UNIT I

Nature and Scope of Managerial Economics: Basic Tools- Opportunity Cost principle, Incremental principle, Equi-Marginal Principle. Principle of Time perspective, Discounting Principle. Uses of Managerial Economics.

Demand Analysis: Demand Theory, The concepts of Demand, Determinants of Demand. Demand Function and Elasticity of Demand and its uses in Business decisions.

Introduction to Economics

The term economics is derived from a greek word *"Oikonomos"* which means household management. Economics came to be accepted as Full Fledged social science with publication of of Adam Smith's 'Wealth of Nations ' in 1776. Now economics is regarded as one of the major and fast growing disciplines in the world.

Important definitions of economics

Wealth definition

The 1st economist who defined economics was Adam Smith who is regarded as the father of modern economics ,in his famous book , "An inquiry into the nature and causes of wealth of nation " (1776) . Smith defined economics as a science of wealth. According to Adam Smith economics is the study of nature of wealth, its generation and spending.

Welfare definition

The overall emphasis given to Wealth by Adam Smith came to be severely criticized. Alfred Marshall shifted the

emphasis from wealth to welfare in his book "Principles of economics " (1890) Marshall defined economics in the following words "Economics is a study of mankind in ordinary business of life, it examines that part of individual and social action most closely connected with the attainment and the use of material requisites of well being. Thus it is on one side, a study of wealth , on the other and more important side a part of study of man".

Scarcity definition

Both wealth and welfare definitions were criticized for ignoring the central problems in economics. It is a fact that most economic problems arise from a mismatch between unlimited human wants and limited resources. This central issue of scarcity of resources in relation to wants was emphasized by Lionel Robbins in his scarcity definition. Lionel Robbins in his famous book" The nature and significance of economic science "(1932) defined economics in the following words " Economics is a science that studies human behavior as a relationship between ends and scarce means which have alternative uses". This definition came to be known as scarcity definition.

Growth definition

A widely accepted definition is growth definition put forward by Paul A Samuelson . According to Samuelson , "Economics is a study of when and how society choose, with or without

the use of money ,to employ scarce productive resources, which could have alternative uses , to produce various commodities over time and distribute them for consumption now and and in the future among various people and groups of society". This definition is widely accepted because it is very comprehensive. It encompasses almost all central concerns of economics therefore growth definition is widely regarded as modern definition of economics.

Micro and Macro economics

Economics theory is classified into micro economic theory and macro economic theory.

The word micro is derived from the Greek word Mikros which means small. Microeconomics is the study of parts of economy or individual units of the economy. Micro economics studies the behavior of a consumer or a producer or the individual prices of a product. It studies the theory of demand , production, cost, the theory of factor pricing, the theory of welfare and the price theory etc.

The word Macro comes from the Greek word makros which means large . Macro economics is the study of economy as a whole it is also called aggregate economics or income theory . Aggregate economic units like national income, aggregate demand , aggregate supply ,general price level, total employment etc comes under macro economics . Topics like monetary theory, trade cycle ,theory of growth

and International trade come under macro economics.

Introduction to Managerial economics

The term managerial economics was coined by Joel Dean in 1951. Joel Dean wrote a book titled Managerial economics. As the term implies managerial economics is economics applied in business management.

According to M.C. Nair and Meriam," Managerial economics consist of the use of economic models of thought to analyze business situations". A popular and widely accepted definition of managerial economics came from Milton Spencer and Louis Siegelman. They defined managerial economics as," Managerial economics as integration of economic theory with business management for the purpose of facilitating decision making and forward planning by management. All these definitions emphasize the essential character of managerial economics as the application of economic principle and tools in business from these definitions we can derive the essential characteristics of managerial economics .

	CONCEPTS	ME Decisions
1	Demand Analysis	Demand Decisions
2	Market structure	Price Output decision
3	Production & Cost analysis	Input-Output decision
4	Firm Behaviours analysis	Profit Maximization & Alternate Hypothesi
5	Risk & Uncertainity Analysis	Economic Planning & Planning

Characteristics (Nature)of managerial economics

- *Managerial economics is essentially micro economic in character-* Micro economics deal with individual and particular units of economy . Managerial economics is a study of economic dimensions of business. It is essentially a study of firm therefore it is micro economic in character.

- *Though essentially micro economic it also relies on macro economics* - Since business firms exist in the macro economy ,macro economic issues impact business .For instance businesses are impacted by business cycle. Similarly macro economic aggregates like GDP ,economic growth rate etc are important From From business perspective therefore managerial economics studies macro economic issues also.

- *It is pragmatic* - Pure economics is theoretical management call managerial economics is practical it deals with the application of economic principles and business when economic principles are applied in business decision making and forward planning it becomes pragmatic that is practical

- *It is normative-* A positive science deals with 'what is' a normative science deals with 'what ought to be' economic theory is positive since it deals with' what is' managerial economics is concerned with norms like

'what ought to be' therefore it is normative.

- *It is management Oriented-* Since managerial economics is the integration of economic theory with business practice . It is management oriented. It is essentially concerned with managerial decision making.

Difference between economics and managerial economics

As we have seen ,managerial economics is the integration of economic theory with business practice. It has a practical dimension . Therefore the following points of distinction between marginal economics and economics are important:

- *Economics is theoretical managerial economics is practical-* Pure economics is economic theory, it explains economic reality in theoretical terms. Managerial economics deal with practical issues like decision making and forward planning.

- *Managerial economics is essentially micro economics, economic theory consists of both micro and macroeconomics* - Managerial economics is essentially micro economic in nature economic theory deals with micro as well as macro economics.

- *Economic theory is descriptive , managerial economics is prescriptive-* Economic theory only explains it does not prescribes ,managerial economics offer practical

prescriptions, it attempts to solve problems.

- *Unlike economics , managerial economics is multi disciplinary - Managerial economics draws from other disciplines like economics ,management, statistics, planning ,operation research etc this is not the case with economic theory.*
- *Pure economic theory is positive managerial economics is normative - Pure* economic theory explains 'what is ' ,therefore it is positive, it does not pass as value judgments. managerial economics prescribes policy decisions like 'what ought to be' therefore it is normative.

Objectives and uses of Managerial economics

The purpose of managerial economics is to show how economic analysis can be used in formulating business policies .Success in business depends to a large extent on policies and strategies adopted in business. The basic objective of managerial economics is formulation of appropriate policies and strategies. This basic objective can be elaborated into following larger objectives of managerial economics:

- Integrating economic theory with business practices
- Using economic tools to analyze business situations

- Applying economic principles to solve business problems
- Using economic ideas for crisis management
- Facilitating demand analysis and demand forecasting
- Allocating scarce resources for optimizing returns
- Enabling risk taking and uncertainty bearing
- Helps and profit maximizations
- Pursuing the larger objectives of the firm other than profit maximization
- Formulating short term and long term business strategies

SCOPE OF MANAGERIAL ECONOMICS

- **DEMAND ANALYSIS AND FORECASTING**

Business success depends on firm's ability to sell the product. The volume of sales, in turn, depends on the demand of product. Therefore, it is important for the firm to understand the demand environment. The

determinants of demand, elasticity of demand etc are crucial in demand analysis. With knowledge of determinants of demand and elasticity of demand , companies can enhance and manage demand. This will enable firm to push its sales.

- Theory of cost

Profit is the excess of revenue over cost. It follows from this that profit can be increased either by raising revenue or by reducing or controlling costs. Revenue depends on priceand quantity sold. Under tough competitive conditions, it would be difficult for firms to raise prices and push up revenue. Similarly during recessions and economic slowdowns it would be difficult to push up sales and enhance revenue. Under this cost control and cost reduction becomes important.

. Theory of production

Theory of production deals with factors of production , production function, the law of returns and optimization of production. A central issue in business is optimization of production and minimization of cost . Proper understanding of the relationship between inputs and outputs is important . Economies and diseconomies are important in business decisions making.

- Price Theory

It explains determination of prices under different market

forms. The features of various market forms such as perfect competition , monopoly, monopolistic competition and oiligopoly and the process of price determination. The pricing and output decision of the firm and the equilibrium level of output vary under different market forms. Business profitability also is influenced by the market forms.

- **Pricing** policies

Pricing of product is crucial in determining profits. The practical pricing policies adopted by the management depends on the market situation and other factors such as demand environment, nature of the product, the market size, the business cycle etc. Appropriate pricing is crucial in business. Practical techniques like penetrating pricing, price skimming, etc.used under appropriate conditions.

- **Profit management**

Profit maximization is nit the sole objective of business. There are other objectives too. Sometimes,business firms deliberatelydo not follow a policy of profit maximization. Firms may follow a profit policy of a predetermined return on investment, targeting normal profits to pre empt competition and government intervention, achieving industry leadership position rather than maximization of profit, etc.

- **Capital budgeting**

Even for a highly resourceful firm , capital availability may be limited compared to its requirements. Often firms will have to allocate scarce resources among competing investment

projects. This resource allocation is done on the basis of capital budgeting. The management will use techniques like rate of return, pay back period etc. to evaluate investment proportion. The final selection and rejection of projects is done based on the principles of capital budgeting.

- **Business Cycle**

Managerial economics is essentially micro economics in character. But, since business firms operate in macro economy. It will be impacted by macro environmemt. Business cycle hugely impact business . The pricing and output decision of firm will depend on the business cycle .

3.2 THE OPPORTUNITY COST AND DECISION RULE

The opportunity cost is essentially opportunity lost because of scarcity of resources. The concept of opportunity cost is related to the alternative uses of scarce resources. As noted earlier, resources, both natural and man-made, are *scarce* in relation to demand for them to satisfy the ever growing human needs. Resources, though scarce, have *alternative uses*. The *scarcity* and the *alternative uses* of the resources give rise to the concept of *opportunity cost*.

In the context of a business firm, resources available to a business unit—be it an individual firm, a joint stock corporation or a multinational—are limited. But the limited resources available to a firm can be put to alternative uses. For example, suppose a firm has ₹100 million at its disposal and the firm finds three risk-free alternative uses of the fund

available to it: (*i*) to expand the size of the firm, (*ii*) to set up a new production unit in another city, and (*iii*) to buy shares in another firm. Suppose also that the expected annual return from each of the three alternative uses of a finance of ₹100 million is given as follows.

Alternative 1 : Expansion of the size of the firm	₹20 million
Alternative 2 : Setting up a new production unit	₹18 million
Alternative 3 : Buying shares in other firms	₹16 million

All other things being the same, a rational decision for the firm would be to invest the money in alternative 1. This implies that the manager would have to sacrifice the annual return from the second best alternative, i.e., a return of ₹18 million expected from alternative 2. In economic jargon, ₹18 million is treated as an annual *opportunity cost* of an annual income of ₹20 million. Thus, *the opportunity cost of availing the best opportunity is the foregone income expected from the second best opportunity of using the resources*. In our example, the opportunity cost of ₹20 million per annum is ₹18 million per annum.

The difference between *actual earning* and its *opportunity cost* is called ***economic gain*** *or* ***economic profit***. The concept of opportunity cost assumes a great significance where economic gain is neither insignificant nor very large because then it requires a careful evaluation of the two alternative options.

The applicability of the opportunity cost concept is not limited to decisions on the use of financial resources. The concept can be applied to all other kinds of issues involved in business decisions, especially where there are at least two alternative options involving costs and benefits. For example, suppose a firm has to take a decision on whether to fire an efficient labour officer (for treating labour unkindly) in settlement of a dispute with the labour union or to allow the matter to be taken to the labour court. If the firm decides to fire the labour officer, then the loss of an efficient and reliable labour officer is the *opportunity cost* of buying peace with the labour union. If the firm decides to retain the labour officer, come whatever may, then the cost of prolonged litigation, the cost arising out of a possible labour strike and the consequent reduction in output are the *opportunity costs* of retaining the labour officer. Given the two options, the firm will have to evaluate the cost and benefit of each option and take a decision accordingly.

3.4 INCREMENTAL PRINCIPLE AND DECISION RULE

The concept of 'incremental' value is similar to the concept of 'marginal' value but with a difference. While 'marginal' concept is basically a theoretical concept, 'incremental' is a practical concept. Marginal principle can be applied only when change in quantity or value, e.g., *MC* and *MR*, can be calculated precisely in unit terms. In general, however, firms find it difficult to estimate *MC* and *MR* as defined conceptually. The reason is that most business firms produce and sell their products in bulk, not in terms of units unless, of course, it is the case of production and sale of such large-unit goods as aeroplanes, ships, large buildings, turbines, etc. Where production and sale activities are carried out in bulk and where both *fixed* and *variable* costs are subject to change, business managers use the *incremental principle* in their business decisions.

The ***incremental principle*** is applied to business decisions which involve bulk production and a large increase in total cost and total revenue. Such an increase in total cost and total revenue is called 'incremental cost' and 'incremental revenue' respectively, related to 'incremental output'.

Let us first explain the concept of ***incremental cost***. Conceptually, *incremental costs* can be defined as the costs that arise due to a business decision. For example, suppose a firm decides to increase production by using more inputs or by adding a new plant to the existing capacity. This decision increases the firm's total cost of production from ₹100 million to ₹115 million. Then ₹115 million – ₹100 million = ₹15 million is the *incremental cost*. Thus, an increase in the total cost of production due to a business decision is *incremental cost*.

The ***incremental revenue***, on the other hand, is the increase in revenue due to a business decision, e.g., a decision to increase production and sale of the firm's product. When a business decision is successfully implemented, it does result in a significant increase in its total revenue. The increase in the total revenue resulting from a business decision is called *incremental revenue*. Suppose that after the installation of the new plant, the total production increases and the firm is able to sell the incremental product. As a result, the firm's total sales revenue increases, let us suppose, from ₹130 million to ₹150 million. Thus, the post-decision total revenue of ₹150 million *less* the pre-decision total revenue of ₹130 million = ₹20 million is the *incremental revenue*.

Incremental Reasoning in Business Decision

The use of the incremental concept in business decisions is called *incremental reasoning*. The incremental reasoning is used for accepting or rejecting a business proposition or option. For instance, suppose that in our example, the firm is considering whether or not to install a new plant. As noted above, the firm estimates an incremental cost of installing a new plant at ₹15 million and an incremental revenue of ₹20 million. The incremental revenue exceeds the incremental cost by ₹5 million which means a 33.33 per cent return (gross of overheads) on the investment in the new plant. The firm will accept the proposition of installing a new plant, provided there is no better business proposition available to the firm.

It may be added at the end, by way of comparison, that the *marginal concept* (especially when defined and measured by calculus) is used in economic analysis where a high degree of precision is involved, whereas the incremental concept is used where large values, especially of cost and revenue are involved. Besides, incremental concept and reasoning are used in business decisions more frequently than the marginal concept. There are at least **two reasons** for this. ***First,*** marginal concept used in business analysis is generally associated with *one* (marginal) unit of output produced or sold whereas most business decisions involve large quantities and values. ***Second,*** the precise calculation of marginal change (defined in terms of the first derivative of a function) is neither practicable nor necessary in real life business decisions. However, marginal concept is of great significance in theoretical analysis.

3.6 THE EQUI-MARGINAL PRINCIPLE

The equi-marginal principle was originally associated with consumption theory and the law is called 'the law of equi-marginal utility'. The law of equi-marginal utility states that a utility maximizing consumer distributes his consumption expenditure between various goods and services he/she consumes in such a way that the marginal utility derived from each unit of expenditure on various goods and service is the same. This pattern of distribution of consumption expenditure maximizes a consumer's total utility.

The law of equi-marginal principle was over time applied by business managers to allocation of resources between their alternative uses with a view to maximizing profit in case a firm carries out more than one business activity. This principle suggests that available resources (inputs) should be so allocated between the alternative options that the marginal productivity gains (*MP*) from the various activities are equalized. For example, suppose a firm has a total capital worth ₹100 million which it has the option of spending on three projects, *A*, *B* and *C*. Each of these projects requires a unit expenditure of ₹10 million. Suppose also that the marginal productivity schedule of each unit of expenditure on the three projects is given as shown in Table 3.1.

Table 3.1 *Marginal Productivity (MP) Schedule of Projects A, B and C*

(₹ *in million*)

Units of Expenditure	*Marginal Productivity (MP)*		
(₹10 million)	*Project A*	*Project B*	*Project C*
1st	50_1	40_3	35_4
2nd	45_2	30_5	30_6
3rd	35_7	$\boxed{20_8}$	$\boxed{20_9}$
4th	$\boxed{20_{10}}$	10	15
5th	10	0	12

Note: Subscripts 1, 2, 3,... indicate the order of the unit of expenditure on Projects *A*, *B* and *C*.

Going by the equi-marginal principle, the firm will allocate its total resources (₹100 million) among the projects *A*, *B* and *C* in such a way that marginal product of each project is the same, i.e., $MP_A = MP_B = MP_C$. It can be seen from Table 3.1, that, going by this rule, the firm will spend 1st, 2nd, 7th, and 10th unit of finance on Project *A*, 3rd, 5th, and 8th unit on Project *B*, and 4th, 6th and 9th unit on Project *C*. In all, it puts 4 units of its finances in Project *A*, 3 units each in Projects *B* and *C*. In other words, of the total finances of ₹100 million, a profit maximizing firm would invest ₹40 million in Project *A*, ₹30 million each in Projects *B* and *C*. This pattern of investment maximizes the firm's productivity gains. No other pattern of investment will ensure this objective.

Now the equi-marginal principle can be formally stated. It suggests that a profit (gain) maximizing firm allocates its resources in a proportion such that

$$MP_A = MP_B = MP_C = \ldots = MP_N$$

If cost of project (*COP*) varies from project to project, then resources are so allocated that *MP* per unit of *COP* is the same. That is, resources are allocated in such propotios that

$$\frac{MP_A}{COP_A} = \frac{MP_B}{COP_B} = \frac{MP_C}{COP_C} = \ldots = \frac{MP_N}{COP_N}$$

The equi-marginal principle can be applied only where (*i*) firms have limited investible resources, (*ii*) resources have alternative uses, and (*iii*) the investment in various alternative uses is subject to diminishing marginal productivity or returns.

3.7 TIME PERSPECTIVE IN BUSINESS DECISIONS

All business decisions are taken with a certain time perspective. The time perspective refers to the duration of time period extending from the relevant past and foreseeable future taken in view while taking a business decision. Relevant past refers to the period of past experience and trends which are relevant for business decisions with long-run implications. All business decisions do not have the same time perspective. Some have short-run outcome or pay-off and, therefore, involve short-run time perspective. For example, a decision to buy explosive materials for manufacturing crackers involves short-run demand prospects. Similarly, a decision regarding building inventories of finished product involves a short-run time perspective. There are, however, a large number of business decisions which have long-run repercussions, e.g., investment in plant, building, machinery, land, spending on labour welfare activities, expansion of the scale of production, introduction of a new product, advertisement, bribing a government officer and investment abroad. The decision about such business issues, for example, the decision regarding the introduction of a new product may not be profitable in the short-run but may prove very profitable in the long-run. For example, the introduction of a newly designed laptop computer—a book size laptop priced at ₹10,000—may not succeed in the market quickly and smoothly. It may be difficult to even cover the variable costs because potential buyers have already one laptop or they may be uncertain about its usefulness, quality, serviceability and cost of operation. But in the long-run, it may enjoy a roaring business. Also, spending on labour welfare may enhance costs in the present scenario and may lead to a decline in profit. But in the long-run, it may increase labour productivity in a much greater proportion than the increase in cost. Therefore, while taking a business decision with long-run implications, it is immensely important to keep a well worked out time perspective in view.

The business decision-makers must assess and determine the time perspective of business propositions well in advance and make decisions accordingly. Determination of time perspective is of great significance especially where projections are involved. The decision-makers must decide on an appropriate future period for projecting the value of a variable. Otherwise, projections may prove meaningless from analysis point of view and decisions based thereon may result in poor pay-offs. For example, in a business decision regarding the establishment of a Management Institute, projecting a short-run demand and taking a short-run time perspective will be unwise, and in buying explosive materials for manufacturing crackers for Deepawali, a long-run time perspective is unwise.

5. Discounting Concept

This concept is an extension of the concept of time perspective. Since future is unknown and incalculable, there is lot of risk and uncertainty in future. Everyone knows that a rupee today is worth more than a rupee will be two years from now. This appears similar to the saying that "a bird in hand is more worth than two in the bush." This judgement is made not on account of the uncertainty surrounding the future or the risk of inflation. It is simply that in the intervening period a sum of money can earn a return which is ruled out if the same sum is available only at the end of the period. In technical parlance, it is said that the present value of one rupee available at the end of two years is the present value of one rupee available today. The mathematical technique for adjusting for the time value of money and computing present value is called 'discounting'.

The follwing example would make this point clear. Suppose, you are offered a choice of Rs. 1,000 today or Rs. 1,000 next year. Naturally, you will select Rs. 1,000 today. That is true because future is uncertain. Let us assume you can earn 10 per cent interest during a year. You may say that I would be indifferent between Rs. 1,000 today and Rs. 1,100 next year i.e., Rs. 1,100 has the present worth of Rs. 1,000. Therefore, for making a decision in regard to any investment which will yield a return over a period of time, it is advisable to find out its 'net present worth'. Unless these returns are discounted and the present value of returns calculated, it is not possible to judge whether or not the cost of undertaking the investment today is worth.

The concept of discounting is found most useful in managerial economics in decision problems pertaining to investment planning or capital budgeting.

The formula of computing the present value is given below:

$$V = \frac{A}{1+i}$$

where:

V = Present value

A = Amount invested Rs. 100

i = Rate of interest 5 per cent

$$V = \frac{100}{1+.05} = \frac{100}{105} = \text{Rs. } 95.24$$

Similarly, the present value of Rs. 100 which will be discounted at the end of 2 years:

$$\text{2 years } V = \frac{A}{(1+i)^2}$$

$$\text{For n years } V = \frac{A}{(1+i)^n}$$

(i) Demand Analysis and Forecasting

A firm is an economic organisation which transforms inputs into output that is to be sold in a market. Accurate estimation of demand, by analysing the forces acting on demand of the product produced by the firm, forms the vital issue in taking effective decision at the firm level. A major part of managerial decision making depends on accurate estimates of demand. When demand is estimated, the manager does not stop at the stage of assessing the current demand but estimates future demand as well. This is what is meant by demand forecasting. This forecast can also serve as a guide to management for maintaining or strengthening market position and enlarging profit. Demand analysis helps in identifying the various factors influencing the demand for a firm's product and thus provides guidelines to manipulate demand. The main topics covered are : Demand Determinants, Demand Distinctions and Demand Forecasting.

(ii) Cost and Production Analysis

Cost analysis is yet another function of managerial economics. In decision making, cost estimates are very essential. The factors causing variation in costs must be recognised and allowed for if mangement is to arrive at cost estimates which are significant for planning purposes. The determinants of estimating costs, the relationship between cost and output, the forecast of cost and profit are very vital to a firm. An element of cost uncertainty exists because all the factors determining costs are not always known or controllable. Managerial economics touches these aspects of cost analysis as an effective knowledge and the application of which is corner stone for the success of a firm.

Production analysis frequently proceeds in physical terms. Inputs play a vital role in the economics of production. The factors of production otherwise called inputs, may be combined in a particular way to yield the maximum output. Alternatively, when the price of inputs shoots up, a firm is forced to work out a combination of inputs so as to ensure that this combination becomes the least cost combination. The main topics covered under cost and production analysis are production function, least cost combination of factor inputs, factor productiveness, returns to scale, cost concepts and classification, cost-output relationship and linear programming.

(iii) Inventory Management

An inventory refers to a stock of raw materials which a firm keeps. Now the problem is how much of the inventory is the ideal stock. If it is high, capital is unproductively tied up. If the level of inventory is low, production will be affected. Therefore, managerial economics will use such methods as Economic Order Quantity (EOQ) approach, ABC analysis with a view to minimising the inventory cost. It also goes deeper into such aspects as motives of holding inventory, cost of holding inventory, inventory control, and main methods of inventory control and management.

(iv) Advertising

To produce a commodity is one thing and to market it is another. Yet the message about the product should reach the consumer before he thinks of buying it. Therefore, advertising forms an integral part of decision making and forward planning. Expenditure on advertising and related types of promotional activities is called selling costs by economists. There are different methods for setting advertising budget : Percentage of Sales Approach, All You can Afford Approach, Competitive Parity Approach, Objective and Task Approach and Return on Investment Approach.

(v) Pricing Decision, Policies and Practices

Pricing is very important area of managerial economics. The control functions of an enterprise are not only productions but pricing as well. When pricing a commodity, the cost of production has to be taken into account. Business decisions are greatly influenced by pervading market structure and the structure of markets that has been evolved by the nature of competition existing in the market. Pricing is actually guided by consideration of cost plan pricing and the policies of public enterprises. The knowledge of the pricing of a product under conditions of oligopoly is also essential. The price system guides the manager to take valid and profitable decision.

(vi) Profit Management

A business firm is an organisation designed to make profits. Profits are acid test of the individual firm's performance. In appraising a company, we must first understand how profit arise. The concept of profit maximisation is very useful in selecting the alternatives in making a decision at the firm level. Profit forecasting is an essential function of

any management. It relates to projection of future earnings and involves the analysis of actual and expected behaviour of firms, the sales volume, prices and competitors strategies, etc. The main aspects covered under this area are the nature and measurement of profit, and profit policies of special significance to managerial decision making. Managerial economics tries to find out the cause and effect relationship by factual study and logical reasoning. For example, the statement that profits are at a maximum when marginal revenue is equal to marginal cost, a substantial part of economic analysis of this deductive proposition attempts to reach specific conclusions about what should be done. The logic of linear programming is deduction of mathematical form. In fine, managerial economics is a branch of normative economics that draws from descriptive economics and from well established deductive patterns of logic.

(vii) Capital Management

Planning and control of capital expenditures is the basic executive function. The managerial problem of planning and control of capital is examined from an economic stand point. The capital budgeting process takes different forms in different industries. It involves the equi-marginal principle. The objective is to assure the most profitable use of funds, which means that funds must not be applied when the managerial returns are less than in other uses. The main topics dealt with are : Cost of Capital, Rate of Return and Selection of Projects.

Thus we see that a firm has uncertainties to rock on with. Therefore,we can conclude that the subject matter of managerial economics consists of applying economic principles and concepts towards adjusting with these uncertainties of the firm.

In recent years, there is a trend towards integration of managerial economics and Operation Reasearch. Hence, techniques such as linear Programming, Inventory Models, Waiting Line Models, Bidding Models, Theory of Games, etc. have also come to be regarded as part of managerial economics.