**UNIT-I**

**2 MARKS**

**1. Meaning of financial management?**

Financial management refers to the management of flow of funds in the firm. It deals with the financial decision making of the firm. It is mainly concerned with the timely procurement of adequate finance from various sources and its utmost effective utilization for the attainment of organizational objectives.

**2. Define financial management.**

Financial management is concerned with the efficient use of an important economic resource, namely capital funds.

**- Solomon**

**3. What is mean by profit maximization?**

Profit maximation is one of the basic objectives of financial management. According to this concept, a firm should undertake all those activities which add to its profits and eliminate all others which reduce its profits. This objective highlights the fact that all decisions-financing, dividends and investment, should result in profit maximization.

**4. Write two differences between profit maximization and wealth maximization?**

|  |  |  |
| --- | --- | --- |
| **Basis** | **Profit Maximization** | **Wealth Maximization** |
| Concept | The main objective of a concern is to earn a large amount of profit. | The ultimate goal of the concern is to improve the market value of its shares. |
| Emphasize on | Achieving short term objectives. | Achieving long term objectives. |

**5. What is mean by wealth maximization?**

Wealth maximization is the concept of increasing the value of a business in order to increase the value of the [shares](https://www.accountingtools.com/articles/2017/5/16/share) held by [stockholders](https://www.accountingtools.com/articles/2017/5/16/stockholder). The concept requires a company's management team to continually search for the highest possible returns on funds invested in the business, while mitigating any associated risk of loss. This calls for a detailed analysis of the [cash flows](https://www.accountingtools.com/articles/what-is-cash-flow.html) associated with each prospective investment, as well as constant attention to the strategic direction of the organization.

**6. Write 4 functions in financial management.**

1. Forecasting financial requirements
2. Financing decisions
3. Investment decisions
4. Dividend decisions

**7. What is mean by investment decision?**

The**Investment Decision** relates to the decision made by the investors or the top level management with respect to the amount of funds to be deployed in the investment opportunities.

**8. What is mean by mobilisation?**

 **Mobilization** is defined as “activation of a contractors physical and manpower resources for transfer to a construction site until the completion of the contract”. Mobilization costs could easily reach 10% of the total contract amount.

**9. What do you mean by liquidity and profitability?**

 **Liquidity:**

 Liquidity means that the firm has a) adequate cash to pay bills and when they fall due, and b) sufficient cash reserves to meet emergencies and unforeseen demands, at all time.

 **Profitability:**

 Profitability goal on other hand requires that the fund of the firm be utilised as to yield the highest return.

**10. What is mean by risk return trade off?**

The risk-return trade-off states that the potential return rises with an increase in risk. Using this principle, individuals associate low levels of uncertainty with low potential returns, and high levels of uncertainty or risk with high potential returns. According to the risk-return trade off, invested money can render higher profits only if the investor will [accept a higher possibility of losses](https://www.investopedia.com/terms/r/roys-safety-first-criterion.asp).

**5 MARKS**

**1. Explain the role of financial manager in financial management?**

**Raising of Funds**

In order to meet the obligation of the business it is important to have enough cash and liquidity. A firm can raise funds by the way of equity and debt. It is the responsibility of a financial manager to decide the ratio between debt and equity. It is important to maintain a good balance between equity and debt.

**Allocation of Funds**

Once the funds are raised through different channels the next important function is to allocate the funds. The funds should be allocated in such a manner that they are optimally used. In order to allocate funds in the best possible manner the following point must be considered

* + The size of the firm and its growth capability
	+ Status of assets whether they are long-term or short-term
	+ Mode by which the funds are raised

These financial decisions directly and indirectly influence other managerial activities. Hence formation of a good asset mix and proper allocation of funds is one of the most important activities.

**Profit Planning**

Profit earning is one of the prime functions of any business organization. Profit earning is important for survival and sustenance of any organization. Profit planning refers to proper usage of the profit generated by the firm.

Profit arises due to many factors such as pricing, industry competition, state of the economy, mechanism of demand and supply, cost and output. A healthy mix of variable and fixed factors of production can lead to an increase in the profitability of the firm.

**Understanding Capital Markets**

Shares of a company are traded on stock exchange and there is a continuous sale and purchase of securities. Hence a clear understanding of capital market is an important function of a financial manager. When securities are traded on stock market there involves a huge amount of risk involved. Therefore a financial manger understands and calculates the risk involved in this trading of shares and debentures.

**2. What are the objectives of financial management?**

The financial management is generally concerned with procurement, allocation and control of financial resources of a concern. The objectives can be-

1. To ensure regular and adequate supply of funds to the concern.
2. To ensure adequate returns to the shareholders this will depend upon the earning capacity, market price of the share, expectations of the shareholders.
3. To ensure optimum funds utilization. Once the funds are procured, they should be utilized in maximum possible way at least cost.
4. To ensure safety on investment, i.e., funds should be invested in safe ventures so that adequate rate of return can be achieved.
5. To plan a sound capital structure-There should be sound and fair composition of capital so that a balance is maintained between debt and equity capital.

**3. Scope of financial management.**

To understand the financial management scope, first, it is essential to understand the approaches that are divided into two sections.

1. Traditional Approach
2. Modern Approach

**Approach 1: Traditional Approach to Finance Function**

During the 20th century, the traditional approach was also known as corporate finance. This approach was initiated to procure and manage funds for the company. To study the procurement of financial Management the following three points were used

(i) Institutional sources of finance.

(ii) Issue of financial devices to collect refunds from the capital market.

(iii) Accounting and legal relationship l between the source of finance and business.

**Limitations of Traditional Approach**

* **One-sided approach-**It is more considerate towards the fund procurement and the issues related to their administration, however, it pays no attention to the effective utilization of funds.
* **Gives importance to the Financial Problems of Corporations-** It only focuses on the financial problems of corporate enterprises, so it narrows the opportunity of the finance function.
* **Attention to Irregular Events-**It provides funds to irregular events like consolidation, incorporation, reorganization, and mergers, etc. and does not give attention to everyday business operations.
* **More Emphasis on Long Term Funds-** It deals with the issues of long-term financing.

 **Approach 2: Modern Approach to Finance Function**

With technological improvement, increase competition, and the development of strong corporate, it was important for Management to use the available financial resources in its best possible way. Therefore, the traditional approach became inefficient in a growing business environment.

The modern approach had a more comprehensive analytical viewpoint with a focus on the procurement of funds and its active and optimum use. The fund arrangement is an essential feature of the entire finance function.

The main element of this approach are an evaluation of alternative utilization of funds, capital budgeting, financial planning, ascertainment of financial standards for the business success, determination of cost of capital, working capital management, Management of income, etc. The three critical decisions taken under this approach are.

(i) Investment Decision

(ii) Financing Decision

(iii) Dividend Decision

**4. Explain the importance of financial functions**

* **Identify Need of Finance**-To starts a business you need to know how much is required to open it. So, the[finance function](https://www.managementstudyhq.com/foreign-exchange-rate.html) helps you know how much the initial capital is, how much of it you have and how much you need to rise.
* **Identify Sources of Finance**-Once you know what needs to be raised you look at areas you can raise these funds from. You can borrow or get from various shareholders.
* **Comparison of Various Sources of Finance**– After identifying various fund sources compare the cost and risk involved. Then choose the best source of financing that suits your business needs.
* **Investment**-Once the funds are raised it is time to invest them. Investment decisions should be done in a manner that a business gets higher returns. Cost of funds procurement should be lower than the return on investment; this will show a wise investment was made.

**10 MARKS**

**1. Explain the functions of financial management.**

### 1. Financial Planning and Forecasting:

It is the financial manager’s responsibility to plan and estimate the business’s financial needs. He needs to provide details regarding the amount of money that would be required to purchase different assets for the company.

The management through the financial manager needs to know what they need to spend on working capital and fixed assets for the business too. Another vital duty of the financial manager is to make futuristic plans for funds that the company would need. And the manner in which the funds will be realized and used is also of utmost importance to the financial manager.

### 2. Determination of capital composition:

Once the **Planning and Forecasting** have been made, the capital structure has to be decided. The mix of debt and equity used to finance the company’s future profitable investment opportunities is referred to as [capital structure](https://www.managementstudyhq.com/objectives-importance-financial-planning.html).

### 3. Fund Investment:

The financial manager has to ensure that funds made available to the business are used adequately to grow the business. The cost of acquiring the said fund and value of the returns need to be compared and balanced. The financial manager also needs to look into the channels of the business that is yielding higher returns and improve them.

### 4. Maintain Proper Liquidity:

Cash is the best source for maintaining liquidity. The business requires it to buy raw materials, pay salaries and tackle other financial needs of the company. However, the financial manager has to determine if there is a demand for[liquid assets](https://www.managementstudyhq.com/risk-management-steps-in-risk-management-process.html). He also has to arrange these assets in a manner that the business won’t experience scarcity of funds.

### 5. Disposal of Surplus:

Selling surplus assets and investing in more productive ways will increase profitability and therefore increase the ROCE.

### 6. Financial Controls:

**Financial control**may be construed as the [analysis](https://www.captio.com/blog/analysis-of-the-main-types-of-financial-control)**of a company’s actual results,** approached from different perspectives at different times**, compared to**its short, medium and long-term**objectives and business plans.**

**7. Estimation of capital requirements:**

 A [finance manager](https://mgtblog.com/7-effective-approach-help-first-time-managers-win/) has to make projections. The projections have to agree with the capital requirements of the company. This is contingent upon expected costs, profits, future programmes, and policies of a concern.

Estimations have to be made in an adequate manner which increases earning capacity of enterprise.

**8. Determination of capital composition:**

 The capital structure has to agree with estimation. Once it is determined, estimation has to be decided. This process relies on short-term and long-term debt equity scrutiny.

The analysis is dependent upon the proportion of equity capital a company is possessing and additional funds, which have to be collected from outside parties.

**9. Option for sources of funds:**

 For additional funds to be collected, a company has many options to consider like-

1. Factors influencing shares and debentures
2. Loans to be withdrawn from banks and financial institutions
3. Public deposits to be made like in the form of bonds.

Choice of factors will depend on qualified merits and demerits of each source and period it will take for financing.

**10. Investment of funds**:

Allocating funds into [profitable ventures](https://hbr.org/1998/11/how-venture-capital-works) is to be determined by the finance manager. The finance manager has to decide so that there is safety on investment and thereby ensuring regular returns.

**11. Disposal of surplus:**

  The finance manager makes the net profits decision. This can be realized in two ways:

* Dividend declaration – It takes account of the rate of profits and other benefits like a bonus.
* Retained profits – The volume has to be determined, which will depend upon expansion, innovation, diversification plans of the company.

**11. Management of cash:**

Finance manager has to make decisions on how cash is best managed. Cash is invested on many purposes like payment of wages and salaries, purchase of raw materials, payment to creditors, meeting current liabilities, payment of electricity and water bills, maintenance of enough stock, etc.

**12. Financial controls:**

The finance manager not only plans, raises, and utilizes the funds, but also exercises control over finances. This can be done through many techniques like financial forecasting, ratio analysis, cost and profit control, etc.

**UNIT-III**

**2 MARKS**

**1. What is mean by fundamental valuation concept?**

 Valuation is the analytical process of determining the current (or projected) worth of an asset or a company. There are many techniques used for doing a valuation. An analyst placing a value on a company looks at the business's management, the composition of its [capital structure](https://www.investopedia.com/terms/c/capitalstructure.asp), the prospect of future earnings, and the [market value](https://www.investopedia.com/terms/m/marketvalue.asp) of its assets, among other metrics.

**2. What is mean by time value of money?**

 Time value of money is defined as “the value derived from the use of money over time as result of investment”. Time value of money means that “worth of a rupee to be received in future”. The preference for money now, as compared to future money is known as time preference of money.

**3. Explain about compound value.**

 Compound is the process in which an asset's earnings, from either [capital gains](https://www.investopedia.com/terms/c/capitalgain.asp) or [interest](https://www.investopedia.com/terms/i/interest.asp), are reinvested to generate additional earnings over time. This growth, calculated using exponential functions, occurs because the investment will generate earnings from both its initial principal and the accumulated earnings from preceding periods.

**4. Explain about present value.**

Present value (PV) is the current value of a future sum of money or stream of cash flows given a specified [rate of return](https://www.investopedia.com/terms/r/rateofreturn.asp). Future cash flows are discounted at the discount rate, and the higher the [discount rate](https://www.investopedia.com/terms/d/discountrate.asp), the lower the present value of the future cash flows. Determining the appropriate discount rate is the key to properly valuing future cash flows, whether they are earnings or obligations.

**5. Detail explains about Risk and Return.**

**Risk:**

Risk is defined as the variability of the expected return from the investment.

**Return:**

 Return is measured as a gain or profit expected to be made, over a period, at the time of making the investment.

**6. Write two relationships between risk and return.**

Risk and return, the amount of risk determines the degree of return. If an investor is looking for higher returns, he must invest in the instruments containing higher risk. However, if the risk bearing capacity of the investor is low or they are not looking for high returns, they should invest in the low risk profile instrument.

**7. Define bond valuation.**

Bond valuation is a technique for determining the theoretical fair value of a particular bond. Bond valuation includes [calculating the present value of a bond's future interest payments](https://www.investopedia.com/articles/investing/051315/present-value-different-bond-types-using-excel.asp), also known as its cash flow, and the bond's value upon maturity, also known as its face value or par value. Because a bond's [par value](https://www.investopedia.com/terms/p/parvalue.asp) and interest payments are fixed, an investor uses bond valuation to determine what [rate of return](https://www.investopedia.com/terms/r/rateofreturn.asp) is required for a bond investment to be worthwhile.

**8. What is mean by value of preference share?**

Preference shares, more commonly referred to as preferred stock, are shares of a company’s stock with dividends that are paid out to shareholders before common stock dividends are issued. If the company enters bankruptcy, preferred stockholders are entitled to be paid from company assets before common stockholders. Most preference shares have a fixed dividend, while common stocks generally do not. Preferred stock shareholders also typically do not hold any voting rights, but common shareholders usually do.

**9. What is mean by value of equity share?**

An equity share, normally known as ordinary share is a part ownership where each member is a fractional owner and initiates the maximum entrepreneurial liability related with a trading concern. These types of shareholders in any organization possess the right to vote.

**10. Define ratio analysis.**

Ratio analysis is a quantitative method of gaining insight into a company's liquidity, operational efficiency, and profitability by studying its financial statements. Ratio analysis is a cornerstone of [fundamental equity analysis](https://www.investopedia.com/terms/f/fundamentalanalysis.asp).

**5 MARKS**

**1. What are the different types of risk?**

###

### Business Risk:

 In a nutshell, business risk is the exposure a company has to various factors like competition, consumer preferences and other metrics that might lower profits or endanger the company's success.

When entering a market, every company is exposed to business risk in that there are various factors that may negatively impact profits and might even lead to the business' demise - including things like government regulations or the overall economy.

 Within the general blanket of business risk are[various other kinds of risk](https://www.wallstreetmojo.com/business-risk/) that companies examine, including strategic risk, operational risk, reputational risk and more. In a larger sense, anything that might hinder a company's growth or lead it to fail to meet targets or margin goals is considered a business risk, and can present in a variety of ways.

### Volatility Risk:

 Particularly in investment, volatility risk refers to the risk that a portfolio may experience changes in value due to volatility (price swings) based on the changes in value of its underlying assets - particularly a stock or group of stocks experiencing volatility or price fluctuations.

 Volatility risk is often examined [in reference to options trading](https://www.nasdaq.com/investing/glossary/v/volatility-risk), which tends to have a higher risk of volatility due to the nature of [options](https://www.thestreet.com/investing/what-is-options-trading-14772273) themselves.

Stocks are often given ratings, called "beta," which help investors detect which stocks may be more of a risk for their portfolio. The [beta value](https://economictimes.indiatimes.com/definition/beta) measures a stock's fluctuations compared to the overall market or a benchmark index like the S&P 500.

### Inflation risk:

 Inflation risk, sometimes called purchasing power risk, is the risk that the cash from an investment won't be worth as much in the future due to [inflation](https://www.thestreet.com/personal-finance/education/what-is-inflation-14695699) changing its purchasing power. Inflation risk primarily examines how inflation (specifically when higher than expected) may jeopardize or reduce returns due to the eroding the value of the investment.

In general, inflation risk is more of a concern for investors who have debt investments like [bonds](https://www.thestreet.com/how-to/buy-bonds-14862163) or other cash-heavy investments.

Although inflation risk may not be the primary concern for investors, it definitely is and should be on their minds when dealing with cash flows over a long period of time in investment vehicles or when calculating expected returns. The longer cash flows are exposed, the more time inflation has to impact the actual returns of an investment and eat away at profits - specifically if inflation is at an accelerated rate.

### Market Risk:

 Market risk is a broad term that encompasses the risk that investments or equities will decline in value due to larger economic or market changes or events. Under the umbrella of "market risk" are [several kinds](https://www.getsmarteraboutmoney.ca/invest/investing-basics/understanding-risk/types-of-investment-risk/) of more specific market risks, including equity risk, interest rate risk and currency risk.

Equity risk is experienced in every investment situation in that it is the risk equity’s share price will drop, causing a loss. In a similar vein, interest rate risk is the risk that the interest rate of bonds will increase, lowering the value of the bond itself. And currency risk (sometimes called exchange-rate risk) applies to foreign investments and the risk incurred with exchange rates for currencies - or, if the value of a certain currency likes the pound goes up or down in comparison to the U.S. dollar.

### Liquidity Risk:

 Liquidity risk is involved when assets or securities cannot be liquidated (that is, turned into cash) fast enough to ride out an especially volatile market. This kind of risk affects businesses, corporations or individuals in their ability to pay off debts without suffering losses. As a general rule, small companies or issuers tend to have a higher liquidity risk due to the fact that they may not be able to quickly cover debt obligations. Essentially, if an individual or company is unable to pay off their short-term debts, they are at liquidity risk.

**2. Explain about the compounding analysis.**

 The concept of compounding refers to ascertainment of future value of present money. It is the same as the concept of concept interest, wherein the interest earned in the preceding year is reinvested at the prevailing rate of interest for the remaining period. Thus, the accumulated amount at the end of a period becomes the principal amount for calculating the interest for the next period.

 **A) Compounding of interest over ‘n’ years:**

The interest on investment is generally spread over a number of years. These interests are to be compounded annually to ascertain the future value of investment. The compounding of interest can be done with the help of the following formula:

Future value (FV) = P (1+R)n

 P = Principal

 R = Rate of interest

 N = No. of years.

 **B) Multiple compounding periods:**

It is presumed that the time period ‘n’ is an annual period and the compounding is done on annual basis only. However the compounding period ‘n’ may be other than a year also. In such case, the compounding formula given earlier is to be adjusted to reflect different number of periods. In case the following formula is generally applied to the compound value.

 Future Value (FV) = P (1+R/M) nm

Where P = Principal amount

 R = Rate of interest

 N = No of years

 M = Frequency of compounding.

 **C) Effective rate of interest:**

The effective rate of interest is the annually compounded rate of interest that is equivalent to an annual interest rate compounded more than once per year. The effective rate of interest can be ascertained by applying the formula given below:

 ERI = (1+R/M)m – 1

 Where, ERI = Effective rate of interest

 R = Rate of interest

 M = Frequency of compounding

 **D) Compound value of an annuity:**

Quite often a decision may result in the occurrence of cash flows of the same amount every year for a number of years consecutively, instead of a single cash flow. The FV of annuity can be ascertained by using the formula given below:

 FV of annuity = A\* ((1+R)n – 1)/ R

 A = Constant periodic flow

 R = Rate of interest

 N = No of years

**3. Explain about sinking fund.**

**Meaning:**

 A **sinking fund** is a part of a bond indenture or preferred stock charter that requires the issuer to regularly set money aside in a separate custodial account for the exclusive purpose of redeeming the bonds or shares.

##  Works in sinking fund:

 To understand how a sinking fund works, let's assume Company XYZ issues $10 million of bonds that mature in 10 years. If the bonds have a sinking fund, Company XYZ might be required to retire, say, $1 million of the [bonds](https://investinganswers.com/dictionary/b/bond) each year for 10 years. To do so, Company XYZ must deposit $1 million each year into a sinking fund, which is separate from its operating funds and is used exclusively to retire this debt. This strategy ensures that Company XYZ will pay off the $10 million in 10 years.

 Establishing a sinking fund is usually a matter of setting up a custodial account into which the sinking fund payments will go. The issuer then makes payments to the trustee of the custodial account. The sinking fund payments are usually fixed amounts, but some bond indentures allow for variable sinking fund provisions (usually based on [earnings](https://investinganswers.com/dictionary/e/earnings) levels or other conditions). Sometimes the [issuer](https://investinganswers.com/dictionary/i/issuer) does not have to begin setting aside sinking funds for several years. Regardless of the ultimate size and timing of the payments, failure to make the payments is usually deemed an act of default in bond indentures.

 In most cases, the sinking fund requires the issuer to actually retire a portion of the debt on a prearranged schedule so that all of the debt is retired by the [maturity date](https://investinganswers.com/dictionary/m/maturity-date). How this occurs depends on what is in the sinking fund account.

 Usually, sinking funds can either be in cash or in the form of other bonds or preferred stock. If the issuer had made cash deposits, the trustee then uses the funds to repurchase some or all of the bonds on the open market. It does this by calling the bonds using a lottery system (that is, it draws random [bond](https://investinganswers.com/dictionary/b/bond) serial numbers). The call price is usually the issue price of the bond (that is, if the bonds were issued at [par](https://investinganswers.com/dictionary/p/par-value), then the [call price](https://investinganswers.com/dictionary/c/call-price) is par; if the bonds were issued at a discount, then the call price equals that discounted price). As the bonds get closer to maturity, this call price gets closer to par value.

 If the issuer has instead deposited other debt into the custodial account, the issuer usually purchases the bonds itself on the open market. This usually happens when the bonds are selling below par on the open [market](https://investinganswers.com/dictionary/m/market).
Sometimes an issuer can establish one sinking fund for all of its bond issues rather than a separate sinking fund for each issue. The sinking fund payments are generally a percentage of all outstanding debt, and the issuer can apply the [funds](https://investinganswers.com/dictionary/f/fund) to one or more particular issues of its choice. These sinking funds are usually called aggregate sinking funds or blanket sinking funds.

## 4. Write relationship between risk and return.

## Risk Return Trade Off:

Return on Investment is obviously one important aspect to consider while making investment decisions. While every investor seeks to receive the maximum return from their investment, there is one more aspect which is less discussed but quite important and that’s risk taken while making the investment.

This relationship between these two key aspects of investment is referred to as Risk Return Trade off. The concept is all about investor’s willingness to take the amount of risk to increase the probabilities of higher returns.

## Difference between Risk and Return:

Every investment contains some ‘risk’, though the intensity of the risk depends on the class of investment.

On the other hand, ‘return’ is what every investor is after. It is the most sought out factor in the financial market.

As per the trade-off between risk and return, the amount of risk determines the degree of return. If an investor is looking for higher returns, he must invest in the instruments containing higher risk. However, if the risk bearing capacity of the investor is low or they are not looking for high returns, they should invest in the low risk profile instrument.

## Investment Risk vs. Return on Investment:

The investor must keep in mind that though the risk and return are proportionate to each other, higher risk doesn’t guarantee higher return; it only increases the probability of it.

Hence, an investor looking to get higher returns must be able to have good risk bearing capacity, because without investing in the riskier instrument higher returns cannot be achieved.

Also, one should not only focus on getting the return. To have a balanced combination of risk and return in their portfolio, the investor need to analyze their risk-bearing ability, investment goal, and time duration in which they would like to achieve it.

**10 MARKS**

**1. Explain about the method of analysis.**

The systematic application of statistical and logical techniques to describe the data scope, modularize the data structure, condense the data representation, illustrate via images, tables, and graphs, and evaluate statistical inclinations, probability data, to derive meaningful conclusions, is known as Data Analysis. These analytical procedures enable us to induce the underlying inference from data by eliminating the unnecessary chaos created by the rest of it. The generation of data is a continual process; this makes data analysis a continuous, iterative process where the collection and performing data analysis simultaneously. Ensuring data integrity is one of the essential components of data analysis.

There are various examples where data analysis is used ranging from transportation, risk and fraud detection, customer interaction, city planning healthcare, web search, digital advertisement, and more.

Before diving any more in-depth, make the following pre-requisites for proper Data Analysis:

* Ensure availability of the necessary analytical skills
* Ensure appropriate implementation of data collection methods and analysis.
* Determine the statistical significance
* Check for inappropriate analysis
* Ensure the presence of legitimate and unbiased inference
* Ensure the reliability and validity of data, data sources, data analysis methods, and inferences derived.
* Account for the extent of analysis

## **Data Analysis Methods**

There are two main methods of Data Analysis:

* **Qualitative Analysis:** This approach mainly answers questions such as ‘why,’ ‘what’ or ‘how.’ Each of these questions is addressed via quantitative techniques such as questionnaires, attitude scaling, standard outcomes, and more. Such kind of analysis is usually in the form of texts and narratives, which might also include audio and video representations.
* **Quantitative Analysis:** Generally, this analysis is measured in terms of numbers. The data here present themselves in terms of measurement scales and extend themselves for more statistical manipulation.

The other techniques include:

* Text Analysis
* Statistical Analysis
* Diagnostic Analysis
* Predictive Analysis
* Prescription Analysis

## **Data Analysis Process**

Once you set out to collect data for analysis, you are overwhelmed by the amount of information that you find to make a clear, concise decision. With so much data to handle, you need to identify relevant data for your analysis to derive an accurate conclusion and make informed decisions. The following simple steps help you identify and sort out your data for analysis.

### 1. Data Requirement Specification - define your scope:

* + Define short and straightforward questions, the answers to which you finally need to make a decision.
	+ Define measurement parameters
	+ Define which parameter you take into account and which one you are willing to negotiate.
	+ Define your unit of measurement. Ex – Time, Currency, Salary, and more.

### 2. Data Collection:

* + Gather your data based on your measurement parameters.
	+ Collect data from databases, websites, and many other sources. This data may not be structured or uniform, which takes us to the next step.

### 3. Data Processing:

* + Organize your data and make sure to add side notes, if any.
	+ Cross-check data with reliable sources.
	+ Convert the data as per the scale of measurement you have defined earlier.
	+ Exclude irrelevant data.

### 4. Data Analysis:

* + Once you have collected your data, perform sorting, plotting, and identifying correlations.
	+ As you manipulate and organize your data, you may need to traverse your steps again from the beginning, where you may need to modify your question, redefine parameters, and reorganize your data.
	+ Make use of the different tools available for data analysis.

### 5. Infer and Interpret Results:

* + Review if the result answers your initial questions
	+ Review if you have considered all parameters for making the decision
	+ Review if there is any hindering factor for implementing the decision.
	+ Choose data visualization techniques to communicate the message better. These visualization techniques may be charts, graphs, color coding, and more.

**UNIT-III**

**2 MARKS**

**1. Define cost of capital.**

Cost of capital is the minimum rate of return which a firm requires as a condition for undertaking an investment.

**Milton H.Spencer**

**2. What is weighted average cost of capital?**

The weighted average cost of capital (WACC) is a calculation of a firms cost of capital in which each category of capital is proportionately weighted. All sources of capital, including common stock, preferred stock, bonds, and any other long-term debt, are included in a WACC calculation.

**3. What is cost of capital?**

Cost of capital refers to the opportunity cost of making a specific [investment](https://investinganswers.com/dictionary/i/investment). It is the [rate of return](https://investinganswers.com/dictionary/r/rate-return) that could have been earned by putting the same [money](https://investinganswers.com/dictionary/m/money) into a different investment with equal risk. Thus, the cost of capital is the rate of return required to persuade the investor to make a given investment.

**4. What is marginal cost of capital (MCC)?**

The MCC is 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. MCC is derived when we calculate the average cost of capital using the marginal weights.

**5. Meaning of cost of equity capital.**

The cost of equity is the return a company requires to decide if an investment meets capital return requirements. Firms often use it as a capital budgeting threshold for the [required rate of return](https://www.investopedia.com/terms/r/requiredrateofreturn.asp). A firm's cost of equity represents the compensation the market demands in exchange for owning the asset and bearing the risk of ownership.

**6. What is cost of debt?**

Cost of debt may be defined as the returns expected by the potential investors of debt securities of a firm. It measure the current cost to the firm of borrowing funds to finance the projects.

 The cost of debt is classified into two types.

1. Cost of Irredeemable Debt
2. Cost of Redeemable Debt

**7. Difference between explicit and implicit cost.**

 **Explicit cost:**

The explicit cost is the discount rate that equates the present value of cash inflows that are incremental to the taking of the financing opportunity with the present value of its incremental cash outflows.

 **Implicit cost:**

Implicit cost is also known as opportunity cost. It is a rate of return associated with the best investment opportunity for the firm and its shareholders that will be foregone if the project is accepted.

**8. What is mean by leverage?**

The term leverage refers to an increased means of accomplishing some purpose. With leverage, it is possible to lift objects which are otherwise impossible. However, in the area of finance, the term leverage is used to describe the firm’s ability to use fixed cost assets and funds to magnify the return to its owners.

**9.Define leverage.**

Leverage is the ratio of net returns on shareholders equity and the net rate of return on total capitalization.

**Ezra Solomon**

**10.Meaning of combined leverage.**

 Combined leverage thus establishes relationship between sales (that is contribution) and the corresponding variation in taxable income. It can be computed by adopting the following formula

**Combined leverage =Operating leverage x Financial leverage**

**5 MARKS**

**1. What is the importance of cost of capital?**

**Capital Budgeting Decisions:**

Proper estimate of cost of capital is important for a firm in taking capital budgeting decisions. Generally cost of capital is the discount rate used in evaluating the desirability of the investment project. In the internal rate of return method, the project will be accepted if it has a rate of return greater than the cost of capital.

#### Determination of Capital Structure:

Cost of capital influences the capital structure of a firm. In designing optimum capital structure that is the proportion of debt and equity, due importance is given to the overall or weighted average cost of capital of the firm. The objective of the firm should be to choose such a mix of debt and equity so that the overall cost of capital is minimised.

#### Evaluation of Financial Performance:

The concept of cost of capital can be used to evaluate the financial performance of top management. This can be done by comparing the actual profitability of the investment project undertaken by the firm with the overall cost of capital.

#### Management of Working Capital:

In management of working capital the cost of capital may be used to calculate the cost of carrying investment in receivables and to evaluate alternative policies regarding receivables. It is also used in inventory management also.

####   Maximisation of the Value of the Firm:

For the purpose of maximisation of value of the firm, a firm tries to minimise the average cost of capital. There should be judicious mix of debt and equity in the capital structure of a firm so that the business does not to bear undue financial risk.

**2. What are the different types of cost of capital?**

#### Explicit Cost of Capital:

Explicit cost of any source may be defined as the discount rate that equates the present value of the funds received by a firm with the present value of expected cash outflows.

#### Implicit Cost of Capital:

The implicit cost may be defined as the rate of return associated with the best investment opportunity for the firm and its shareholders that will be foregone if the proj­ect under consideration by the firm is accepted. If a firm retains its earnings, implicit cost will be the income, the shareholders could have earned if such earnings would have been distributed and invested by them elsewhere.

#### Specific Cost of Capital:

The cost of each component of capital is known as specific cost of capi­tal. A firm raises capital from different sources such as equity, preference, debentures, etc. Specific cost of capital is the cost of equity share capital, cost of preference share capital, cost of debentures, etc., individually.

####  Weighted Average Cost of Capital:

The weighted average cost of capital is the combined cost of each component of funds employed by the firm. The weights are the proportion of the value of each component of capital in the total capital.

#### Marginal Cost of Capital:

Marginal cost is defined as the cost of raising one extra rupee of capital. It is also called the incremental or differential cost of capital. It refers to the change in overall cost of capital resulting from the raising of one more rupee of fund. In other words, it is described as the relevant cost of new funds required to be raised by the company.

**3. What are the components of cost of capital?**

#### 1. The Cost of Debt:

Debt financing is one of the more frequently sought forms because it is one of the least costly. In terms of the cost of capital definition, the firm must make sure that when it borrows funds, the rate earned through use of the debt-invested funds is equal to or greater than the cost of this debt. Thus, the cost of debt must be equal to the rate of return earned on debt-invested funds, so that the earnings available to the common shareholder remain unchanged.

#### 2. The Cost of Preferred Stock:

Preferred stock (or preference shares) is frequently referred to as a hybrid security which is somewhere between debt and com­mon equity. It is similar to debt in that it pays a fixed commitment or annual dividend, and, in case of liquidation, the claim to the assets of the corporation by preferred holders has priority over the claims of the common shareholders.

#### 3. The Cost of Using Retained Earnings:

Equity capital usually consists of two components. The first is the amount of funds available in the form of net income that may be used to pay dividends or may be retained in the business for asset purchases. The second source of equity capital is the amount of funds raised by a new common stock issue.

The definition of the cost of retained earnings is the rate of return that must be earned on equity-invested capital so that the total yield available to the common shareholders remains unchanged. The cost of retained earnings simplifies to the rate of return that stockholders expect to earn on the common stock of the firm. This expected or required rate of return can be determined from the valuation formula for common stock.

#### 4. Weighted Average Cost of Capital:

When examining the cost of capital for a firm, we are not always interested in examining the cost of a single component such as debt or preferred stock or equity but may want to know the total cost of capital to the firm, considering all forms of financing. The cost of long-term debt, preferred stock, and equity, considered together, is referred to as the average cost of capital.

**4. What do you understand by financial leverage? Discuss its significance.**

Financial leverage occurs when a firm uses fixed interests/dividend bearing securities that is Debentures and preference share capital along with owner’s equity to improve the return on equity investments. The fixed financial charges such as interest on debentures, dividend on preference share etc, do not vary with the operating profit (EBIT).

**Financial leverage=EBIT/EBT**

 Where, EBIT= Earnings before interest and taxes

 EBT=Earnings before taxes

 **Degree of Financial leverage:**

 The degree of financial leverage (DFL)is the percentage change in taxable profit as result of percentage change in operating profit, that is the ability of the firm to utilize fixed financial costs in order to magnify the effect of changes in EBIT on EPS of the firm. The DLF can be computed as under.

**DFL= Percentage change in EPS/ Percentage change in EBIT**

 **Significance of financial leverage:**

 Financial leverage helps the finance manager in designing in appropriate capital structure. One of the objectives of planning an appropriate capital structure is to maximize the return on equity shareholders funds or maximize the earnings per share.

 Financial leverage is a double sword. On the one hand, it increase earnings per share and on the other hand, it increases financial risk. A high financial leverage means high fixed financial risk that is as the debt component in capital structure increases, the financial leverage increases and at the same time, the financial risk also increases that is risk of insolvency increases.

 The finance manager therefore is required to trade off i.e. has to bring a balance between risk and return for determining the appropriate amount of debt in the capital structure of the firm.

**5. What do you mean by weighted average cost of capital? Explain its significance.**

**Weighted average cost of capital:**

The weighted average cost of capital (WACC) is a calculation of a firms cost of capital in which each category of capital is proportionately weighted. All sources of capital, including common stock, preferred stock, bonds, and any other long-term debt, are included in a WACC calculation.

**Significance of Weighted average cost of capital:**

1. In capital budgeting, WACC is used as cut off rate against which projects can be evaluated. A project can be considered viable only if the returns from the project are higher than the cost there of i.e., WACC.
2. WACC represents the minimum rate of return at which a firm can produce value its investors (Debt and equity). If a firms return on capital employed is less than its WACC, it means the firm is losing its value\wealth. Such a situation is most disadvantageous to equity shareholders.
3. WACC is useful in making economic value added (EVA) calculations.

**10 MARKS**

**1. Explain the factors determining the cost of capital.**

**1. Demand and Supply of Capital:**

 Demand and supply of capital affects the cost of capital. If the demand for funds in the economy increases, lenders will automatically increase the required rate of return and vice-versa. Supply of funds has an inverse relation to cost of capital: If supply of fund increases then the cost of capital decreases; and if the supply of funds decreases, the cost of capital increases.

**2. Market Condition:**

 The market condition of the product produced by the project for which a fund is required is an important factor for determining the cost of capital. Funds required for risky projects increases the cost of capital, as lenders demand a higher rate to compensate their risk. On the other hand, if the market condition of the products produced by the project is such that it will have a high and secured return, then the risk will be lower and obviously the cost of capital will be less.

#### ****3. Unsystematic Risk:****

 Unsystematic risk is of two types: Business risk and financial risk. Business risk arises due to investment decisions of the company. Financing risk arises due to financing decisions, i.e. proportion of debt and equity in the capital structure. Business risk and financing risk affect the overall cost of capital of a firm. A firm’s total unsystematic risk is the sum of business and financing risks. The cost of capital is directly proportional to the total unsystematic risk of the firm.

#### ****4. Volume of Financing:****

 Volume of financing also affects the cost of capital. High volume of capital also increases the overall cost of capital due to issue related costs and the greater risks involved. The liquidity risk associated with high volume of capital also increases cost of capital. If the firm uses lower volume of capital then the suppliers of the fund remain more assured of their fund and the cost of capital reduces.

**2. What are the types of leverage?**

 There are three commonly used measures of leverage in financial analysis.

 They are:

 1. Operating leverage

 2. Financial leverage

 3. Combined leverage

 Let us discuss all these leverages one by one in the pages to come.

 **1. Operating leverage:**

 Operating leverage implies use of fixed cost in the operation of a firm. As posited out earlier, every firm has to incur fixed cost irrespective of the volume of production or sales. Since fixed cost remains constant, even a small change in sales brings about a more than proportionate change in operating profit. This occurrence is termed as operating leverage.

**Operating leverage= Contribution /EBIT**

 Where, Contribution=Sales-Variable cost.

 EBIT=Operating profit

 **Degree of operating leverage**

 The degree of operating leverage (DOL) represents percentage change in the operating profit resulting from a percentage change in the sales. It may be put in the

 Form of following equation:

**DOL= Percentage change in EBIT/ Percentage change in sales**

 **Significance of operating leverage:**

 Analysis of operating leverage of a firm is very useful to the finance manager. It tells the impact of changes in sales on operating income. A firm having higher

 DOL can experience a magnified effect on EBIT for even a small changes in sales level. If operating leverage is high, it automatically means that the breakeven point would also be reached at a high level of sales

 **2. Financial leverage**

 Financial leverage occurs when a firm uses fixed interests/dividend bearing securities that is Debentures and preference share capital along with owner’s equity to improve the return on equity investments. The fixed financial charges such as interest on debentures, dividend on preference share etc, do not vary with the operating profit (EBIT).

**Financial leverage=EBIT/EBT**

 Where, EBIT= Earnings before interest and taxes

 EBT=Earnings before taxes

 **Degree of Financial leverage:**

 The degree of financial leverage(DFL)is the percentage change in taxable profit as result of percentage change in operating profit, that is the ability of the firm to utilize fixed financial costs in order to magnify the effect of changes in EBIT on EPS of the firm. The DLF can be computed as under.

**DFL= Percentage change in EPS/ Percentage change in EBIT**

 **Significance of financial leverage:**

 Financial leverage helps the finance manager in designing in appropriate capital structure. One of the objectives of planning an appropriate capital structure is to maximize the return on equity shareholders funds or maximize the earnings per share.

 Financial leverage is a double sword. On the one hand, it increase earnings per share and on the other hand, it increases financial risk. A high financial leverage means high fixed financial risk that is as the debt component in capital structure increases, the financial leverage increases and at the same time, the financial risk also increases that is risk of insolvency increases.

 **3. Combined leverage**

 As explained above, operating leverage measures percentage change in operating profit as a result of percentage change in sales and financial leverage measures percentage change in taxable profit or EPS due to percentage change in operating profit. Whereas operating leverage indicates the degree of operating risk, financial leverage indicates the degree of financial risk.

 Combined leverage thus establishes relationship between sales (that is contribution) and the corresponding variation in taxable income. It can be computed by adopting the following formula

**Combined leverage =Operating leverage x Financial leverage**

**=Contribution /EBIT x EBIT/EBT**

**=Contribution /EBT**

 **Significance of combined leverage:**

 The ratio of contribution to earnings before tax given by combined leverage shows the combined effect of financial and operating leverages. A high operating leverage and

 a high financial leverage combination is very risky. If the firm is producing and selling at high level, it will make extremely high profit for its shareholders. But even a small fall in the level of operations, would results in a tremendous fall in earnings per share. A firm must, therefore maintain a proper balance between these two leverages.

**UNIT-4**

**2 MARKS**

**1) What is mean by capital structure?**

 The makeup of firm capitalisation is called capital structure. The capital structure mat be in the combination of

1. Equity share capital only
2. Equity share capital and preference share capital only
3. Equity share capital, preference share capital and debentures only
4. Equity share capital and debentures only

**2) What do you mean by optimum capital structure?**

Optimum capital structure when the firm has selected such a combination of equity and debt so that the wealth of firm is maximum. At the capital structure, the cost of capital is minimum and market price per share is maximum.

**3) Define capital structure.**

Capital structure is the combination of debt and equity securities that comprise a firm’s financing of its assets.

**John J.Hampton**

**4) Write short notes on Indifference point.**

Indifference point refers to the EBIT level at which EPS remains unchanged irrespective of debt-equity mix. Given the total amount of capitalisation and the interest rate on bonds, a firm reaches indifference point when it earns exactly the same amount of income what it has promised to pay on debt.

**5. What are the approaches in capital structure?**

1. Net Income (NI) Approach
2. Net Operating Income (NOI) Approach
3. Traditional Approach
4. Modigliani and Miller Approach

**6. What is capitalisation?**

Capitalization refers to all long term securities e.g. equity, debt and free reserve not meant for distribution.

 Capitalisation is implementation of policy decision about capital structure.

 Capitalisation is a quantitative decision.

**7. What is mean by Net Operating Income (NOI) Approach?**

NOI Approach has been suggested by Durand. According to this approach, the market value of the firm is not affected by the capital structure changes. The market value of the firm is ascertained by capitalizing the net operating income at the overall cost of capital which is constant.

**8. What do you by dividend?**

The term dividend refers to that the part of the profit which is distributed among the share holder of the firm.

**9. What is mean by dividend policy?**

 Dividend policy refers to the policy chalked out by the firms regarding the amount they would pay their shareholders as dividend. Once firms make profits, they have to decide on what to do with these profits.

**10. What is the nature of dividend policy?**

1. Tied up with retained earnings
2. Influence on financing decision
3. Impact of shares
4. Optimal dividend policy
5. **MARKS**

**1. Difference between capital structure and capitalisation.**

|  |  |  |
| --- | --- | --- |
| **Basis** | **Capital structure** | **Capitalization** |
| 1. Coverage
 |  It refers to mix of various source of capital e.g. capital, debt, etc. |  Capitalization refers to all long term securities e.g. equity, debt and free reserve not meant for distribution. |
| 1. Scope
 |  It is an overall policy decision about the proportion of various source of long term finance. |  Capitalisation is implementation of policy decision about capital structure. |
| 1. Nature
 |  It is a qualitative decision. |  Capitalisation is a quantitative decision. |

**2. Explain the features of an appropriate capital structure.**

 **Minimum cost:**

An appropriate capital structure attempt to establish the mix of securities in such a way as to raise the requisite funds at the lowest possible cost. As the cost of various sources of capital is not equal in all circumstances, it should be ascertained on the basis of weighted average cost of capital.

 **Maximum return:**

An appropriate capital structure should be devised in such a way as to maximise the profits of the firm. In order to maximise profit, the firm should follow a proper policy of trading on equity so as to minimise the cost of capital.

 **Minimum risk:**

An appropriate capital structure should process the quality of minimum risk. Risk, such as increase in taxes, rates of interest, costs etc. And decrease in price and value of shares as well as natural calamities adversely affects the firm’s earnings.

**Flexibility:**

An appropriate capital structure should have the quality of flexibility in it. A flexible capital structures enables the firm to make the necessary changes in it according to the changing condition.

 **Conservatism:**

A firm has to follow the policy of conservatism in devising the capital structure. This would help in maintaining the debt capacity of the firm even in unfavourable circumstances.

 **Simplicity:**

An appropriate capital structure should be easy to understand and easy to operate. For this purpose, the number and type of securities issued should be limited.

**3. Describe the arbitrage process under MM approach.**

Modigliani and Miller hypothesis reveals that the total value of a firm is determined by operating income or EBIT. It is independent of the debt equity mix. Two firms which are identical an all respects expect their capital structure, cannot have different market values or different cost of capital. If market value of the firms differs, arbitrage process will take place and make them equal.

 For example, suppose there are two firms X and Y in the same risk class. Firm X is financed by equity and firm Y has a capital structure which includes debt. Their market values do not differ for a long time. If the market value of the firm Y is higher than firm X, the shareholders \ investors of firm Y will purchase the shares of undervalued firm X. In addition, firm X has no debt. Therefore, shareholders \ investors of firm Y borrow on their person account and use the additional funds for buying shares of firm X. As a result, the market price of firm Y share will decline due to selling pressure and that of firm X share will increase. This process will continue till both of them attain the same market value. As such, as soon as the firms reach the identical position, the average cost of capital and the value of the firm will be equal. So the total value of the firm and average cost of capital are independent.

**4. Discuss the different types of dividend?**

**Regular Dividend:**

It is paid annually, proposed by the board of directors and approved by the shareholders in general meeting. It is also known as final dividends because it is usually paid after the finalisation of accounts. It is generally paid in cash as a percentage of paid up capital, say 10% or 15% of the capital. Sometimes it is paid per share. No dividend is paid on calls-in-advance or calls-in arrears.

**Bond Dividend:**

 The only difference between scrip and bond dividend is that the latter carries longer maturity date than the former. Thus, while issue of scrip dividend increases the current liabilities of the company, the issue of bond dividend increases long-term liabilities. Such form of dividend is also not prevalent in India.

#### Property Dividend:

 Under this form, company pays dividends in the form of assets other than cash. The company may give its own products in lieu of cash dividends. For example, a watch manufacturing company may give watches to its shareholders as property dividend. This form of dividend is not prevalent in India.

#### Interim Dividend:

 The interim dividend is the dividend declared between two annual general meetings. The Articles of Association of the company often contains provisions authorising the management to declare interim dividends.

####  Stock Dividend:

 Sometimes, company issues shares to its existing shareholders free of cost rather than paying cash dividend. These free shares are called bonus shares. They are termed as stock dividend in U.S.A. Bonus shares are issued to existing shareholders in a fixed proportion over their existing shareholdings. For example, if a company declares 10% (i.e., 1:10) stock dividend, a shareholder having 100 shares will get 10 bonus shares as dividend and total number of shares with him will become 110. Stock dividend decreases the reserves of the company but increases the share capital of the company.

 Thus, net worth of the company remains intact while in case of cash dividend net worth decreases. Stock dividend is beneficial from companies as well as shareholder’s point of view.

**5. Explain the assumption and implications of Walters’s model.**

 **Assumptions:**

Walters’s proposition is based on the following assumption:

 i) Retained earnings represent the only source of financing for the firm.

 ii) The return on the firm’s investment remains constant.

 iii) The cost of capital for the firm remains constant.

 iv) The firm has an infinite life.

 v) All the earnings are distributed or reinvested in the firm.

 vi) Earnings per share and dividend remain constant in determining a given value.

 **Implications:**

i) The optimal payment ratio for a growth firms is nill.

 ii) Payout ratio for a normal firm is irrelevant.

 iii) Optimal payout ratio for a declining firm is 100%.

 iv) Higher the retention ratio, higher is the value of the firm and vice versa.

**10 MARKS**

**1. Explain the theories of capital structure.**

There are broadly four approaches in this regard. These are:

1. Net Income (NI) Approach
2. Net Operating Income (NOI) Approach
3. Traditional Approach
4. Modigliani and Miller Approach

**i) Net Income (NI) Approach:**

This approach has been suggested by Durand. According to this approach, a firm can increase its value or lower the overall cost of capital by increasing the proportion of debt in the capital structure. In other words, if the degree of financial leverage increase, the weighted average cost of capital employed, while the value of firm will increase. Reverse will happen in a converse situation.

 The NI Approach is based on the following three assumptions:

1. There are no corporate taxes.
2. The cost of debt (Kd) is less than cost of equity (Ke).
3. The use of debt content does not change the risk perception of investors. As a result both the Kd and Ke remain constant.

The total market value of the firm (V) under the NI approach determined with the help of the following formula:

 V=S+D

 Where,

 V=Total market value of the firm

 S=Market value of equity shares

 D=Market value of debt

**ii) Net Operating Income (NOI) Approach:**

NOI Approach has been suggested by Durand. According to this approach, the market value of the firm is not affected by the capital structure changes. The market value of the firm is ascertained by capitalizing the net operating income at the overall cost of capital which is constant.

The NOI approach is based on the following assumptions:

1. The overall cost of capital remains constant for all degree of debt-equity mix.
2. The market capitalizes the value of firm as a whole. Thus the split between debt and equity is not important.
3. The use of less costly debt funds increase the risk of shareholders .This causes the equity capitalization rate to increase.
4. There are no corporate taxes.
5. The cost of debt is constant.

**Iii.Traditional Approach:**

This approach is also known as intermediate approach as it taken a midway between NI approach and NOI approach. According to this approach, the use of debt up to a point is advantageous. It can help to reduce the overall cost of capital and increase the value of the firm. Beyond the point, the debt increases the financial risk of shareholders. As a result, cost of equity also increases. The benefit of debt is neutralized by the increased cost of equity. Thus up to a point the content of debt in capital structure will be favourable. At that point the capital structure is optimal and the overall cost of capital will be least.

**Iv.Modigliani and Miller Approach:**

Modigliani and Miller have explained the relationship between cost of capital, capital structure and total value of the firm under two conditions:

1. When there are no corporate taxes
2. When there are corporate taxes

**Arbitrage process under MM approach:**

Modigliani and Miller hypothesis reveals that the total value of a firm is determined by operating income or EBIT. It is independent of the debt equity mix. Two firms which are identical an all respects expect their capital structure, cannot have different market values or different cost of capital. If market value of the firms differs, arbitrage process will take place and make them equal.

For example, suppose there are two firms X and Y in the same risk class. Firm X is financed by equity and firm Y has a capital structure which includes debt. Their market values do not differ for a long time. If the market value of the firm Y is higher than firm X, the shareholders \ investors of firm Y will purchase the shares of undervalued firm X. In addition, firm X has no debt. Therefore, shareholders \ investors of firm Y borrow on their person account and use the additional funds for buying shares of firm X. As a result, the market price of firm Y share will decline due to selling pressure and that of firm X share will increase. This process will continue till both of them attain the same market value. As such, as soon as the firms reach the identical position, the average cost of capital and the value of the firm will be equal. So the total value of the firm and average cost of capital are independent.

**2. What are the factors determining dividend policy?**

####  Stability of Earnings:

Stability of earnings is one of the important factors influencing the dividend policy. If earnings are relatively stable, a firm is in a better position to predict what its future earnings will be and such companies are more likely to pay out a higher percentage of its earnings in dividends than a concern which has fluctuating earnings. Generally, the concerns which deal in necessities suffer less from fluctuating incomes than that concern which deal with fancy or luxurious goods.

#### Financing Policy of the Company:

Dividend policy may be affected and influenced by financing policy of the company. If the company decides to meet its expenses from its earnings, then it will have to pay fewer dividends to shareholders. On the other hand, if the company feels, that outside borrowing is cheaper than internal financing, then it may decide to pay higher rate of dividend to its shareholder. Thus, the internal financing policy of the company influences the dividend policy of the business firm.

 **Liquidity of Funds:**

The liquidity of funds is an important consideration in dividend decisions. According to Guttmann and Dougall, although it is customary to speak of paying dividends ‘out of profits’, a cash dividend only be paid from money in the bank. The presence of profit is an accounting phenomenon and a common legal requirement, with the -cash and working capital position is also necessary in order to judge the ability of the corporation to pay a cash dividend.

Payment of dividend means, a cash outflow, and hence, the greater the cash position and liquidity of the firm is determined by the firm’s investment and financing decisions.

####  Dividend, Policy of Competitive Concerns:

Another factor which influences is the dividend policy of other competitive concerns in the market. If the other competing concerns are paying higher rate of dividend than this concern, the shareholders may prefer to invest their money in those concerns rather than in this concern. Hence, every company will have to decide its dividend policy, by keeping in view the dividend policy of other competitive concerns in the market.

**Past Dividend Rates:**

If the firm already exists, the dividend rate may be decided on the basis of dividends declared in the previous years. It is better for the concern to maintain stability in the rate of dividend and hence, generally the directors will have to keep in mind the rate of dividend declared in the past.

####

#### Debt Obligations:

A firm which has incurred heavy indebtedness is not in a position to pay higher dividends to shareholders. Earning retention is very important for such concerns which are following a programme of substantial debt reduction. On the other hand, if the company has no debt obligations, it can afford to pay higher rate of dividend.

#### Ability to Borrow:

Every company requires finance both for expansion programmes as well as for meeting unanticipated expenses. Hence, the companies have to borrow from the market, well established and large firms have better access to the capital market than new and small, firms and hence, they can pay higher rate of dividend. The new companies generally find it difficult to borrow from the market and hence they cannot afford to pay higher rate of dividend.

####

#### Growth Needs of the Company:

Another factor which influences the rate of dividend is the growth needs of the company. In case the company has already expanded considerably, it does not require funds for further expansions. On the other hand, if the company has expansion programmes, it would need more money for growth and development. Thus when money for expansion is not, needed, then it is easy for the company to declare higher rate of dividend.

#### Profit Rate:

Another important consideration for deciding the dividend is the profit rate of the firm. The internal profitability rate of the firm provides a basis for comparing the productivity of retained earnings to the alternative return which could be earned elsewhere. Thus, alternative investment opportunities also play an important role in dividend decisions.

 **Legal Requirements:**

While declaring dividend, the board of directors will have to consider the legal restriction. The Indian Companies Act, 1956, prescribes certain guidelines in respect of declaration and payment of dividends and they are to be strictly observed by the company for declaring dividends.

#### Policy of Control:

Policy of control is another important factor which influences dividend policy. If the company feels that no new shareholders should be added, then it will have to pay fewer dividends. Generally, it is felt, that new shareholders, can dilute the existing control of the management over the concern. Hence, if maintenance of existing control is an important consideration, the rate of dividend may be lower so that the company can meet its financial requirements from its retained earnings without issuing additional shares to the public.

####

#### Corporate Taxation Policy:

Corporate taxes affect the rate of dividends of the concern. High rates of taxation reduce the residual profits available for distribution to shareholders. Hence, the rate of dividend is affected. Further, in some circumstances, government puts dividend tax on distribution of dividends beyond a certain limit. This may also affect rate of dividend of the concern.

#### Tax Position of Shareholders:

The tax position of shareholders is another influencing factor on dividend decisions. In a company if a large number of shareholders have already high income from other sources and are bracketed in high income structure, they will not be interested in high dividends because the large part of the dividend income will go away by way of income tax. Hence, they prefer capital gains to cash gains, i.e., dividend capital gains here we mean capital benefit derived by the capitalisation of the reserves or issue of bonus shares.

#### Effect of Trade Cycle:

Trade cycle also influences the dividend policy of the concern. For example, during the period of inflation, funds generated from depreciation may not be adequate to replace the assets. Consequently there is a need for retained earnings in order to preserve the earning power of the firm.

**3. Explain the factors determining capital structure**.

#### Financial Leverage or Trading on Equity:

The word ‘equity’ denotes the ownership of the company. Trading on equity means taking advantage of equity share capital to borrowed funds on reasonable basis. It refers to the additional profits that equity shares earn because of funds raised by issuing other forms of securities, viz., preference shares and debentures.

#### Expected Cash Flows:

Debentures and preference shares are often redeemable, i.e., they are to be paid back after their maturity. The expected cash flows over the years must be sufficient to meet the interest liability on debentures every year and also to return the maturity amount at the end of the term of debentures. Thus, debentures are not suitable for those companies which are likely to have irregular cash flows in future.

#### Stability of Sales:

Stability of sales turnover enhances the company’s ability to pay interest on debentures. If sales are rising, the company can use more of debt capital as it would be in a position to pay interest. But if sales are unstable or declining, it would not be advisable to employ additional debt capital.

**Control over the Company:**

The control of a company is entrusted to the Board of Directors elected by the equity shareholders. If the board of directors and shareholders of a company wish to retain control over the company in their hands, they may not allow issuing further equity shares to the public. In such a case, more funds can be raised by issuing preference shares and debentures.

#### Flexibility of Financial Structure:

A good financial structure should be flexible enough to have scope for expansion or contraction of capitalisation whenever the need arises. In order to bring flexibility, those securities should be issued which can be paid off after a number of years. Equity shares cannot be paid off during the life time of a company. But redeemable preference shares and debentures can be paid off whenever the company feels necessary. They provide elasticity in the financial plan.

**Cost of Floating the Capital:**

Cost of raising finance by tapping various sources of finance should be estimated carefully to decide which of the alternatives is the cheapest. Prevailing rate of interest, rate of return expected by the prospective investors, and administrative expenses are the various factors which affect the cost of financing. Generally, cost of financing by issuing debentures and preference shares for a reputed company is low. It is also essential to consider the floatation costs involved in the issue of shares and debentures, such as printing of prospectus, advertisement, etc.

#### Period of Financing:

When funds are required for permanent investment in a company, equity share capital is preferred. But when funds are required to finance expansion programme and the management of the company feels that it will be able to redeem the funds within the life-time of the company, it may issue redeemable preference shares and debentures.

**Market Conditions:**

The conditions prevailing in the capital market influence the determination of the securities to be issued. For instance, during depression, people do not like to take risk and so are not interested in equity shares. But during boom, investors are ready to take risk and invest in equity shares. Therefore, debentures and preference shares which carry a fixed rate of return may be marketed more easily during the periods of low activity.

#### Types of Investors:

The capital structure is influenced by the likings of the potential investors. Therefore, securities of different kinds and varying denominations are issued to meet the requirements of the prospective investors. Equity shares are issued to attract the people who can take the risk of investment in the company. Debentures and preference shares are issued to attract those people who prefer safety of investment and certainty of return on investment.

####  Legal Requirements:

The structure of capital of a company is also influenced by the statutory requirements. For instance, banking companies have been prohibited by the Banking Regulation Act to issue any type of securities except equity shares.

**UNIT-5**

**TWO MARKS**

**1) What is mean by working capital?**

 Working capital refers to the capital that is required for day-to-day working in a business firm such as for purchasing raw materials for meeting day-to-day expenditures on salaries, wages, rents, rates, advertising, etc. In other words, capital required for purchasing raw materials, payment of direct and indirect expenses, carrying out production, investment in stocks and stores, receivables and assets to be maintained in the form of cash is known as working capital.

**2) Define working capital**.

 ICAI: Working capital means the funds available for day-to-day operation of an enterprise.

**3) What do you mean by operating cycle?**

 Operating cycle refers to the time taken for the conversion of cash into raw materials, raw materials into work-in-progress, work-in-progress into finished goods, finished goods into receivables into cash and this cycle repeats.

**4) What do you mean by net working capital?**

 The difference between current assets and current liabilities can be taken as working capital.

 **Net working capital=Current Assets – Current Liabilities**

**5) What are the long term sources in working capital?**

* Equity share capital
* Preference share capital
* Debentures and Bounds
* Retained Earnings
* Loans from financial institutions

**6) What is mean by VED analysis?**

 Vital, Essential and Desirable (VED) analysis is done mainly for control of spare parts keeping in view the critically to production. Vital spares are spares the stock-out of which even for a short time will stop production for quite some time. The stock-out cost of vital items is very high.

**7) What do you mean by inventory management?**

 Inventory refers to the stock pile of the product a form is offering for sale and the components that make up the product. In other words inventory is composed of assets that will be sold off in future in the course of business operation.

**8) What are the needs of holding inventory**?

* Transaction Motive
* Precaution Motive
* Speculative Motive

**9) What is mean by EOQ analysis?**

 EOQ also known as Reorder quantity refers to the quantity to be covered in a single purchase order. The main factors to be considered while deciding the EOQ are

1. Consumption pattern
2. Reorder period
3. Availability of resources
4. Storage space available
5. Quantity discount

**10) What is mean by reorder level?**

 This is the level at which the purchase manager initiates purchase liquation for supplies of raw materials lead time means time necessary to get delivery of materials from date of order.

 Reorder level = Maximum consumption \* Maximum reorder period

**5MARKS**

**1) What are the significances of operating cycle?**

**i) Surplus generation:**

 The operating cycle represents the activity cycle of the business i.e. purchases, manufacture, sales and collection. Hence the operating cycle stands for the process that creates surplus or profit for the business.

 **ii) Funds rotation:**

 It indicates the total time required for rotation of funds. The faster the funds rotate, the better it is for the firm.

 **iii) Going concern:**

 It lends meaning to the going concern concept. If the cycle stops in between, the going concern assumption may be violated.

**2) What are the different types of working capital?**

 Working capital is classified into two types they are

i) Classification based on concept

ii) Classification based on time

**I. Classification based on concept**

The term working capital can be used in two ways

i) Gross working capital

ii) Net working capital

**Gross working capital:**

It refers to firm’s investment in current assets. Current assets are the assets that are to be converted into cash within an accounting year and include cash in hand, cash at bank, debtors, stock and bills receivable.

 **Gross Working Capital = Total Current Assets**

**Net working capital:**

 It refers to excess of total current assets over total current liabilities. In other words the difference between current assets and current liabilities can be taken as working capital.

 **Net working capital=Current Assets – Current Liabilities**

**II.Classification based on time**

The term working capital can be used in two ways

 i) Permanent working capital

 ii) Temporary working capital

**Permanent working capital:**

It refers to that minimum amount of investment in all current assets which is required at all times to carry out minimum level of business activates. In other words it represents the current assets required on a counting basis over the entire year.

 Permanent working capital is classified into two types.

 i) Regular working capital

 ii) Reserve margin working capital

**Temporary working capital:**

It refers to that part of total working capital which is required by a business over and above permanent working capital. It is also called variable working capital.

 Temporary working capital is classified into two types.

 i) Seasonal working capital

 ii) Special working capital

**3) What are the needs of working capital?**

 An effective operation of a business is based on the proper management of working capital. Initially, the business unit should forecast the adequate working capital. In this context, working capital forecasting is getting more importance than the management of working capital. Generally, each business unit requires adequate amount of capital. The reason is that capital is required for the establishment of a business units and its proper functioning.

 Fixed assets such as Land and Building, fixtures, furniture, machinery, plant and other fixed assets are required for the establishment of a business. A portion of capital is used to acquire the fixed assets. Such capital is called fixed capital. After the establishment, the business unit should function properly.

**Functioning**

Functioning means carrying the activities like trading, service or manufacturing.

**Trading**

Trading means buying and selling of goods without making any alteration in the goods.

**Service**

 Service means rendering of intangible things like electricity, parcel service, courier service, telephone, lorry service and the like. Manufacturing means conversion of raw materials into finished goods which is meant for sale.

**4) Write a short note on Economic Order Quantity.**

 EOQ is also known as Reorder Quantity refers to the quantity to be covered in a single purchase order. The main factors to be considered while deciding the EOQ are:

1. Consumption pattern
2. Reorder period
3. Availability of resources
4. Nature of material e.g. risk of deterioration, evaporation, etc
5. Risk of price fluctuation
6. Risk of obsolescence
7. Storage space available
8. Quantity discount
9. Carrying cost and ordering cost

 EOQ model focuses on trading off between ordering cost and carrying cost and is based on the following basic assumptions:

1. Demand and purchase order lead time is known with certainty.
2. Cost per unit is unaffected by order size and therefore, cost per unit is irrelevant in determining the EOQ.
3. The cost of stock-outs is prohibitively high, and therefore, stock is ordering cost per order is constant irrespective of the size of the order.

The EOQ is ascertained by applying the following formula:

EOQ = $\frac{\sqrt{2AB}}{cs}$

Where,

 A = Annual consumption of material

 B = Buying cost per order

 C = Cost per unit

 S = Storage and carrying cost %

**5) What are the objectives of inventory management?**

 The main objectives of inventory management are as follows:

1. To ensure an adequate supply of materials, stores, spares, finished stock; so that the production may not be held up for want of materials.
2. To avoid over stocking and under stocking of inventory.
3. To keep down investment in inventory, inventory carrying cost and obsolescence losses to the minimum.
4. To promote manufacturing efficiency and prompt execution of orders to ensure better services to customer
5. To decide which items to stock and which items to procure on demand
6. To permit a better utilisation of visible stocks by facilitating inter departmental transfers within the firm.
7. To eliminate duplication in ordering or replenishing stock. This is possible with the help of centralizing the purchases.
8. To enable the management to make costs and consumption comparisons between operations and periods.

**10 MARKS:**

**1) What are the sources of working capital?**

 **Long term sources:**

* + - * 1. Equity share capital
				2. Preference share capital
				3. Debentures and Bounds
				4. Retained Earnings
				5. Loans from financial institutions

**Short term sources:**

 i) Internal

 ii) External

**Long term sources:**

**a) Equity share capital:**

A firm may raise working capital from promoters or from the investing public by way of owners’ capital or equity capital by issue of ordinary shares. Ordinary shareholders are owners of the firm.

**b) Preference share capital:**

Preference share are special kind of shares, the holders of such shares enjoy priority, both as regards the payment of a fixed amount of dividend and repayment of capital on winding up of the form.

**c) Debentures bounds:**

 Working capital can be raised from by public issuing debentures or bounds. Debentures are normally issued in different denominations ranging from Rs.100 to Rs.1,000 and carry different rates of interest. By issuing debentures a firm can raise long term funds from public.

**d) Retained earnings:**

 Long term funds may also be provided by accumulating the profits of the firm and by ploughing them back into business. Such funds belong to the ordinary shareholders and increase the net worth of the firm.

**e) Loans from financial institutions:**

In India, specialized institutions provide long term funds to firms. Thus IFCI, SFC, LIC of India. ICICI, IDBI etc. Provide term loans to firm.

**Short term sources:**

**Internal Sources:**

**a)Depreciation fund:**

The depreciation funds created out of firms profits provide a reliable source of working capital so long as they are not invested in assets or distributed as dividends.

**b) Provision for taxation:**

 There remains a time lag between creating provision for taxes and their actual payment. Thus the funds appropriated for taxation can be used for the short term working capital requirements of the firm during the intermittent period.

c) **Outstanding expenses**:

 Outstanding expense like unpaid wages, salaries, rent etc. Also constitute an important short term sources of working capital.

**External Sources:**

**a) Trade credit:**

It represents credit extended by the suppliers of goods in the normal course of business. The usual duration of credit is 15 to 90 days. It is granted to the firm on “open account”, without any security expect that of the goodwill and financial standing of purchaser.

**b) Commercial paper (CP):**

CP is a “since promissory note” issued by a firm, approved by RBI negotiable by endorsement and delivery, issued at such discount on the face value as may be determined by the issuing firm. Each CP will bear certificate from the banker verifying signature of the executors.

**d) Advances from customers**:

 Firms engaged in producing 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.

d) **Public deposits:**

 Many firms, large and small, have solicited unsecured deposits from the public in recent years, mainly to finance their working capital requirements. It is a simple, convenient and inexpensive source of finance.

**e) Inter-Corporate Deposits:**

 A deposit made by firm with another, normally for a period up to six months, is referred to as an inter corporate deposit.

**f) Bank Credit:**

Commercial banks provide working capital to the firm in the from of cash credit, Overdraft, Term loans, purchase of bills, Letter of credit and WCDL.

**2) Explain the factors determining working capital.**

**1. Nature of Business:**

The working capital requirements of a firm are widely influenced by the nature of business. Public utilities like bus service, railways, water supply etc. have the lowest requirements for working capital-partly because of the cash nature of their business and partly because of their rendering service rather than manufacturing product and there is no need of maintaining any inventory or book debt except capital assets.

On the contrary, trading concerns are required to maintain more working capital because they have to carry stock-in-trade, receivables and liquid cash. Manufacturing concerns also require large amount of working capital because of the time lag involved in the conversion of raw materials into finished products and, finally, into cash.

**2. Size of the Business:**

The amount of working capital requirement also depends upon the size of the business. The size can be measured in terms of the scale of operations. A large firm with a high scale of operation will require maintaining a large amount of working capital than a firm with a small scale of operation.

**3. Production Cycle:**

Production cycle is the time involved in manufacturing or processing a product. It starts when raw materials are put in the production process and ends with the completion of manufacturing of the product. Longer the production cycle, higher is the need of working capital.

This is because funds remain blocked in work-in-progress for long periods of time. For example, the working capital needs of a ship-building industry will be much longer than those of a bakery.

**4. Business Cycle:**

The working capital requirements are also determined by the nature of the business cycle. During the boom period, the need for working capital will increase to meet the requirements of increased production and sales. On the other hand, in a slack period, the reduced volume of operation will require relatively lower amount of working capital.

**5. Credit terms of Purchase and Sale:**

The period of credit given by the suppliers and the period of credit granted to the customers will affect the working capital needs of a firm. If a firm allows a very short credit period, cash will be realised very soon from debtors. So the need for the working capital will be less.

On the other hand, a liberal credit policy will result in higher amount of book debts. Higher book debts will mean more working capital requirement. If the firm has to purchase raw materials in cash or gets credit for shorter period, it has to arrange for relatively higher amount of working capital.

**6. Seasonal Variations:**

There are industries like cold drinks, ice-cream and woollen where the goods are either produced or sold seasonally. So, in such industries, working capital requirements during production or sale seasons will be large and these will start decreasing when the season starts coming-to end.

However, much depends on the policy of management with regard to production or sale of goods. For example, the management of a woollen industry wants to carry on production evenly throughout the year rather than concentrating on its production only in the busy season. In that case the working capital requirements will be low.

**7. Operating Efficiency:**

If the operating efficiency of a firm is very high, the resources will be properly utilised. As a result, it improves the profitability of the firm which ultimately, helps in releasing the pressure of working capital. On other hand, inefficiency compels the firm to maintain relatively a high level of working capital.

**8. Price level changes:**

If prices of input rise, the firm requires additional working capital to maintain the same level of production.

**9. Growth and Expansion of the Business:**

Every concern wants to grow over a period of time and with the increase in its size, so the working capital requirements are bound to increase. A growing firm would require greater working capital than a static one.

**10. Profitability and Retention Money:**

The net profit earned by the firm goes to increase the working capital to the extent it has been earned in cash. The cash profit can be found by adjusting non-cash items such as depreciation, outstanding expenses and losses or intangible assets written-off in the net profit.

But what portion of this profit will be reinvested as working capital will depend upon the retention policy of a firm which is, again influenced by corporate tax structure and dividend policy. So, if the amount of retained profit is not immediately invested outside the business, it would increase the amount of working capital.

**11. Relationship of Material Cost to Total Cost:**

In manufacturing concerns, where raw material costs bear a large proportion to the total cost of production, a greater amount of working capital will have to be maintained. For example, in industries like textile and electronics, large sums are required to maintain the inventory of such raw materials.

**12. Turnover of Current Assets:**

The speed with which the current assets revolve around also affects working capital requirements of a firm. In few cases like vegetables or fruit shops, stocks get sold very quickly and, for this reason, a little or no working capital is required in carrying over the stock.

**3) Write a short note on:**

a. Reorder level

b. Minimum level

c. Maximum level

d. Danger level

**a) Reorder level:**

This is the level at which the purchase manager initiates purchase liquation for supplies of raw materials lead time means time necessary to get delivery of materials from date of order.

 Reorder level = Maximum consumption \* Maximum reorder period

**b) Minimum level:**

 This represents a level which the stock will reach with fresh delivery of material provide the fresh delivery is made within the reorder period and usage remains normal during the period. Stock is normally not allowed to fall below this level. This is considered as buffer stock for use in emergency. This level is computed as given below:

 Minimum level = Reorder level – (Normal consumption \* Normal reorder period)

**c) Maximum level:**

 It represents stock level above which stock should not be allowed to rise. The main purpose of this level is to ensure that capital is not blocked up unnecessarily in stores. The maximum level is calculated as given below:

 Maximum level = Reorder level+ Reorder quantity – (Minimum consumption\* Minimum Reorder period)

**d) Danger level:**

 This is the level below which the stock should never be allowed to fall under normal circumstances. It is slightly less than the minimum level. When the, materials reach danger level, the purchase manager should make special efforts to get fresh supplies, so that the production is not held up for want of materials.

 Danger level = Normal Consumption \* Emergency delivery time