Chapter 1

Scope & Objectives of Financial Management

Question 1. while determining the requirement of working capital. Importance of good financial management.

Answer 1. Points that demonstrate the "Importance of good financial management":

▪ Taking care not to over-invest in fixed assets

▪ Balancing cash-outflow with cash-inflows

▪ Ensuring that there is a sufficient level of short-term working capital

▪ Setting sales revenue targets that will deliver growth

▪ Increasing gross profit by setting the correct pricing for products or services

▪ Controlling the level of general and administrative expenses by finding more cost efficient\ ways of running the day-to-day business operations, and

▪ Tax planning that will minimize the taxes a business has to pay.

Question 2 'Financial distress is a position where Cash inflows of a firm are inadequate to meet all its current obligations.' Based on above mentioned context, EXPLAIN Financial Distress along with Insolvency.

Answer 2. There are various factors like price of the product/ service, demand, price of inputs e.g. raw material, Labour etc., which is to be managed by an organization on a continuous basis. Proportion of debt also needs to be managed by an organization very delicately.

Higher debt requires higher interest and if the cash inflow is not sufficient then it will put lot of pressure to the organization. Both short term and long term creditors will put stress to

the firm. If all the above factors are not well managed by the firm, it can create situation known as distress, so financial distress is a position where Cash inflows of a firm are inadequate to meet all its current obligations.

Now if distress continues for a long period of time, firm may have to sell its asset, even many times at a lower price. Further when revenue is inadequate to revive the situation, firm will not be able to meet its obligations and become insolvent. So, insolvency basically means inability of a firm to repay various debts and is a result of continuous financial distress.

Question 3. What are the two main aspects of the Finance Function?

Answer 3. Inter-relationship between Investment, Financing and Dividend Decisions: The finance functions are divided into three major decisions, viz., investment, financing and dividend decisions. It is correct to say that these decisions are inter-related because the underlying objective of these three decisions is the same, i.e. maximization of shareholders' wealth. Since investment, financing and dividend decisions are all interrelated, one has to consider the joint impact of these decisions on the market price of the company's shares and these decisions should also be solved jointly. The decision to invest in a new project needs the finance for the investment. The financing decision, in turn, is influenced by and influences dividend decision because retained earnings used in internal financing deprive shareholders of their dividends. An efficient financial management can ensure optimal joint decisions. This is possible by evaluating each decision in relation to its effect on the shareholders' wealth. The above three decisions are briefly examined below in the light of their interrelationship and to see how they can help in maximizing the shareholders' wealth i.e. market price of the company's shares. Investment decision: The investment of long term funds is made after a careful assessment of the various projects through capital budgeting and uncertainty analysis.

However, only that investment proposal is to be accepted which is expected to yield at least so much return as is adequate to meet its cost of financing. This have an influence on the profitability of the company and ultimately on its wealth. Financing decision: Funds can be

raised from various sources. Each source of funds involves 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 a proper mix of loan funds and owner's funds. The optimum financing mix will increase return to equity shareholders and thus maximize their wealth.

Dividend decision: 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 the shareholders by way of dividends and what portion should be retained in the business. An optimal dividend pay-out ratio maximizes shareholders' wealth.

The above discussion makes it clear that investment, financing and dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the shareholders' wealth.

Question 4. STATE Agency Cost. DISCUSS The Ways to Reduce the Effect of It.

Answer 4. Agency Cost: In a sole proprietorship firm, partnership etc., owners participate in management but in corporate, owners are not active in management so, there is a separation between owner/ shareholders and managers. In theory managers should act in the best interest of shareholders however in reality, managers may try to maximize their individual goal like salary, perks etc., so there is a principal-agent relationship between managers and owners, which is known as Agency Problem. In a nutshell, Agency Problem is the chances that managers may place personal goals ahead of the goal of owners. Agency Problem leads to Agency Cost. Agency cost is the additional cost borne by the shareholders to monitor the manager and control their behavior so as to maximize shareholder's wealth. Generally, Agency Costs are of four types (I) monitoring (ii) bonding (iii) opportunity (iv) structuring

Addressing the agency problem

The agency problem arises if manager's interests are not aligned to the interests of the debt lender and equity investors. The agency problem of debt lender would be addressed by

imposing negative covenants i.e. the managers cannot borrow beyond a point. This is one of the most important concepts of modern day finance and the application of this would be applied in the Credit Risk Management of Bank, Fund Raising, Valuing distressed companies.

Agency problem between the managers and shareholders can be addressed if the interests of the managers are aligned to the interests of the share- holders. It is easier said than done.

However, following efforts have been made to address these issues:

(A) Managerial compensation is linked to profit of the company to some extent and also with the long term objectives of the company.

(B) Employee is also designed to address the issue with the underlying assumption that maximisation of the stock price is the objective of the investors.

(C) Effecting monitoring can be done.

Question 5. List out the role of Chief Financial Officer in today's World.

OR

What are the roles of Finance Executive in Modem World?

Answer 5. Role of Chief Financial Officer (CFO) in Today's World: Today, the role of chief financial officer, or CFO, is no longer confined to accounting, financial reporting and risk management. It's about being a strategic business partner of the chief executive officer, or CEO. Some of the role of a CFO in today's world are as follows-

• Budgeting

• Forecasting

• Managing M&As

• Profitability analysis (for example, by customer or product)

• Pricing analysis

• Decisions about outsourcing

• Overseeing the IT function.

• Overseeing the HR function.

• Strategic planning (sometimes overseeing this function).

• Regulatory compliance.

• Risk management

Question 6. DISCUSS the points that demonstrates the Importance of good financial management.

Answer 6. Points that demonstrate the "Importance of good financial management":

▪ Taking care not to over-invest in fixed assets

▪ Balancing cash-outflow with cash-inflows

▪ Ensuring that there is a sufficient level of short-term working capital

▪ Setting sales revenue targets that will deliver growth

▪ Increasing gross profit by setting the correct pricing for products or services

▪ Controlling the level of general and administrative expenses by finding more cost efficient ways of running the day-to-day business operations, and

▪ Tax planning that will minimize the taxes a business has to pay.

Question 7. Functions of Finance Manager.

Answer 7. Functions of Finance Manager

The Finance Manager's main objective is to manage funds in such a way so as to ensure their optimum utilization and their procurement in a manner that the risk, cost and control considerations are properly balanced in a given situation. To achieve these objectives the Finance Manager performs the following functions:

(i) Estimating the requirement of Funds: Both for long-term purposes i.e. investment in fixed assets and for short-term i.e. for working capital. Forecasting the requirements of funds involves the use of techniques of budgetary control and long-range planning.

(ii) Decision regarding Capital Structure: Once the requirement of funds has been estimated, a decision regarding various sources from which these funds would be raised has to be taken. A proper balance has to be made between the loan funds and own funds. He has to ensure that he raises sufficient long term funds to finance fixed assets and other long term investments and to provide for the needs of working capital.

(iii) Investment Decision: The investment of funds, in a project has to be made after careful assessment of various projects through capital budgeting. Assets management policies are to be laid down regarding various items of current assets. For e.g. receivable in coordination with sales manager, inventory in coordination with production manager.

(iv) Dividend decision: The finance manager is concerned with the decision as to how much to retain and what portion to pay as dividend depending on the company's policy. Trend of earnings, trend of share market prices, requirement of funds for future growth, cash flow situation etc., are to be considered.

(v) Evaluating financial performance: A finance manager has to constantly review the financial performance of the various units of organisation generally in terms of ROI Such a review helps the management in seeing how the funds have been utilised in various divisions and what can be done to improve it.

(vi) Financial negotiation: The finance manager plays a very important role in carrying out negotiations with the financial institutions, banks and public depositors for raising of funds on favourable terms.

(vii) Cash management: The finance manager lays down the cash management and cash disbursement policies with a view to supply adequate funds to all units of organisation and to ensure that there is no excessive cash.

(viii) Keeping touch with stock exchange: Finance manager is required to analyse major trends in stock market and their impact on the price of the company share.

Question 8. DISTINGUISH between Profit maximisation vis-a-vis wealth maximization.

Answer 8. It has traditionally been argued that the primary objective of a company is to earn profit; hence the objective of financial management is also profit maximisation. This implies that the finance manager has to make his decisions in a manner so that the profits of the concern are maximised. Each alternative, therefore, is to be seen as to whether or not it gives maximum profit.

However, profit maximisation cannot be the sole objective of a company. It is at best a limited objective. If profit is given undue importance, a number of problems can arise. Some of these have been discussed below:

(i) The term profit is vague. It does not clarify what exactly it means. It conveys a different meaning to different people. For example, profit may be in short term or long term period; it may be total profit or rate of profit etc.

(ii) Profit maximisation has to be attempted with a realisation of risks involved. There is a direct relationship between risk and profit. Many risky propositions yield high profit. Higher the risk, higher is the possibility of profits. If profit maximisation is the only goal, then risk factor is altogether ignored. This implies that finance manager will accept highly risky proposals also, if they give high profits. In practice, however, risk is very important consideration and has to be balanced with the profit objective.

(iii) Profit maximisation as an objective does not take into account the time pattern of returns. Proposal A may give a higher amount of profits as compared to proposal B, yet if

the returns of proposal A begin to flow say 10 years later, proposal B may be preferred which may have lower overall profit but the returns flow is more early and quick.

(iv) Profit maximisation as an objective is too narrow. It fails to take into account the social considerations as also the obligations to various interests of workers, consumers, society, as well as ethical trade practices. If these factors are ignored, a company cannot survive for long. Profit maximization at the cost of social and moral obligations is a short sighted policy.

Wealth / Value Maximisation

We will first like to define what is Wealth / Value Maximization Model. Shareholders wealth are the result of cost benefit analysis adjusted with their timing and risk i.e. time value of money. So, It is important that benefits measured by the finance manager are in terms of cash flow. Finance manager should emphasis on Cash flow for investment or financing decisions not on Accounting profit. The shareholder value maximization model holds that the primary goal of the firm is to maximize its market value and implies that business decisions should seek to increase the net present value of the economic profits of the firm. So for measuring and maximising shareholders wealth finance manager should follow:

A) Cash Flow approach not Accounting Profit

B) Cost benefit analysis

C) Application of time value of money.

How do we measure the value/wealth of a firm?

According to Van Horne, “Value of a firm is represented by the market price of the company's common stock. The market price of a firm's stock represents the focal judgment of all market participants as to what the value of the particular firm is. It takes into account present and prospective future earnings per share, the timing and risk of these earnings, the dividend policy of the firm and many other factors that bear upon the market price of the stock. The mark et price serves as a performance index or report card of the firm's progress. It indicates how well management is doing on behalf of stockholder’s”.

Why Wealth Maximization Works? Before we answer this question it is important to first understand and know what other goals a business enterprise may have. Some of the other goals a business enterprise may follow are:-

A) Achieving a higher growth rate

B) Attaining a larger market share

C) Gaining leadership in the market in terms of products and technology

D) Promoting employee welfare

E) Increasing customer satisfaction

F) Improving community life, supporting education and research, solving societal problems, etc.

Though, the above goals are important but the primary goal remains to be wealth maximization, as it is critical for the very existence of the business enterprise. If this goal is not met, public/institutions would lose confidence in the enterprise and will not invest further in the growth of the organization. If the growth of the organization is restricted than the other goals like community welfare will not get fulfilled.

Conflicts in Profit vs. Value maximisation principle

In any company, the management is the decision taking authority. As a normal tendency the management may pursue its own personal goals (profit maximization). But in an organization where there is a significant outside participation (shareholding, lenders etc.), the management may not be able to exclusively pursue its personal goals due to the constant supervision of the various stakeholders of the company-employees, creditors, customers, government, etc.

Every entity associated with the company will evaluate the performance of the management from the fulfilment of its own objective. The survival of the management will be threatened if the objective of any of the entities remains unfulfilled.

The wealth maximization objective is generally in accord with the interests of the various groups such as owners, employees, creditors and society, and thus, it may be consistent with the management objective of survival.

Owing to limitation (timing, social consideration etc.) in profit maximization, in today's real world situations which is uncertain and multi-period in nature, wealth maximization is a better objective. Where the time period is short and degree of uncertainty is not great, wealth maximization and profit maximization amount to essentially the same.

The table below highlights some of the advantages and disadvantages of both profit maximization and wealth maximization goals:-

Goal	Objective	Advantages	Disadvantages
Profit Maximization	Large amount of profits	(i) Easy to calculate profits (ii) Easy to determine the link between Financial decisions and profits.	(i) Emphasizes the short term gains (ii) Ignores risk or uncertainty (iii) Ignores the timing of returns (iv) Requires immediate resources.
Shareholders Wealth Maximisation	Highest market value of shares.	(i) Emphasizes the long term gains (ii) Recognises risk or uncertainty (iii) Recognises the	(i) Offers no clear relationship between financial decisions and share price. (ii) Can lead to management anxiety and frustration.

		timing of returns (iv) Considers shareholders' return.	

Example: Profit maximization can be achieved in the short term at the expense of the long term goal, that is, wealth maximization. For example, a costly investment may experience losses in the short term but yield substantial profits in the long term. Also, a firm that wants to show a short term profit may, for example, postpone major repairs or replacement, although such postponement is likely to hurt its long term profitability.

Question 9. EXPLAIN Financial Distress and explain its relationship with Insolvency.

Answer 9. There are various factors like price of the product/ service, demand, price of inputs e.g. raw material, Labour etc., which is to be managed by an organization on a continuous basis. Proportion of debt also needs to be managed by an organization very delicately. Higher debt requires higher interest and if the cash inflow is not sufficient then it will put lot of pressure to the organization. Both short term and long term creditors will put stress to the firm. If all the above factors are not well managed by the firm, it can create situation known as distress, so financial distress is a position where Cash inflows of a firm are inadequate to meet all its current obligations. Now if distress continues for a long period of time, firm may have to sell its asset, even many times at a lower price. Further when revenue is inadequate to revive the situation, firm will not be able to meet its obligations and become insolvent. So, insolvency basically means inability of a firm to repay various debts and is a result of continuous financial distress.

Question 10. WRITE two main objectives of Financial Management.

Answer 10. Two main objectives of Financial Management

Profit Maximization

It has traditionally been argued that the primary objective of a company is to earn profit; hence the objective of financial management is also profit maximization. This implies that the finance manager has to make his decisions in a manner so that the profits of the concern are maximized. Each alternative, therefore, is to be seen as to whether or not it gives maximum profit.

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We will first like to define what is Wealth / Value Maximization Model. Shareholders wealth are the result of cost benefit analysis adjusted with their timing and risk i.e. time value of money.

So, Wealth = Present Value of benefits – Present Value of Costs

It is important that benefits measured by the finance manager are in terms of cash flow.

Finance manager should emphasis on Cash flow for investment or financing decisions not on Accounting profit. The shareholder value maximization model holds that the primary goal of the firm is to maximize its market value and implies that business decisions should seek to increase the net present value of the economic profits of the firm.

Question 11. BRIEFLY explain the three finance function decisions.

Answer 11. Inter-relationship between Investment, Financing and Dividend Decisions: The finance functions are divided into three major decisions, viz., investment, financing and dividend decisions. It is correct to say that these decisions are inter-related because the underlying objective of these three decisions is the same, i.e. maximization of shareholders' wealth. Since investment, financing and dividend decisions are all interrelated, one has to consider the joint impact of these decisions on the market price of the company's shares and these decisions should also be solved jointly. The decision to invest in a new project needs the finance for the investment. The financing decision, in turn, is influenced by and influences dividend decision because retained earnings used in internal financing deprive

shareholders of their dividends. An efficient financial management can ensure optimal joint decisions. This is possible by evaluating each decision in relation to its effect on the shareholders' wealth.

The above three decisions are briefly examined below in the light of their interrelationship and to see how they can help in maximizing the shareholders' wealth i.e. market price of the company's shares.

Investment decision: The investment of long term funds is made after a careful assessment of the various projects through capital budgeting and uncertainty analysis. However, only that investment proposal is to be accepted which is expected to yield at least so much return as is adequate to meet its cost of financing. This have an influence on the profitability of the company and ultimately on its wealth.

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Dividend decision: 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 the shareholders by way of dividends and what portion should be retained in the business. An optimal dividend pay-out ratio maximizes shareholders' wealth.

The above discussion makes it clear that investment, financing and dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the shareholders' wealth.

Question 12. DISCUSS the advantages and disadvantages of Wealth maximization principle.

Answer 12. Advantages and disadvantages of Wealth maximization principle.

Advantages:

(i) Emphasizes the long term gains

(ii) Recognizes risk or uncertainty

(iii) Recognizes the timing of returns

(iv) Considers shareholders' return.

Disadvantages:

(i) Offers no clear relationship between financial decisions and share price.

(ii) Can lead to management anxiety and frustration.

Question 13. DISCUSS the estimation of working capital need based on operating cycle process.

Answer 13. Operating cycle is one of the most reliable methods of Computation of Working Capital. However, other methods like ratio of sales and ratio of fixed investment may also be used to determine the Working Capital requirements. These methods are briefly explained as follows:

(i) Current Assets Holding Period: To estimate working capital needs based on the average holding period of current assets and relating them to costs based on the company's experience in the previous year. This method is essentially based on the Operating Cycle Concept.

(ii) Ratio of Sales: To estimate working capital needs as a ratio of sales on the assumption that current assets change with changes in sales.

(iii) Ratio of Fixed Investments: To estimate Working Capital requirements as a percentage of fixed investments.

A number of factors will, however, be impacting the choice of method of estimating Working Capital. Factors such as seasonal fluctuations, accurate sales forecast, investment cost and variability in sales price would generally be considered. The production cycle and credit and collection policies of the firm will have an impact on Working Capital requirements. Therefore, they should be given due weightage in projecting Working Capital requirements.

Question 14. Explain in brief the phases of the evolution of financial management.

Answer 14. Evolution of Financial Management: Financial management evolved gradually over the past 50 years. The evolution of financial management is divided into three phases. Financial Management evolved as a separate field of study at the beginning of the century.

The three stages of its evolution are:

The Traditional Phase: During this phase, financial management was considered necessary only during occasional events such as takeovers, mergers, expansion, liquidation, etc. Also, when taking financial decisions in the organization, the needs of outsiders (investment bankers, people who lend money to the business and other such people) to the business was kept in mind.

The Transitional Phase: During this phase, the day-to-day problems that financial managers faced were given importance. The general problems related to funds analysis, planning and control were given more attention in this phase.

The Modern Phase: Modern phase is still going on. The scope of financial management has greatly increased now. It is important to carry out financial analysis for a company. This analysis helps in decision making. During this phase, many theories have been developed regarding efficient markets, capital budgeting, option pricing, valuation models and also in several other important fields in financial management. Here, financial management is viewed as a supportive and facilitative function, not only for top management but for all levels of management.

Question 15. List out the steps to be followed by the manager to measure and maximize the Shareholder's Wealth?

Answer 15. For measuring and maximizing shareholders' wealth, manager should follow:

• Cash Flow approach not Accounting Profit

• Cost benefit analysis

• Application of time value of money.

Question 16. DISCUSS the Inter relationship between investment, financing and dividend decisions.

OR

DISCUSS the three major decisions taken by a finance manager to maximize the wealth of shareholders.

Answer 16. Inter-relationship between Investment, Financing and Dividend Decisions: The finance functions are divided into three major decisions, viz., investment, financing and dividend decisions. It is correct to say that these decisions are inter-related because the underlying objective of these three decisions is the same, i.e. maximization of shareholders' wealth. Since investment, financing and dividend decisions are all interrelated, one has to consider the joint impact of these decisions on the market price of the company's shares and these decisions should also be solved jointly. The decision to invest in a new project needs the finance for the investment. The financing decision, in turn, is influenced by and influences dividend decision because retained earnings used in internal financing deprive shareholders of their dividends. An efficient financial management can ensure optimal joint decisions. This is possible by evaluating each decision in relation to its effect on the shareholders' wealth.

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Financing decision: Funds can be raised from various sources. Each source of funds involves 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 a proper mix of loan funds and owner's funds. The optimum financing mix will increase return to equity shareholders and thus maximize their wealth.

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The above discussion makes it clear that investment, financing and dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the shareholders' wealth.

Question 17. "The profit maximization is not an operationally feasible criterion. DISCUSS

Answer 17. "The profit maximization is not an operationally feasible criterion." This statement is true because Profit maximization can be a short-term objective for any organization and cannot be its sole objective. Profit maximization fails to serve as an operational criterion for maximizing the owner's economic welfare. It fails to provide an operationally feasible measure for ranking alternative courses of action in terms of their economic efficiency. It suffers from the following limitations:

(a) Vague term: The definition of the term profit is ambiguous. Does it mean short term or long term profit? Does it refer to profit before or after tax? Total profit or profit per share?

(b) Timing of Return: The profit maximization objective does not make distinction between returns received in different time periods. It gives no consideration to the time value of money, and values benefits received today and benefits received after a period as the same.

(c) It ignores the risk factor.

(d) The term maximization is also vague

Question 18. A finance executive of an organisation plays an important role in the company's goals, policies, and financial success. WHAT his responsibilities include?

Answer 18. A finance executive of an organisation plays an important role in the company's goals, policies, and financial success. His responsibilities include:

(i) Financial analysis and planning: Determining the proper amount of funds to employ in the firm, i.e. designating the size of the firm and its rate of growth.

(ii) Investment decisions: The efficient allocation of funds to specific assets.

(iii) Financing and capital structure decisions: Raising funds on favourable terms as possible i.e. determining the composition of liabilities.

(iv) Management of financial resources (such as working capital).

(v) Risk management: Protecting assets.

Question 19. EXPLAIN as to how the wealth maximization objective is superior to the profit maximization objective What is the cost of these sources?

Answer 19. A firm's financial management may often have the following as their objectives:

(i) The maximization of firm's profit.

(ii) The maximization of firm's value / wealth.

The maximization of profit is often considered as an implied objective of a firm. To achieve the aforesaid objective various type of financing decisions may be taken. Options resulting into maximization of profit may be selected by the firm's decision makers. They even sometime may adopt policies yielding exorbitant profits in short run which may prove to be unhealthy for the growth, survival and overall interests of the firm. The profit of the firm in this case is measured in terms of its total accounting profit available to its shareholders.

The value/wealth of a firm is defined as the market price of the firm's stock. The market price of a firm's stock represents the focal judgment of all market participants as to what the value of the particular firm is. It takes into account present and prospective future earnings per share, the timing and risk of these earnings, the dividend policy of the firm and many other factors that bear upon the market price of the stock. The value maximization objective of a firm is superior to its profit maximization objective due to following reasons.

1. The value maximization objective of a firm considers all future cash flows, dividends, earning per share, risk of a decision etc. whereas profit maximization objective does not consider the effect of EPS, dividend paid or any other returns to shareholders or the wealth of the shareholder.

2. A firm that wishes to maximize the shareholder's wealth may pay regular dividends whereas a firm with the objective of profit maximization may refrain from dividend payment to its shareholders.

3. Shareholders would prefer an increase in the firm's wealth against its generation of increasing flow of profits.

4. The market price of a share reflects the shareholders expected return, considering the long- term prospects of the firm, reflects the differences in timings of the returns, considers risk and recognizes the importance of distribution of returns.

The maximization of a firm's value as reflected in the market price of a share is viewed as a proper goal of a firm. The profit maximization can be considered as a part of the wealth maximization strategy.

Question 20. DISCUSS the role of a chief financial officer.

Answer 20. The finance executive of an organization plays an important role in the company's goals, policies, and financial success. His responsibilities include:

(a) Financial analysis and planning: Determining the proper amount of funds to employ in the firm, i.e. designating the size of the firm and its rate of growth.

(b) Investment decisions: The efficient allocation of funds to specific assets.

(c) Financing and capital structure decisions: Raising funds on favourable terms as possible i.e. determining the composition of liabilities.

(d) Management of financial resources (such as working capital).

(e) Risk management: Protecting assets.

Today, the role of chief financial officer, or CFO, is no longer confined to accounting, financial reporting and risk management. It's about being a strategic business partner of the chief executive officer, or CEO. Some of the key differences that highlight the changing role of a CFO are as follows:-

What a CFO used to do?	**What a CFO now does?**
Budgeting	Budgeting
Forecasting	Forecasting
Accounting	Managing M&As
Treasury (cash management)	Profitability analysis (for example, by

	customer or product)
Preparing internal financial reports for management.	Pricing analysis
Preparing quarterly, annual filings for investors.	Decisions about outsourcing
Tax filing	Overseeing the IT function.
Tracking accounts payable and accounts receivable.	Overseeing the HR function.
Travel and entertainment expense management.	Strategic planning (sometimes overseeing this function). Regulatory compliance. Risk management.

Question 21. EXPLAIN some common methods of Venture capital financing.

Answer 21. Some common methods of venture capital financing are as follows:

(i) Equity financing: The venture capital undertakings generally require funds for a longer period but may not be able to provide returns to the investors during the initial stages. Therefore, 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.

(ii) Conditional loan: A conditional loan 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 per cent; actual rate depends on other factors of the venture such as gestation period, cash flow patterns, risk and other factors of the enterprise. Some Venture capital financiers give a choice to the enterprise of paying a

high rate of interest (which could be well above 20 per cent) instead of royalty on sales once it becomes commercially sound.

(iii) Income note: It is a hybrid security which combines the features of both conventional loan and conditional loan. The entrepreneur has to pay both interest and royalty on sales but at substantially low rates. IDBI's VCF provides funding equal to 80 – 87.50% of the projects cost for commercial application of indigenous technology.

(iv) Participating debenture: Such security carries charges in three phases — in the start-up phase no interest is charged, next stage a low rate of interest is charged up to a particular level of operation, after that, a high rate of interest is required to be paid.

Question 22. STATE in brief four features of Samurai Bond.

Answer 22. Features of Samurai Bond:

• Samurai bonds are denominated in Japanese Yen JPY

• Issued in Tokyo

• Issuer Non- Japanese Company

• Regulations: Japanese

• Purpose: Access of capital available in Japanese market

• Issue proceeds can be used to fund Japanese operation

• Issue proceeds can be used to fund a company's local opportunities.

• It can also be used to hedge foreign exchange risk

Question 23. Discuss features of Secured Premium Notes.

Answer 23.

Features of Secured Premium Notes:

• SPN instruments are issued with a detachable warrant.

• These instruments are redeemable after a notified period of say 4 to 7 years.

• No interest is paid during the lock in period.

• The conversion of detachable warrant into equity shares will have to be done within time period notified by the company.

Question 24. These bonds are issued by non-US Banks and non-US corporations in US. What this bond is called and what are the other features of this Bond?

Answer 24. The Bond is called as Yankee Bond. Features of the bond:

• These bonds are denominated in Dollars

• Bonds are to be registered in SEC (Securities and Exchange Commission)

• Bonds are issued in tranches

• Time taken can be up to 14 weeks

Question 25. Discuss the Advantages of Leasing.

Answer 25. i. Lease may low cost alternative: Leasing is alternative to purchasing. As the lessee is to make a series of payments for using an asset, a lease arrangement is similar to a debt contract. The benefit of lease is based on a comparison between leasing and buying an asset. Many lessees find lease more attractive because of low cost.

ii. Tax benefit: In certain cases, tax benefit of depreciation available for owning an asset may be less than that available for lease payment

iii. Working capital conservation: When a firm buy an equipment by borrowing from a bank (or financial institution), they never provide 100% financing. But in case of lease one gets normally 100% financing. This enables conservation of working capital.

iv. Preservation of Debt Capacity: So, operating lease does not matter in computing debt equity ratio. This enables the lessee to go for debt financing more easily. The access to and ability of a firm to get debt financing is called debt capacity (also, reserve debt capacity).

v. Obsolescence and Disposal: After purchase of leased asset there may be technological obsolescence of the asset. That means a technologically upgraded asset with better capacity may come into existence after purchase. To retain competitive advantage, the lessee as user may have to go for the upgraded asset.

Question 26. Briefly describe any four sources of short-term finance.

Answer 26. Sources of Short Term Finance: There are various sources available to meet short- term needs of finance. The different sources are discussed below-

(i) Trade Credit: It represents credit granted by suppliers of goods, etc., as an incident of sale. The usual duration of such credit is 15 to 90 days. It generates automatically in the course of business and is common to almost all business operations. It can be in the form of an 'open account' or 'bills payable'.

(ii) Accrued Expenses and Deferred Income: Accrued expenses represent liabilities which a company has to pay for the services which it has already received like wages, taxes, interest and dividends. Such expenses arise out of the day-to-day activities of the company and hence represent a spontaneous source of finance. Deferred Income: These are the amounts received by a company in lieu of goods and services to be provided in the future. Since these receipts increases acompany’s liquidity, they are also considered to be an important sources of shortterm finance.

(iii) Advances from Customers: Manufacturers and contractors engaged in producing or constructing costly goods involving considerable length of manufacturing or construction

time usually demand advance money from their customers at the time of accepting their orders for executing their contracts or supplying the goods. This is a cost free source of finance and really useful.

(iv) Commercial Paper: A Commercial Paper is an unsecured money market instrument issued in the form of a promissory note. The Reserve Bank of India introduced the commercial paper scheme in the year 1989 with a view to enabling highly rated corporate borrowers to diversify their sources of short-term borrowings and to provide an additional instrument to investors.

(v) Treasury Bills: Treasury bills are a class of Central Government Securities. Treasury bills, commonly referred to as T-Bills are issued by Government of India to meet short term borrowing requirements with maturities ranging between 14 to 364 days.

(vi) Certificates of Deposit (CD): A certificate of deposit (CD) is basically a savings certificate with a fixed maturity date of not less than 15 days up to a maximum of one year.

(vii) Bank Advances: Banks receive deposits from public for different periods at varying rates of interest. These funds are invested and lent in such a manner that when required, they may be called back. Lending results in gross revenues out of which costs, such as interest on deposits, administrative costs, etc., are met and a reasonable profit is made. A bank's lending policy is not merely profit motivated but has to also keep in mind the socio-economic development of the country. Some of the facilities provided by banks are Short Term Loans, Overdraft, Cash Credits, Advances against goods, Bills Purchased/Discounted.

(viii) Financing of Export Trade by Banks: Exports play an important role in accelerating the economic growth of developing countries like India. Of the several factors influencing export growth, credit is a very important factor which enables exporters in efficiently executing their export orders. The commercial banks provide short-term export finance mainly by way of pre and post-shipment credit. Export finance is granted in Rupees as well as in foreign currency.

(ix) Inter Corporate Deposits: The companies can borrow funds for a short period say

6 months from other companies which have surplus liquidity. The rate of interest on inter corporate deposits varies depending upon the amount involved and time period.

(x) Certificate of Deposit (CD): The certificate of deposit is a document of title similar to a time deposit receipt issued by a bank except that there is no prescribed interest rate on such funds. The main advantage of CD is that banker is not required to encase the deposit before maturity period and the investor is assured of liquidity because he can sell the CD in secondary market.

(xi) Public Deposits: Public deposits are very important source of short-term and medium term finances particularly due to credit squeeze by the Reserve Bank of India. A company can accept public deposits subject to the stipulations of Reserve Bank of India from time to time maximum up to 35 per cent of its paid up capital and reserves, from the public and shareholders. These deposits may be accepted for a period of six months to three years. Public deposits are unsecured loans; they should not be used for acquiring fixed assets since they are to be repaid within a period of 3 years. These are mainly used to finance working capital requirements.

Question 27. STATE the meaning of debt securitization

Answer 27. Debt Securitisation: It 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, e.g., housing finance, auto loans, and credit card receivables.

Process of Debt Securitisation

(i) The origination function – A borrower seeks a loan from a finance company, bank. The credit worthiness of borrower is evaluated, and contract is entered into with repayment schedule structured over the life of the loan.

(ii) The pooling function – Similar loans on receivables are clubbed together to create an underlying pool of assets. The pool is transferred in favour of Special purpose Vehicle (SPV), which acts as a trustee for investors.

(iii) The securitisation function – SPV will structure, and issue securities based on asset pool. The securities carry a coupon and expected maturity which can be asset-based/mortgage based. These are generally sold to investors through merchant bankers. Investors are – pension funds, mutual funds, insurance funds.

Question 28. DESCRIBE the interrelationship between investing, financing, and dividend decisions.

Answer 28. Inter-relationship between Investment, Financing and Dividend Decisions The finance functions are divided into three major decisions, viz., investment, financing, and dividend decisions. It is correct to say that these decisions are inter - related because the underlying objective of these three decisions is the same, i.e., maximisation of shareholders' wealth. Since investment, financing and dividend decisions are all interrelated, one must consider the joint impact of these decisions on the market price of the company's shares and these decisions should also be solved jointly. The decision to invest in a new project needs the finance for the investment. The financing decision, in turn, is influenced by and influences dividend decision because retained earnings used in internal financing deprive shareholders of their dividends. An efficient financial management can ensure optimal joint decisions. This is possible by evaluating each decision in relation to its effect on the shareholders' wealth.

The above three decisions are briefly examined below in the light of their inter - relationship and to see how they can help in maximising the shareholders' wealth i.e., market price of the company's shares.

Investment decision: The investment of long-term funds is made after a careful assessment of the various projects through capital budgeting and uncertainty analysis. However, only that investment proposal is to be accepted which is expected to yield at least so much

return as is adequate to meet its cost of financing. This has an influence on the profitability of the company and ultimately on its wealth.

Financing decision: Funds can be raised from various sources. Each source of funds involves different issues. The finance manager must maintain a proper balance between long-term and short-term funds. With the total volume of long-term funds, he must ensure a proper mix of loan funds and owner's funds. The optimum financing mix will increase return to equity shareholders and thus maximise their wealth.

Dividend decision: 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 the shareholders by way of dividends and what portion should be retained in the business. An optimal dividend pay-out ratio maximises shareholders' wealth.

The above discussion makes it clear that investment, financing, and dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the shareholders' wealth.

Question 29. EXPLAIN briefly the functions of Treasury Department

Answer 29. The treasury department have evolved in importance over number of years from being responsible for only cash handling issues to technical areas revolving around hedging forex risks, composition of capital structure etc. The fundamental tasks for which treasury department of any enterprise is responsible are :-

1. Cash Management: It involves efficient cash collection process and managing payment of cash both inside the organisation and to third parties.

There may be complete centralization within a group treasury or the treasury may simply advise subsidiaries and divisions on policy matter viz., collection/payment periods, discounts, etc.

Treasury will also manage surplus funds in an investment portfolio. Investment policy will consider future needs for liquid funds and acceptable levels of risk as determined by company policy.

2. Currency Management: The treasury department manages the foreign currency risk exposure of the company. In a large multinational company (MNC) the first step will usually be to set off intra-group indebtedness. The use of matching receipts and payments in the same currency will save transaction costs and also will save the organization from any unfavourable exchange movements. Accordingly, Treasury might advise on the currency to be used when invoicing overseas sales. The treasury will manage any net exchange exposures in accordance with company policy. If risks are to be minimized then forward contracts can be used either to buy or sell currency forward.

3. Fund Management: Treasury department is responsible for planning and sourcing the company's short, medium and long-term cash needs. They also facilitate temporary investment of surplus funds by mapping the time gap between funds inflow and outflow. Treasury department will also participate in the decision on capital structure and forecast future interest and foreign currency rates.

4. Banking: It is important that a company maintains a good relationship with its bankers. Treasury department carry out negotiations with bankers with respect to interest rates, foreign exchange rates etc. and act as the initial point of contact with them. Short-term finance can come in the form of bank loans or through the sale of commercial paper in the money market.

5. Corporate Finance: Treasury department is involved with both acquisition and divestment activities within the group. In addition, it will often have responsibility for investor relations. The latter activity has assumed increased importance in markets where share-price performance is regarded as crucial and may affect the company's ability to undertake acquisition activity or, if the price falls drastically, render it vulnerable to a hostile bid.

Question 30. BRIEFLY describe the financial needs of a business.

Answer 30. Financial Needs of a Business: Business enterprises need funds to meet their different types of requirements. All the financial needs of a business may be grouped into the following three categories-

Long-term financial needs: Such needs generally refer to those requirements of funds which are for a period exceeding 5-10 years. All investments in plant, machinery, land, buildings, etc., are considered as long-term financial needs. Medium- term financial needs: Such requirements refer to those funds which are required for a period exceeding one year but not exceeding 5 years.

Short- term financial needs: Such type of financial needs arises to finance current assets such as stock, debtors, cash, etc. Investment in these assets is known as meeting of working capital requirements of the concern for a period not exceeding one year.

Question 31. Write a short note on seed capital assistance.

Answer 31. Seed Capital Assistance: The seed capital assistance has been designed by IDBI for professionally or technically qualified entrepreneurs. 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 ₹ 2 crores and the maximum assistance under the project will be restricted to 50% of the required promoter's contribution or ₹ 15 lacs whichever is lower.

The seed capital assistance is interest free but carries a security charge of one percent per annum for the first five years and an increasing rate thereafter.

Question 32. BRIEF OUT certain sources of finance- Inter Corporate Deposits and Certificate of Deposit.

Answer 32. Inter Corporate Deposits: The companies can borrow funds for a short period, say 6 months, from other companies which have surplus liquidity. The rate of interest on inter corporate deposits varies depending upon the amount involved and the time period.

Certificate of Deposit (CD): The certificate of deposit is a document of title similar to

a time deposit receipt issued by a bank except that there is no prescribed interest rate on such funds. The main advantage of CD is that banker is not required to encash the deposit before maturity period and the investor is assured of liquidity because he can sell the CD in secondary market.

Question 33. WHAT is the meaning of Venture Capital Financing. STATE some characteristics of it.

Answer 33. Venture Capital Financing: The venture capital financing refers to financing of new high risky venture promoted by qualified entrepreneurs who lack experience and funds to give shape to their ideas. In broad sense, under venture capital financing, venture capitalist make investment to purchase equity or debt securities from inexperienced entrepreneurs who undertake highly risky ventures with potential to succeed in future.

Some of the characteristics of Venture Capital financing are:

- It is basically an equity finance in new companies.
- It can be viewed as a long-term investment in growth-oriented small/medium firms.
- Apart from providing funds, the investor also provides support in form of sales strategy, business networking and management expertise, enabling the growth of the entrepreneur.

Question 34. STATE the advantage of Electronic Cash Management System.

Answer 34. Electronic-scientific cash management results in:

• Significant saving in time.

• Increase in interest earned & decrease in interest expense.

• Reduces paper-work & hence manpower.

• Greater accounting accuracy as it allows easy detection of book-keeping errors.

• More control over time and funds.

• Supports electronic payments.

• Faster transfer of funds from one location to another, where required.

• Speedy conversion of various instruments into cash.

• Making available funds wherever required, whenever required.

• Reduction in the amount of 'idle float' to the maximum possible extent.

• Ensures no idle funds are placed at any place in the organization.

• It makes inter-bank balancing of funds much easier.

• It is a true form of centralized 'Cash Management'.

• Produces faster electronic reconciliation.

• Reduces the number of cheques issued.

Question 35. EXPLAIN: Callable bonds and Puttable bonds.

Answer 35. (i) Callable bonds: A callable bond has a call option which gives the issuer the right to redeem the bond before maturity at a predetermined price known as the call price (Generally at a premium).

(ii) Puttable bonds: Puttable bonds give the investor a put option (i.e. the right to sell the bond) back to the company before maturity.

Question 36. DEFINE Masala bond.

Answer 36. Masala bond: Masala (means spice) bond is an Indian name used for Rupee denominated bond that Indian corporate borrowers can sell to investors in overseas markets. These bonds are issued outside India but denominated in Indian Rupees. NTPC raised Rest. 2,000 crores via masala bonds for its capital expenditure in the year 2016.

Question 37. DISCUSS in brief the characteristics of Debentures.

Answer 37. Characteristics of Debentures are as follows:

• Normally, debentures are issued on the basis of a debenture trust deed which lists the terms and conditions on which the debentures are floated.

• Debentures are either secured or unsecured.

• May or may not be listed on the stock exchange.

• The cost of capital raised through debentures is quite low since the interest payable on debentures can be charged as an expense before tax.

• From the investors' point of view, debentures offer a more attractive prospect than the preference shares since interest on debentures is payable whether or not the company makes profits.

• Debentures are thus instruments for raising long-term debt capital.

• The period of maturity normally varies from 3 to 10 years and may also increase for projects having high gestation period.

Question 38. What is debt securitization? EXPLAIN the basics of debt securitization process.

Answer 38. Debt Securitization: It 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, e.g. housing finance, auto loans, and credit card receivables. Process of Debt Securitization

(i) The origination function – A borrower seeks a loan from a finance company, bank, HDFC. The credit worthiness of borrower is evaluated and contract is entered into with repayment schedule structured over the life of the loan.

(ii) The pooling function – Similar loans on receivables are clubbed together to create an underlying pool of assets. The pool is transferred in favor of Special Purpose Vehicle (SPV), which acts as a trustee for investors.

(iii) The securitization function – SPV will structure and issue securities on the basis of asset pool. The securities carry a coupon and expected maturity which can be asset-based/mortgage based. These are generally sold to investors through merchant bankers. Investors are – pension funds, mutual funds, insurance funds. The process of securitization is generally without recourse i.e. investors bear the credit risk and issuer is under an obligation to pay to investors only if the cash flows are received by him from the collateral. The benefits to the originator are that assets are shifted off the balance sheet, thus giving the originator recourse to off-balance sheet funding.

Question 39. DESCRIBE Bridge Finance.

Answer 39. Bridge finance refers, normally, to loans taken by the business, usually from commercial banks for a short period, pending disbursement of term loans by financial institutions normally it takes time for the financial institution to finalize procedures of creation of security, tie-up participation with other institutions etc. even though a positive appraisal of the project has been made. However, once the loans are approved in principle, firms in order not to lose further time in starting their projects arrange for bridge finance. Such temporary loan is normally repaid out of the proceeds of the principal term loans. It is secured by hypothecation of moveable assets, personal guarantees and demand promissory

notes. Generally, rate of interest on bridge finance is higher as compared with that on term loans.

Question 40. EXPLAIN in brief the features of Commercial Papers.

Answer 40. Commercial Paper: A Commercial Paper is an unsecured money market instrument issued in the form of a promissory note. The Reserve Bank of India introduced the commercial paper scheme in the year 1989 with a view to enabling highly rated corporate borrowers to diversify their sources of short- term borrowings and to provide an additional instrument to investors. Subsequently, in addition to the Corporate, Primary Dealers and All India Financial Institutions have also been allowed to issue Commercial Papers. Commercial papers are issued in denominations of ₹ 5 lakhs or multiples thereof and the interest rate is generally linked to the yield on the one-year government bond.

All eligible issuers are required to get the credit rating from Credit Rating Information Services of India Ltd, (CRISIL), or the Investment Information and Credit Rating Agency of India Ltd (ICRA) or the Credit Analysis and Research Ltd (CARE) or the FITCH Ratings India Pvt. Ltd or any such other credit rating agency as is specified by the Reserve Bank of India.

Question 41. Following information has been gathered from the books of Tram Ltd. the equity shares of which is trading in the stock market at Rs.14.

Particulars	**Amount (₹)**
Equity Share Capital (face value Rs.10)	10,00,000
10% of Preference Shares	2,00,000
Reserves	8,00,000
10% Debentures	6,00,000

Profit before Interest and Tax for the year	4,00,000
Interest	60,000
Profit after Tax for the year	2,40,000

Calculate the following:

i. Return on Capital Employed

ii. Earnings per share

iii. PE ratio. (PYP 5 Marks, Nov'19)

Answer 41.

i. Calculation of Return on capital employed (ROCE)

Capital employed = Equity Shareholders' funds + Debenture + Preference shares

= ₹ (10,00,000 + 8,00,000 + 6,00,000 + 2,00,000)

= Rs.26,00,000

Return on capital employed [ROCE-(Pre-tax)] = $\frac{\text{PBIT}}{\text{Capital Employed}} \times 100$

= $\frac{\text{Rs.4,00,000}}{\text{Rs.26,00,000}}$ ×100 = 15.38% (approx.)

Return on capital employed [ROCE-(Post-tax)] =$\frac{\text{Profit After tax}}{\text{Capital Employed}} \times 100$

ii. $\frac{Rs.240,000}{\text{Rs.26,00,000}} \times 100 = 9.23\% \text{ (approx..)}$

iii. Calculation of Earnings per share

Earnings per share = $\frac{\text{Earnings available to equity shareholders}}{\text{No of equity shares}}$

$= \frac{\text{Profit after tax} - \text{preference Dividend}}{\text{No of equity shares}}$

$= \frac{\text{Rs}(.2,40,000 - 20,000)}{\text{Rs}.1,00,000}$ = Rs.2.20

iv. Calculation of PE ratio

$\text{PE} = \frac{\text{Market Price per Share (MPS)}}{\text{Earning per Shares (EPS)}}$

$= \frac{\text{Rs}14}{\text{Rs } 2.20}$ = 6.364 (approx.)

Question 42. XYZ Ltd. has Owner's equity of Rs. 2,00,000 and the ratios of the company are as follows:

Current debt to total debt	0.3
Total debt to Owner's equity	0.5
Fixed assets to Owner's equity	0.6
Total assets turnover Inventory	2 times
Inventory turnover	10 times

COMPLETE the following Balance Sheet from the information given above:

Liabilities	(Rs.)	Assets	(Rs.)
Current Debt	-	Cash	-
Long-term Debt	-	Inventory	-
Total Debt	-	Total Current Assets	-
Owner's Equity	-	Fixed Assets	-

Answer 42. Balance Sheet

Liabilities	(Rs.)	Assets	(Rs.)
Current debt	30,000	Cash (balancing figure)	1,20,000
Long term debt	70,000	Inventory	60,000
Total Debt	1,00,000	Total Current Assets	1,80,000
Owner's Equity	2,00,000	Fixed Assets	1,20,000
Total liabilities	3,00,000	Total Assets	3,00,000

Workings:

Total debt = 0.50 x Owner's Equity = 0.50 x Rs. 2,00,000 = Rs. 1,00,000 Further,

Current debt to Total debt = 0.30

So, Current debt = 0.30 × Rs. 1,00,000 = Rs. 30,000 Long term debt = Rs. 1,00,000 - Rs. 30,000 = Rs. 70,000

2. Fixed assets = 0.60 × Owner's Equity = 0.60 × Rs. 2,00,000 = Rs. 1,20,000

3. Total Liabilities = Total Debt + Owner’s Equity

= Rs. 1,00,000 + Rs. 2,00,000 = Rs. 3,00,000

Total Assets = Total Liabilities = Rs. 3,00,000

Total assets to turnover = 2 Times; Inventory turnover = 10 Times

Hence, Inventory /Total assets = 2/10=1/5,

Therefore, Inventory = Rs. 3,00,000/5 = Rs. 60,000

Question 43. DISCUSS the limitations of financial ratios.

Answer 43. The limitations of financial ratios are listed below:

(i) 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.

(ii) Financial data are badly distorted by inflation: Historical cost values may be substantially different from true values. Such distortions of financial data are also carried in the financial ratios.

(iii) Seasonal factors may also influence financial data.

(iv) To give a good shape to the popularly used financial ratios (like current ratio, debt-equity ratios, etc.): The business may make some year-end adjustments. Such window dressing can change the character of financial ratios which would be different had there been no such change.

(v) Differences in accounting policies and accounting period: It can make the accounting data of two firms non-comparable as also the accounting ratios.

(vi) There is no standard set of ratios against which a firm's ratios can be compared: Sometimes a firm's ratios are compared with the industry average. But if a firm desires to be above the average, then industry average becomes a low standard. On the other hand, for a below average firm, industry averages become too high a standard to achieve.

(vii) Financial ratios are inter-related, not independent: Viewed in isolation one ratio may highlight efficiency. But when considered as a set of ratios they may speak differently. Such interdependence among the ratios can be taken care of through multivariate analysis.

Question 44. DISCUSS any three ratios computed for investment analysis.

Answer 44. Return on Investment (ROI): ROI is the most important ratio of all. It is the percentage of return on funds invested in the business by its owners. In short, this ratio tells the owner whether or not all the effort put into the business has been worthwhile. It compares earnings/ returns/ profit with the investment in the company.

a) Return on Assets (ROA): The profitability ratio is measured in terms of relationship between net profits and assets employed to earn that profit. This ratio measures the profitability of the firm in terms of assets employed in the firm. Based on various concepts of net profit (return) and assets, the ROA may be measured as follows

$$\text{ROA}= \frac{\text{Net Profit After Taxes}}{\text{Average Total Assets}} \text{ or } = \frac{\text{Net Profit After Taxes}}{\text{Average Tangible Assets}} \text{ or } = \frac{\text{Net Profit After Taxes}}{\text{Average Fixed Assets}}$$

Here, net profit is exclusive of interest. As Assets are also financed by lenders, hence

ROA can be calculated as:

$$\frac{\text{Net Profit After Taxes } + \text{ Interest}}{\text{AverageTotal or Tangible or Intangible Assets}}$$

b) Return on Capital Employed (ROCE): It is another variation of ROI. The ROCE is calculated as follows:

$$\text{ROCE (Pre-Tax)} = \frac{Earnings\ before\ Interest\ \&\ Tax\ (EBIT)}{Capital\ Employed} \times 100$$

$$\text{ROCE (Post-Tax)} = \frac{EBIT\ (1-t)}{Capital\ Employed} \times 100$$

Sometimes, it is also calculated as:

$$= \frac{\text{Net Profit After Taxes (PAT or EAT)+Interest}}{\text{Capital Employed}} \times 100$$

Where,

Capital Employed = Total Assets – Current Liabilities

Or

= Fixed Assets + Working Capital

Or

= Equity + Long Term Debt

c) Return on Equity (ROE): Return on Equity measures the profitability of equity funds invested in the firm. This ratio reveals how profitably of the owners' funds have been utilised by the firm. It also measures the percentage return generated to equity shareholders. This ratio is computed as:

$$\text{ROE} = \frac{\text{Net Profit After Taxes} - \text{Preference Dividend if any}}{\text{Net Worth or Equity Shareholders Funds}} \times 100$$

Return on equity is one of the most important indicators of a firm's profitability and potential growth. Companies that boast a high return on equity with little or no debt are able to grow without large capital expenditures, allowing the owners of the business to withdraw cash and reinvest it elsewhere. Many investors fail to realize, however, that two companies can have the same return on equity, yet one can be a much better business. If return on total shareholders (i.e. equity and preference shareholder) is calculated, then Net Profit after taxes (before preference dividend) shall be divided by total shareholders' fund including preference share capital.

Question 45. DISCUSS Stock Turnover ratio and Gearing ratio?

Answer 45. Capital Gearing Ratio: In addition to debt-equity ratio, sometimes capital gearing ratio is also calculated to show the proportion of fixed interest (dividend) bearing capital to funds belonging to equity shareholders i.e. equity funds or net worth. Again, higher ratio may indicate more risk.

$$\text{Capital Gearing ratio} = \frac{\text{Preference Share Capital} + \text{Debentures} + \text{Other Borrowed funds}}{\text{Equity Share Capital} + \text{Reserves \& Surplus} - \text{Losses}}$$

Inventory/ Stock Turnover Ratio: This ratio also known as stock turnover ratio establishes the relationship between the cost of goods sold during the year and average inventory held during the year. It measures the efficiency with which a firm utilizes or manages its inventory. It is calculated as follows:

Inventory Turnover Ratio= $\frac{\text{Cost of Goods Sold/ Sales}}{\text{Average Inventory}}$

Average Inventory = $\frac{\text{Opening Stock+Closing Stock}}{2}$

In the case of inventory of raw material, the inventory turnover ratio is calculated using the following formula:

Raw Material Inventory Turnover Ratio= $\frac{\text{Raw Material Consumed}}{\text{Average Raw Material Stock}}$

Question 46. EXPLAIN briefly the accounts receivable systems

Answer 46. Technological developments now-a-days provides an opportunity for improvement in accounts receivables process. The major innovations available are the integration of systems used in the management of accounts receivables, the automation and the use of e- commerce.

- **E-commerce** refers to the use of computer and electronic telecommunication technologies, particularly on an inter- organisational level, to support trading in goods and services. It uses technologies such as Electronic Data Inter-change (EDI), Electronic Mail, Electronic Funds Transfer (EFT) and Electronic Catalogue Systems to allow the buyer and seller to transact business by exchange of information between computer application systems such as Amazon, Flipkart etc.

(a) Automated Accounts Receivable Management Systems: Now-a- days all the big companies develop and maintain automated receivable management systems. Manual systems of recording the transactions and managing receivables are not only cumbersome but ultimately costly also. These integrated systems automatically update all the accounting records affected by a transaction. For example, if a transaction of credit sale is to be recorded, the system increases the amount the customer owes to the firm, reduces the inventory for the item purchased, and records the sale. This system of a company allows the application and tracking of receivables and collections, using the automated receivables system allows the company to store important information for an unlimited number of

customers and transactions, and accommodate efficient processing of customer payments and adjustments.

Question 47. Ganpati Limited has furnished the following ratios and information relating to the year ended 31st March, 2021:

Sales	₹ 60,00,000
Return on net worth	25%
Rate of income tax	50%
Share capital to reserves	7:3
Current ratio	2
Net profit to sales	6.25%
Inventory turnover (based on cost of goods sold)	12
Cost of goods sold	₹ 18,00,000
Interest on debentures	₹ 60,000
Receivables	₹ 2,00,000
Payables	₹ 2,00,000

You are required to:

(a) CALCULATE the operating expenses for the year ended 31st March, 2021.

(b) PREPARE a Balance Sheet as on 31st March in the following format:

Balance Sheet as on 31st March, 2021

Liabilities	**₹**	**Assets**	**₹**
Share Capital		Fixed Assets	
Reserve and Surplus		Current Assets	
15% Debentures		Stock	
Payables		Receivables	
		Cash	

Answer 47.

a) Calculation of Operating Expenses for the year ended 31st March, 2021

		(₹)
Net Profit [@ 6.25% of Sales]		3,75,000
Add: Income Tax (@ 50%)		3,75,000
Profit Before Tax (PBT)		7,50,000
Add: Debenture Interest		60,000
Profit before interest and tax (PBIT)		8,10,000
Sales		60,00,000
Less: Cost of goods sold	18,00,000	26,10,000
PBIT	8,10,000	33,90,000

b) Balance Sheet as on 31st March, 2021

Liabilities	**₹**	**Assets**	**₹**

Share Capital	10,50,000	Fixed Assets	17,00,000
Reserve and Surplus	4,50,000	Current Assets:	
15% Debentures	4,00,000	Stock	1,50,000
Payables	2,00,000	Receivables	2,00,000
		Cash	50,000
	21,00,000		21,00,000

Working Notes:

(i) Share Capital and Reserves and Surplus

The return on net worth is 25%. Therefore, the profit after tax of₹ 3,75,000 should be equivalent to 25% of the net worth.

Net worth × $\frac{25}{100}$ = ₹ 3,75,000

∴ Net worth = $\frac{₹\ 3,75,000 \times 100}{25}$ = ₹ 15,00,000

The ratio of share capital to reserves is 7:3

Share Capital = 15,00,000 × $\frac{7}{10}$ =₹ 10,50,000

Reserves and Surplus= 15,00,000 × $\frac{3}{10}$ = ₹ 4,50,000

(ii) Debentures

Interest on Debentures @ 15% = ₹ 60,000

∴ Debentures = $\frac{60,000 \times 100}{15}$ = ₹ 4,00,000

(iii) Current Assets

Current Ratio = 2

Payables = ₹ 2,00,000

∴ Current Assets = 2 Current Liabilities = 2 2,00,000 = ₹ 4,00,000

(iv) Fixed Assets

	₹
Share capital	10,50,000
Reserves and Surplus 4,50,000	4,50,000
Debentures	4,00,000
Payables	2,00,000
	21,00,000
Less: Current Assets	4,00,000
Fixed Assets	17,00,000

(i) Composition of Current Assets

Inventory Turnover = 12

$= \frac{\text{Cost of goods sold}}{\text{Closing stock}} = 12$

Closing stock = $\frac{₹\ 18,00,000}{12}$ = ₹ 1,50,000

Composition	₹
Stock	1,50,000
Receivables	2,00,000
Cash (balancing figure)	50,000

Total Current Assets	4,00,000

Question 48. The following is the extract of the Balance Sheet of M/s KD Ltd.:

Particulars	**Amount (₹)**
Ordinary shares (Face Value ₹ 10/- per share)	5,00,000
Share Premium	1,00,000
Retained Profits	6,00,000
8% Preference Shares (Face Value ₹ 25/- per share)	4,00,000
12% Debentures (Face value ₹ 100/- each)	6,00,000
	22,00,000

The ordinary shares are currently priced at ₹ 39 ex-dividend and preference share is priced at ₹ 18 cum-dividend. The debentures are selling at 120 percent exinterest. The applicable tax rate to KD Ltd. is 30 percent. KD Ltd.'s cost of equity has been estimated at 19 percent. Calculate the WACC (weighted average cost of capital) of KD Ltd. on the basis of market value.

Answer 48.

Computation of WACC on the basis of market value

W.N. 1

Cum-dividend price of Preference shares = ₹ 18

Less: Dividend (8/100) x 25 = ₹ 2

∴Market Price of Preference shares = ₹ 16

$K_P = \frac{2}{16}$ = 0.125(or) 12.5%

No. Of preference shares = $\left(\frac{4,00,000}{25}\right)$ = 16,000

W.N. 2

Market price of Debentures = $\left(\frac{120}{100}\right)$ X 100 = Rs. 120

$K_d = \left[\frac{12\ (1-0.3)}{120}\right]$ =0.07 (or)7%

No. of Debentures = $\left(\frac{60,000}{100}\right)$ = 6,000

W.N. 3

Market price of Equity Shares = Rs. 39

K_e (given) = 19% or 0.19

No. of Equity Shares = $\frac{50,000}{10}$ = 50,000

Sources	**Market Value (₹)**	**Nos.**	**Total Market Value (₹)**	**Weight**	**Cost of Capital**	**Product**
Equity Shares	39	50,000	19,50,000	0.6664	0.19	0.1266
Preference Shares	16	16,00,000	2,56,000	0.0875	0.125	0.0109
Debentures	120	6,000	7,20,000	0.2461	0.07	0.0172
					WACC =	0.157

WACC = 0.1547 or 15.47%

Question 49. Jason Limited is planning to raise additional finance of ₹ 20 lakhs for meeting its new project plans. It has ₹ 4,20,000 in the form of retained earnings available for investment purposes. Further details are as following:

Debt / Equity Mix	**30 / 70**
Cost of Debt	
Upto ₹ 3,60,000	**8 % (before tax)**
Beyond ₹ 3,60,000	**12 % (before tax)**
Earnings per share	**₹ 4**
Dividend pay-out	**50% of earnings**
Current Market Price per share	**₹ 44**
Expected Growth rate in Dividend	**10 %**
Tax	**40%**

You are required:

(a) To determine the cost of retained earnings and cost of equity.

(b) To determine the post-tax average cost of additional debt.

(c) To determine the pattern for raising the additional finance, and

(d) Compute the overall weighted average after tax cost of additional finance.

Answer 49 . (a) Cost of Equity / Retained Earnings (using dividend growth model)

$K_e = \frac{D_1}{P_0}$

where D1 = Do (1 + g) = 2 (1 + .10) = 2.2

$K_e = \frac{2}{44} + 0.10 = 0.15$ or 15%

(b) Cost of Debt (Post Tax)

Kd = I (1-t)

Upto 3,60,000 Kd = .08 (1-0.4) = 0.048

Beyond 3,60,000 = .12 (1-0.4) = 0.072

Thus, post-tax cost of additional debt = 0.048 x 3,60,000 / 6,00,000 + 0.072 x

2,40,000/ 6,00,000 = 0.0288 + 0.0288 = 0.0576 or 5.76%

(c) Pattern for Raising Additional Finance

Debt = 20,00,000 x 30% = 6,00,000

Equity = 20,00,000 x 70 % = 14,00,000

Out of this total equity amount of ₹ 14,00,000 - Equity Shares = 14,00,000 – 4,20,000

= 9,80,000

And Retained Earnings = 4,20,000

(d) Overall Weighted Average after tax cost of additional finance

WACC = Kd x Debt Mix + Ke x Equity Mix = 0.0576 x 30% + 0.15 x 70% = 0.01728 + 0.105 = 0.1223 or 12.23% (approx.)

Question 50. Explain the significance of Cost of Capital. (PYP 4 Marks, Nov'19)

Answer 50. Significance of the Cost of Capital: The cost of capital is important to arrive at correct amount and helps the management or an investor to take an appropriate decision. The correct cost of capital helps in the following decision making:

(i) Evaluation of investment options: The estimated benefits (future cash flows) from available investment opportunities (business or project) are converted into the present value of benefits by discounting them with the relevant cost of capital. Here it is pertinent to mention that every investment option may have different cost of capital hence it is very important to use the cost of capital which is relevant to the options available. Here Internal Rate of Return (IRR) is treated as cost of capital for evaluation of two options (projects).

(ii) Performance Appraisal: Cost of capital is used to appraise the performance of a particulars project or business. The performance of a project or business in compared against the cost of capital which is known here as cut-off rate or hurdle rate.

(iii) Designing of optimum credit policy: While appraising the credit period to be allowed to the customers, the cost of allowing credit period is compared against the benefit/ profit earned by providing credit to customer of segment of customers. Here cost of capital is used to arrive at the present value of cost and benefits received.

Question 51. DISCUSS the meaning of weighted average cost of capital? ILLUSTRATE with an example.

Answer 1. To balance financial risk, control over the company and cost of capital, a company usually does not procure entire fund from a single source, rather it makes a mix of various sources of finance. Hence, cost of total capital will be equal to weighted average of cost of individual sources of finance.

WACC is also known as the overall cost of capital which includes the cost of different sources of capital as explained above. WACC of a company depends on the capital structure of a company. It weighs the cost of capital of a particular source of capital with its proportion to the total capital. Thus, weighted average cost of capital is the weighted average after-tax costs of the individual components of firm's capital structure. That is, the after-tax cost of each debt and equity is calculated separately and added together to a single overall cost of capital

The steps to calculate WACC is as follows:

Step 1: Calculate the total capital from all the sources of capital.

(Long-term debt capital + Pref. Share Capital + Equity Share Capital + Retained Earnings)

Step 2: Calculate the proportion (or %) of each source of capital to the total capital.

$$\frac{\text{Equity Share Capital (For example)}}{\text{Total Capital as calculated in step 1 above}}$$

Step 3: Multiply the proportion as calculated in Step 2 above with the respective cost of capital.

(K_e × Proportion (%) of equity share capital (for example) calculated in Step 2 above)

Step 4: Aggregate the cost of capital as calculated in Step 3 above. This is the WACC.

($K_e + K_d + K_p + K_s$ as calculated in Step 3 above)

Calculation of WACC

Source of Capital	Cost of capital	% of total capital	Total
Retained Earnings	10% (K_r)	25% (W_r)	2.50% ($K_r \times W_r$)
Equity Share Capital	11% (K_e)	10% (W_e)	1.10% ($K_e \times W_e$)
Preference Share Capital	9% (K_p)	15% (W_p)	1.35% ($K_p \times W_p$)
Long term debts	6% (K_d)	50% (W_d)	3.00% ($K_d \times W_d$)
Total (WACC)			7.95%

The cost of weighted average method is preferred because the proportions of various sources of funds in the capital structure are different. To be representative, therefore, cost of capital should take into account the relative proportions of different sources of finance.

Securities analysts employ WACC all the time when valuing and selecting investments. In discounted cash flow analysis, WACC is used as the discount rate applied to future cash

flows for deriving a business' net present value. WACC can be used as a hurdle rate against which to assess return on investment capital performance. Investors use WACC as a tool to decide whether or not to invest. The WACC represents the minimum rate of return at which a company produces value for its investors. Let's say, if a company produces a return of 20% and has a WACC of 11%. By contrast, the company's return is less than WACC meaning the company is shedding value, which indicates that investors should put their money elsewhere. Therefore, WACC serves as a useful reality check for investors.

Question 52. What is the DIFFERENCE between Book Value and Market Value weights?

Answer 52. There is a choice weights between the book value (BV) and market value (MV).

Book Value (BV): Book value weights is operationally easy and convenient. While using BV, reserves such as share premium and retained profits are included in the BV of equity, in addition to the nominal value of share capital. Here, the value of equity will generally not reflect historic asset values, as well as the future prospects of an organisation.

Market Value (MV): Market value weight is more correct and represent a firm’s capital structure. It is preferable to use MV weights for the equity. While using MV, reserves such as share premium and retained profits are ignored as they are in effect incorporated into the value of equity. It represents existing conditions and also take into consideration the impacts of changing market conditions and the current prices of various security. Similarly, in case of debt, MV is better to be used rather than the BV of the debt, though the difference may not be very significant.

There is no separate market value for retained earnings. Market value of equity shares represents both paid up equity capital and retained earnings. But cost of equity is not same as cost of retained earnings. Hence to give market value weights, market value of equity shares should be apportioned in the ratio of book value of paid up equity capital and book value of retained earnings.

Question 53.

DISCUSS Marginal Cost of Capital?

Answer 53. The marginal cost of capital may be defined as the cost of raising an additional rupee of capital. Since the capital is raised in substantial amount in practice, marginal cost is referred to as the cost incurred in raising new funds. Marginal cost of capital is derived, when the average cost of capital is calculated using the marginal weights.

The marginal weights represent the proportion of funds the firm intends to employ. Thus, the problem of choosing between the book value weights and the market value weights does not arise in the case of marginal cost of capital computation.

To calculate the marginal cost of capital, the intended financing proportion should be applied as weights to marginal component costs. The marginal cost of capital should, therefore, be calculated in the composite sense. When a firm raises funds in proportional manner and the component's cost remains unchanged, there will be no difference between average cost of capital (of the total funds) and the marginal cost of capital. The component costs may remain constant up to certain level of funds raised and then start increasing with amount of funds raised.

Question 54. EXPLAIN YTM approach of calculating Cost of Debt.

Answer 54. The cost of redeemable debt (Kd) is also calculated by discounting the relevant cash flows using Internal rate of return (IRR). (The concept of IRR is discussed in the Chapter 7 - Investment Decisions). Here, YTM is the annual return of an investment from the current date till maturity date. So, YTM is the internal rate of return at which current price of a debt equals to the present value of all cash-flows.

The relevant cash flows are as follows:

Year	Cash flows

0	Net proceeds in case of new issue/ Current market price in case of existing debt (NP or P0)
1 to n	Interest net of tax [I(1-t)]
n	Redemption value (RV)

Steps to calculate relevant cash flows:

Step-1: Identify the cash flows.

Step-2: Calculate NPVs of cash flows as identified above using two discount rates (guessing).

Step-3: Calculate IRR.

Question 55. DISCUSS the meaning of Amortisation of Bond?

Answer 55. A bond may be amortised every year i.e., principal is repaid every year rather than at maturity. In such a situation, the principal will go down with annual payments and interest will be computed on the outstanding amount. The cash flows of the bonds will be uneven.

Question 56. Gamma Limited has 5,00,000, ₹ 1 ordinary shares whose current ex-dividend market price is ₹ 1.50 per share. The company has just paid a dividend of 27 paise per share, and dividends are expected to continue at this level for some time. If the company has no debt capital, COMPUTE the weighted average cost of capital?

Answer 56. Market value of equity, E = 5,00,000 shares × ₹ 1.50 = ₹ 7,50,000 Market value of debt, D = Nil

Cost of equity capital, $K_e = \frac{D_1}{P_0} = \frac{Rs.0.27}{Rs.1.50}$

Since there is no debt capital, WACC = k_e = 18 per cent.

Question 56. The following details are provided by the GPS Limited:

	(₹)
Equity Share Capital	65,00,000
12% Preference Share Capital	12,00,000
15% Redeemable Debentures	20,00,000
10% Convertible Debentures	8,00,000

The cost of equity capital for the company is 16.30% and income tax rate for the company is 30%. You are required to CALCULATE the Weighted Average Cost of Capital (WACC) of the company

Answer 56. Calculation of Weighted Average Cost of Capital (WACC)

Source	**Amount (₹)**	**Weight**	**Cost of Capital after tax**	**WACC**
Equity Capital	65,00,000	0.619	0.163	0.1009
12% Preference Capital	12,00,000	0.114	0.120	0.0137
15% Redeemable Debentures	20,00,000	0.190	0.105*	0.020
10% Convertible Debentures	8,00,000	0.076	0.070**	0.0053
Total	1,05,00,000	1.0000		0.1399

* Cost of 15% Redeemable Debentures (after tax) = 15 (1 – 0.30)

= 10.5% or 0.105

** Cost of 10% Convertible Debentures (after tax) = 10 (1 – 0.30) = 7% or 0.070 Weighted

Average Cost of Capital (WACC) = 0.1399 = 13.99%

(Note: In the above solution, the Cost of Debentures has been computed without considering the impact of special features i.e. redeemability and convertibility in absence of requisite information.)

Question 57. Keep Ltd. and Lee Ltd. are identical in every respect except for capital structure. Keep Ltd. does not employ debt in its capital structure, whereas Lee Ltd. employs 12% debentures amounting to Rs. 20 lakhs. Assuming that:

(i) All assumptions of MM model are met;

(ii) The income tax rate is 30%;

(iii) EBIT is Rs. 5,00,000 and

(iv) The equity capitalization rate of Keep Ltd. is 25%. CALCULATE the average

value of both the Companies.

Answer 57. Keep Ltd. (pure Equity) i.e. unlevered company: EAT = EBT (1 – t)

= EBIT (1 - 0.3) = Rs. 5,00,000 × 0.7 = Rs. 3,50,000

(Here, EBIT = EBT as there is no debt)

Value of unlevered company Keep Ltd. $\frac{\text{EAT}}{\text{Equity Capitalion rate}}$

$= \frac{\text{Rs.3,50,000}}{25\%}$

Lee Ltd. (Equity and Debt) i.e. levered company:

Value of levered company = Value of Equity + Value of Debt

= Rs. 14,00,000 + (Rs. 20,00,000 × 0.3)

= Rs. 20,00,000

Question 58. What are the important factors considered for deciding the source and quantum of capital?

Answer 58. The source and quantum of capital is decided keeping in mind the following factors:

(i) Control: Capital structure should be designed in such a manner that existing shareholders continue to hold majority stake

(ii) Risk: Capital structure should be designed in such a manner that financial risk of a company does not increase beyond tolerable limit.

(iii) Cost: Overall cost of capital remains minimum.

Question 59. EXPLAIN in brief the Pecking order theory.

OR

'Pecking order theory' suggests manager to use various sources for raising of fund in certain order. BRIEF out that order.

Answer 59. This theory states that firms prefer to issue debt when they are positive about future earnings. Equity is issued when they are doubtful and internal finance is insufficient.

The pecking order theory argues that the capital structure decision is affected by manager's choice of a source of capital that gives higher priority to sources that reveal the least amount of information.

Pecking order theory suggests that managers may use various sources for raising of fund in the following order.

1. Managers first choice is to use internal finance

2. In absence of internal finance, they can use secured debt, unsecured debt, hybrid debt etc.

3. Managers may issue new equity shares as a last option. So briefly under this theory rules are

Rule 1: Use internal financing first.

Rule 2: Issue debt next

Rule 3: Issue of new equity shares at last

Question 60. Bhaskar Manufactures Ltd. have Equity Share Capital of ₹ 5,00,000 (face value ₹100) to meet the expenditure of an expansion programme, the company wishes to raise ₹ 3,00,000 and is having following four alternative sources to raise the funds:

Plan A: To have full money from equity shares.

Plan B: To have ₹ 1 lakhs from equity and ₹ 2 lakhs from borrowing from the financial institution @ 10% p.a.

Plan C: Full money from borrowing @ 10% p.a.

Plan D: ₹1 lakh in equity and ₹ 2 lakhs from preference shares at 8% p.a.

The company is expected to have an earning of ₹ 1,50,000. The corporate tax is 50%. Suggest a suitable plan of the above four plans to raise the required funds.

Answer 60. Statement showing the EPS under the four plans

	Plan A	**Plan B**	**Plan C**	**Plan D**
Equity share capital	₹ 8,00,000	₹ 6,00,000	₹ 5,00,000	₹ 6,00,000
8% Pref. Share capital	-	-		₹ 2,00,000

Borrowing @ 10%	-	₹ 2,00,000	₹ 3,00,000	-
	₹ 8,00,000	₹ 8,00,000	₹ 8,00,000	₹ 8,00,000
E.B.I.T	₹ 1,50,000	₹ 1,50,000	₹ 1,50,000	₹ 1,50,000
Less: Interest @ 10%		₹ 20,000	₹ 30,000	
E.B.T	₹ 1,50,000	₹ 1,30,000	₹1,20,000	₹ 1,50,000
Less: Tax	₹ 75,000	₹65,000	₹60,000	₹ 75,000
Less: Pref Divided				₹ 16,000
Earnings available to equity share holders	₹ 75,000	₹ 65,000	₹ 60,000	₹ 59,000
No.of equity shares (₹100)	8,000	6,000	5,000	6,000
Earning per share	₹ 9.38	₹ 10.83	₹ 12.00	₹ 9.83

Plan C given the highest EPS and therefore to be accepted.

Question 61. Briefly explain concept of "Trading on Equity" in financial leverage analysis.

Answer 61. Financial Leverage as 'Trading on Equity':

Financial leverage indicates the use of funds with fixed cost like long term debts and preference share capital along with equity share capital which is known as trading on equity. The basic aim of financial leverage is to increase the earnings available to equity shareholders using fixed cost fund. A firm is known to have a positive/favourable leverage when its earnings are more than the cost of debt. If earnings are equal to or less than cost of debt, it will be a negative/unfavourable leverage. When the quantity of fixed cost fund is relatively high in comparison to equity capital it is said that the firm is 'trading on equity".

Question 62. DESCRIBE Factoring.

Answer 62. Factoring is a relatively new concept in financing of accounts receivables. This refers to outright sale of accounts receivables to a factor or a financial agency. A factor is a firm that acquires the receivables of other firms. The factoring lays down the conditions of the sale in a factoring agreement. The factoring agency bears the risk of collection and services the accounts for a fee.

Factoring arrangement can be either on a recourse basis or on a non-recourse basis:

- Recourse: In case factor is unable to collect the amount from receivables then, factor can turn back the same to the organization for resolution (which generally is by replacing those receivables with new receivables)

- Non-Recourse: The factor bears the ultimate risk of loss in case of default and hence in such cases they charge higher commission.

There are a number of financial institutions providing factoring services in India. Some commercial banks and other financial agencies provide this service. The biggest advantages of factoring are the immediate conversion of receivables into cash and predicted pattern of cash flows. Financing receivables with the help of factoring can help a company having liquidity without creating a net liability on its financial condition and hence no impact on debt equity ratio. Besides, factoring is a flexible financial tool providing timely funds, efficient record keepings and effective management of the collection process. This is not considered as a loan. There is no debt repayment and hence no compromise to balance sheet, no long-term agreements or delays associated with other methods of raising capital. Factoring allows the firm to use cash for the growth needs of business.

Question 63. EXPLAIN Over-capitalization. STATE its causes and consequences.

Answer 63. Over-capitalization and its Causes and Consequences

It is a situation where a firm has more capital than it needs or in other words assets are worth less than its issued share capital, and earnings are insufficient to pay dividend and interest.

Causes of Over Capitalization

Over-capitalization arises due to following reasons:

(iv) Raising more money through issue of shares or debentures than company can employ profitably.

(v) Borrowing huge amount at higher rate than rate at which company can earn.

(vi) Excessive payment for the acquisition of fictitious assets such as goodwill etc.

(vii) Improper provision for depreciation, replacement of assets and distribution of dividends at a higher rate.

(viii) Wrong estimation of earnings and capitalization. Consequences of Over-Capitalization

Over-capitalization results in the following consequences:

(i) Considerable reduction in the rate of dividend and interest payments.

(ii) Reduction in the market price of shares.

(iii) Resorting to “window dressing”.

(iv) Some companies may opt for reorganization. However, sometimes the matter gets worse and the company may go into liquidation.

Question 64. A Company earns a profit of Rs.6,00,000 per annum after meeting its interest liability of Rs.1,20,000 on 12% debentures. The Tax rate is 50%. The number of Equity Shares of Rs.10 each are 80,000 and the retained earnings amount to Rs.18,00,000. The company proposes to take up an expansion scheme for which a sum of Rs.8,00,000 is required. It is anticipated that after expansion, the company will be able to achieve the

same return on investment as at present. The funds required for expansion can be raised either through debt at the rate of 12% or by issuing equity shares at par.

Required:

(i) COMPUTE the Earnings per Share (EPS), if:

➢ The additional funds were raised as debt

➢ The additional funds were raised by issue of equity shares.

(ii) ADVISE the company as to which source of finance is preferable.

Answer 64.

Earnings before interest and tax (EBIT) after expansion scheme:

After expansion, capital employed = Rs.36,00,000 + Rs.8,00,000 = Rs.44,00,000

Desired EBIT = 20% × Rs.44,00,000 = Rs.8,80,000

(i) Computation of Earnings Per Share (EPS) under the following options:

	Present situation	Expansion scheme Additional funds raised as	
		Debt	Equity
	(Rs.)	(Rs.)	(Rs.)
Earnings before Interest and Tax (EBIT)	7,20,000	8,80,000	8,80,000
Less: Interest – Old capital	1,20,000	1,20,000	1,20,000
- New capital	--	96,000 (Rs.8,00,000 × 12%)	--

Earnings before Tax (EBT)	6,00,000	6,64,000	7,60,000
Less: Tax (50% of EBT)	3,00,000	3,32,000	3,80,000
PAT	3,00,000	3,32,000	3,80,000
No. of shares outstanding	80,000	80,000	1,60,000
Earnings per Share (EPS)			

(ii) Advise to the Company: When the expansion scheme is financed by additional debt, the EPS is higher. Hence, the company should finance the expansion scheme by raising debt.

Question 65. Axar Ltd. has a Sales of ₹ 68,00,000 with a Variable cost Ratio of 60%. The company has fixed cost of ₹16,32,000. The capital of the company comprises of 12% long term debt, ₹1,00,000 Preference Shares of ₹ 10 each carrying dividend rate of 10% and 1,50,000 equity shares. The tax rate applicable for the company is 30%. At current sales level, DETERMINE the Interest, EPS and amount of debt for the firm if a 25% decline in Sales will wipe out all the EPS

Answer 65.

Break Even Sales = ₹ 6800000 × 0.75 = ₹ 51,00,000

Income Statement

(Amount in ₹)

	Original	**Calculation of Interest at BEP (backward calculation)**	**Now at present level**
Sales	68,00,000	51,00,000	68,00,000

Less: Variable Cost	40,80,000	30,60,000	40,80,000
Contribution	27,20,000	20,40,000	27,20,000
Less: Fixed Cost	16,32,000	16,32,000	16,32,000
EBIT	10,88,000	4,08,000	10,88,000
Less: Interest (EBIT-PBT)	?	3,93,714	3,93,714
PBT	?	14,286(10,000/70%)	6,94,286
Less: Tax @ 30%(or PBT-PAT)	?	4,286	2,08,286
PAT	?	10,000(Nil+10,000)	4,86,000
Less: Preference Dividend	10,000	10,000	10,000
Earnings for Equity share holders	?	Nil (at BEP)	4,76,000
Number of Equity Shares	1,50,000	1,50,000	1,50,000
EPS	?	-	3.1733

So, Interest = ₹ 3,93,714, EPS=₹3.1733, Amount of debt = 3,93,714/12% = ₹ 32,80,950

Question 66. DESCRIBE Capital Structure.

Answer 66. Capital structure is the combination of capitals from different sources of finance. The capital of a company consists of equity share holders' fund, preference share capital and long term external debts. The source and quantum of capital is decided keeping in mind the following factors:

1. Control: Capital structure should be designed in such a manner that existing shareholders continue to hold majority stake.

2. Risk: Capital structure should be designed in such a manner that financial risk of a company does not increase beyond tolerable limit.

3. Cost: Overall cost of capital remains minimum.

Practically, it is difficult to achieve all of the above three goals together, hence, a finance manager has to make a balance among these three objectives.

Question 67. EXPLAIN in brief the assumptions of Modigliani-Miller theory.

Answer 67. The NOI approach is definitional or conceptual and lacks behavioural significance. It does not provide operational justification for irrelevance of capital structure. However, Modigliani-Miller (MM) approach provides behavioural justification for constant overall cost of capital and therefore, total value of the firm.

MM Approach – 1958: without tax:

This approach describes, in a perfect capital market where there is no transaction cost and no taxes, the value and cost of capital of a company remain unchanged irrespective of change in the capital structure. This approach is based on further following additional assumptions:

- Capital markets are perfect. All information is freely available and there are no transaction costs.
- All investors are rational.
- Firms can be grouped into 'Equivalent risk classes' on the basis of their business risk.
- Non-existence of corporate taxes.

Question 68. EXPLAIN the principles of "Trading on equity".

Answer 68. Financial leverage or Trading on Equity: The use of long-term fixed interest bearing debt and preference share capital along with equity share capital is called financial leverage or trading on equity. The use of long-term debt increases the earnings per share if the firm yields a return higher than the cost of debt. The earnings per share also increase with the use of preference share capital but due to the fact that interest is allowed to be deducted while computing tax, the leverage impact of debt is much more. However, leverage can operate adversely also if the rate of interest on long-term loan is more than the expected rate of earnings of the firm. Therefore, it needs caution to plan the capital structure of a firm.

Question 69. EXPLAIN the difference between Business risk and Financial risk

Answer 69. Business Risk and Financial Risk

Business risk refers to the risk associated with the firm's operations. It is an unavoidable risk because of the environment in which the firm has to operate and the business risk is represented by the variability of earnings before interest and tax (EBIT). The variability in turn is influenced by revenues and expenses. Revenues and expenses are affected by demand of firm's products, variations in prices and proportion of fixed cost in total cost. Whereas, Financial risk refers to the additional risk placed on firm's shareholders as a result of debt use in financing. Companies that issue more debt instruments would have higher financial risk than companies financed mostly by equity. Financial risk can be measured by ratios such as firm's financial leverage multiplier, total debt to assets ratio etc.

Question 70. Operating risk is associated with cost structure, whereas financial risk is associated with capital structure of a business concern." Critically EXAMINE this statement.

Answer 70. "Operating risk is associated with cost structure whereas financial risk is associated with capital structure of a business concern".

Operating risk refers to the risk associated with the firm's operations. It is represented by the variability of earnings before interest and tax (EBIT). The variability in turn is influenced by revenues and expenses, which are affected by demand of firm's products, variations in prices and proportion of fixed cost in total cost. If there is no fixed cost, there would be no operating risk. Whereas financial risk refers to the additional risk placed on firm's shareholders as a result of debt and preference shares used in the capital structure of the concern. Companies that issue more debt instruments would have higher financial risk than companies financed mostly by equity.

Question 71. "Financial Leverage is a double-edged sword" DISCUSS

Answer 71. On one hand when cost of 'fixed cost fund' is less than the return on investment financial leverage will help to increase return on equity and EPS. The firm will also benefit from the saving of tax on interest on debts etc. However, when cost of debt will be more than the return it will affect return of equity and EPS unfavorably and as a result firm can be under financial distress. This is why financial leverage is known as "double edged sword".

Effect on EPS and ROE:

When, ROI > Interest – Favourable – Advantage When, ROI < Interest – Unfavourable

– Disadvantage

When, ROI = Interest – Neutral – Neither advantage nor disadvantage.

Question 72. DESCRIBE the various forms of bank credit in financing the working capital of a business organization

Answer 72. The bank credit will generally be in the following forms:

• **Cash Credit:** This facility will be given by the banker to the customers by giving certain amount of credit facility on continuous basis. The borrower will not be allowed to exceed the limits sanctioned by the bank.

• **Bank Overdraft:** It is a short-term borrowing facility made available to the companies in case of urgent need of funds. The banks will impose limits on the amount they can lend. When the borrowed funds are no longer required they can quickly and easily be repaid. The banks issue overdrafts with a right to call them in at short notice.

• **Bills Discounting:** The Company which sells goods on credit will normally draw a bill on the buyer who will accept it and sends it to the seller of goods. The seller, in turn discounts the bill with his banker. The banker will generally earmark the discounting bill limit.

• **Bills Acceptance:** To obtain finance under this type of arrangement a company draws a bill of exchange on bank. The bank accepts the bill thereby promising to pay out the amount of the bill at some specified future date.

• **Line of Credit:** Line of Credit is a commitment by a bank to lend a certain amount of funds on demand specifying the maximum amount.

• **Letter of Credit:** It is an arrangement by which the issuing bank on the instructions of a customer or on its own behalf undertakes to pay or accept or negotiate or authorizes another bank to do so against stipulated documents subject to compliance with specified terms and conditions.

• **Bank Guarantees:** Bank guarantee is one of the facilities that the commercial banks extend on behalf of their clients in favour of third parties who will be the beneficiaries of the guarantees.

Question 73. DISCUSS in detail the 'Capital Budgeting Process'.

Answer 73. The extent to which the capital budgeting process needs to be formalised and systematic procedures to be established depends on the size of the organisation; number of projects to be considered; direct financial benefit of each project considered by itself; the composition of the firm's existing assets and management's desire to change that composition; timing of expenditures associated with the projects that are finally accepted.

(i) Planning: The capital budgeting process begins with the identification of potential investment opportunities. The opportunity then enters the planning phase when the potential effect on the firm's fortunes is assessed and the ability of the management of the firm to exploit the opportunity is determined. Opportunities having little merit are rejected and promising opportunities are advanced in the form of a proposal to enter the evaluation phase.

(ii) Evaluation: This phase involves the determination of proposal and its investments, inflows and outflows. Investment appraisal techniques, ranging from the simple payback method and accounting rate of return to the more sophisticated discounted cash flow techniques, are used to appraise the proposals. The technique selected should be the one that enables the manager to make the best decision in the light of prevailing circumstances.

(iii) Selection: Considering the returns and risks associated with the individual projects as well as the cost of capital to the organisation, the organisation will choose among projects which maximises the shareholders' wealth.

(iv) Implementation: When the final selection is made, the firm must acquire the necessary funds, purchase the assets, and begin the implementation of the project.

(v) Control: The progress of the project is monitored with the aid of feedback reports. These reports will include capital expenditure progress reports, performance reports comparing actual performance against plans set and post completion audits.

(vi) Review: When a project terminates, or even before, the organisation should review the entire project to explain its success or failure. This phase may have implication for firm's planning and evaluation procedures. Further, the review may produce ideas for new proposals to be undertaken in the future.

Question 74. CLASSIFY various types of Capital Investment decisions known to you.

Answer 74. There are many ways to classify the capital budgeting decision. Generally capital investment decisions are classified in two ways. One way is to classify them on the basis of firm's existence. Another way is to classify them on the basis of decision situation.

On the basis of firm's existence

The capital budgeting decisions are taken by both newly incorporated firms as well as by existing firms. The new firms may require decision making in respect of selection of a plant to be installed. Whereas the existing firm may require taking decisions to meet the requirement of new environment or to face the challenges of competition. These decisions may be classified as follows:

Replacement and Modernisation decisions: The replacement and modernization decisions aims to improve operating efficiency and reduce cost. Generally, all types of plant and machinery require replacement either because the economic life of the plant or machinery is over or because it has become technologically outdated. The former decision is known as replacement decision and latter is known as modernization decision. Both replacement and modernization decisions are called as cost reduction decisions.

(i) Expansion decisions: Existing successful firms may experience growth in demand of their product line. If such firms experience shortage or delay in the delivery of their products due to inadequate production facilities, they may consider proposal to add capacity to existing product line.

(ii) Diversification decisions: These decisions require evaluation of proposals to diversify into new product lines, new markets etc. for reducing the risk of failure by dealing in different products or by operating in several markets. Both expansion and diversification decisions are called revenue expansion decisions.

On the basis of decision situation

The capital budgeting decisions on the basis of decision situation are classified as follows:

(i) Mutually exclusive decisions: The decisions are said to be mutually exclusive if two or more alternative proposals are such that the acceptance of one proposal will exclude the

acceptance of the other alternative proposals. For instance, a firm may be considering proposal to install a semi-automatic or highly automatic machine. If the firm installs a semi-automatic machine, it excludes the acceptance of proposal to install highly automatic machine.

(ii) Accept-Reject decisions: The accept-reject decisions occur 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 give a higher return than certain desired rate of return are accepted and the rest are rejected.

(iii) Contingent decisions: The contingent decisions are made when the proposals are dependable proposals. The investment in one proposal requires investment in one or more other proposals. For example, if a company accepts a proposal to set up a factory in remote area, it will have to invest in infrastructure, like building of roads, houses for employees etc. also.

Question 75. DESCRIBE the advantages and disadvantages of profitability of index.

Answer 75. Advantages of PI

➢ The method also uses the concept of time value of money.

➢ In the PI method, since the present value of cash inflows is divided by the present value of cash outflow, it is a relative measure of a project's profitability.

Limitations of PI

➢ 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 which together may have higher NPV than the single project is excluded.

➢ Also, situations may arise where a project with a lower profitability index selected may generate cash flows in such a way 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 with highest Profitability Index. The Profitability Index approach thus cannot be used indiscriminately but all other type of alternatives of projects will have to be worked out

Question 76. DESCRIBE MIRR.

Answer 76. There are several limitations attached with the concept of the conventional Internal Rate of Return (IRR). The MIRR addresses some of these deficiencies e.g., it eliminates multiple IRR rates; it addresses the reinvestment rate issue and produces results which are consistent with the Net Present Value method. This method is also called Terminal Value method.

Under this method, all cash flows, apart from the initial investment, are brought to the terminal value using an appropriate discount rate (usually the Cost of Capital). This results in a single stream of cash inflow in the terminal year. The MIRR is obtained by assuming a single outflow in the zeroth year and the terminal cash inflow as mentioned above. The discount rate which equates the present value of the terminal cash inflow to the zeroth year outflow is called the MIRR.

The decision criterion of MIRR is same as IRR i.e. you accept an investment if MIRR is larger than required rate of return and reject if it is lower than the required rate of return.

Question 77. Following data has been available for a capital project:

Annual cash inflows ₹ 1,00,000

Useful life 4 years

Salvage value 0

Internal rate of return 12%

Profitability index 1.064

You are required to CALCULATE the following for this project:

(i) Cost of project

(ii) Cost of capital

(iii) Net present value

(iv) Payback period

PV factors at different rates are given below:

Discount factor	12%	11%	10%	9%
1 year	0.893	0.901	0.909	0.917
2 year	0.797	0.812	0.826	0.842
3 year	0.712	0.731	0.751	0.772
4 year	0.636	0.659	0.683	0.708

Answer 77. i. Cost of the Project

At 12% internal rate of return (IRR), the sum of total cash inflows = cost of the project i.e initial cash outlay

Annual cash inflows = ₹ 1,00,000 Useful life = 4 years

Considering the discount factor table @ 12%, cumulative present value of cash inflows for 4 years is 3.038 (0.893 + 0.797 + 0.712 + 0.636).

Hence, Total Cash inflows for 4 years for the Project is:

₹ 1,00,000 × 3.038 = ₹ 3,03,800

Hence, Cost of the Project = ₹ 3,03,800

ii. Cost of Capital

Profitability index

$= \frac{\text{Sum of Discounted Cash in flows}}{\text{Cost of the Project}}$

$1.064 = \frac{\text{Sum of Discounted Cash in flows}}{\text{Rs.3,03,800}}$

Sum of Discounted Cash inflows = ₹ 3,23,243.20

Since, Annual Cash Inflows = ₹ 1,00,000

Hence, cumulative discount factor for 4 years = $\frac{₹\ 3,23,243.20}{₹\ 1,00,000}$ = 3.232

From the discount factor table, at discount rate of 9%, the cumulative discount factor for 4 years is 3.239 (0.917 + 0.842 + 0.772 + 0.708).

Hence, Cost of Capital = 9% (approx.)

iii. Net Present Value (NPV)

NPV = Sum of Present Values of Cash inflows – Cost of the Project

= ₹ 3,23,243.20 – ₹ 3,03,800 = ₹ 19,443.20

iv. Payback Period

Payback period = $\frac{\text{Cost of the Project}}{\text{Annual Cash Inflows}}$

$\frac{\text{Rs.3,03,800}}{\text{Rs.1,00,000}}$ = 3.038 years

Question 78. illustration

ABC Ltd is evaluating the purchase of a new machinery with a depreciable base of ₹ 1,00,000; expected economic life of 4 years and change in earnings before taxes and depreciation of ₹ 45,000 in year 1, ₹ 30,000 in year 2, ₹ 25,000 in year 3 and ₹ 35,000 in year 4. Assume straight-line depreciation and a 20% tax rate. You are required to COMPUTE relevant cash flows.

Answer 78. Depreciation = ₹ 1,00,000 ÷4 = ₹ 25,000

Amount in (₹)

	Years			
	1	**2**	**3**	**4**
Earnings before tax and depreciation	45,000	30,000	25,000	35,000
Less: Depreciation	(25,000)	(25,000)	(25,000)	(25,000)
Earnings before tax	20,000	5,000	0	10,000
Less: Tax @20%	(4,000)	(1,000)	0	(2,000)
Earnings after tax	16,000	4,000	0	8,000
Add: Depreciation	25,000	25,000	25,000	25,000
Net Cash flow	41,000	29,000	25,000	33,000

Question 79. illustration

A project requiring an investment of ₹ 10,00,000 and it yields profit after tax and depreciation which is as follows:

Years	**Profit after tax and depreciation (₹)**
1	50,000
2	75,000
3	1,25,000
4	1,30,000
5	80,000
Total	4,60,000

Suppose further that at the end of the 5th year, the plant and machinery of the project can be sold for ₹ 80,000. DETERMINE Average Rate of Return.

Answer 79. In this case the rate of return can be calculated as follows:

$$\frac{\text{Total Profit} \div \text{No.of years}}{\text{Averageinvestment / Initial Initial Investment}} \times 100 = 9.2\%$$

(a) If Initial Investment is considered then,

$$= \frac{\text{Rs.4,60,000} \div \text{5 years}}{\text{Rs.10,00,000}} \times 100 = \frac{\text{Rs.92,000}}{\text{Rs.10,00,000}} = 9.2\%$$

This rate is compared with the rate expected on other projects, had the same funds been invested alternatively in those projects. Sometimes, the management compares this rate with the minimum rate (called-cut off rate). For example, management may decide that they will not undertake any project which has an average annual yield after tax less than 20%. Any capital expenditure proposal which has an average annual yield of less than 20%, will be automatically rejected.

(b) If Average investment is considered, then,

$$= \frac{\text{Rs.92,000}}{\text{Average investment}} \times 100 = \frac{\text{Rs.92,000}}{\text{Rs.5,40,000}} = 17.4\%$$

Where,

Average Investment = ½ (Initial investment – Salvage value) + Salvage value

= ½ (₹ 10,00,000 – ₹ 80,000) + ₹ 80,000

= ₹ 4,60,000 + ₹ 80,000 = ₹ 5,40,000

Question 80. illustration

COMPUTE the net present value for a project with a net investment of ₹ 1,00,000 and net cash flows for year one is ₹ 55,000; for year two is ₹ 80,000 and for year three is₹ 15,000.

Further, the company's cost of capital is 10%. [PVIF @ 10% for three years are 0.909, 0.826 and 0.751]

Answer 80.

Year	Net Cash Flows (₹)	PVIF @ 10%	Discounted Cash Flows (₹)
0	**(1,00,000)**	**1.000**	**(1,00,000)**
1	**55,000**	**0.909**	**49,995**
2	**80,000**	**0.826**	**66,080**
3	**15,000**	**0.751**	**11,265**
Net Present Value			**27,340**

Recommendation: Since the net present value of the project is positive, the company should accept the project.

Question 81. illustration

ABC Ltd. is a small company that is currently analyzing capital expenditure proposals for the purchase of equipment; the company uses the net present value technique to evaluate projects. The capital budget is limited to ₹ 500,000 which ABC Ltd. believes is the maximum capital it can raise. The initial investment and projected net cash flows for each project are shown below. The cost of capital of BC Ltd is 12%. You are required to COMPUTE the NPV of the different projects.

	Project A (₹)	Project B (₹)	Project C (₹)	Project D (₹)
Initial Investment	200,000	190,000	250,000	210,000
Project Cash Inflows:				
Year 1	50,000	40,000	75,000	75,000
2	50,000	50,000	75,000	75,000
3	50,000	70,000	60,000	60,000
4	50,000	75,000	80,000	40,000

5	50,000	75,000	100,000	20,000

Answer 81. Calculation of net present value:

Period	PV factor	Project A (₹)	Project B (₹)	Project C (₹)	Project D (₹)
0	1.000	(2,00,000)	(1,90,000)	(2,50,000)	(2,10,000)
1	0.893	44,650	35,720	66,975	66,975
2	0.797	39,850	39,850	59,775	59,775
3	0.712	35,600	49,840	42,720	42,720
4	0.636	31,800	47,700	50,880	25,440
5	0.567	28,350	42,525	56,700	11,340
Net Present Value		(19,750)	25,635	27,050	3,750)

Question 82. illustration

Suppose we have three projects involving discounted cash outflow of ₹ 5,50,000, ₹ 75,000 and ₹ 1,00,20,000 respectively. Suppose further that the sum of discounted cash inflows for these projects are ₹ 6,50,000, ₹ 95,000 and ₹ 1,00,30,000 respectively. CALCULATE the desirability factors for the three projects.

Answer 82. The desirability factors for the three projects would be as follows:

1. $\frac{\text{Rs.6,50,000}}{\text{Rs.5,50,000}}$ = 1.18

2. $\frac{\text{Rs.95,000}}{\text{Rs.75,000}}$ = 1.27

3. $\frac{\text{Rs.1,00,30,000}}{\text{Rs.1,00,20,000}}$ = 1.001

It can be seen that in absolute terms, project 3 gives the highest cash inflows yet its desirability factor is low. This is because the outflow is also very high.

Question 83. EXPLAIN the determinants of dividend decisions.

Answer 83. The dividend policy is affected by the following factors:

1. Availability of funds: If the business is in requirement of funds, then retained earnings could be a good source. The reason being the saving of floatation cost and prevention of dilution of control which happens in case of new issue of equity shares to public.

2. Cost of capital: If the financing requirements are to be executed through debt (relatively cheaper source of finance), then it would be preferable to distribute more dividend. On the other hand, if the financing is to be done through fresh issue of equity shares, then it is better to use retained earnings as much as possible.

3. Capital structure: An optimum Debt Equity ratio should also be considered for the dividend decision.

4. Stock price: Stock price here means market price of the shares. Generally, higher dividends increase market value of shares and low dividends decrease the value.

5. Investment opportunities in hand: The dividend decision is also affected if there are investment opportunities in hand. In that situation, the company may prefer to retain more earnings.

6. Internal rate of return (IRR): If the internal rate of return (IRR) is more than the cost of retained earnings (Kr), it is better to distribute the earnings as much as possible.

7. Trend of industry: The investors depend on some industries for their regular dividend income. Therefore, in such cases, the firms have to pay dividend in order to survive in the market.

8. Expectation of shareholders: The shareholders can be categorised into two categories: (i) those who invests for regular income, & (ii) those who invests for growth. Generally, the investor prefers current dividend over the future growth.

9. Legal constraints: Section 123 of the Companies Act, 2013 which provides for declaration of dividend sates that Dividend shall be declared or paid by a company for any financial year only:

(a) out of the profits of the company for that year arrived at after providing for depreciation in accordance with the relevant provisions, or

(b) out of the profits of the company for any previous financial year or years arrived at after providing for depreciation in accordance with the relevant provisions and remaining undistributed, or

(c) out of both, or

(d) out of money provided by the Central Government or a State Government for the payment of dividend by the company in pursuance of a guarantee given by that Government.

It may be noted that, while computing the profits for payment of dividends any amount representing unrealised gains, notional gains or revaluation of assets and any change in carrying amount of an asset or of a liability on measurement of the asset or the liability at fair value shall be excluded.

10. Taxation: Before 1st April 2020, as per Section 115-O of Income Tax Act, 1961, dividend was subject to dividend distribution tax (DDT) in the hands of the company. Dividend on which DDT was paid, was to be exempted in the hands of the shareholder u/s 10(34). However, as per amendment made by the Finance Act 2020, the exemption u/s 10(34) shall not apply to dividend received on or after 1st April 2020 and the dividend income from shares held as investment shall be taxable under the head of 'Other income' at the applicable slab rate.

Question 84. The following information is supplied to you:

Total Earning	Rs.40 Lakhs

No. of Equity Shares (of Rs.100 each)	4,00,000
Dividend Per Share	Rs.4
Cost of Capital	16%
Internal rate of return on investment	20%
Retention ratio	60%

Calculate the market price of a share of a company by using:

Walter's Formula

Gordon's Formula

Answer 84.

Earning Per share(E) = $\frac{40\text{Lakh}}{4{,}00{,}000}$ = Rs.10

Calculation of Market price per share by

i. Walter's formula: Market Price(P)= P= $\frac{\mathrm{D}+\frac{\mathrm{r}}{\mathrm{K_e}}(\mathrm{E}-\mathrm{D})}{\mathrm{K_e}}$

Where,

P = Market Price of the share.

E = Earnings per share.

D = Dividend per share.

k_e = Cost of equity/ rate of capitalization/ discount rate. R = Internal rate of return/ return on investment

P= $\frac{0+\frac{0.20}{0.16}(10-4)}{0.16}$ = $\frac{4+7.5}{0.16}$ = Rs. 71.88

ii. Gordon's formula: When the growth is incorporated in earnings and dividend, the present value of market price per share (Po) is determined as follows Gordon's theory:

$P_0 = \frac{E\,(1-b)}{K-br}$

Where,

P_0 = Present market price per share.

E = Earnings per share

b = Retention ratio (i.e. % of earnings retained)

r = Internal rate of return (IRR)

Growth rate (g) = br

Now $P_0 = \frac{10(1-60)}{.16(.60\times.20)} = \frac{4}{.04}$ = Rs.100

Question 85. LIST the factors determining the dividend policy of a company.

Answer 85. Factors Determining the Dividend Policy of a Company

(i) Liquidity: In order to pay dividends, a company will require access to cash. Even very profitable companies might sometimes have difficulty in paying dividends if resources are tied up in other forms of assets.

(ii) Repayment of debt: Dividend payout may be made difficult if debt is scheduled for repayment.

(iii) Stability of Profits: Other things being equal, a company with stable profits is more likely to pay out a higher percentage of earnings than a company with fluctuating profits.

(iv) Control: The use of retained earnings to finance new projects preserves the company's ownership and control. This can be advantageous in firms where the present disposition of shareholding is of importance.

(v) Legal consideration: The legal provisions lay down boundaries within which a company can declare dividends.

(vi) Likely effect of the declaration and quantum of dividend on market prices.

(vii) Tax considerations and Others such as dividend policies adopted by units similarly placed in the industry, management attitude on dilution of existing control over the shares, fear of being branded as incompetent or inefficient, conservative policy Vs non-aggressive one.

(viii) Inflation: Inflation must be taken into account when a firm establishes its dividend policy.

Question 86. STATE dividend decision? Briefly EXPLAIN the factors which govern this decision.

Answer 86. Dividend is that part of Profit After Tax (PAT) which is distributed to the shareholders of the company. Further, the profit earned by a company after paying taxes can be used for:

i. Distribution of dividend, or

ii. Retaining as surplus for future growth

Dividend policy of a firm is governed by:

(i) Long Term Financing Decision:

As we know that one of the financing options is 'Equity'. Equity can either be raised externally through issue of new equity shares or can be generated internally through retained earnings. For Equity, retained earnings are preferable because they do not involve any floatation costs (issue expenses).

But whether to retain or distribute the profits, forms the basis of this decision. Further, payment of cash dividend reduces the amount of funds required to finance profitable investment opportunities thereby restricting its financing options.

In this backdrop, the decision is based on the following:

1. Whether the organization has opportunities in hand to invest the profit, if retained?

2. Whether the return on such investment (ROI) will be higher than the expectations of shareholders i.e. Ke?

(ii) Wealth Maximization Decision:

Under this decision, we are facing the problem as to what amount of dividend shall be distributed i.e. the Dividend Payout ratio (D/P) in relation to Market price of the shares (MPS)? This decision is based on the following:

1. Because of market imperfections and uncertainty, shareholders give more importance to near dividends than future dividends and capital gains. Payment of dividends influences the market price of the share directly. Higher dividends increase the value of shares and low dividends decrease it. A proper balance has to be struck between these two approaches.

2. When the firm increases its retained earnings, shareholders' dividends decreases and consequently market price is affected. Use of retained earnings to finance profitable investments increases the future earnings per share. This is because, shareholders expect that profitable investments made by the company may lead to higher return for them in future. On the other hand, increase in dividends may cause the firm to forego investment opportunities for lack of funds and thereby decrease the future earnings per share.

Thus, management should develop a dividend policy which divides net earnings into dividends and retained earnings in an optimum way so as to achieve the objective of wealth maximization for shareholders. Such a policy will be influenced by investment opportunities available to the firm and value of dividends as against capital gains to shareholders.

Question 87. EXPLAIN the advantages and disadvantages of the stock dividend.

Answer 87. Advantages of Stock Dividend

There are many advantages both to the shareholders and company. Some of the main advantages are listed as under:

(1) To Shareholders:

(a) No tax is payable by shareholders on stock dividend received from domestic company as it is not treated as dividend but capital asset under Income Tax Act, 1961.

(b) Policy of paying fixed dividend per share and its continuation even after declaration of stock dividend will increase total cash dividend of the shareholders in future.

(2) To Company:

(a) Conservation of cash for meeting profitable investment opportunities.

(b) Suitable in case of cash deficiency and restrictions imposed by lenders to pay cash dividend.

Limitations of Stock Dividend

Limitations of stock dividend to shareholders and company are as follows:

1. To Shareholders: Stock dividend does not affect the wealth of shareholders and therefore it has no value for them. This is because the declaration of stock dividend is a method of capitalising the past earnings of the shareholders and is a formal way of recognising earnings which the shareholders already own. It merely divides the company's ownership into a large number of share certificates. James Porterfield regards stock dividends as a division of corporate pie into a larger number of pieces. Stock dividend does not give any extra or special benefit to the shareholder. His proportionate ownership in the company does not change at all. Stock dividend creates a favourable psychological impact on the shareholders and is greeted by them on the ground that it gives an indication of the company's growth.

2. To Company: Stock dividends are costlier to administer than cash dividends. It is disadvantageous if periodic small stock dividends are declared by the company as earnings.

Question 88. LIST out the assumptions of irrelevance theory.

Answer 88. MM hypothesis is based on the following assumptions:

• Perfect capital markets: The firm operates in a market in which all investors are rational and information is freely available to all.

• No taxes: There are no taxes or no tax discrimination between dividend income and capital appreciation (capital gain). It means there is no difference in taxation of dividend income or capital gain. This assumption is necessary for the universal applicability of the theory, since the tax rates may be different in different countries.

• Fixed investment policy: It is necessary to assume that all investment should be financed through equity only, since implication after using debt as a source of finance may be difficult to understand. Further, the impact will be different in different cases.

• No floatation or transaction cost: Similarly, these costs may differ from country to country or market to market.

• Risk of uncertainty does not exist. Investors are able to forecast future prices and dividend with certainty and one discount rate is appropriate for all securities and all time periods.

Question 89. "Permanent working capital and fluctuating (temporary) working capital, both are necessary to facilitate production and sales through the operating cycle." - Describe.

Answer 89. Both kinds of working capital i.e. permanent and fluctuating (temporary) are necessary to facilitate production and sales through the operating cycle:

Permanent working capital refers to the base working capital, which is the minimum level of investment in the current assets that is carried by the entity at all times to carry its day to day activities. It generally stays invested in the business unless the operations are scaled up or down permanently which would also result in increase or decrease in permanent working capital. It is generally financed by long term sources of finance.

Temporary working capital refers to that part of total working capital, which is required by an entity in addition to the permanent working capital. It is also called variable or fluctuating working capital which is used to finance the short-term working capital requirements which

arises due to fluctuation in sales volume. For instance, an organization would maintain increased levels of inventory to meet increased seasonal demand.

Question 90. DISCUSS the factors to be taken into consideration while determining the requirement of working capital.

Answer 90. Some of the factors which need to be considered while planning for working capital requirement are:

1. Cash: Identify the cash balance which allows for the business to meet day- today expenses but reduces cash holding costs (example - loss of interest on long term investment had the surplus cash invested therein).

2. Inventory: Identify the level of inventory which allows for uninterrupted production but reduces the investment in raw materials and hence increases cash flow. The techniques like Just in Time (JIT) and Economic order quantity (EOQ) are used for this.

3. Receivables: Identify the appropriate credit policy, i.e., credit terms which will attract customers, such that any impact on cash flows and the cash conversion cycle will be offset by increased revenue and hence Return on Capital (or vice versa). The tools like Early Payment Discounts and allowances are used for this.

4. Short-term Financing Options: Inventory is ideally financed by credit granted by the supplier. However, depending on the cash conversion cycle, it may be necessary to utilize a bank loan (or overdraft), or to "convert debtors to cash" through "factoring" in order to finance working capital requirements.

5. Nature of Business: For e.g. in a business of restaurant, most of the sales are in Cash. Therefore, need for working capital is very less. On the other hand, there would be a higher inventory in case of a pharmacy or a bookstore.

6. Market and Demand Conditions: For e.g. if an item's demand far exceeds its production, the working capital requirement would be less as investment in finished goods inventory would be very less with continuous sales.

7. Technology and Manufacturing Policies: For e.g. in some businesses the demand for goods is seasonal, in that case a business may follow a policy for steady production throughout the whole year or rather may choose a policy of production only during the demand season.

8. Operating Efficiency: A company can reduce the working capital requirement by eliminating waste, improving coordination, process improvements etc.

9. Price Level Changes & Exchange Rate Fluctuations: For e.g. rising prices necessitate the use of more funds for maintaining an existing level of activity. For the same level of current assets, higher cash outlays are required. Therefore, the effect of rising prices is that a higher amount of working capital is required. Another example would be unfavorable exchange rate movement in case of imported raw materials would warrant additional cost of same.

Question 91. DISCUSS the liquidity vs. profitability issue in management of working capital.

Answer 91. For uninterrupted and smooth functioning of the day to day business of an entity, it is important to maintain liquidity of funds evenly. As we have already learnt in previous chapters that each rupee of capital bears some cost. So, while maintaining liquidity the cost aspect needs to be borne in mind. Also, a higher working capital may be intended to increase the revenue & hence profitability, but at the same time unnecessary tying up of funds in idle assets not only reduces the liquidity but also reduces the opportunity to earn better return from a productive asset. Hence, a trade-off is required between the liquidity and profitability which increases the profitability without disturbing the day to day functioning. This requires 3Es as discussed above i.e. economy in financing, efficiency in utilisation and effectiveness in achieving the intended objectives.

The trade-off between the components of working capital can be summarised as follows:

Component of	**Advantages of**	**Trade-off (between**	**Advantages of**

Working Capital	**Higher side (Profitability)**	**Profitability and Liquidity)**	**Lower side (Liquidity)**
Inventory	Fewer stock-outs increase the profitability.	Use techniques like EOQ, JIT etc. to carry optimum level of inventory.	Lower inventory requires less capital but endangered stock-out and loss of goodwill.
Receivables	Higher Credit Period attract customers and increase revenue	Evaluate the credit policy; use the services of debt management (factoring) agencies.	Cash sales provide liquidity but fails to boost sales and revenue (due to lower credit period)
Prepayment of expenses	Reduces uncertainty and profitable in inflationary environment.	Cost-benefit analysis required	Improves or maintains liquidity.
Cash and Cash equivalents	Payables are honored in time, improves the goodwill and helpful in getting future	Cash budgets and other cash management techniques can be used	Cash can be invested in some other investment avenues

	discounts.		
Payables and Expenses	Capital can be used in some other investment avenues	Evaluate the credit policy and related cost.	Payables are honored in time, improves the goodwill and helpful in getting future discounts.

Question 93. EXPLAIN Baumol's Model of Cash Management

Answer 93. William J. Baumol's Economic Order Quantity Model, (1952)

According to this model, optimum cash level is that level of cash where the carrying costs and transactions costs are the minimum. The carrying costs refer to the cost of holding cash, namely, the opportunity cost or interest foregone on marketable securities. The transaction costs refer to 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, registration and other costs.

The optimum cash balance according to this model will be that point where these two costs are minimum. The formula for determining optimum cash balance is:

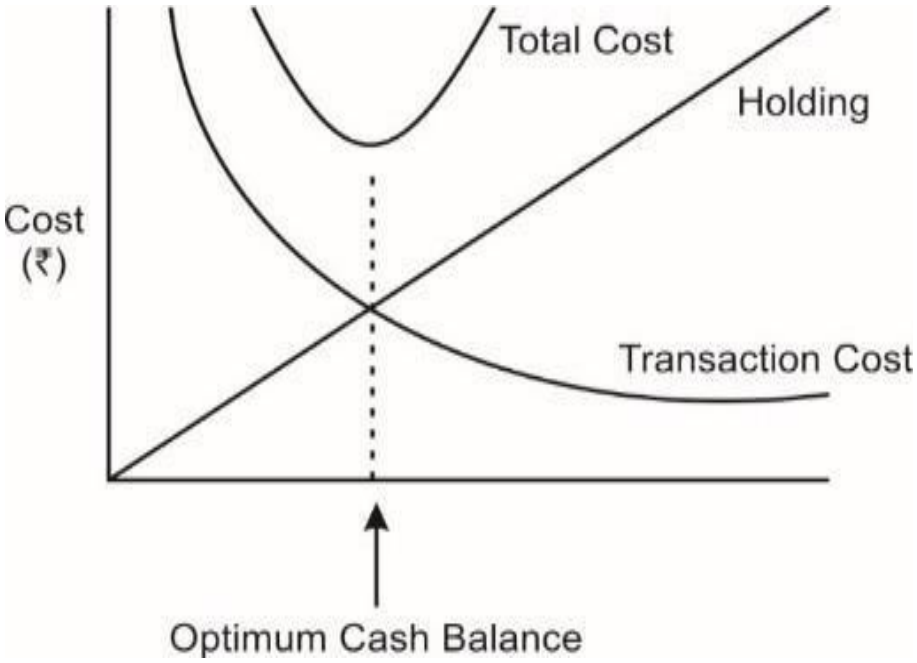
$$C = \sqrt{\frac{2U \times P}{S}}$$

Where, C = Optimum cash balance

U = Annual (or monthly) cash disbursement

P = Fixed cost per transaction.

S = Opportunity cost of one rupee p.a. (or p.m.) This can be explained with the following diagram:



The model is based on the following assumptions:

(i) Cash needs of the firm are known with certainty.

(ii) The cash is used uniformly over a period of time and it is also known with certainty.

(iii) The holding cost is known and it is constant.

(iv) The transaction cost also remains constant.

Question 94. DISCUSS Miller-Orr Cash Management model.

Answer 94. Miller-Orr Cash Management Model (1966)

According to this model the net cash flow is completely stochastic.

When changes in cash balance occur randomly the application of control theory serves a useful purpose. The Miller-Orr model is one of such control limit models.

This model is designed to determine the time and size of transfers between an investment account and cash account. 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.

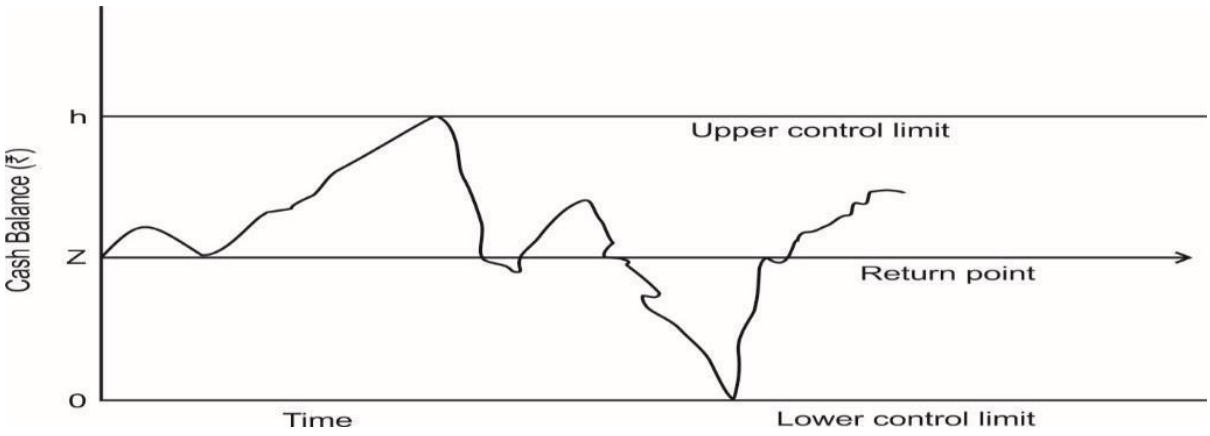
• When the cash balance reaches the upper limit, the transfer of cash equal to h – z is invested in marketable securities account.

• When it touches the lower limit, a transfer from marketable securities account to cash account is made.

• During the period when cash balance stays between (h, z) and (z, 0) i.e. high and low limits no transactions between cash and marketable securities account is made.

The high and low limits of cash balance are set up on the basis of fixed cost associated with the securities transactions, the opportunity cost of holding cash and the degree of likely fluctuations in cash balances. These limits satisfy the demands for cash at the lowest possible total costs. The following diagram illustrates the Miller-Orr model.

The MO Model is more realistic since it allows variations in cash balance within lower and upper limits. The finance manager can set the limits according to the firm's liquidity requirements i.e., maintaining minimum and maximum cash



balance.

Question 95. The following data relating to an auto component manufacturing company is available for the year 2020-21:

Raw material held in storage	20 days
Receivables' collection period	30 days
Conversion process period (raw material – 100%, other costs – 50% complete)	10 days
Finished goods storage period	45 days
Credit period from suppliers	60 days
Advance payment to suppliers 5 days Total cash operating expenses per annum	Rs. 800 lakhs

75% of the total cash operating expenses are for raw material. 360 days are assumed in a year.

You are required to CALCULATE:

(i) Each item of current assets and current liabilities,

(ii) The working capital requirement, if the company wants to maintain a cash balance of Rs.10 lakhs at all times.

Answer 95. Since WIP is 100% complete in terms of material and 50% complete in terms of other cost, the same has been considered for number of days for WIP inventory i.e. 10 days for material and 5 days for other costs respectively.

Particulars	**For Raw Material**	**For Other Costs**	**Total**
Cash Operating	$\frac{75}{100} \times 800 = 600$	$\frac{25}{100} \times 800 = 200$	800.00

expenses			
Raw Material Stock Holding	$\frac{20}{360} \times 600 = 33.33$	-	33.33
WIP Conversion	$\frac{10}{360} \times 600 = 16.67$	$\frac{5}{360} \times 200 = 2.78$	19.45
Finished Goods Stock Holding	$\frac{45}{360} \times 600 = 75$	$\frac{45}{360} \times 200 = 25$	100.00
Receivable Collection Period	$\frac{30}{360} \times 600 = 50$	$\frac{30}{360} \times 200 = 16.67$	66.67
Advance to suppliers	$\frac{5}{360} \times 600 = 8.33$	**-**	8.33
Credit Period From suppliers	$\frac{60}{360} \times 600 = 100$	**-**	100.00

Computation of working capital

	₹ in lakhs
Raw Material Stock	33.33
WIP	19.45
Finished Goods stock	100.00
Receivables	66.67
Advance to Suppliers	8.33

Cash	10.00
	237.78
Less: Payables (Creditors)	100.00
Working capital	133.78

Question 96. The following figures and ratios are related to a company:

(i) Sales for the year (all credit)	**Rs. 90,00,000**
(ii) Gross Profit ratio	**35 percent**
(iii) Fixed assets turnover (based on cost of goods sold)	**1.5**
(iv) Stock turnover (based on cost of goods sold)	**6**
(v) Liquid ratio	**1.5:1**
(vi) Current ratio	**2.5:1**
(vii) Receivables (Debtors) collection period	**1 month**
(viii) Reserves and surplus to Share capital	**1:1.5**
(ix) Capital gearing ratio	**0.7875**
(x) Fixed assets to net worth	**1.3:1**

You are required to PREPARE:

(a) Balance Sheet of the company on the basis of above details.

(b) The statement showing working capital requirement, if the company wants to make a provision for contingencies @15 percent of net working capital.

Answer 96. Working Notes:

(i) Cost of Goods Sold = Sales – Gross Profit (35% of Sales)

= Rs. 90,00,000 – Rs. 31,50,000

= Rs. 58,50,000

(ii) Closing Stock = Cost of Goods Sold / Stock Turnover

= Rs. 58,50,000/6 = Rs. 9,75,000

(iii) Fixed Assets = Cost of Goods Sold / Fixed Assets Turnover

= Rs. 58,50,000/1.5

= Rs. 39,00,000

(iv) Current Assets and Current Liabilities Current

Ratio = 2.5 and Liquid Ratio = 1.5 CA / CL

= 2. … (i)

(CA – Inventories) / CL = 1.5 …(ii)

By subtracting equation (ii) from (i), we get,

Inventories / CL = 1

Current Liabilities = Inventories (stock) = Rs. 9,75,000

∴ Current Assets = Rs. 9,75,000 x 2.5 = Rs. 24,37,500

Or

Current Ratio / Quick Ratio = Current Assets / Quick Assets

2.5 / 1.5 = Current Assets / (Current Assets – Inventory)

2.5/1.5 Current Assets – 2.5/1.5 x Rs. 9,75,000 = Current Assets

Hence, Current Assets = Rs. 24,37,500

(v) Liquid Assets (Receivables and Cash)

= Current Assets – Inventories (Stock)

= Rs. 24,37,500 – Rs. 9,75,000

= Rs.14,62,500

(vi) Receivables (Debtors) = Sales × Debtors Collection period /12

= Rs. 90,00,000 × 1/12

= Rs. 7,50,000

(vii) Cash = Liquid Assets – Receivables (Debtors)

= Rs.14,62,500 – Rs. 7,50,000 = Rs. 7,12,500

(viii) Net worth = Fixed Assets /1.3

= Rs. 39,00,000/1.3 = Rs. 30,00,000

(ix) Reserves and Surplus

Reserves and Surplus / Share Capital = 1/1.5

Share Capital = 1.5 Reserves and Surplus … (i)

Now, Reserves and Surplus + Share Capital = Net worth … (ii)

From (i) and (ii), we get,

2.5 Reserves and Surplus = Net worth

Reserves and Surplus = Rs. 30,00,000 / 2.5 = Rs. 12,00,000

(x) Share Capital = Net worth – Reserves and Surplus

= Rs. 30,00,000 – Rs. 12,00,000

= Rs. 18,00,000

(xi) Long-term Debts

Capital Gearing Ratio = Long-term Debts / Equity Shareholders' Fund

Long-term Debts = Rs. 30,00,000 × 0.7875 = Rs. 23,62,500

(a) Balance Sheet of the Company

Particulars	**Figures as the end of 31-03-2021 (Rs.)**	**Figures as the end of 31-03- 2020 (Rs.)**
I. EQUITY AND LIABILITIES		
Shareholders' funds		
(a) Share capital	18,00,000	-
(b) Reserves and surplus	12,00,000	-
Non-current liabilities		
(a) Long-term borrowings	23,62,500	-
Current liabilities	9,75,000	-
TOTAL	63,37,500	-
II. ASSETS		
Non-current assets		

Fixed assets	39,00,000	-
Current assets		
Inventories	9,75,000	-
Trade receivables	7,50,000	-
Cash and cash equivalents	7,12,500	-
TOTAL	**63,37,500**	-

(b) Statement Showing Working Capital Requirement

	(Rs.)	**(Rs.)**
A. Current Assets		
(i) Inventories (Stocks)		9,75,000
(ii) Receivables (Debtors)		7,50,000
(iii) Cash in hand & at bank		7,12,500
Total Current Assets		24,37,500
B. Current Liabilities:		
Total Current Liabilities		9,75,000
Net Working Capital (A – B)		14,62,500
Add: Provision for contingencies (15% of Net Working Capital)		2,19,375
Working capital requirement		16,81,875

Question 97. PQ Ltd., a company newly commencing business in 2020-21 has the following projected Profit and Loss Account:

	(`)	(`)
Sales		**2,10,000**
Cost of goods sold		**1,53,000**
Gross Profit		**57,000**
Administrative Expenses	**14,000**	
Selling Expenses	**13,000**	**27,000**
Profit before tax		**30,000**
Provision for taxation		**10,000**
Profit after tax		**20,000**
The cost of goods sold has been arrived at as under:		
Materials used	**84,000**	
Wages and manufacturing Expenses	**62,500**	
Depreciation	**23,500**	
	1,70,000	
Less: Stock of Finished goods **(10% of goods produced not yet sold)**	**17,000**	
	1,53,000	

The figure given above relate only to finished goods and not to work-in- progress. Goods equal to 15% of the year's production (in terms of physical units) will be in process on the average requiring full materials but only 40% of the other expenses. The company believes in keeping materials equal to two months' consumption in stock.

All expenses will be paid one month in advance. Suppliers of materials will extend 1-1/2 months credit. Sales will be 20% for cash and the rest at two months' credit. 70% of the Income tax will be paid in advance in quarterly instalments. The company wishes to keep ` 8,000 in cash. 10% has to be added to the estimated figure for unforeseen contingencies.

PREPARE an estimate of working capital.

Note: All workings should form part of the answer.

Answer 97. Statement showing the requirements of Working Capital

Particulars	**(`)**	**(`)**
A. Current Assets:		
Inventory:		
Stock of Raw material (` 96,600 × 2/12)	16,100	
Stock of Work-in-progress (As per Working Note)	16,350	
Stock of Finished goods (` 1,46,500 × 10/100)	14,650	
Receivables (Debtors) (`1,27,080 × 2/12)	21,180	
Cash in Hand	8,000	
Prepaid Expenses:		
Wages & Mfg. Expenses (` 66,250 × 1/12)	5,521	
Administrative expenses (` 14,000 × 1/12)	1,167	

Selling & Distribution Expenses (`13,000 × 1/12)	1,083	
Advance taxes paid {(70% of `10,000) × 3/12}	1,750	
Gross Working Capital	85,801	85,801
B. Current Liabilities:		
Payables for Raw materials (`1,12,700 × 1.5/12)	14,088	
Provision for Taxation (Net of Advance Tax) (`10,000 × 30/100)	3,000	
Total Current Liabilities	17,088	17,088
C. Excess of CA over CL		68,713
Add: 10% for unforeseen contingencies		6,871
Net Working Capital requirements		75,584

Working Notes:

(i) Calculation of Stock of Work-in-progress

Particulars	**(`)**
Raw Material (` 84,000 × 15%)	12,600
Wages & Mfg. Expenses (` 62,500 × 15% × 40%)	3,750
Total	16,350

(ii) Calculation of Stock of Finished Goods and Cost of Sales

Particulars	**(`)**

Direct material Cost [` 84,000 + ` 12,600]	96,600
Wages & Mfg. Expenses [`62,500 + ` 3,750]	66,250
Depreciation	0
Gross Factory Cost	1,62,850
Less: Closing W.I.P	(16,350)
Cost of goods produced	1,46,500
Add: Administrative Expenses	14,000
	1,60,500
Less: Closing stock	(14,650)
Cost of Goods Sold	1,45,850
Add: Selling and Distribution Expenses	13,000
Total Cash Cost of Sales	1,58,850
Debtors (80% of cash cost of sales)	1,27,080

(iii) Calculation of Credit Purchase

Particulars	**(`)**
Raw material consumed	96,600
Add: Closing Stock	16,100
Less: Opening Stock	-
Purchases	1,12,700

Question 98. Aneja Limited, a newly formed company, has applied to a commercial bank for the first time for financing its working capital requirements. The following information is available about the projections for the current year:

Estimated level of activity: 1,04,000 completed units of production plus 4,000 units of work-in-progress. Based on the above activity, estimated cost per unit is:

Raw material	**` 80 per unit**
Direct wages	**` 30 per unit**
Overheads (exclusive of depreciation)	**` 60 per unit**
Total cost	**` 170 per unit**
Selling price	**` 200 per unit**

Raw materials in stock: Average 4 weeks' consumption, work-in-progress (assume 50% completion stage in respect of conversion cost) (materials issued at the start of the processing).

Finished goods in stock	**8,000 units**
Credit allowed by suppliers	**Average 4 weeks**
Credit allowed to debtors/receivables	**Average 8 weeks**
Lag in payment of wages	**Average 1.5 weeks**

Cash at banks (for smooth operation) is expected to be ` 25,000.

Assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All sales are on credit basis only.

You are required to CALCULATE the net working capital required.

Answer 98. Calculation of Net Working Capital requirement:

	(`)	(`)
A. Current Assets:		
Inventories:		
- Raw material stock (Refer to Working note 3)	6,64,615	
- Work in progress stock (Refer to Working note 2)	5,00,000	
- Finished goods stock (Refer to Working note 4)	13,60,000	
Receivables (Debtors) (Refer to Working note 5)	25,10,769	
Cash and Bank balance	25,000	
Gross Working Capital	50,60,384	50,60,384
B. Current Liabilities:		
Creditors for raw materials (Refer to Working note 6)	7,15,740	
Creditors for wages (Refer to Working note 7)	91,731	
	8,07,471	8,07,471
Net Working Capital (A - B)		42,52,913

Working Notes:

1. Annual cost of production

	(`)
Raw material requirements {(1,04,000 units × ` 80)+ `3,20,000}	86,40,000
Direct wages {(1,04,000 units × ` 30) + `60,000}	31,80,000

Overheads (exclusive of depreciation) {(1,04,000 × ` 60)+ `1,20,000}	63,60,000
Gross Factory Cost	1,81,80,000
Less: Closing W.I.P	(5,00,000)
Cost of Goods Produced	1,76,80,000
Less: Closing Stock of Finished Goods (`1,76,80,000 × 8,000/1,04,000)	(13,60,000)
Total Cash Cost of Sales	1,63,20,000

2. Work in progress stock

	(`)
Raw material requirements (4,000 units × ` 80)	3,20,000
Direct wages (50% × 4,000 units × ` 30)	60,000
Overheads (50% × 4,000 units × ` 60)	1,20,000
	5,00,000

1. Raw material stock

It is given that raw material in stock is average 4 weeks' consumption. Since, the company is newly formed, the raw material requirement for production and work in progress will be issued and consumed during the year.

Hence, the raw material consumption for the year (52 weeks) is as follows:

	(`)
For Finished goods (1,04,000 × ` 80)	83,20,000
For Work in progress (4,000 × ` 80)	3,20,000

	86,40,000

Raw material stock $\frac{86,40,000}{52\ week} \times 4$ weeks = i.e. ` 6,64,615

2. Finished goods stock: 8,000 units @ ` 170 per unit = ` 13,60,000

3. Debtors for sale: $\frac{1,63,20,000}{52} \times 8$ = ` 25,10,769

4. Creditors for raw material:

Material Consumed (` 83,20,000 + ` 3,20,000)	` 86,40,000
Add: Closing stock of raw material	` 6,64,615
Purchases of Raw Material	` 93,04,615

Credit allowed by suppliers = $\frac{93,04,000}{52\ week}$ ×4 weeks =i.e. ` 7,15,740

5. Creditors for wages

Outstanding wage payment = $\frac{Rs.31,81,000}{52\ week}$ ×1.5 weeks = i.e. ` 91,731

Question 99. PQR Ltd. having an annual sale of ` 30 lakhs, is re-considering its present collection policy. At present, the average collection period is 50 days and the baddebt losses are 5% of sales. The company is incurring an expenditure of` 30,000 on account of collection of receivables. Cost of funds is 10 percent. The alternative policies are as under:

	Alternative I	**Alternative II**
Average Collection Period	40 days	**30 days**
Bad Debt Losses	**4% of sales**	**3% of sales**
Collection Expenses	**Rs.60,000**	**Rs.95,000**

DETERMINE the alternatives on the basis of incremental approach and state which alternative is more beneficial.

Answer 99. Evaluation of Alternative Collection Programmed

	Present Policy	**Alternative I**	**Alternative II**
	`	`	`
Sales Revenues	30,00,000	30,00,000	30,00,000
Average Collection Period (ACP) (days)	50	40	30
Receivables (Rs) $\left[\text{sales} \times \frac{\text{ACP}}{360}\right]$	4,16,667	3,33,333	2,50,000
Reduction in Receivables from Present Level (`)	–	83,334	1,66,667
Savings in Interest @ 10% p.a. (A)	–	` 8,333	` 16,667
% of Bad Debt Loss	5%	4%	3%
Amount (`)	1,50,000	1,20,000	90,000
Reduction in Bad Debts from Present Level (B)	–	30,000	60,000
Incremental Benefits from Present Level (C) = (A) + (B)	–	38,333	76,667
Collection Expenses (`)	30,000	60,000	95,000
Incremental Collection			

Expenses from Present Level (D)	–	30,000	65,000
Incremental Net Benefit (C – D)	–	–	` 11,667

Conclusion: From the analysis it is apparent that Alternative I has a benefit of ` 8,333 and Alternative II has a benefit of ` 11,667 over present level. Alternative II has a benefit of ` 3,334 more than Alternative I. Hence Alternative II is more viable.

(**Note:** In absence of Cost of Sales, sales has been taken for purpose of calculating investment in receivables. 1 year = 360 days.)

Question 100. PREPARE a working capital estimate to finance an activity level of 52,000= units a year (52 weeks) based on the following data:

Raw Materials - ` 400 per unit

Direct Wages - ` 150 per unit

Overheads (Manufacturing) - `200 per unit Overheads (Selling & Distribution) - `100 per unit

Selling Price - ` 1,000 per unit, Raw materials & Finished Goods remain in stock for 4 weeks, Work in process takes 4 weeks. Debtors are allowed 8 weeks for payment whereas creditors allow us 4 weeks.

Minimum cash balance expected is `50,000. Receivables are valued at Selling Price.

Answer 100.

Cost Structure for 52,000 units	
Particulars	**Amount (`)**
Raw Material @ ` 400P	2,08,00,000

Direct Wages @ ` 150	78,00,000
Manufacturing Overheads @ ` 200	1,04,00,000
Selling and Distribution OH @ ` 100	52,00,000
Total Cost	4,42,00,000
Sales @ ` 1,000	5,20,00,000

Particulars	**Calculation**	**Amount (`)**
A. Current Assets:		
Raw Material Stock	2, 08, 00, 000 $\times \frac{4}{52}$	16,00,000
Work in Progress (WIP) Stock**	$\left(2{,}08{,}00{,}000 + \frac{(78{,}00{,}000+1{,}04{,}000)}{2}\right) \times \frac{4}{52}$	23,00,000
Finished Goods Stock	4, 42, 00, 000 $\times \frac{4}{52}$	34,00,000
Receivable	5, 20, 00, 000 $\times \frac{8}{52}$	80,00,000
Cash		50,000
	Total Current Assets	1,53,50,000
B. Current Liabilities:		
Creditors	2, 08, 00, 000 $\times \frac{4}{52}$	16,00,000
C. Working Capital Estimates (A-B)		1,37,50,000

Assuming that labour and overhead are incurred evenly throughout the year.