

SHETH NKTT COLLEGE OF COMMERCE AND SHETH JTT COLLEGE OF ARTS

Model answer/Notes (Academic Year- 2020-21)

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Name of the subject/paper: Business Economics – I (Semester – I)

N.B.: - i. The notes are prepared from the books/references given at the end.

ii. Question wise diagrams are annexed at the end of the answers.

MODULE – I: INTRODUCTION

1. Define and discuss the scope of Business Economics.

Ans: Economics is defined as a social science which deals with human behavior as a relationship between unlimited wants and scarce resources which have alternative uses (Lionel Robbins). Resources are of four types: i) Land, ii) Labour, iii) Capital and iv) Entrepreneur. Economics is a science of Choices. Therefore, it is the study of problems of scarcity and choices. It is the problem of choice between ends (wants) and resources (means). The resources though scarce, have many uses. It is the utilization of resources which can fulfill the wants by the production of goods and services. Economic theories give different techniques to solve the problem of utilization of resources.

Economic theories are of two types: i) Microeconomics and ii) Macroeconomics. Microeconomics is a study of economic variables at an individual level, whereas, Macroeconomics is a study of economic variables at aggregate level or an economy level. Microeconomics studies how a consumer can attain maximum satisfaction or utility, or how a producer can get maximum profit. Theory of Demand, Theory of Production, Theory of Costs, Theory of Rent, Theory of Wages are discussed in Microeconomics. Macroeconomics studies the functioning of entire economy. It is an aggregative study or study of collective behavior of a society. It includes study of macroeconomic variables such as, national income, employment, inflation recession, international trade etc. Thus, macroeconomics is useful in economic policy making.

Business economics is a study of economic theories relating to actual business organization, management, strategies etc. business economics focuses on the functioning of business enterprises.

Scope of Business Economics:

- a. Market demand and supply: a market implies the performance of demand and supply forces. Price of the product is determined by the interaction of demand and supply of the product. Business enterprise's survival depends on loss or profit from the business.
- b. Production analysis: Business economics analyses the process of production. Economic theories of production, namely, law of variable proportions and laws of returns to scale explain the relation between inputs and output in the short-run and in the long-run respectively.
- c. Cost and profit analysis: cost functions are used to make decisions regarding optimum utilization of resources. Opportunity cost and implicit cost concepts are used to determine profit.

- d. Market structure: different types of markets such as, perfect competition, monopoly and so on have different norms for deciding price, marketing and production.
- e. Pricing: pricing plays an important role in determining firm's profit and revenue.
- f. Objectives of the firm: firm's basic objective is to maximize its profit. Business economics discusses about break-even analysis and profit maximizing equilibrium.
- g. Forecast and Business Policy: a firm's decisions are influenced by economic, social and political environment. business economics uses macroeconomic principles in decision making. Such as forecast techniques. It is used to study the trends in demand, costs, revenue and so on. Business economics studies the forecasting techniques.
- h. Project planning: Capital budgeting is used by an investor to determine the criteria on which to make investment decisions. Different methods of project planning or capital budgeting help the business enterprises in decision making. Business economics studies these techniques.

2. Explain the concept of Opportunity cost and bring out its significance.

Ans.: **Meaning** of opportunity cost: - it is the cost for next best use of the resource that is foregone. This is because of two things, one is that, the resources are scarce, and another is that resources have alternative uses.

It is important in the business because it tells how to decide between the multiple use of the resource and make maximum use of the resources. Business economics include all costs whether they show monetary transactions or not, while accountants do not include non-monetary transactions. Opportunity costs of using factors that belong to the entrepreneur himself, need to be added in the transaction cost. The concept of opportunity cost is used to determine factor incomes like rent, interest and wages. Therefore, to an economist, opportunity costs are important as explicit costs

3. Discuss the Incremental and Marginal concepts.

Ans.: Marginal means additional or extra. Economic analysis is based on the principle of 'Marginalism'. This implies that business decisions are taken at the margin. For instance, whether to increase production, or to change the capacity to produce, whether to diversify or not, to export or not etc. any change in the decisions will bring in changes in some other parameters. when production increases, cost increases; change in cost (ΔC) thus depends on change in output (ΔQ) and change in Total Revenue (ΔTR) depends on change in output (ΔQ).

Incrementalism: normally the firms do not change the output by one or two units but by a bunch of additional goods. In such a situation the concept of Incrementalism is used. Incrementalism involves an estimation of the impact of a decision. For example, a firm may decide to start a new branch at another place. This is called an incrementalism.

Concepts of Total, Average and Marginal: total values denote total or aggregate. Marginal values show change in total value, whereas, average implies arithmetic mean. For example, Total Revenue ($TR = \text{Price of a good} \times \text{total output sold}$) shows total response. Average Revenue ($AR = TR/\text{total units sold}$) shows mean or price per unit of a good. Marginal Revenue ($MR = \Delta TR/\Delta Q$).

4. Explain the importance of Marginalism in economic decision making.

Ans.: marginal decisions are taken not only by individuals, households and firms but also by the government. The government may raise taxes or increase public expenditure on health or education. These decisions involve marginal analysis. In other words, it analyses marginal cost and marginal revenue. Similarly, if a firm decides to increase its production, it has analyze its marginal cost an accordingly it decides its output level.

5. Explain the relationships between total, average and marginal values. (Or case study)

Ans.:

Total value	Marginal value	Average Value
Total values are rising	Marginal values are positive	Average value is positive
Total values are rising at an increasing rate	Marginal values are rising	Average values are rising
Total values are rising at a diminishing rate	Marginal values are falling	Average values rise slowly
Total values are falling	Marginal values are negative	Average values fall

6. Discuss following concepts: Variables, functions, equations, graphs, slopes and diagrams.

Ans.:

- Variables:** it is a magnitude of interest that can be defined and measured. In other words, a variable is that entity which changes. There are different variables which are frequently used in economics, such as, price, output, revenue, cost, profit and so on. Variables may be endogenous i.e. explained within the theory; whereas, exogeneous variable is that which influences endogenous variables and is influenced by external factors outside the theory. For example, price of a product is determined by demand and supply of the product. So, demand and supply are endogenous variables. But the demand and supply of the product are determined by exogenous factors or variables, such as, consumers preferences, advertisements, government policies, population, inflation etc.
- Functions:** It shows the functional relation between two or more variables. For example, how a consumption is determined by the income. At an economy level, total consumption of a country is determined by total or aggregate income. Symbolically, $C = f(Y)$.
- Equations:** An equation specifies the relationship between the dependent and independent variables. For example, functional relationship between price and quantity of product is expressed symbolically as, $Q = f(P)$. This can also be shown as $Q = a - bP$. Where a and b are parameters and have a value greater than zero.
- Economic data and tools:** To analyze economic issues, and the relationship between variables economists make use of data or information about the variables. Economists make use of different tools for the analysis of the variables. Such as, function, equation, schedule or table etc.

- e. Graph: it a geometrical tool used to show the relationship between the variables it is a diagram showing the relationship between two or more variables. For example, a horizontal line on a graph is known as X-axis and a vertical line is known as Y-axis. A point where both axes intersect is called origin which is shown as 0.
- f. Curves: the functional relationships between the variables can be shown by drawing a line or a curve in the graph. For example, relationship between demand and price of a commodity is shown as downward line or curve. Which shows a negative relation between the two variables. In other words, when price of a commodity rises, demand falls and when price of a commodity falls, demand rises.
- g. Slope: It shows the rate at which a variable change. Symbolically, $\text{Slope} = \Delta Y / \Delta X$. in other words, change in Y divided by change in X.
- h. Intercepts: It is the point at which the line or the curve crosses the vertical axis. Symbolically, $C = a_1 + a_2 Y$. where a_1 is the intercept i.e. the value of C when Y is zero. Intercepts can be vertical or horizontal.

7. **Explain following:**

i. ***Movement along a demand curve and Shift in demand***

Ans.: Demand for the good shows the ability to pay and desire to buy the good. There are different determinants of demand, such as, price of the product, tastes and preferences, income of the consumer, fashion, hobbies, habits, consumers' expectations, speculations etc.

Changes in Demand: a) Movement along the Demand and b) Shift in Demand

- a. Movement in Demand: It is that change in demand which is caused by the change in Price of the product (rise or fall in price).
- b. Shift in Demand: It is that change in demand which is caused by the factors other than Price. Such as, income of consumer, fashion, population etc.

ii. ***Movement along a supply curve and Shift in supply.***

Ans.: Supply of the good refers to the quantity of the good which a seller wants to sell a price. Generally, when price is higher, seller supplies more and when price is lower, he supplies less.

Changes in Supply: a) Movement along the Supply and b) Shift in Supply.

- a. Movement in Supply: It is that change in supply which is caused by the change in Price of the product (rise or fall in price).
- b. Shift in Supply: It is that change in supply which is caused by the factors other than Price. Such as, income of rise in costs, fashion, population etc.

8. ***Demand schedule, demand function, supply schedule and supply function.***

Ans.:

- a. **Demand schedule:** it is a table showing price of the product and quantity demanded.
Demand function is $Q_{dx} = f(P_x)$, where, Q_{dx} is quantity demanded of a good and P_x is the unit price of the good. For example, if $Q_{dx} = 50 - 10P_x$, then....

Demand Schedule

Price per unit of a good	Quantity of good demanded
1	40
2	30
3	20
4	10
5	0

- b. **Supply schedule:** It is the table showing price of the product and quantity supplied.
Supply function is $Q_{sx} = f(P_x)$ where Q_{sx} is quantity supplied of a good and P_x is the price of the good. For example, if $Q_{sx} = -40 + 60 P_x$, then

Supply Schedule

Price per unit of a good	Quantity of good supplied
1	20
2	80
3	140
4	200

9. What is an Equilibrium? Explain.

Ans.: equilibrium is a state of balance between two forces. For instance, equilibrium price is determined at a point at which, the demand for and supply of a commodity are equal. Following equation can help us to understand how equilibrium price is determined.

$$100 - 10P_x = -40 + 30 P_x$$

$$100 + 40 = 30P_x + 10 P_x$$

$$140 = 40 P_x$$

$$P_x = 140/40$$

∴ Price of x-good = 3.50 rupees.

10. Explain the changes in an equilibrium. (see annexure for diagram)

Ans.: Changes in equilibrium are caused due to, i) Change in Demand for a good, ii) Change in Supply of the good and iii) Change in both demand and supply of the good.

11. Given the demand and supply equations calculate equilibrium price and quantity.

i. $Q_{dx} = 150 - 20P_x$ and $Q_{sx} = 30 + 40P_x$

Ans.: 1. $Q_{dx} = 150 - 20P_x$ Demand function.

2. $Q_{sx} = 30 + 50P_x$ Supply function.

3. Equilibrium between demand and supply functions is ---

$$150 - 20P_x = 30 + 40P_x$$

$$150 - 30 = 50P_x + 20P_x$$

$$120 = 60 P_x$$

$$P_x = 2 \text{ rupees.}$$

4. Equilibrium quantity is

Put the value of price in demand function or supply function and show

$$Q_{dx} = 150 - 20 (P_x)$$

$$Q_{dx} = 150 - 20 (2)$$

$$Q_{dx} = 150 - 40 = 110, \text{ so equilibrium quantity is 110 units.}$$

ii. $Q_d = 200 - 5P_x$ and $Q_s = 250 + 10P_x$

Ans.: $Q_d = 200 - 5P_x = Q_s = 250 + 10P_x$... (equality between demand and supply function).

$$200 - 5P_x = 170 + 10P_x$$

$$200 - 170 = 15 P_x$$

$$15 P_x = 200 - 170 = 30 \quad \text{so, } P_x = 30/15 \text{ i. e. Price} = 2 \text{ rupees.}$$

Objective Type questions