IDRs are used to raise funds in the foreign currency in the Indian capital markets
 - IDRs are similar to ADRs/GDRs in the sense that foreign company can issue IDRs to raise funds from the Indian Capital Market in the same lines as an Indian Company uses ADRs/GDRs to raise foreign capital
 - IDRs are listed and traded in India in the same way as other Indian securities are traded

22. Distinguish between American Depositary Receipts (ADRs) and Global Depositary Receipts (GDRs)?

Ans.

	ADRs	GDRs
1	ADRs are depository receipt issued by a company in USA governed by provisions of Securities and Exchange Commission of USA	GDRs are negotiable certificate denominated in US dollars which represents a non-us company publically traded local currency equity shares.
2	Regulators are severe, so ADRs are not very popular	GDRs are preferred over ADRs and are very popular
3	ADRs are costlier than GDRs	GDRs are cheap than ADRs
4	Legal and registration fees is considerably high	Legal and registration fees is not that high

23. Explain financing of export trade by banks?

Ans. The advance by commercial banks for export finances are in form of:

- (1) Pre - shipment finance: i.e. Before shipment of goods
- (2) Post - shipment finance: i.e. After shipment of goods

(1) Pre - Shipment Finance:

- This usually, takes the form of packing credit facility, which is an advance extended by banks to an exporter for the purpose of buying, manufacturing, processing, packing, shipping goods to overseas buyers.
- Any exporter, having at hand a firm export order placed with him by his foreign buyer or an irrevocable letter of credit opened in his favour, can approach a bank for availing packing credit.
- Packing credit in case of customers of long standing may also be granted against firm contracts entered into by them with overseas buyers.

• **Documents required:**

Generally:

- ✓ Joint and several demand promissory note signed on behalf of the firm as also by partners individually;
- ✓ Letter of continuity
- ✓ Letter of pledge
- ✓ Letter of authority to operate the account;
- ✓ Declaration of Partnership,
- ✓ Agreement to utilize the monies drawn in terms of contract;
- ✓ Letter of hypothecation for bills.

In case of Limited company:

- ✓ Demand promissory note;
- ✓ Letter of continuity;
- ✓ Agreement of hypothecation of letter of pledge
- ✓ Agreement to utilize the monies
- ✓ Letter of hypothecation for bills

(2) Post - Shipment Finance:

- Purchase/Discounting of documentary export bills: Finance is provided to exporters by purchasing export bills drawn payable at sight or by discounting export bills covering confirmed sales and backed by appropriate documents.
- E.C.G.C. Guarantee: Post-shipment finance, given to an exporter by bank through purchase, negotiation or discount of an export bill against an order, qualifies for post-shipment export credit guarantee.

- Advance against export bills sent for collection: Finance is provided by banks to exporters by way of advance against export bills forwarded through them for collection, taking into account the party's creditworthiness, nature of goods exported, standing of drawee, etc. appropriate margin is kept.
- Advance against duty draw backs, cash subsidy, etc: To finance export losses sustained by exporters, bank advance against duty draw-back, cash subsidy, etc. receivable by them against export performance. Such advances are of clean nature, hence, necessary precaution is to be exercised.

24. Explain Overdraft, Clean overdraft and Cash credit?

Ans. Overdrafts:

- Under this facility, customers are allowed to withdraw in excess of credit balance standing in their current deposit account.
- A fixed limit is thus, granted to the borrower within which the borrower is allowed to overdraw his account.
- Opening of an overdraft account requires that a current account is formally opened. Although overdrafts are repayable on demand, they usually continue for long periods by annual renewals of limits.

Clean overdrafts:

- Request for such facility is entertained only from financially sound parties that are reputed for their integrity.
- Bank is to rely on personal security of the borrowers, thus, it has to exercise a good deal of restraint in entertaining such proposals, as they have no backing of any tangible security.
- In case parties are already enjoying secured advance facilities, this may be a point in favor and may be taken into account while screening such proposals.
- A clean advance is generally granted for a short period and must not be continued for long.

Cash credits:

- Cash credit is an arrangement under which, a customer is allowed an advance upto certain limit against credit granted by bank.
- Under it, a customer need not borrow the entire amount of advance at one time. He can only draw to the extent of his requirements and deposit his surplus funds in his account.
- Interest is not charged on the full amount of advance but, on the amount actually availed by him.
- Usually, credit limits are sanctioned against the security of goods by way of pledge or hypothecation, though they are repayable on demand, banks usually do not recall them, unless they are compelled to do so by adverse factors.

CHP – 6

CAPITAL BUDGETING

1. Define Capital Budgeting?

Ans. Capital budgeting decision means the decision as to whether or not to invest in long-term projects such as setting up of a factory or installing a machinery or creating additional capacities to manufacture a part which at present may be purchased from outside and so on.

- It includes the financial analysis of the various proposals regarding capital expenditure to evaluate their impact on the financial condition of the company for the purpose to choose the best out of the various alternatives.
- Capital budgeting decision is thus, evaluation of expenditure decisions that involve current outlays but are likely to produce benefits over a period of time longer than one year.

2. Define Regular pay back period and discounted payback period?

Ans.

- The payback period of an investment is the length of time required for the cumulative total net cash flows from the investment to equal the total initial cash outlays
- Payback period calculated after discounting the cash flows by a pre determined rate is called 'Discounted Payback Period'

3. Define modified rate of return method (MIRR)?

Ans.

- MIRR addresses the deficiencies of IRR. It eliminates multiple IRR rates; it addresses the reinvestment rate issue and produces results, which are consistent with NPV method.
- In this method, all cash flows except the initial investment are brought to the terminal value using an appropriate discount rate (usually cost of capital)
- This results in single stream of cash inflow in the terminal year.
- MIRR is obtained by assuming a single outflow in the growth year and the terminal cash inflow as mentioned above.
- The discount rate which equates the PV of the terminal cash inflow to the zeroth year outflow is called MIRR

4. Explain Net Present Value Method (NPV)

Ans.

- The best method for evaluation of investment proposal is net present value method or discounted cash flow technique.
- This method takes into account the time value of money.
- The net present value of investment proposal may be defined as sum of the present values of all cash inflows as reduced by the present values of all cash outflows associated with the proposal.
- Each project involves certain investments and commitment of cash at certain point of time. This is known as cash outflows.
- Cash inflows can be calculated by adding depreciation to profit after tax arising out of that particular project.

5. What do you mean by Capital Rationing?

Ans.

- Usually, firms decide maximum amount that can be invested in capital projects, during a given period of time, say a year.
- The firm, then attempts to select a combination of investment proposals, that will be within specific limits providing maximum profitability and rank them in descending order as per their rate of return, this is a capital rationing situation.
- A firm should accept all investment projects with positive NPV, with an objective to maximize the wealth of shareholders.

- Capital rationing can be experienced due to external factors, mainly imperfections in capital markets attributable to non-availability of market information, investor attitude, and so on. Selection of a project under capital rationing involves:
 - Identification of the projects that can be accepted by using evaluation technique as discussed.
 - Selection of the combination of projects.

6. Does the IRR model make significantly different decisions than the NPV method? Discuss.

- Ans.**
- There are circumstances under which the NPV method and IRR method will reach different conclusions. Results may vary significantly when capital investment projects in;
 - Amount of initial investment
 - Net cash flow patterns
 - Length of useful lives
 - Situations with varying costs of capital over the life a period
 - Multiple investment
 - The NPV method will favour a project with a large investment because the project is more likely to generate large net cash inflows. Whereas in IRR method, amount of the initial investment has no effect on the outcome as it uses % to evaluate the relative profitability of an investment.

7. Why is discounted cash flow a superior method for capital budgeting?

- Ans.**
- Time value of Money takes into account that cash received today can be invested at a specified interest rate.
- The time value of money is the opportunity cost (forgone cost) from not having the cash today.
 - Both these techniques consider all cash flows over the expected useful life of the investments. Because of these 2 characteristics discounted cash flow techniques are considered to be the most theoretically sound methods for evaluating capital investments.

8. Define cut -off rate.

- Ans.**
- Cut off rate is the minimum that the management wishes to have from any project; usually it is based on cost of capital.
 - The technical calculation of cost of capital involves a complicated procedure, as a concern procures funds from any sources i.e. equity shares, capital generated from its own operations and retained in general reserves i.e. retained earnings, debentures, preference share capital, long/short term loans, etc.
 - Thus, the firm's cost of capital can be known only by working out weighted average of the various costs of raising various types of capital.
 - A firm should not and would not invest in projects yielding returns at a rate below the cut off rate.

9. "The higher the cut off rate, the more will be the company willing to pay for cost saving equipment". Discuss.

- Ans.**
- Comparison of IRR with the required rate of return is known as cut off rate.
 - The project should be accepted if IRR is greater than cut off rate
 - If IRR is equal to cut off rate the firm is indifferent
 - If IRR is less than cut off rate the project is rejected

10. Discuss the principal limitations of the cash payback period for evaluating capital investment proposals.

- Ans.**
- It ignores the time value of money
 - It fails to consider an investment's total profitability
 - Use of this method may cause organisations to place too much emphasis on short payback period ignoring the need to invest in long term project that would enhance its competitive position

11. Discuss in detail 'Capital Budgeting Process' ('CBP')?

Ans. The extent to which the capital budgeting process needs to be formalised depends on the size of the organisation, no. of projects to be considered etc. The following is the process:

- **Planning:** CBP begins with the identification of potential investment opportunities. The opportunity then enters the planning phase when the potential effect of the firm's future is assessed and ability of management of firm to exploit the opportunities are determined.
- **Evaluation:** This phase involves the determination of proposal and its investments, inflows and outflows. Investment appraisal techniques are used to appraise the proposals.
- **Selection:** Considering the returns and risks associated with the individual projects as well as cost of capital to the organisation, the organisation will choose among projects so as to maximise shareholders wealth
- **Implementation:** When the selection is done, the firm must start implementation of project.
- **Control:** The process of the project is monitored with the aid of feedback reports.
- **Review:** When a project terminates, or even before, the organisation should review the entire project to explain its success or failure

12. In what sense is a reinvestment rate assumption embodied in the NPV, IRR and MIRR method? What is the assumed reinvestment rate of each method?

- Ans.**
- NPV technique assumes that all cash flows can be reinvested at the discount rate used for calculating the NPV
 - It is a logical assumption since the use of the NPV technique implies that all projects which provides a higher return than the discounting are accepted

IRR technique assumes that all cash flows are reinvested at the project's IRR. It means that projects with heavy cash flows in the early years will be favoured by this method vis-a-vis which have got heavy cash flows in the later years.

13. What are the various types of Capital Investment decisions?

Ans. **On the basis of the firm's existence:** Capital budgeting decisions are taken by both newly incorporated and existing firms. New firms may require to take decision in respect of selection of plant to be installed, while existing firms may require to take decision to meet the requirements of new environment or to face challenges of competition. These decisions may be classified into:

- **Replacement and modernisation decisions:** Replacement and modernization decisions aim to improve operating efficiency and reduce costs. Usually, plants require replacement due to they have been economically dead i.e. no more economic life left or on they becoming technologically outdated.
- **Expansion decision:** Existing successful firms may experience growth in demand of the product and may experience shortage or delay in delivery due to inadequate production facilities and thus, would consider proposals to add capacity to existing product lines.
- **Diversification decisions:** These decisions require evaluation proposals to diversify into new product lines, new markets, etc. to reduce risk of failure by dealing in different products or operating in several markets, expansion and diversification decisions are revenue expansion decisions.

On the basis of decision situation:

- **Mutually exclusive decisions:** Decisions are said to be mutually exclusive when two or more alternative proposals are such that acceptance of one would exclude the acceptance of the other.
- **Accept-Reject decisions:** The accept-reject decision occurs when proposals are independent and do not compete with each other. The firm may accept or reject a proposal on the basis of a minimum return on the required investment. All those proposals which have a higher return than certain desired rate of return are accepted and rest rejected.
- **Contingent decisions:** Contingent decisions are dependable proposals; investment in one requires investment in another.

14. Do the profitability index and the NPV criterion of evaluating investment proposals lead to the same acceptance - rejection and ranking decisions? In what situations will they give conflicting results?

- Ans.**
- In most of the situations the NPV and Profitability Index (PI) yield same accept-reject decision.
 - Under PI method, a project is acceptable if profitability index value is > 1 and reject if < 1
 - Under NPV method, a project is acceptable if NPV of a project is +ve and rejected if -ve
 - A project having $PI > 1$ must also be having NPV which +ve.
 - But a conflict may arise between two methods if a choice between mutually exclusive projects has to be made

15. Distinguish between NPV & IRR?

- Ans.**
- In case of mutually exclusive investment projects, in certain situations they may give contradictory results such that if the NPV method finds 1 proposal acceptable, IRR favours another. The different rankings given by the NPV and IRR methods could be due to size disparity problem, time disparity problem and unequal expected lives.
 - NPV is expressed in financial values whereas IRR is expressed in % terms
 - In NPV, cash flows are assumed to be reinvested at cost of capital rate. In IRR reinvestment is assumed to be made at IRR rates

16. Discuss the need for social cost benefit analysis (SCBA)?

- Ans.**
- Market prices used to measure costs and benefits in project analysis do not represent social values due to market imperfections.
 - Monetary cost benefit analysis fails to consider the externalities or external effects of a project. The external effects can be positive like development of infrastructure or negative like pollution and imbalance in environment.
 - Taxes and subsidies are monetary costs and gains, but these are only transfer payments from social viewpoint and thus irrelevant.
 - The redistribution benefits because of project needs to be captured
 - SCBA is essential for measuring the redistribution effect of benefits of a project as benefits going to poorer section are more important than one going to sections which are economically better off.
 - Projects manufacturing liqueur and cigarettes are not distinguished from those generating electricity or producing necessities of life. Thus, merit wants are important appraisal criterion for SCBA.

17. Write short notes on Internal Rate of Return (IRR)?

- Ans.**
- IRR is that rate of return at which the sum total of discounted cash inflows equals to discounted cash outflows.
 - The IRR of a project is the discount rate that makes the net present value of the project equal to zero.
 - IRR can be interpreted in 2 ways:
 - IRR represents the rate of return on the unrecovered investment balance in the project.
 - IRR is the rate of return earned on the initial investment made in the project.
 - It may not be possible for all firms to reinvest intermediate cash flows at a rate of return equal to the project's IRR; hence the first interpretation seems to be more realistic.
 - Thus, IRR should be viewed as the rate of return on unrecovered balance of project rather than compounded rate of return on initial investment over the life of the project.

18. Is Decision tree analysis helpful in managerial decisions?

- Ans.** Yes, decision tree analysis is helpful in managerial decisions which can be denoted by following points:
- Present investment decisions have several implications for future investment decisions. Such complex decisions involve a sequence of decisions over time.
 - Industrial activity cannot be reduced to a single decision and must be viewed as a sequence of decisions extending from the present time into the future.
 - These sequential decisions are taken on the basis of decision tree analysis.
 - While constructing and using decision tree, following important steps are to be considered:-
 - Investment proposal should be properly defined
 - Decision alternatives should be clearly clarified
 - The decision tree should be properly graphed indicating the decision points, chance, events and other data
 - The results should be analysed and the best alternative should be selected

19. Explain Payback period? What are its merits and demerits?

- Ans.** It is one of the simplest methods to calculate the period within which the entire cost of the project would be completely recovered. It is the period within which total cash inflows from the project would be equal to total cash outflows of the project, cash inflow means profit after tax but before depreciation.

Merits:

- It is easy to compute
- It is easy to understand as it provides a quick estimate of the time needed for the organization to recoup the cash invested
- The length of the project can also serve as an estimate of a project's risk

Demerits:

- It ignores the time value of money
- It does not consider investment's total profitability. Inflows after the payback period are completely ignored
- It emphasizes on short payback periods.

20. Explain Payback reciprocal?

- Ans.**
- It is reciprocal of the payback period.
 - A major drawback of the payback period method of capital budgeting is that it does not indicate any cut-off period for the purpose of investment decision.
 - In practice, payback reciprocal is a helpful tool for quickly estimating the rate of return of a project provided its life is at least twice the payback period.

21. What is Accounting / Average (Book) Rate of Return? Explain the merits and demerits if the same.

Ans. The ARR is based on the accounting concept of return on investment or rate of return. It is the net income earned on the average amount of funds invested in the project.

$$\text{Accounting rate of return} = \frac{\text{Average annual net income}}{\text{Investment}}$$

Merits:

- It is simple to calculate and easy to apply
- The relevant data to calculate ARR is readily available in the accounting records
- ARR considers all the benefits arising out of the proposal throughout its economic life

Demerits:

- It ignores the time value of money
- The ARR is based on accounting profits rather than cash flows
- The ARR ignores the life of the proposal

22. What is Desirability Factor / Profitability Index? What are the merits and the limitation of this method?

Ans. In cases of, a number of capital expenditure proposals, each involving different amounts of cash inflows, the method of working out desirability factor or profitability index is followed. In general terms, a project is acceptable if its profitability index value is greater than 1.

Merits:

- This method also uses the concept of time value of money.
- It is a better project evaluation technique than NPV.

Limitations:

- Profitability index fails as a guide in resolving 'capital rationing' where projects are indivisible. Once a single large project with high NPV is selected, possibility of accepting several small projects that together may have higher NPV, then a single project is excluded.
- Situations may arise where a project selected with lower profitability index may generate cash flows in such a manner that another project can be taken up one or two years later, the total NPV in such case being more than the one with a project having highest Profitability Index.

CHP – 7

LEVERAGES

1. What is Leverage? Explain its types

Ans. Leverage is the amount of debt that a firm uses to finance its assets.

Types of leverages: Commonly used leverages are of the following type:

- 1) **Operating Leverage:** It is defined as the "firm's ability to use fixed operating costs to magnify effects of changes in sales on its EBIT". When there is an increase or decrease in sales level the EBIT also changes. The effect of changes in sales on the level EBIT is measured by operating leverage.

$$\text{Operating leverage} = \% \text{ Change in EBIT} / \% \text{ Change in sales} \\ = [\text{Increase in EBIT}/\text{EBIT}] / [\text{Increase in sales}/\text{sales}]$$

Significance of operating leverage:

- Analysis of operating leverage of a firm is useful to the financial manager. It tells the impact of changes in sales on operating income.
 - A firm having higher D.O.L. (Degree of Operating Leverage) can experience a magnified effect on EBIT for even a small change in sales level.
 - Higher D.O.L. can dramatically increase operating profits. But, in case of decline in sales level, EBIT may be wiped out and a loss may be operated.
 - As operating leverage, depends on fixed costs, if they are high, the firm's operating risk and leverage would be high.
 - Also, in case of high operating leverage, the margin of safety would be low.
 - Thus, it is preferred to operate sufficiently above the break-even point to avoid the danger of fluctuations in sales and profits.
- 2) **Financial Leverage:** It is defined as the ability of a firm to use fixed financial charges to magnify the effects of changes in EBIT/Operating profits, on the firm's earnings per share. The financial leverage occurs when a firm's capital structure contains obligation of fixed charges e.g. interest on debentures, dividend on preference shares, etc. along with owner's equity to enhance earnings of equity shareholders.

$$\text{Financial leverage} = \% \text{ change in EPS} / \% \text{ change in EBIT} \\ = (\text{Increase in EPS}/\text{EPS}) / \{ \text{Increase in EBIT}/\text{EBIT} \}$$

Significance of Financial Leverage:

- Financial leverage helps the finance manager in designing the appropriate capital structure.
 - One of the objectives of planning an appropriate capital structure is to maximize return on equity shareholders' funds or maximize EPS.
 - Financial leverage is double edged sword i.e. it increases EPS on one hand, and financial risk on the other.
 - A high financial leverage means high fixed costs and high financial risk i.e. as the debt component in capital structure increases; the financial risk also increases i.e. risk of insolvency increases.
 - The finance manager thus, is required to trade off i.e. to bring a balance between risk and return for determining the appropriate amount of debt in the capital structure of a firm.
- 3) **Combined Leverage:** Operating leverage explains operating risk and financial leverage explains the financial risk of a firm. However, a firm has to look into overall risk or total risk of the firm i.e. operating risk as also financial risk.

$$\text{Combined leverage} = \text{Operating leverage} * \text{Financial leverage} \\ = (\% \text{ change in EBIT} / \% \text{ change in sales}) * (\% \text{ change in EPS} / \% \text{ change in EBIT}) \\ = \% \text{ change in EPS} / \% \text{ change in sales}$$

Significance of Combined Leverage:

The effect of leverage is to magnify the effects of changes in sales volume on earnings

It serves to increase both expected return and risk to the firm's shareholders
 Leverage helps both the investor and the firm to invest or operate
 To decide proper financial policy and appropriate capital structure, leverages are used

2. Distinguish between Business Risk and Financial Risk

Ans.

	Business Risk	Financial Risk
1	It refers to the risk associated with the firm's operations	It is the additional risk on firm's shareholders as a result of debt use of financing
2	It can be measured by standard deviation of basic power ratio	It can be measured by financial leverage total debt to assets ratio

3. Discuss the impact of FL (Financial Leverage) on SHS wealth by using return on assets (ROA) and return on equity (RÔI) analytic framework

OR

Discuss the ROA and ROE by bringing out clearly the impact of FL

Ans. The impact of FL on ROE is positive, if cost of debt (after tax) is less than ROA. But it is a double edged sword.

$$ROA = (NPAT / Sales) \times (Sales / Capital Employed)$$

$$ROE = ROA + D/E (ROA - K_d)$$

Where,

$$NPAT = EBIT (1 - t)$$

$$Capital Employed = SHS funds + Loan Funds$$

$$D = Debt amount \quad E = Equity Amount$$

$$K_d = 1/(1 - t) \text{ in case of fresh loans of a company}$$

$$K_d = Yield to maturity (1 - t) \text{ in case of existing loans of a company}$$

4. Discuss the impact of taxation on corporate financing

- Ans.
- Tax is levied on the profits of a company. Tax is also levied on the dividends received by the SHS through such dividends are declared out of "after tax" profits
 - Thus the corporate firm and the owners of shares suffer tax twice in a sense. This pushes the cost of equity capital
 - On the other hand, interest paid on the debt capital is a deductible expenditure and hence company does not pay tax on interest in debt capital
 - This reduces the cost of debts. Debt is a less costly source of funds and if the debt and equity are properly reduced; WACC is greatly reduced.

5. Distinguish between Operating Leverage and Financial Leverage**Ans.**

	Operating Leverage	Financial Leverage
1	OL is employment of an asset with a fixed cost in the hope that sufficient revenue will be generated to cover all the fixed and variable costs	FL is use of funds with a fixed cost in order to increase earnings per share
2	It arises due to presence of fixed operating cost	It arises due to presence of fixed financial cost such as interest etc.
3	It is a measure of business risk	It is a measure of financial risk
4	It represents the tendency of EBIT to change disproportionately to the change in contribution (or sales).	It represents the tendency of EBT to change disproportionately due to the change in EBIT.

6. Explain the advantages of equity financing

- Ans.**
- There would be no requirement to pay interest regardless of the cash flow of the business
 - If the firm goes through a rough patch in its business activities, it may have trouble paying its loan lenders
 - Its a kind of permanent capital

7. What are the advantages of debt financing from the point of company and investors?

- Ans.**
- Lenders require a lower rate of return than ordinary shareholders
 - Debt financial securities carry a lower risk than shares because they are given a priority on annual income and liquidation
 - Debt interest can be offset against pre-tax profits before the calculation of corporate tax, thus reducing the tax paid.
 - Issuing and transaction costs associated with raising and receiving debt are generally less than for shares

CHP – 8

CASH BUDGET

1. Enumerate the activities which are covered by Treasury Management?

Ans. Treasury management is efficient management of liquidity and financial risk in business. Main activities are:

- **Cash management:** Treasury management is about efficient collection and repayment of cash
- **Currency Management:** It manages foreign currency risk, exchange rate risks etc. It advises on the currency to be used while invoicing overseas sales
- **Funding Management:** Responsible for planning and sourcing firm's short, medium and long term cash needs, it participates in capital structure, forecasting etc.
- **Banking:** Good relations with bankers and carry out initial negotiations with them for any short term loan.
- **Corporate finance :** It advises on aspects of corporate finance including capital structure, mergers and acquisitions.

2. Discuss Miller - Orr Cash Management Model?

Ans. Miller - Orr cash management model is one of such control limit models which is designed to determine the time and size of transfers between an Investment A/C and Cash A/C.

- In this model, control limits are set for cash balances. These limits may consist of 'h' as upper limit, 'z' as the return point and zero as the lower limit.
- When the cash balance reaches the upper limit, a transfer of cash = 'h-z' is invested in marketable securities A/c.
- When it touches the lower limit, a transfer from marketable securities A/c to cash A/c is made.
- During the period when cash balance stays between (h,z) and (z,0) i.e. high and low limits, no transaction between cash and marketable securities A/c is made
- The high and low limits of cash balance are set upon the basis of fixed cost associated with the securities transaction, the opportunities cost of holding cash and degree of likely fluctuations in cash balances.
- Formula for calculation of the spread between the control limits is:

$$\text{Spread} = 3 \left\{ \frac{3}{4} \times \text{Transaction Cost} \times \text{Variance of cash flows} \right\}^{1/3}$$

$$\text{Return Point} = \text{Lower Limit} + (\text{Spread}/3)$$

3. Explain Different kinds of float with reference to management of cash?

Ans. Float is used to refer to the periods that affect cash as it moves through the different stages of the collection process. Four kinds of float are:

- **Billing Float:** An invoice is the formal document that a seller prepares and sends to the purchaser as the payment request for goods sold or services provided. Time between sales and mailing of invoice is the billing float
- **Mail Float:** This is the time when a cheque is being processed by post office, messenger service or other means of delivery
- **Cheque Processing Float:** This is the time required for the seller to sort, record and deposit the cheque after it has been received by the company
- **Bank Processing Float:** This is the time from the deposit of the cheques to the crediting of funds in the sellers A/c

4. State the Maximum permissible bank finance (MPBF)?

Ans. MPBF as recommended and suggested by the study groups of RBI was 75% of working capital gap as follows:

Current Assets	100
Less: Noninterest bearing Current Liabilities	(40)
Working Capital Gap (A)	60
Less: Financing from long term sources (25% of either CA or WC gap) (B)	(15)
MPBF(A - B)	45

- RBI in the beginning of 1997 scrapped the concept of MPBF and introduced its credit policy. Salient features of new credit policy are:
- For borrowers with requirements up to Rs. 25 Lacs credit limit will be computed after detailed discussion with borrowers without going into detailed evaluations.
- For borrowers with requirements above Rs 25 Lac but up to Rs 5 crores, credit limit can be offered up to 20% of the projected gross sales of the borrower. For large borrowers not falling in the above categories, the cash budget systems may be used to identify the working capital needs.

5. Explain William J Baumal Cash management model

- Ans.**
- According to William J Baumal economic order quantity model, optimum cash level is that level of cash where the carrying costs and transaction costs are minimum.
 - Carrying costs are the cost of holding cash, namely the interest foregone on marketable securities. Transaction costs are the cost involved in getting the marketable securities converted into cash. This happens when the firm falls short of cash and has to sell the securities resulting in clerical, brokerage and registration costs.
 - The optimum cash balance according to the model will be that point where these two costs are equal.

6. What are the recent developments in cash management?

- Ans.**
- **Electronic Fund Transfer:** The network will be linked to the different branches, banks. This will help in instant updation of accounts, quick transfer of funds, instant information about foreign exchange rate
 - **Zero Balance Account:** Everyday, the firm total the cheques presented for payment against the A/c. The firm transfers the balance amount of cash in A/c, if any, for buying marketable securities. In case of shortage of cash, the firm sells the marketable securities.
 - **Money market operations:** Banks obtain funds by competing in the money market for the deposits by the company, public authorities and other banks.
 - **Petty cash imprest system:** In this system, day to day petty cash expenses are estimated taking past experience and future needs into account and generally a week's requirement of cash will be kept separate for making petty cash expenses
 - **Electronic cash management system:** Various elements in the process of cash management are linked and various places are interlinked through satellite.
 - **Virtual Banking:** It is a provision of banking and related services through use of technology without direct connection to the bank by the customer. Ex: ATM

CHP – 9

MANAGEMENT OF RECEIVABLES

1. Briefly explain the meaning and importance of 'Credit rating'?

- Ans.**
- Credit rating reflects the probability of timely repayment of principal and interest by a borrower company.
 - It indicates the risk involved in a debt instrument as well as its qualities. Higher the rating, greater is the probability that the borrower will make timely payment of principal and interest and vice versa.
 - It facilitates the company in raising funds in the capital market and helps the investor to select their risk return trade off.
 - It helps the investor in arriving at a correct and rational decision about making investments. It is an indicator showing the hidden quality of a (debt) issue programme. The investor is fully informed about the company as any effect of changes in business/economic conditions on the company is evaluated and published regularly by the rating agencies. Fair and good credit ratings motivate the public to invest their savings.
 - The corporate borrowers can raise funds at a cheaper rate with good rating. Less known companies can also approach the market on the basis of their rating.
 - Fund ratings are useful to bank and other financial institutions while deciding, lending and investment strategies.

2. Explain the 'Ageing schedule' in the context of monitoring of receivables.

- Ans.**
- Ageing schedule is an important means to get an insight into collection pattern of debtors.
 - Receivables are classified according to their age from the date of invoicing. Eg: 0-30 days, 31-60 days, 61-90 days, 91-120 days and more.
 - Ageing schedule can be compared with earlier month's figures or the corresponding month of the earlier year or with other firms.
 - This classification helps the firm in its collection efforts and enables management to have a close control over the quality of individual accounts.

3. Define factoring.

- Ans.** It is new financial service that is presently being developed in India. It involves provision of specialised services relating to credit investigation, sales ledger management purchase and collection of debts, credit protection as well as provision of finance against receivables (debtors) are generally sold to a financial institution (a subsidiary of commercial bank - called "Factors") who generally charges commission and bears the credit risk associated with the account receivables purchased by it. A client enters into an agreement with 'factor' working out a factoring agreement according to his requirements. The factor then takes the responsibility of monitoring, follow ups, collection and risk taking and provision of advance. The factor generally fixes up a limit customer-wise for the client (seller).

Advantages are as follows:

- Firm can convert accounts receivables into cash.
- It ensures definite pattern of cash inflows.
- Continuous factoring virtually eliminates the need for the credit department.
- Unlike unsecured loan compensating balances are not required in this case.
- It reduces/stops the credit collection costs of the firm. However factoring is a costly source of financing.

Question 4

4. Effects of inflation on Inventory management?

- Ans.**
- The main objectives of inventory management are to determine and maintain the optimum level of investment in inventories. Moderate inflation rate can be ignored.
 - The effect of inflation on goods which the firm stock is relatively constant can be dealt easily. One simply deducts the expected annual rate of inflation from the carrying cost percentage and uses this modified version in the EOQ model to compute the optimum stock.
 - However, if rate of inflation is higher, the interest rates will also be higher and this will cause carrying cost to increase and thus lower the EOQ and average inventories.
 - Thus, there is no evidence as to whether inflation raises or lowers the optimal level of inventories of firms in the aggregate. However, it should still be thoroughly considered as it will raise the individual firm optimal holding if the rate of inflation for its own inventories is above average and is greater than the effects of inflation on interest rate or vice versa.

CHP – 10

COST OF CAPITAL AND CAPITAL STRUCTURE

COST OF CAPITAL

1. Write a note on cost of equity and discuss various approaches to estimate cost of equity capital?

Ans. Cost of equity capital is the rate of return which equates the present value of expected dividends with the market share price. Cost of equity capital may be defined as the minimum rate of return that a firm must earn on the equity financed portion of an investment project in order to leave unchanged the market price per share. Following are the approaches:

Dividend price approach:

Cost of capital is computed by dividing the current dividend by average market price per share

$$K_e = D_1 / P_0 \times 100$$

This ratio expresses the cost of capital in relation to what yield that company should pay to attract investors

Earning Price approach:

It is computed by dividing the current earnings by current market price per share $K_e = E_1 / P_0 \times 100$

This ratio co relates the earnings of the company with the market price. It is similar to the dividend price approach, only it seeks to nullify the effect of changes in dividend policy.

Capital Asset Pricing Model (CAPM) Approach

- CAPM model describes the risk - return trade- off securities.
- The risks to which a security is exposed are divided into two groups, diversifiable / unsystematic and non diversifiable / systematic.
- The diversifiable risk can be eliminated through a portfolio consisting of large number if well diversified securities.
- The non diversifiable risk is attributable to factors that affect all business.
- Examples of such risks are interest rate changes, inflation, political changes
- Thus, the cost of equity capital can be calculated as:

$$K_e = IR_f + b(R_m - R_f)$$

Where,

K_e = Cost of equity capital

R_f = Rate of return on security

b = beta coefficient

R_m = Rate of return on market portfolio

2. Write short note on weighted average cost of capital (WACC)

Ans. WACC represents the investor's opportunities cost of taking a risk of putting money into a company, i.e. WACC tells the return that both stakeholders-equity owners and lenders can expect.

- WACC for a firm is used for consideration of the firm's position and in evaluation of proposed changes necessitating a change in the firm's capital.
- WACC is the weighted average after tax costs of the firm's capital structure.
- WACC is minimum return required to satisfy providers of capital. It is also the minimum return required to maintain net value of various securities of the firm.
- WACC acts as a cut off rate in making investment decision, i.e. any project earning less than WACC will be rejected.
- First specific cost of capital is calculated and then accordingly WACC is calculated.

3. Write short note on marginal cost of capital (MCC):

Ans. MCC is the cost of raising an additional rupee of capital, .i.e. MCC is cost incurred in raising new fund.

- MCC is derived, when the average cost of capital is calculated using the marginal weights.
- Marginal weights represent the proportion of funds the firm intends to put.
- To calculate MCC, the wanted financing proportion should be applied as weights to marginal component costs
- When a firm raises funds in proportional manner and the components cost remains unchanged, there will be no difference between average cost of capital (of total funds) and MCC.
- E.g. The cost of debt remains 7 % after tax till Rs. 10 lacs and between Rs. 10 - 15 lacs, the cost may be 8 % and so on.

CAPITAL STRUCTURE

1. Discuss the major considerations in capital structure planning?

Ans. There are three major considerations. They are:

Risk:

Risks are of 2 kind's viz. financial and business risk. Financial risk is of 2 kinds as below:

- **Risk of cash insolvency:** As a business raises more debt, its risk of cash insolvency increases.
- **Risk of variation in the expected earnings available to equity share-holders:** In case a firm has higher debt content in capital structure, the risk of variations in expected earnings available to equity shareholders would be higher; due to trading on equity.

Cost of capital:

Cost is an important consideration in capital structure decisions and it is obvious that a business should be at least capable of earning enough revenue to meet its cost of capital and also finance its growth.

Control:

- Along with cost and risk factors, the control aspect is also an important factor for capital structure planning.
- When a company issues equity shares, it automatically dilutes the controlling interest of present owners.
- In the same manner, preference shareholders can have voting rights and thereby affect the composition of Board of directors, if dividends are not paid on such shares for 2 consecutive years.
- Financial institutions normally stipulate that they shall have one or more directors on the board.
- Thus, when management agrees to raise loans from financial institutions, by implication it agrees to forego a part of its control over the company.
- It is thus, obvious that decisions concerning capital structure are taken after keeping the control factor

Apart from these 3 major considerations, there are several other considerations. They are:

Trading on Equity

Corporate taxations

Government Policies

Marketability

Legal Requirement

2. State the three assumptions of Modigliani and Miller approach on cost of capital?

- Ans.**
- The capital markets are assumed to be perfect. This means that investors are free to buy and sell securities.
 - They are well-informed about the risk-return on all type of securities.
 - There are no transaction costs. S They behave rationally.
 - They can borrow without restrictions on the same terms as the firms do.
 - The firms can be classified into 'homogenous risk class'. They belong to this class, if their expected earnings have identical risk characteristics.
 - All investors have the same expectations from a firms' EBIT that is necessary to evaluate the value of a firm.
 - The dividend payment ratio is 100 %. i.e. there are no retained earnings.
 - There are no corporate taxes, but, this assumption has been removed.

3. What is optimum capital structure? Explain?

- Ans.**
- The capital structure is said to be optimum, when the company has selected such a combination of equity and debt, so that the company's wealth is maximum.
 - At this, capital structure, the cost of capital is minimum and market price per share is maximum.
 - But, it is difficult to measure a fall in the market value of an equity share on account of increase in risk due to high debt content in the capital structure. Features of an appropriate capital structure are as below:
 - **Profitability:** The most profitable capital structure is one that tends to minimize financing cost and maximize of earnings per equity share.
 - **Flexibility:** The capitals structure should be such that the company is able to raise funds whenever needed.
 - **Conservation:** Debt content in capital structure should not exceed the limit which the company can bear.
 - **Solvency:** Capital structure should be such that the business does not run the risk of insolvency.
 - **Control:** Capital structure should be devised in such a manner that it involves minimum risk of loss of control over the company.

4. Explain Indifference Point Answer

- Ans.**
- EBIT chart shows the likely EPS at various probable EBIT levels. At a given EBIT, earnings per share under various alternatives of financing can be plotted.
 - A straight line represent the EPS at various level of EBIT under the alternative may be drawn
 - Wherever this line intersects, it is known as Break - even point. This point is useful guide in formulating the capital structure.
 - This is known as indifference point / EPS equivalency point as it shows that between the two given alternatives of financing, EPS would be same at given level of EBIT

$$(EBIT - I_1) (1-T) / E_1 = (EBIT - I_2) (1-T) / E_2$$
 Where, EBIT = Indifference Point
 E₁ = No. of Equity shares in Alternative 1
 E₂ = No. of equity shares in Alternative 2
 I₁ = Interest changes in Alternative 1
 I₂ = Interest changes in Alternative 2
 T = Tax rate
 Alternative 1 = All equity finance
 Alternative 2 = Debt - equity finance

5. Distinguish NI approach and NOI approach

Ans.

	NI Approach	NOI Approach
1	Capital structure decision is relevant	Capital Structure decision is irrelevant
2	An increase in financial leverage will lead to decline in the WACC while the value of the firm as well as market price of ordinary shares will increase and vice - versa	Any change in the leverage will not lead to any change to the total value of the firm and market price of shares as the overall cost of capital is independent of the degree of leverage
3	Ke is constant	WACC is constant

6. State the theory of Net Income (NI) approach

Ans. The approach is suggested by Durand. According to it, a firm can increase its value or lower the over all cost of capital by increasing the proportion of debt in the capital structure. In other words, if the degree of financial leverage increases, the weighted average cost of capital would decline with every increase in the debt content in total funds employed, while the value of the firm will increase. Reverse would happen in a converse situation. It is based on the following assumptions:

- There are no corporate taxes.
- The cost of debt is less than cost of equity or equity capitalization rate.
- The use of debt content does not change the risk perception of investors as a result of both the Kd (Debt capitalization rate) and Ke (equity capitalization rate) remains constant.
- The value of the firm on the basis of Net Income Approach may be ascertained as follows :
 $V = S + D$
 Where,
 V = Value of the firm
 S = Market value of equity
 D = Market value of debt

7. State the theory of Net Operating Income (NOI) approach

Ans. This approach is also suggested by Durand, according to it, the market value of the firm is not affected by the capital structure changes. The market value of the firm is ascertained by capitalizing the net operating income at the overall cost of capital, which is constant. The market value of the firm is determined as:

$$V = \text{EBIT} / \text{Overall cost of capital}$$

Where,

V = Market value of the firm

EBIT = Earnings before interest and tax

$$S = V - D$$

Where,

S = Value of equity D = Market value of debt

D = Market value of firm

It is based on the following assumptions:

- The overall cost of capital remains constant for all degree of debt equity mix.
- The market capitalizes value of the firm as a whole. Thus, the split between debt and equity is not important.
- The use of less costly debt funds increases the risk of shareholders. This causes the equity capitalization rate to increase. Thus, the advantage of debt is set off exactly by increase in equity capitalization rate.
- There are no corporate taxes.

- The cost of debt is constant.

8. State the theory of Traditional approach

- Ans.**
- The traditional approach, also called an intermediate approach as it takes a midway between NI approach, that the value of the firm can be increased by increasing financial leverage and NOI approach, that the value of the firm is constant irrespective of the degree of financial leverage.
 - According to this approach the firm should strive to reach the optimal capital structure and its total valuation through a judicious use of debt and equity in capital structure.
 - At the optimal capital structure, the overall cost of capital will be minimum and the value of the firm is maximum.
 - Thus, as per the traditional approach the cost of capital is a function of financial leverage and the value of firm can be affected by the judicious mix of debt and equity in capital structure.

9. State the theory of Modigliani - Miller approach (MM)

- Ans.**
- According to this approach, the total cost of capital of particular firm is independent of its method and level of financing.
 - Modigliani and Miller argued that the weighted average cost of capital of a firm is completely independent of its capital structure.
 - In other words, a change in the debt equity mix does not affect the cost of capital. They argued, in support of their approach, that as per the traditional approach, cost of capital is the weighted average of cost of debt and cost of equity, etc. The cost of equity is determined from the level of shareholder's expectations.
 - That is if, shareholders expect a particular rate of return, say 15 % from a particular company, they do not take into account the debt equity ratio and they expect 15 % as they find that it covers the particular risk which this company entails. Thus, financial leverage has no impact on share market prices or on the cost of capital. They make the following propositions:
 - The total market value of a firm and its cost of capital are independent of its capital structure.
 - The cost of equity (K_e) is equal to the capitalization rate of pure equity stream plus a premium for financial risk.
 - The cut off rate for investment purposes is completely independent of the way in which the investment is financed.

10. What is the effect of financing decisions on EPS?

- Ans.**
- One of the prime objective of a finance manager is to maximise both the return on ordinary shares and the total wealth of the company.
 - This objective has to be kept in view while, taking a decision on a new source of finance.
 - Thus, the effect of each proposed method of new finance on the EPS is to be carefully analysed.
 - If a company has a number of alternatives for new financing, it can compute the impact of the various alternatives on earnings per share.
 - It is obvious that, EPS would be the highest in case of financing that has the least cost to the company.
