



# Managerial Economics

## 1. Definition of Managerial Economics?

Managerial Economics is a science which deals with application of Economic theory in Managerial practice and it helps in forward planning and decision making.

## 2.State the wealth definition?

**Adam Smith** (1723 - 1790) the “Father of Economics” published “An Inquiry into the Nature and Causes of the Wealth of Nations” in year 1776. He defined as **the production and expansion of wealth as the subject-matter of economics.**

## 3.State the definition of economics in the line with Alfred Marshall.

**Prof. Marshall** defined economics in his book “Principles of Economics” (1890), as “**a study of mankind in the ordinary business of life.** It examines that part of individual and social action, which is most closely connected with the attainment and the use of **material requisites of well being.** Thus, it is on the one side a study of wealth and on the other and more important side a part of the study of the man.”

## 4. Define economics in the words of Lionel Robbins.

**Prof. Lionel Robbins** defines economics in his book “An Essay on the Nature and Significance of Economic Science” as “**Economics is the science, which studies human behaviour as a relationship between ends and scarce means, which have alternative uses.**”



### **5.Explain the Scope of Managerial economics?**

- \*Demand and Analysing forecasting.
- \*Cost and production and analysing.
- \*Pricing decision policy and practices.
- \*Capital Management.

### **6.What is the relationship between Micro, Macro and Managerial ?**

\*Managerial Economics is Mainly\* Making use of many of concepts and tools provided by micro Economics theory .The concepts of Elasticity of demand, Marginal cost, Market Structure, the theory of firm.

\*Micro Economics\*

The study of Micro Economics is essential for the better Understanding of Managerial Economics. All Micro Economics theory is applicable in business.

\*Managerial Economics Macro\*

Macro Economics is aggressive in character .

### **7.Explain the objectives of the firm ?**

Sale Maximising

Profit maximisation

Achieving leadership

Maintaining customer good will

### **8. Define positive Economics ?**

It Expresses “what is”.

It is based on cost and Effect of facts.



It is deals with actual or realistic situation.

## 9. Define Normative Economics ?

It Express “what should be”.

It deals with idealistic situation.

## 10.State the distinction between ‘incremental’ and ‘marginal’ concepts’.

**Incremental Concept:** It is estimating the impact of a business decision on costs and revenues, stressing the changes in total cost and revenue that result from changes in prices, products, procedures, investments, or whatever may be at stake in the decision.

**Incremental Costs:** Additional costs that occur in the business due to a change in the business activity. For example: adding a new business, buying new inputs, etc.

$$\text{Incremental Costs} = C2 - C1 = \Delta C$$

Where,

C2 = New total costs

C1 = Old total costs

$\Delta C$  = Change in value

**Incremental Revenue:** It refers change in total revenue obtained by selling additional units.

$$\text{Incremental Revenue} = R2 - R1 = \Delta R$$

Where,

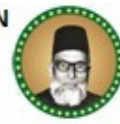
R2 = New total revenue

R1 = Old total revenue

$\Delta R$  = Change in revenue

**Marginal Concept:**

**Marginal Costs:** It is the increase in total cost as a result of producing one extra unit.



$$MC = \frac{\Delta TC}{\Delta Q} \quad (\text{or}) \quad MC = TC_n - TC_{n-1}$$

**Marginal Revenue:** It is change in total revenue due to per unit change in output sold.

$$MR = \frac{\Delta TR}{\Delta Q} \quad (\text{or}) \quad MR = TR_n - TR_{n-1}$$

### 11. What is time principle?

Short term and long term impact of business decisions.

**Short-run:** Some factors are fixed while others are variable.

**Long-run:** All factors of production can become variable

### 12. What do you understand by discounting principle?

It is based on valuing money receivable at different points of time. This is essential because a rupee worth of money at a future date is not worth a rupee today and lesser than that. Money actually has time value.

$$V = X/(1+r)^n$$

Where,

V = Present value of the amount

X = The future value of the amount

r = Rate of interest

n = Number of years

### 13. What do you mean by 'efficiency'?

“The term economic efficiency refers the use of resources so as to maximize the production of goods and services. An economic system is said to be more efficient than another (in relative terms) if it can **provide more goods and services for society without using more resources.**”

**Production Efficiency:** The ability to produce goods using minimum possible resources.



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**Efficiency in Distribution:** Some consumers to be better-off without making some other consumers worse-off.

**Allocative Efficiency (Pareto Efficiency):** Producing the right goods for the right people at the right price.

**Relative Efficiency:** The comparison among different units. It may be in production, costs, revenue, or profit etc.



## UNIT II

### 1. What is demand?

Demand means a desire to possess a good supported by willingness and ability to pay for it. (**Willingness with Purchasing power**).

### 2. What is demand schedule?

There exists at any one time a **definite relation between the market price of a good and the quantity demanded** of that good. This relationship between price and quantity bought is called the “demand schedule,” or “demand curve.”

### 3. State the determinants of demand.

$$D_x = f(P, P_s, Y, T\&P, D_Y, \text{Exp.}, N_b, \text{Pop.}, G_p, C, \text{Advt.}, \text{etc.})$$

Where,

- a.  $D_x$  = Quantity demanded for commodity X
- b.  $P$  = Price of the product
- c.  $P_s$  = Price of substitute
- d.  $Y$  = Consumer's income
- e.  $T\&P$  = Taste and Preference
- f.  $D_Y$  = Distribution of income
- g.  $\text{Exp.}$  = Future price expectation
- h.  $N_b$  = Number of buyers
- i.  $\text{Pop.}$  = Size of population
- j.  $G_p$  = Government policy
- k.  $C$  = Climatic condition
- l.  $\text{Advt.}$  = Advertisement

### 4. What are the distinctions of demand?

- a. Producers' goods and consumers' goods
- b. Durable and non-durable goods



- c. Derived demand (induced by other factor) and autonomous demand
- d. Industry demand and firm demand
- e. Short-run demand and long-run demand
- f. Joint demand (complementary demand) and composite demand (demand for multiple uses)
- g. Price demand, income demand and cross demand.

**5. What is individual demand schedule?**

The reaction of an individual towards the commodities at their corresponding prices is reflected by an individual demand schedule.

**6. Discuss the market demand schedule.**

A market demand schedule, thus, represents the total market demand at various prices in a given period of time.

**7. Explain the assumptions of law of demand.**

**Other things remaining as constant**, there is an inverse relationship between price and quantity demanded.

**Other things remaining as constant** means;

- a. No change in price of substitute
  - b. No change in consumer's income
  - c. No change in consumer's taste and preference
  - d. No change in distribution of income
  - e. No change in future price expectation
  - f. No change in number of buyers
  - g. No change in size of population
  - h. No change in Government policy
  - i. No change in Climatic condition
- No change in consumer's psychology due to advertisement



### 8.State the law of demand.

#### Statement of the law:

There is an **inverse relationship** between **price** and **quantity demanded**; other things being as equal.

“People will buy more at lower prices and buy less at higher prices, other things remaining the same” – **Prof. Samuelson**.

### 9. Explain the expansion and contraction of demand.

Extension and contraction of demand indicate **movement along the same demand curve**. Other things are assumed constant and **the price change** is studied in the form of changes in the quantity demanded.

### 10.State the increase and decrease of demand.

Apart from price, if **other factors** like population, taste, fashions, change in income etc., cause changes in demand; it is a change in demand itself. Consequently, the **demand curve shifts either upwards or downwards**. When circumstances change, the demand curve itself shifts from its position.

### 11.Why does the demand curve slope downwards?

The **inverse relation** between **price and quantity demanded** can be explained by the following reasons:

- a. Operation of the Law of Diminishing Marginal Utility
- b. Income effect
- c. Substitution effect
- d. Principle of different uses
- e. Entry of new buyers
- f. Psychological effect



**12. Explain the exceptional case of law of demand.**

There is a **positive association** between **price** and **quantity demanded**; other things remaining as constant.

**13.Reasons for exceptional case of law of demand**

- a. Giffen paradox
- b. Veblen effect
- c. Demand for necessities
- d. Fear of shortage
- e. Ignorance

**14.Define Giffen goods.**

The **inferior goods** like cheap potatoes, cheap bread, pucca rice, ragi, etc., are Giffen goods; as against superior commodities like good potatoes, cake and basmathi rice.

**15. What is Giffen paradox?**

If the price of **inferior goods** increase the real income of the consumer falls. Therefore, this reduces the demand of superior goods and people buy inferior goods. For example, **ragi and rice**.

**16.What is Veblen effect?**

The **prestigious goods** like **diamond and Rolls-Royce cars** are demanded only by the rich people. In that case, the price of the commodity increases as people demanded more of the same because it shows their prestige. This is also known as '**demonstration effect**'.



**17. Define elasticity of demand (or) price elasticity of demand.**

The degree of responsiveness of quantity demanded to changes in market price.

$$\text{Edp} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

$$\text{Edp} = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$\text{Edp} = \frac{\% \Delta QD}{\% \Delta P}$$

**18. List out types of elasticity of demand.**

- a. Price elasticity of demand
- b. Income elasticity of demand
- c. Cross elasticity of demand

**19. Discuss the price elasticity of demand.**

The degree of responsiveness of quantity demanded to changes in market price.

$$\text{Edp} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

$$\text{Edp} = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$\text{Edp} = \frac{\% \Delta QD}{\% \Delta P}$$

**20. What is income elasticity of demand?**

The degree of responsiveness of quantity demanded to changes in consumer's income.

$$\text{Edy} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in income}}$$



$$E_d = \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q}$$

$$E_d = \frac{\% \Delta QD}{\% \Delta Y}$$

### 21. Define cross elasticity of demand.

The degree of responsiveness of quantity demanded of commodity X; due to changes in market price of commodity Y.

$$E_{dx} = \frac{\text{Percentage change in quantity demanded of commodity X}}{\text{Percentage change in price of commodity Y}}$$

$$E_{dx} = \frac{\Delta Q_x}{\Delta P_y} \times \frac{P_y}{Q_x}$$

$$E_{dx} = \frac{\% \Delta QD_x}{\% \Delta P_y}$$

### 22. State the measurement of elasticity of demand.

#### a. The ratio method

The calculation of **co-efficient** of price elasticity by using the formula of

$$E_d = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

$$E_d = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$E_d = \frac{\% \Delta QD}{\% \Delta P}$$

#### b. Total expenditure or outlay method

In this method we find out the total expenditure on the quantity of commodity demanded and find out whether the total expenditure has



increased or decreased or remained constant, consequent on the change in price.

**c. Measuring elasticity at a point (Geometrical method)**

“The measurement of elasticity **at a point of the demand curve** is called point elasticity”

“The proportionate change in the quantity demanded resulting from a very small proportionate change in price.”

$$Ed = \% \Delta q \times p$$

The elasticity at each point on the demand curve can be traced by following formula:

$$Ed = \frac{\text{Lower Segment}}{\text{Upper Segment}}$$

**d. Arc method**

$$Ed = \frac{\frac{\text{Original Quantity} - \text{New Quantity}}{\text{Original Quantity} + \text{New Quantity}}}{\frac{\text{Original Price} - \text{New Price}}{\text{Original Price} + \text{New Price}}}$$

$$Ed = \frac{Q - Q_1}{Q + Q_1} \div \frac{P - P_1}{P + P_1}$$

$$Ed = \frac{Q - Q_1}{Q + Q_1} \times \frac{P + P_1}{P - P_1}$$

**23. Discuss the determinants of elasticity of demand.**

**a. Nature of commodity**

The demand for goods of necessities is, less elastic or inelastic

The demand for luxury goods is greatly elastic

**b. Availability of substitutes**

**c. Proportion of the income spent on the good**



- d. Time
- e. Number of uses of a good
- f. Habits
- g. Joint demand
- h. Postponement of demand

**24. What is demand forecasting?**

It is prediction of future market demand for a product.

**25. What are the objectives (or State the significance) of demand forecasting?**

- a. Production planning
- b. Sales forecasting
- c. Control of business
- d. Inventory control
- e. Growth and long-term investment programmes
- f. Stability
- g. Economic planning and policy-making

**26. Elucidate the methods of demand forecasting.**

- a. The survey method (Consumer survey or/and Collective opinion)
- b. The market experimentation
- c. Trend projections (the method of moving averages and the method of least square)
- d. Regression analysis and econometric model building

**27. What are the criteria for good forecasting method?**

- a. Accuracy



- b. Plausibility (correct interpretation of the results)
- c. Simplicity
- d. Economy
- e. Quickness
- f. Flexibility

**28. What is supply?**

The supply of a commodity may be defined as the amount of that commodity which the sellers (or producers) are able and **willing to offer for sale at a particular price** during a certain period of time.

**29. What is supply schedule?**

By the supply schedule, or curve, is meant the relation between **market prices and the amounts of the good that producers are willing to supply.**

**30. Enumerate the concept of equilibrium price.**

The equilibrium price, i.e., the only price that can last, is that at which the amount willingly supplied and amount willingly demanded are equal. Competitive equilibrium must be at the **intersection point of supply and demand curves.**



### UNIT III

#### 7. What is utility?

“Utility is a quality of a good to **satisfy a want**” – **Hibdon**.

#### 8. Define cardinal utility.

Utility can be measurable. (1, 2, 3, etc., are cardinal number).

#### 9. What is ordinal utility?

Utility cannot be measurable; but it can only be ranked or ordered.  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, etc., are ordinal number).

#### 10. What is marginal utility?

“The extra utility added by one extra last unit of a good”

$$MU = \frac{\Delta TU}{\Delta C} \quad (\text{or}) \quad MU = TU_n - TU_{n-1}$$

#### 11. State the law of diminishing marginal utility.

As the amount consumed of a good increases, the marginal utility of the good (or the extra utility added by its last unit) tends to decrease.

Other things being equal, as the quantity of commodity consumed or acquired by the consumer increases, the **marginal utility** of the commodity **tends to diminish**.

**-Prof. Alfred Marshall**

#### **Assumptions of the law**

- a. **Homogeneity:** all the successive units taken in the process of consumption are homogeneous in character, like quality, size, taste, flavor, colour, etc.
- b. **Continuity:** The consumption or acquisition process is continuous at a given time.
- c. **Constancy:** There is no change in price of the commodity, income, taste, habit or preference of the consumer.
- d. Consumers are **rational behaviour** to attain maximum satisfaction.



- e. Constancy of marginal utility of money.
- f. Cardinal measurement of utility.

## 12. Critically examine the law of 'equi-marginal' utility.

Other things being equal, a consumer gets **maximum total utility** from spending his given income, when he allocates his expenditure to the purchase of different goods in such a way that the **marginal utilities derived from the last unit of money spent on each item of expenditure tends to be equal.**

### Assumption of the law

- a. The consumer has **limited income** or limited stock of a given commodity
- b. The consumer has **more than one want** to satisfy
- c. The consumer is rational and **seeks maximum satisfaction**
- d. He has **no control over the price** of the commodity, but the prices are given
- e. **Utility is measurable** in cardinal terms
- f. The consumer has given scale of preferences for the goods in consideration. He has **perfect knowledge of utilities derived.**
- g. The wants and **goods are substitutable.**

## 13. What is indifference curve?

“An indifference curve shows all the **various combinations of two goods** that give **an equal amount of satisfaction** to a consumer.”

## 14. Define indifference map.

An indifference map is comprised of **a set of indifference curves.** Each successive curve further from the original curve indicates a higher level of total satisfaction.

## 15. What is 'price line' or 'budget line'?

It indicates two vital information viz., **prices of goods** and the **income at the disposal** of the consumer.



### 16.State the ‘scale of preferences’?

**Prof. Hicks** introduced the concept of ‘**Scale of Preferences**’ of a consumer as the base of indifference curve technique of ordinal measurement. Ordinal measurement implies comparison and ranking without quantification of the magnitude or differences of satisfaction enjoyed by the consumer.

Such a conceptual **ordering of different goods and their combinations** in a set order of preferences is termed as the ‘**Scale of Preferences**’.

### 17.State the properties of indifference

- a. Indifference curves are **convex to the origin**
- b. Indifference curves **cannot intersect each other**
- c. Higher indifference curve represents higher level of satisfaction
- e. Indifference curves do not touch the horizontal or vertical axis

### 18.What stands for MRS?

Marginal Rate of Substitution in indifference curve analysis.

### 19.What is marginal rate of substitution?

The rate or ratio at which goods X and Y are to be exchanged is known as Marginal Rate of Substitution (MRS).

“The marginal rate of substitution of X for Y measures the number of units of Y that must be sacrificed for unit of X gained so as to maintain a constant level of satisfaction.” – **Dr. J.R. Hicks.**



## UNIT IV

### 1. Define production.

It is the transformation of resources (inputs) into some commodity (output).

### 2. What is production function?

“It is a **functional relationship**, under given technology, between **physical rates of input and output** of a firm, per unit of time.”

### 3. List out factors of production.

- g. Land
- h. Labour
- i. Capital, and
- j. Organization

### 4. Define Land.

Land means **the natural resources** used to produce goods and services, including the land itself; the minerals and nutrients in the ground; the water, wildlife, and vegetation on the surface; and the air above.

### 5. What is labour?

It is the services and efforts of humans that are used for production.

### 6. Define capital.

In the ordinary language, capital means money. In economics, it refers to that part of man-made wealth, which is used for further production of wealth.

For example: factories, buildings, trucks, tools, machinery, and equipment.

“Capital consists of those kinds of wealth other than free gifts of nature, which yield income.” – **Prof. Marshall.**



## 7. Elucidate the law of variable proportion or the law of Diminishing Marginal Returns (DMR).

In the process of production of a firm, **in the short period**, the input – output behavioural relationship is traced by the law of variable proportions.

The law states that: Under given technical conditions of production process, if the input of units of one resource (factor) increases, other input components remaining unchanged, total output will increase, but beyond a certain point, it will increase only at a diminishing rate.

### **Assumption of the law of DMR:**

- i. Short- run production function
- ii. Given scale of output
- iii. Given technique of production
- iv. Homogeneity of the variable factor units

**Total Product (TP):** Total number of units of output produced per unit of time by all factor inputs. In the short run, however, the total output obviously increases in the variable factor input. Thus,

$$TP = F (QVF)$$

Where,

TP = Total Product

QVF = Quantity of Variable Factor

**Average Product (AP):** By dividing the total product by the quantity of the variable factor.

$$AP = \frac{TP}{QVF}$$

**Marginal Product (MP):** Owing to the addition of a unit to a variable factor, all other factors being held constant, the addition realised in the total product.

$$MP = \frac{\Delta TP}{\Delta QVF} \quad (\text{or}) \quad MP = TP_n - TP_{n-1}$$



### 8. Describe the returns to scale.

Economists are used the phrase “returns to scale” to describe the output behaviour **in the long-run** in relation to the **variations of factor inputs**. In long-run, all components of inputs are varied to increase production.

“As a firm in the long-run increases the qualities of all factors employed, other things being equal,

The output may rise initially at a more rapid rate than the rate of increase in inputs (**Increasing Returns**),

Then output may increase in the same proportion of input (**Constant Returns**), and

Ultimately, output increases less proportionately (**Decreasing Returns**).”

### 9. What is Iso-Quant curve?

**The equal product curve** is also called production Iso-Quant (Iso-Quant means equal quantity). It represents all the combinations of two factor inputs namely **labour** and **capital** which produce a given quantity of product.

### 10. Examine the concept of producer’s equilibrium

Iso-Quant curves indicate various possibilities of combining two factors i.e., **labour and capital**.

A rational firm is, however, interested in selecting an optimum combination, which yields maximum benefit or production, i.e., the firm is interested in **least-cost combination of factors**.

### Necessary condition for producer’s equilibrium

**Point of tangency between cost line and the iso-quant** determines producer’s equilibrium.

### 11. State the abbreviation of MRTS.

Marginal Rate of Technical Substitution in iso-quant analysis.



**12. Define economies of scale.**

Anything which serves to **minimise average cost of production in the long-run as the scale of output increases** is referred to as “economies of scale.” It is measured in money terms.

**13. State the classification of economies of scale.**

- a. **Internal Economies** (within the firm as its scale of production increases).
- b. **External Economies** (which are shared by all the firms in an industry or in a group of industries when their size expands).

**14. Distinguish between firm and industry.**

**Firm:** An individual unit (A firm may produce cloth)

**Industry:** A group of firms (Textile industry indicates all the firms which are involved the cloth production)

**15. State the forms of internal economies.**

- a. Labour economies
- b. Technical economies**
  - i. economies of superior technique
  - ii. economies of increased dimension
  - iii. economies of linked process
  - iv. economies in power consumption
  - v. economies of by-products
  - vi. economies of continuation
- c. Managerial economies
- d. Marketing economies
- e. Financial economies
- f. Risk-bearing economies**
  - i. By diversification of output
  - ii. By diversification of market



iii. By diversification of sources of supply as well as of process of manufacturing.

**16. Explain the forms of external economies.**

- a. Economies of localization
- b. Economies of information or technical and market intelligence
- c. Economies of vertical disintegration
- d. Economies of by-products

**17. What is cost?**

**The payment for factors of production** is called cost. It may in the form of **rent** for land, **wages** for labour, **interest** for capital, and **profit** for organisation.

**18. Differentiate between explicit cost and implicit cost.**

**Explicit costs** are direct contractual monetary payments incurred through market transactions.

**Implicit costs** are the opportunity costs of the use of factors which a firm does not buy or hire but already owns. Unlike out-of-pocket costs they do not require current cash expenditure.

**19. What is fixed cost?**

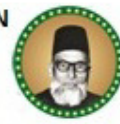
Fixed costs (Supplementary costs) are those costs that are incurred as a result of the use of fixed factor inputs. **They remain fixed at any level of output in the short-run.**

**20. What do you mean by Variable cost?**

Variable costs (Prime costs) are those costs that are incurred by the firm as a result of the use of variable factor inputs. **They are dependent upon the level of output.**

**21. Explain the total cost.**

Total cost is the aggregate of expenditure incurred by the firm in producing a given level of output. It is measured in relationship to the



**production function by multiplying the factor prices with their quantities.**

If the **production function** is:  $Q = f(l, k, \dots, n)$ , then total cost is:  $TC = f(Q)$  which means total cost varies with output.

$$TC = TFC + TVC$$

Where,

TC = Total cost

TFC = Total fixed cost

TVC = Total variable cost

## **22. What is marginal cost?**

**Marginal cost (MC)** is the cost of producing an extra unit or final unit of output.

$$MC = \frac{\Delta TC}{\Delta Q} \quad (\text{or}) \quad MC = \frac{TC_n - TC_{n-1}}{\Delta Q}$$

## **22. Critically examine the short-run and long-run cost curves.**

Short-run costs  $\rightarrow$  **Total Fixed Cost + Total Variable Cost**

Long-run costs  $\rightarrow$  **all costs are variable costs** (there is no dichotomy of total cost into fixed and variable costs as in the short-run analysis).

The long-run period is long enough to enable a firm to vary all its factor inputs. The firm can expand its plant in order to meet the long-term increase in demand or reduce plant capacity if there is drop in demand.

Methodologically, the Long-run Average Cost (LAC) curve is the envelope of the various Short-run Average Cost (SAC) curves. **It is drawn as a tangent to the SACs.**

The LAC is derived as a tangent to SAC1, SAC2 and SAC3. **The LAC is, thus, a flatter 'U'-shaped curve.**



The relationship between the SAC and LAC curves shows that it is not possible to produce a given output in the cheapest way in the short-run. It can be done only in the long-run.

### **Features of the LAC curve**

- a. Tangent curve
- b. Envelop curve
- c. Planning curve
- d. Minimum cost combinations
- e. Flatter 'U'-shaped curve

### **23.What is revenue?**

Revenue means sales receipts.

### **24.Define total revenue.**

Total revenue is the total sales receipts of the output produced over a given period of time.

$$\mathbf{TR = P \times Q}$$

Where,

P = Price of the product

Q = the quantity sold

### **25.Define average revenue.**

Revenue obtained per unit of output sold is termed 'average revenue.' It is simply the total revenue divided by the number of units of output sold. Thus:

$$\mathbf{AR = \frac{TR}{Q}}$$

### **26.What is marginal revenue?**

Marginal revenue is the addition made to the total revenue by selling one more unit of the item.

$$\mathbf{MR = \frac{\Delta TR}{\Delta Q}} \quad (\text{or}) \quad \mathbf{MR = TR_n - TR_{n-1}}$$



## 27. Describe the break – even analysis.

The Break – Even Analysis (BEA) is an important technique to trace the relationship among costs, revenue and profits at the varying levels of output or sales.

In BEA, the break-even point is located at that level of output or sales at which the net income or profit is zero. At this point, **total cost is equal to total revenue.**

**Hence, the break-even point is the no-profit-no-loss zone.**

### Assumptions of break – even analysis

- a. The cost function and the revenue function are linear
- b. The total cost is divided into fixed and variable costs
- c. The selling price is constant
- d. The volume of sales and the volume of production are identical
- e. Average and marginal productivity of factors are constant
- f. The product-mix is stable in the case of a multi-product firm
- g. Factor price is constant

## 28. State the limitations of break – even analysis.

- a. It is static
- b. It has unrealistic assumptions
- c. It has many shortcomings like it fails to consider the impact of technological change, better management, division of labour, improved productivity and such other factors influencing profits.
- d. Its scope limited to the short-run only.



## UNIT V

### 1. Define market.

The market is a set of conditions in which buyers and sellers come in contact for the purpose of exchange.

### 2..What is pure perfect competition?

- a. Large number of buyers and sellers
- b. Homogeneous product
- c. Free entry and exit of firms

### 3.State the Features of perfect competition ?

- d. Large number of buyers and sellers
- e. Homogeneous product
- f. Perfect knowledge of market condition
- g. Producers are 'price taker' not price maker
- h. Free entry and exit of firms
- i. Perfect mobility of factors of production
- j. Government non-intervention
- k. No transport cost
- l. No selling cost

### 4.state the features of monopoly?

**monopoly is a single seller**

#### **Features of monopoly**

- a. Single producer in the market
- b. There is no substitute products
- c. Complete negation of competition
- d. Absolute power to fix the price or output or both
- e. Possibility of price discrimination
- f. Firm itself being the industry
- g. No rivals (legal, technological, economic, or natural obstacles, which may block the entry of new firms)



For example: There is no perfect example for monopoly; however, Indian railway is appropriate for it.

### **5. State Features of monopolistic competition?**

- a. Large number of sellers (but not too many) and buyers
- b. Product differentiation
- c. Free entry and free exit
- d. Selling costs

For example: Products like bathing soap, shampoo, tooth paste, foot-wear, and cloth materials etc...

### **6. What is price discrimination?**

Price discrimination implies the act of selling of output of the same product at different prices in different markets or to different buyers.

### **7. What do you mean by discriminating monopoly?**

A monopoly firm which adopts the policy of price discrimination is referred to as a “discriminating monopoly.”

### **8. Explain the types of price discrimination?**

- a. Personal discrimination
- b. Age discrimination
- c. Sex discrimination
- d. Vocational or Territorial discrimination
- e. Size discrimination
- f. Quality variation discrimination
- g. Special service or comforts discrimination
- h. Use discrimination
- i. Time discrimination
- j. Nature of commodity discrimination

### **9. Who advocates the imperfect competition?**

**Mrs. Joan Robinson** (The Economics of Imperfect Competition).



**10. Who advocates the monopolistic competition?**

**E.H. Chamberlin** (The Theory of Monopolistic Competition).

**11. State the features of oligopoly.**

“Situation in which a firm bases its market policy in part on the expected behaviour of a few close rivals.” - **Prof. Stigler**

“An oligopolistic industry is one in which the number of sellers is small enough for the activities of single seller to affect firms and for the activities of other firms to affect him.” – **Prof. Leftwich**

**Features of oligopoly**

**Interdependence**

- a. Indeterminate demand curve
- b. Importance of selling cost
- c. Group behaviour
- d. Element of monopoly
- e. Price rigidity

**12. Define collusive oligopoly**

When the few firms of the oligopolistic market come to a **common understanding or act** in collusion with each other **in fixing price and output**.

**13. What is price leadership?**

Price leadership is one of the means, which provides relief to the firms from the strains of price competition. The firms in the oligopolistic industry (without any formal agreement) **accept the price set by the leading firm in the industry** and move their prices in line with the prices of the leader firm.

**14. What is selling cost?**

Cost for advertisement of the product.



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