**

**I Mid Term examination**

**Session: 2018-19**

**B.Tech II Year (III Semester)**

**Subject with code: 3ME1-03/** **3CE1-03**

**SET-A**

Time: 2 hrs. M.M.:20

***Instruction for students:***

1. No provision for supplementary answer book.
2. Question paper contains three sections. Sec A includes 5 Short answers type questions (upto 25 words) Sec B- contains 06 Questions out of which any 04 questions to be attempt by the student (Analytical/Problem solving questions.). Sec C- contains 03 Questions out of which any 02 questions to be attempt by the student (Descriptive /Design questions.)

**Sec-A** (5\*1=5 Marks)

**Q.1 What do you understand by Managerial economics?**

Ans- Managerial Economics can be defined as amalgamation of economic theory with business practices so as to ease decision-making and future planning by management. Managerial Economics assists the managers of a firm in a rational solution of obstacles faced in the firm’s activities. It makes use of economic theory and concepts. It helps in formulating logical managerial decisions.

**Q.2 Define demand.**

Ans- Demand is defined is the amount of good or service a consumer is willing and able to buy per period of time. It is very important to understand the term “willing and able”. Many people want to buy products that they cannot afford at prices they cannot pay. Because they are not able to purchase, there we cannot include them in the demand.

**Q.3 What is GDP and GNP?**

### Ans- Gross and Net Concept- The total net value of all goods and services produced within a nation over a specified period of time called GDP, GNP indicates that provision for capital consumption has already been made or that depreciation has already been deducted.

**Q.4 Define Price elasticity of demand.**

Ans- It can be defined as the percentage change in quantity demanded in response to percent change in price. It can be expressed as:

Percent change in quantity

Percent change in Price

**Q.5 Define cost.**

Ans- An amount that has to be paid or given up in order to get something. In business, cost is usually a monetary valuation of (1) effort, (2) material, (3) resources, (4) time and utilities consumed, (5) risks incurred, and (6) opportunity forgone in production and delivery of a good or service. All expenses are costs, but not all costs (such as those incurred in acquisition of an income-generating asset) are expenses.

**Sec-B** (4\*2=8 Marks)

**Q.1 What are determinants of supply?**

Ans- **Determinants of Supply**

**1. Price of the commodity:** An increase in price will induce an increase in the quantity supplied.

**2. Time period:** Time is the most significant factor which affects the elasticity of supply. If the price of a commodity rises and the producers have enough time to make adjustment in the level of output, the elasticity of supply will be more elastic. If the time period is short and the supply cannot be expanded after a price increase, the supply is relatively inelastic.

**3. Price of related goods:** For purposes of supply analysis, related goods refer to goods from which inputs are derived to be used in the production of the primary good.

**4. Technology:** Technological improvements help reduce production cost and increase profit, thus stimulate higher supply.

**5. Number of sellers:** More sellers in the market increase the market supply

**Q.2 Explain scarcity and choice.**

Ans- Scarcity and Choice as Economic Problems

**The Problem of Scarcity:** It implies that human wants are unlimited but the means to fulfil them are limited. At any one time, only a limited amount of goods and services can be produced. This is because the existing supplies of resources are extremely inadequate. These resources are land, labour, capital and entrepreneurship.

#### The Problem of Choice: A decision to produce one good requires a decision to produce less of some other good. So choice involves sacrifice. Thus every society is faced with the basic problem of deciding what it is willing to sacrifice to produce the goods it wants the most.

**Q.3 Discuss scope of managerial economics.**

Ans- Main Scopes are as follows-

1. Demand analysis and forecasting
2. Cost and production analysis
3. Pricing decisions, policies and practices
4. Profit management
5. Capital Management
6. Competition

**Q.4 Explain law of diminishing return.**

Ans- **Law of diminishing return** state that when more and more units of a variable input are applied, other inputs held constant then the return from the marginal return of the variable units may initially increase but it decreases eventually.

We can also represent this law as if more and more units of a variable input are applied to a given amount then the marginal cost initially decrease but eventually increase.

**Q.5 Explain national income concept in detail.**

## Ans- National Income

The total net value of all goods and services produced within a nation over a specified period of time, representing the sum of wages, profits, rents, interest, and pension payments to residents of the nation.

## Measures of National Income

For the purpose of measurement and analysis, national income can be viewed as an aggregate of various component flows. The most comprehensive measure of aggregate income which is widely known is Gross National Product at market prices.

### Gross and Net Concept- Gross emphasizes that no allowance for capital consumption has been made or that depreciation has yet to be deducted. Net indicates that provision for capital consumption has already been made or that depreciation has already been deducted.

### National and Domestic Concepts- The term national denotes that the aggregate under consideration represents the total income which accrues to the normal residents of a country due to their participation in world production during the current year.

**Q.6 Write down the cross elasticity of demand.**

Ans- Cross Elasticity of Demand

Cross elasticity of demand is an economic concept that measures the responsiveness in the quantity demanded of one good when the price for another good changes. Also called cross price elasticity of demand, this measurement is calculated by taking the percentage change in the quantity demanded of one good and dividing it by the percentage change in price of the other good.

Cross elasticity of demand is calculated with the following formula:



**Sec-C** (2\*3.5=7 Marks)

**Q.1 Explain the methods of demand forecasting.**

# Ans- Methods of Demand Forecasting

**The following points highlight the top seven methods of demand forecasting. the methods are:**

* **Survey of Buyer’s Intentions**
* **Collective Opinion or Sales Force Composite Method**
* **Trend Projection**
* **Executive Judgment Method**
* **Economic Indicators**
* **Controlled Experiments**
* **Expert’s Opinions.**

#### 1. Survey of Buyer’s-Intentions:

This is a short-term method of knowing and estimating customer’s demand. This is direct method of estimating demand of customers as to what they intend to buy for the forthcoming time—usually a year.

#### 2. Collective Opinion or Sales Force Competitive Method:

Under this method, the salesman are nearest persons to the customers and are able to judge, their minds and market. They better understand the reactions of the customers to the firms products and their sales trends. The estimates of the different salesmen are collected and estimates sales are predicted.

#### 3. Trend Projection or Time Trend of the Time Series:

This is the most popular method of analysing time series and is generally used to project the time trend of the time series. A trend line can be filled through the series in visual or statistical way by the method of least squares.

#### 4. Executive Judgment Method:

Under this method opinions are sought from the executives of different discipline i.e., marketing, finance, production etc. and estimates for future demands are made. Thus, this is a process of combining, averaging or evaluating in some other way the opinions and views of the top executives.

#### 5. Economic Indicators:

This method has its base for demand forecasting on few economic indicators.

**(a) Construction contracts:** For demand towards building materials sanctioned for Cement.

**(b) Personal Income:** Towards demand of consumer goods.

**(c) Agricultural Income:** Towards demand of agricultural imports instruments, fertilisers, manner etc.

**(d) Automobiles Registration:** Towards demand of car parts and petrol. These and other economic indicators are given by specialised organisation. The analyst should establish relationship between the sale of the product and the economic indicators to project the correct sales and to measure as to what extent these indicators affect the sales.

#### 6. Controlled Experiments:

Under this method, an effort is made to ascertain separately certain determinants of demand which can be maintained, e.g., price, advertising etc. and conducting the experiment, assuming etc., and conducting the experiment, assuming that the other factors remain constant.

#### 7. Expert’s Opinions:

Under this method expert’s opinions are sought from specialists in the field, outside the organisations or the organisation collects opinions from such specialists; views of expert’s published in the newspaper and journals for the trade, wholesalers and distributors for the company’s products, agencies and professional experts.

**Q.2 Briefly explain the deductive method of economics.**

Ans- **The Deductive Method:**

Deduction Means reasoning or inference from the general to the particular or from the universal to the individual. The deductive method derives new conclusions from fundamental assumptions or from truth established by other methods. It involves the process of reasoning from certain laws or principles, which are assumed to be true, to the analysis of facts.

Deduction involves four steps

 **(1) Selecting the problem:**

The problem which an investigator selects for enquiry must be stated clearly. It may be very wide like poverty, unemployment, inflation, etc.

**(2) Formulating Assumptions:**

The next step in deduction is the framing of assumptions which are the basis of hypothesis. To be fruitful for enquiry, the assumption must be general.

**(3) Formulating Hypothesis:**

The next step is to formulate a hypothesis on the basis of logical reasoning whereby conclusions are drawn from the propositions. This is done in two ways: First, through logical deduction. If and because relationships (p) and (q) all exist, then this necessarily implies that relationship (r) exists as well. Mathematics is mostly used in these methods of logical deduction.

**(4) Testing and Verifying the Hypothesis:**

The final step in the deductive method is to test and verify the hypothesis. For this purpose, economists now use statistical and econometric methods.

**Q.3 Explain types of demand in detail.**

Ans- **The different types of demand are discussed as follows:**

**i. Individual and Market Demand:**

Individual demand can be defined as a quantity demanded by an individual for a product at a particular price and within the specific period of time. For example, Mr. X demands 200 units of a product at Rs. 50 per unit in a week.

On the other hand, the total quantity demanded for a product by all individuals at a given price and time is regarded as market demand.

**ii. Organization and Industry Demand:**

The demand for the products of an organization at given price over a point of time is known as organization demand. For example, the demand for Toyota cars is organization demand. The sum total of demand for products of all organizations in a particular industry is known as industry demand.

For example, the demand for cars of various brands, such as Toyota, Maruti Suzuki, Tata, and Hyundai, in India constitutes the industry’ demand.

**iii. Autonomous and Derived Demand:**

The demand for a product that is not associated with the demand of other products is known as autonomous or direct demand. For example, the demand for food, shelter, clothes etc.

On the other hand, derived demand refers to the demand for a product that arises due to the demand for other products.

For example, the demand for petrol, diesel etc.

**iv. Demand for Perishable and Durable Goods:**

Perishable or non-durable goods refer to the goods that have a single use. For example, cement, coal, fuel, and eatables.

On the other hand, durable goods refer to goods that can be used repeatedly. Durable goods need replacement because of their continuous use

**v. Short-term and Long-term Demand:**

Short-term demand refers to the demand for products that are used for a shorter duration of time or for current period. This demand depends on the current tastes and preferences of consumers. For example, demand for umbrellas, raincoats, sweaters, long boots is short term and seasonal in nature.

On the other hand, long-term demand refers to the demand for products over a longer period of time. Generally, durable goods have long-term demand

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**Sec-A** (5\*1=5 Marks)

**Q.1 What is NDP and NNP?**

Ans- NDP- equals the gross domestic product (GDP) minus depreciation on a country's capital goods. Net domestic product accounts for capital that has been consumed over the year in the form of housing, vehicle, or machinery deterioration.

NNP- The total value of goods produced and services provided in a country during one year, after depreciation of capital goods has been allowed for.

**Q.2 Define Supply function.**

### Ans- The supply function is the mathematical expression of the relationship between supply and those factors that affect the willingness and ability of a supplier to offer goods for sale.

### Supply function will be expressed as:

### *Sx = f (px,pf,o….T, t, s)*

**Q.3 Write down the concept of National income.**

## Ans- National Income

The total net value of all goods and services produced within a nation over a specified period of time, representing the sum of wages, profits, rents, interest, and pension payments to residents of the nation.

## Measures of National Income

For the purpose of measurement and analysis, national income can be viewed as an aggregate of various component flows. The most comprehensive measure of aggregate income which is widely known is Gross National Product at market prices.

**Q.4 Define Perfect elastic demand.**

Ans- **Infinite or Perfect Elasticity of Demand:**

Elasticity of demand is infinity when even a negligible fall in the price of the commodity leads to an infinite extension in the demand for it. In Fig. 10.1 the horizontal straight line DD’ shows infinite elasticity of demand. Even when the price remains the same, the demand goes on ****changing.

**Q.5 Elucidate Fixed and marginal cost.**

Ans- A fixed costis an expenseorcost that does not change with an increase or decrease in the number of goods or services produced or sold, Whereas Marginal cost is the cost added by producing one additional unit of a product or service.

**Sec-B** (4\*2=8 Marks)

**Q.1 Explain static and dynamics.**

**Ans- Static:** This type of economic analysis refers to a stable equilibrium. According to Prof. Stigler, “The stationary state is an economy in which the tastes, resources and technology do not change through time.” Static economic analysis is also known as a timeless economy.

**Dynamics:** The concept of dynamics is nearer to reality. In dynamic economics we study the economic variables like consumption function, income and investment in a dynamic state. According to Prof. Harrod, “Economic dynamics is the study of an economy in which rates of output are changing.”

**Q.2 What are determinants of demand?**

Ans- The five determinants of demand are:

1. The price of the good or service.
2. Prices of related goods or services. These are either complementary, those purchased along with a particular good or service, or substitutes, those purchased instead of a certain good or service.
3. Income of buyers.
4. Tastes or preferences of consumers.
5. Expectations. These are usually about whether the price will go up.

For aggregate demand, the number of buyers in the market is the sixth determinant.

**Q.3 Discuss the concept and nature of managerial economics.**

Ans- Managerial Economics can be defined as amalgamation of economic theory with business practices so as to ease decision-making and future planning by management. Managerial Economics assists the managers of a firm in a rational solution of obstacles faced in the firm’s activities. It makes use of economic theory and concepts. It helps in formulating logical managerial decisions.

Nature of Managerial Economics-

### 1) Managerial Economics is a Science

### 2) Managerial Economics requires Art- Managerial economist is required to have an art of utilizing his capability, knowledge and understanding to achieve the organizational objective

### 3) Managerial Economics for administration of organization- Managerial economics helps the management in decision making.

### 4) Managerial economics is helpful in optimum resource allocation- Managers need to use these limited resources optimally. Each resource has several uses. It is manager who decides with his knowledge of economics that which one is the preeminent use of the resource.

### 5) Managerial Economics has components of microeconomics- The managerial economics deals with the problems faced by the individual organization such as main objective of the organization, demand for its product, price and output determination of the organization, available substitute and complimentary goods, supply of inputs and raw material, target or prospective consumers of its products etc.

### 6) Managerial Economics has components of macroeconomics- It deals with exchange rate, balance of payment, general expenditure, saving and investment patterns of the consumers, market conditions etc. These aspects are related to macroeconomics.

### 7) Managerial Economics is dynamic in nature- Managerial Economics deals with human-beings (i.e. human resource, consumers, producers etc.).

**Q.4 Discuss importance of costing.**

Ans- a) To locate the weak points in production management.

b) To minimize the cost

c) To find the optimum level of output.

d) To determine the price and dealer margin.

e) Estimating or projecting the cost of business operations.

**Q.5 Write down elasticity of supply.**

Ans- The Price Elasticity of Supply measures the rate of response of quantity demand due to a price change. If you've already read Elasticity of Demand and understand it, you may want to just skim this section, as the calculations are similar.

**Price elasticity of supply** measures the relationship between change in quantity supplied and a change in price.  The formula for price elasticity of supply is:

* ∆Q =change in the demand.(difference in demand)
* ∆P=change in the price.(difference in the price)
* P1=initial price. (first price/ old price)
* Q1=initial demand. (first demand/ old demand)

The value of elasticity of supply is **positive**, because an increase in price is likely to increase the quantity supplied to the market and vice versa.

**Q.6 what do you understand by circular flow of economic activity?**

Ans- The circular flow of economic activity is a model showing the basic economic relationships within a market economy. The circular flow model shows the balance of economic injections and leakages

The factors of production include land, labor, [capital](https://study.com/academy/lesson/what-is-capital-definition-lesson-quiz.html) and entrepreneurship. The prices that correspond to these factors of production are rent, wages and profit. People in households buy goods and services from businesses in an attempt to satisfy their unlimited needs and wants. Households also sell their labor, land, and capital in exchange for income that they use to buy goods and services that firms produce. Businesses sell goods and services to households, earning revenue and generating profits. Businesses also pay wages, interest and profits to households in return for the use of their factors of production. Governments levy taxes on households and businesses in order to provide certain benefits to everyone.

**Sec-C** (2\*3.5=7 Marks)

**Q.1 Briefly explain the Inductive method of economics.**

Ans- **The Inductive Method:**

Induction “is the process of reasoning from a part to the whole, from particulars to generals or from the individual to the universal.” Bacon described it as “an ascending process” in which facts are collected, arranged and then general conclusions are drawn.

The inductive method was employed in economics by the German Historical School which sought to develop economics wholly from historical research. The historical or inductive method expects the economist to be primarily an economic historian who should first collect material, draw gereralisations, and verify the conclusions by applying them to subsequent events. For this, it uses statistical methods. The Engel’s Law of Family Expenditure and the Malthusian Theory of Population have been derived from inductive reasoning.

The inductive method involves the following steps:

* The Problem: In order to arrive at a generalisation concerning an economic phenomenon, the problem should be properly selected and clearly stated.
* Data: The second step is the collection, enumeration, classification and analysis of data by using appropriate statistical techniques.
* Observation: Data are used to make observation about particular facts concerning the problem.
* Generalisation: On the basis of observation, generalisation is logically derived which establishes a general truth from particular facts.

**Q.2 Explain types of cost in detail.**

Ans- **Fixed Costs (FC)-** The costs which don’t vary with changing output. [Fixed costs](https://www.economicshelp.org/blog/glossary/fixed-costs/) might include the cost of building a factory, insurance and legal bills. Even if your output changes or you don’t produce anything, your fixed costs stay the same. In the above example, fixed costs are always £1,000.

**Variable Costs (VC)-** Costs which depend on the output produced. For example, if you produce more cars, you have to use more raw materials such as metal. This is a [variable cost](https://www.economicshelp.org/blog/glossary/variable-costs/).

**Semi-Variable Cost-** Labor might be a semi-variable cost. If you produce more cars, you need to employ more workers; this is a variable cost. However, even if you didn’t produce any cars, you may still need some workers to look after empty factory.

Total Costs (TC)  – Fixed + Variable Costs

**Marginal Costs –** Marginal cost is the cost of producing an extra unit. If the total cost of 3 units is 1550, and the total cost of 4 units is 1900. The marginal cost of the 4th unit is 350.

**Opportunity Cost –** Opportunity cost is the next best alternative foregone. If you invest £1million in developing a cure for pancreatic cancer, the opportunity cost is that you can’t use that money to invest in developing a cure for skin cancer.

**Economic Cost-** Economic cost includes both the actual direct costs (accounting costs) plus the opportunity cost.

**Accounting Costs –** this is the monetary outlay for producing a certain good. Accounting costs will include your variable and fixed costs you have to pay.

**Sunk Costs-** These are costs that have been incurred and cannot be recouped. If you left the industry, you could not reclaim sunk costs. For example, if you spend money on advertising to enter an industry, you can never claim these costs back. If you buy a machine, you might be able to sell if you leave the industry.

**Incremental cost-** It also referred to as marginal cost, is the total change a company experiences within its balance sheet or income statement due to the production and sale of one additional unit of product. It is calculated by analyzing the additional charges incurred based on the change in a certain activity.

**Q.3 Elucidate the demand function and types of demand function in detail.**

# Ans- Demand Function

Demand function shows the relationship between quantity demanded for a particular commodity and the factors influencing it.

It can be either with respect to one consumer (individual demand function) or to all the consumers in the market (market demand function).

### Individual Demand Function:

Individual demand function refers to the functional relationship between individual demand and the factors affecting individual demand. It is expressed as:

Dx = f (Px, Pr, Y, T, F) Where,

Dx = Demand for Commodity x; Px = Price of the given Commodity x;

Pr = Prices of Related Goods; Y = Income of the Consumer;

T = Tastes and Preferences; F = Expectation of Change in Price in future.

Demand function is just a short-hand way of saying that quantity demanded (Dx), which is on the left-hand side, is assumed to depend on the variables that are listed on the right-hand side.

#### Market Demand Function:

Market demand function refers to the functional relationship between market demand and the factors affecting market demand. As mentioned before, market demand is affected by all factors affecting individual demand. In addition, it is also affected by size and composition of population, season and weather and distribution of income.

**So, market demand function can be expressed as:**

Dx = f(Px, Pr, Y, T, F, PD, S, D) Where,

Dx = Market demand of commodity x; Px = Price of given commodity x; Pr = Prices of Related Goods; Y = Income of the consumers;

T = Tastes and Preferences; F = Expectation of Change in Price in future;

P0 = Size and Composition of population; S = Season and Weather; D = Distribution of Income.