Financial Management: Financial Management is concerned with anticipation, acquisition and allocation of funds. It involves managerial activities concerned with the procurement and utilization of funds for business purpose. There are mainly two functions; Financing and budgeting.

Finance: In our present day economy, "finance" is defined as the provision of money at the time when it is required. Every enterprise, whether big, medium of small, needs finance to carry on its operations and to achieve its targets. Finance is so indispensable today that it is the lifeblood of an enterprise. Without adequate finance, no enterprise can possibly accomplish its objectives. "finance" is the life blood and the nervous system of any business organization. Just as circulation of blood, is necessary in the human body to maintain life. Finance is necessary in the business org. for smooth running of the business.

Sources of finance/ capital formation/ capital accumulation:

a) **Creation of savings**: Individuals or groups intend to create savings by developing and maintaining power and will to save.

b) **Mobilization of savings**: Saved amount must be mobilized and transferred to entrepreneurs/ businessmen for appropriate investment.

c) **Investment of savings in real capital**: Preference must be assured for the investment in industrial sector.

d) **Foreign investment**: It comprises followings

     i. Direct Foreign investment.
     ii. Loan or grant from foreign nations.
     iii.Loan from international funding agencies i.e IMF, World Bank.

e) **Taxes**. It is one the most important source of public finance.

f) **Prices**. Increase price of certain products bring revenue.

g) **Rates.** It is also a source of fund

h) **Fines and penalities**: Also considered as sources of fund.

Valuation: It is central issue of finance.

Time Value of Money: Time Value of Money (TVM) is an important concept in financial management. It can be used to compare investment alternatives and to solve problems involving loans, mortgages, leases, savings, and annuities. TVM is based on the concept that a dollar that you have today is worth more than the promise or expectation that you will receive a dollar in the future. Money that you hold today is worth more because you can invest it and earn interest. After

all, you should receive some compensation for foregoing spending. For instance, you can invest your dollar for one year at a 6% annual interest rate and accumulate $1.06 at the end of the year. You can say that the future value of the dollar is $1.06 given a 6% interest rate and a one-year period. It follows that the present value of the $1.06 you expect to receive in one year is only $1. A key concept of TVM is that a single sum of money or a series of equal, evenly-spaced payments or receipts promised in the future can be converted to an equivalent value today. Conversely, you can determine the value to which a single sum or a series of future payments will grow to at some future date. You can calculate the fifth value if you are given any four of: Interest Rate, Number of Periods, Payments, Present Value, and Future Value.

Present value of a future sum: Present value is the current value of payment that will be received in future. While discounting is the process of determining the present value from known future payment.

$$PV = FV / (1+i)^n$$

Where

> PV = Present value of dollar
> FV = Future value of dollar
> i = Interest rate per time period
> n = number of time period

For example, if you can go backwards too. If someone will give you $1000 in 5 years. How much money should you give me now to make it fair to me? You think a good interest rate would be 6% (You just made that number up). (i=.06)

> $$FV = PV (1+i)^N$$
> $1000 = PV (1+.06)^5 \quad 1000
> $= PV (1.338)$
> $1000 \quad / \quad 1.338 \quad = \quad PV$
> $747.38 = PV$

Present value is an amount today that is equivalent to a future payment, or series of payments, that has been discounted by an appropriate interest rate. The future amount can be a single sum that will be received at the end of the last period, as a series of equally-spaced payments (an annuity), or both. Since money has time value, the present value of a promised future amount is worth less the longer you have to wait to receive it.

Future value of a present sum: Future value is any amount of money, will be worth if it earns interest for a specific period of time. Compounding is the process of determining the future value from the known present value or principal.

$$FV = PV (1+i)^n$$

Where

       FV = Future value of dollar
       PV = Principal or present value of dollar
       i = Interest rate per time period
       n= number of time period

For example, if someone give you 100 dollars. You take it to the bank. They will give you 10% interest per year for 2 year.
So, the Present Value = $ 100. While the Future Value = $121.

Future value is the amount of money that an investment with a fixed, compounded interest rate will grow to by some future date. The investment can be a single sum deposited at the beginning of the first period, a series of equally-spaced payments (an annuity), or both. Since money has time value, we naturally expect the future value to be greater than the present value. The difference between the two depends on the number of compounding periods involved and the going interest rate.

Interest: It is a charge for borrowing money, usually stated as a percentage of the amount borrowed over a specific period of time. Simple interest is computed only on the original amount borrowed. It is the return on that principal for one time period. In contrast, compound interest is calculated each period on the original amount borrowed plus all unpaid interest accumulated to date. Compound interest is always assumed in TVM problems.

Analysis of Financial Statements: Financial statement consists of balance sheet, income statement, fund flow etc.

A) **Balance Sheet:** It is firm recorded list of assets, liabilities and owner's equity in a reporting date.

$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity}$$

B) **Income Statement:** It is firm recorded earnings and expenses in a specific period of time.

C) **Fund Flow**: Analysis of sources and application of funds.

D) **Break Even Point**: A point in the level of production, when there is no profit or loss.

E) **Ratio Analysis**: Ratio analysis is measurement of proportion between two or more figures in the financial statement.

$$\text{Current Ratio} = \text{Current assets/ current liabilities}$$

F) **Benefit Cost Analysis (B/C Ratio):** Analysis used to compare benefits with cost.

B/C =1 implies that business is marginal or it simply covers the cost of production

B/C < 1 implies that business is not worthwhile, not feasible, not workable and not economical to continue production

B/C > 1 implies that business is worthwhile, feasible, workable or economical to continue production.

Internal Rate of Return (IRR): That rate of discounting future which equates initial cost with sum of future discounted net benefits.

It is a metric used in capital budgeting, measuring the profitability of potential investment. IRR is a discount rate that makes the NPV of all cash flows from a particular project equals to zero.

$$NPV = \sum_{t=1}^{T} \frac{C_t}{(1+r)^t} - C_0$$

Where,

C_t = Net cash inflow during "t" time period

C_0 = Total initial investment cost

r = Discount rate

t = Number of time periods

To calculate IRR, set

$$NPV = 0$$

And solve for discount rate (r)

If r increases, it means that more desirable to undertake project

IRR sometimes referred as Economic Rate of Return (ERR)

Net Present Value (NPV): The difference between cash inflows and cash outflows is called as net present value

When Cash inflow – Cash outflow = NPV i.e.

$ 4000 - $1000 = $ 3000 (NPV)