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PRINCIPLES OF MICROECONOMICS-I

B.E.C.C.-131

B.A. General - 1st Semester

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ву: Prieti Gupta



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Sample Preview of the Solved Sample Question Papers

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QUESTION PAPER

June - 2023

(Solved)

PRINCIPLES OF MICROECONOMICS-I

B.E.C.C.-131

Time: 3 Hours] [Maximum Marks: 100

Note: Attempt questions from each Section as per instructions given.

SECTION-A

Note: Answer the following questions from this Section:

Q. 1. (a) Why does a supply curve shift? Give reasons.

Ans. Ref.: See Chapter-3, Page No. 39, 'Change in Supply' and Page No. 40, 'Why Supply Curve Shifts?'

(b) Find cross-price elasticity of demand. Are goods substitutes or complements? Give reasons.

Price of Car in Rs.	Quality demanded of petrol in litres		
3,20,000	8,000		
3,50,000	7,600		

Ans. The change in quantity demanded of petrol = 7,600 - 8000 = -400 l

The change of price of car = 3,50,000 - 3,20,000= Rs 30,000

Original quantity demanded of petrol = 8000 lOriginal price of Car = Rs. 3,20,000

The cross price elasiticity of demand (EQ_r P_v)

$$E_{Qx} P_{y} = \frac{\Delta Q_{x}}{\Delta P_{y}} \times \frac{P_{y}}{Q_{x}}$$

where X is Petrol and Y is car

$$E_{Qx}P_{y} = \frac{-400}{30,000} \times \frac{3,20,000}{8000}$$
$$= -0.533$$

Since in this case cross-elasticity coefficient is negative i.e. there is an inverse relationship between price of car and quantity demanded in petrol. Hence, it is a case of complements goods.

Q. 2. (a) Explain consumer equilibrium in Multicommodity case, with the help of a diagram. **Ans. Ref.:** See Chapter-5, Page No. 68, 'Consumer Equilibrium in Multi-commodity Case'.

(b) Using diagram, show that price effect is the sum of income effect and substitution effect in case of a normal commodity.

Ans. Ref.: See Chapter-6, Page No. 88, 'Measuring Income and Substitution Effects of Price Change' and Page No. 93, Q. No. 8.

Q. 3. (a) What are Isoquants? Draw isoquants in case of (i) perfect substitutes, and (ii) perfect complementary factors of production.

Ans. Ref.: See Chapter-8, Page No. 111, 'What are isoquants?' and Page No. 116. Q. No. 3.

(b) Why does a producer produce only between upper and lower ridge lines? Explain.

Ans. Ref.: See Chapter-8, Page No. 113, 'Economic Region of Production and Ridge Lines'?

Q. 4. (a) Explain the relationship between ATC, AVC and MC cost curves.

Ans. Ref.: See Chapter-10, Page No. 137, 'Short Run Cost Curve'.

(b) "Long run average cost curve is also known as efficiency curve." Explain with the help of a diagram.

Ans. Ref.: See Chapter-10, Page No. 138, 'Long Period Economic Efficiency', 'The Long Run Average Cost Curve' and Page No. 145, Q. No. 16.

SECTION-B

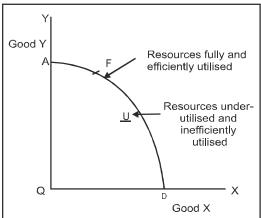
Note: Answer the following questions from this Section.

Q. 5. Explain the concept of Production Possibility Curve (PPC) and highlight the problem of unemployment and inefficient use of factors of production. Can PPC be a straight line?

Ans. Ref.: See Chapter-1, Page No. 2, 'Production Possibility Curve'.

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Also Add:

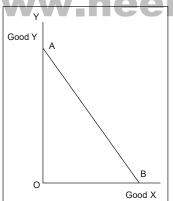


On point F, and fro that matter on any point on the PP curve AB, the resources are fully and efficiently employed. On point U, below the curve or any other point but below the PP curve, the resources are either under-utilised or inefficiently utilised of both. Any point below the PP curve thus highlights the problem of unemployment and inefficiency in the economy.

Can PP curve be a straight line?

Yes, if we assume that MRT is constant, i.e. slope is constant. When the slope is constant the curve must be a straight line. But when is MRT constant? It is constant if we assume that all the resources are equally efficient in production of all goods.

Note that a typical PP curve is taken to be a concave curve because it is based on a more realistic assumption that all resources are not equally efficient in production of all goods.



Q. 6. Critically examine the cardinal utility analysis of demand.

Ans. Ref.: See Chapter-5, Page No. 76, 'Critical Evaluation of Cardinal Utility Analysis'.

Q. 7. What are the different types of elasticity of supply?

Prove that supply curve passing through the origin point is unitary elastic supply curve.

Ans. Ref.: See Chapter-3, Page No. 46, Q. No. 6.

Q. 8. Explain the concept of increasing returns to scale with the help of isoquants. Give reasons for its emergence.

Ans. Ref.: See Chapter-9, Page No. 124, 'Increasing Return to Scale' and Page No. 126, 'Causes of Increasing Return'.

Q. 9. What is "expansion path"? How does it look when both the factors of production are variable?

Ans. Ref.: See Chapter-8, Page No. 118, Q. No. 9.

Q. 10. Derive the long-run marginal cost curve from the short-run marginal cost curve.

Ans. Ref.: See Chapter-10, Page No. 139, 'Relationship Between Long Run Marginal Cost and Short-Run Marginal Cost'.

SECTION-C

Q. 11. Distinguish between the following:

(a) Cardinal vs. Ordinal utility approach

Ans. Ref.: See Chapter-5, Page No. 66, 'Cardinal and Ordinal Utility'.

(b) Inductive vs. Deductive reasoning

Ans. Ref.: See Chapter-1, Page No. 4, 'Inductive vs. Deductive Reasoning'.

(c) Sink cost vs. Fixed cost

Ans. Ref.: See Chapter-10, Page No. 136, 'Sink Cost' and Page No. 137, 'Fixed Cost'.

(d) Income effect vs. Substitution effect

Ans. Ref.: See Chapter-2, Page No. 21, 'Substitution Effect' and 'Income Effect'.

(e) Uniqueness of equilibrium and Multiple equilibria

Ans. The uniqueness of equilibrium is referred to the query of the number of times that equilibrium exists and corresponded values are determined in the particular model or system. If there is a single equilibrium that is the demand curve and supply curve meets only one time at a single positive price with the corresponding positive quantity of supply and demand then this is called a unique equilibrium.

Thus uniqueness of equilibrium implies that there exists only one positive price and at such price demand equals supply or there is zero excess demand at such price. So if there are two or more prices with corresponding quantities then it is the case of multiple equilibria and in the case of multiple equilibria, the uniqueness of equilibrium is not found. In the case of the labour market, there may be multiple equilibria and such equilibriums are not unique equilibriums.

Sample Preview of The Chapter

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PRINCIPLES OF MICROECONOMICS-I

Introduction to Economics and Economy



INTRODUCTION

Economics is a social science concerned with the production, distribution, and consumption of goods and services. A society needs a number of goods and services in everyday life, such as food, clothing, shelter, transport facilities, railways and various other services but actually every person only has a few of the goods and services that he would like to use. So, the country's economic system or economy gives a set-up for meeting this imbalance between wants of the people and the means to satisfy them. Our economic activities include: production, exchange and consumption of goods and services and for this, the resources available are scarce and there is this problem of choice which society has to decide as to how to use these scarce resources. The fundamental problems of every economy are what to produce, how to produce and for whom to produce and the allocation of scarce resources and the distribution of the final goods. Thus, scarcity is a fact of life and an efficient use of these scarce resources is to be found. That is how we define economics as a science that deals with scarcity.

CHAPTER AT A GLANCE

CONCEPT OF SCARCITY

Scarcity: Scarce means insufficient or limited. The resources available with every society are limited and so is the ability of the society to produce goods and services. Therefore, in the face of unlimited human wants, the society faces the problems of scarcity. The society can produce only a small part of goods and services it wants to produce and it has to make a choice regarding the type of goods and services to be produced along with the quantity thereof. This is called the problem of choice in which a decision is taken to produce one product and to abstain from producing another product. This involves sacrifice.

MEANING OF PRODUCTION

In the production process, resources are used to produce goods and services. Different methods and techniques are used in producing goods and services. Production creates utility, the items which are transformed are called inputs and the items of the services produced are the changed form of inputs, called the output. Utility, in economics is the want of satisfying capacity or the expected satisfaction that the consumers expect to derive by consuming the goods and services. Factors of production are the inputs or the resources which are used to produce goods and services. The resources that are required in producing goods and services can be classified as land (natural resources), labour (human resources), capital (man-made resources) and enterprise to bring these resources together to produce. Out of these capital and labour are active factors and land is the passive factor.

CENTRAL PROBLEMS OF AN ECONOMY

Allocation of the scarce resources and the distribution of the final goods and services are the fundamental problems of every economy, as given here under:

What to Produce?

An economy does not have sufficient resources to produce all the goods and services required and it has to decide what to produce and what not to produce. When some goods are not produced, some wants of the people remain unsatisfied. The decision involves allocation of resources. So, the economy chooses the product/service that brings highest benefits relative to its cost of production.

How to Produce?

This problem is concerned with deciding about how much resources to be used in the production of different goods and services. After deciding about the goods and services to be produced, the economy has

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to decide as to in what quantities the chosen goods are to be produced. Different techniques/methods of production use different quantities of the different factors of production and the society has to choose the appropriate technique. Production can be alongside, every what and how to produce every economy has also to decide-how to distribute resources or how the total output will be divided amongst different consumers by using labour intensive techniques or capital intensive techniques.

For Whom to Produce?

After deciding what and how to produce, the next question is for whom to produce. Every economy has also to decide about how to distribute the production or the total output will be divided among different consumers. Distribution of national product depends on the distribution of national income and people having large incomes will get a larger share of the produce. In a free market economy, productive resources are privately owned and the question of who gets what is decided by who can afford what goods and services at the price decided by the demand and supply forces and the socialistic principle is from each according to his ability to each according to his needs.

The Problem of Growth

In order to generate income, every economy seeks to increase its production capacity. The generated income in an economy has two alternative uses, consumption expenditure (C) and saving (S). Thus:

$$Y = C + S$$
.

There is a need to reduce the share of consumption expenditure (and thereby increase investment); this helps in capital formation.

Choice between Public and Private Goods

Private Goods: Goods which can be priced and whose use can be restricted to selected persons are called private goods. These goods need not necessarily be produced by private sector of the economy, it may be a product of the public sector or of a unit owned jointly by private and public sectors. A product may be priced so that only those who can pay and are ready to pay its price can have it and others are prevented, a characteristic which is called principle of exclusion.

Public Goods: Public goods are goods which cannot be priced in way to prevent some persons from using. Example: Defence of the country from enemy attack, it cannot be said that only persons would be protected who pay a particular price and others would be left unprotected. However, it does not mean that every member of the public will also get equal share in it. Practically, there are no pure public or pure private goods and most of the goods available have a mixture of both in them. Goods which are pre-dominantly public in character, must be produced by the public sector and

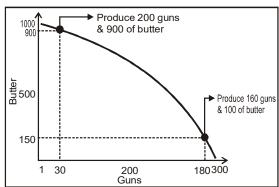
the private goods can be provided by both the private and public sectors.

The Problem of 'Merit Goods' Production

Merit goods, such as education facilities, are the goods and services that are regarded by the government as extremely important for the people, its use is promoted by the government because it wants people to consume these to ensure their welfare. The government provides these at free of costs or at subsidized prices because, if left to the private enterprises, it may not be provided to all the persons and a number of poor children may not be able to study which will adversely affect the people and the society. Consumption of merit goods help the entire society and also improve efficiency and well being of the people.

PRODUCTION POSSIBILITY CURVE

The scarce resources have alternative uses and the society decides about the extent of resources to be put to use in producing different goods and services and also determine the pattern of allocation of resources towards different goods and services. Such allocation of resources brings about a particular combination of different goods and services. Given the total resources. the economy can allocate them in a number of ways and get different combinations of all possible goods and services. Such a collection of the possible combinations of goods and services that can be produced from a particular part of the resources available is called the Production Possibility set of the economy. PPC explains the possible combinations of two goods that a society can produce in a particular time by efficiently utilizing its resources and it shows all the combinations of two goods that can be produced with the given resources. The PPC slopes downwards from left to right. This is because the production of one good is to be compromises when the production of the second product/service is to be increased. The second characteristic of PPC is that it is concave to its point of origin, which means that the opportunity cost of producing one additional unit of one product increases in terms of loss of producing the other unit.



Goods	Production Possibilities					
	A	В	С	D	Е	
Guns (No.)	10000	8000	6000	3000	00	
Butter (Kgs.)	00	5000	9000	13000	15000	

The above table shows that the combinations A, B, C, D and E give the production of the two commodities (butter and guns) by utilizing same amount of resources. The PPC curve shows different combinations of guns and butter that can be produced with the available resources.

ALLOCATION OF RESOURCES: SOLUTION OF CENTRAL PROBLEMS

Capitalistic economy and socialistic economy are two types of economic systems. All the countries in general have adopted a mixed economy system.

Resource Allocation in a Mixed Economy

Mixed economy has features of both capitalist economy and the socialist economy. In this system, the means of production are partly owned by the private and partly by the Government. (A mixed economy has both the public sector and the private sector). Economic activities are allowed to play freely in the market but at the same time, the Government regulates some of the segments of the economy. In India, we have both public sector and private sector and hence, mixed economy represents a mixture of capitalism and socialism. In some areas where there is no interference by the government, in some areas, the government regulates all the work and in selected areas all economic activities are reserved for government to encourage a balanced development of the economy.

ECONOMIC METHODOLOGY AND ECONOMIC LAWS

Economic methodology is the study of methods, usually scientific method, in relation to economics, including principles underlying economic reasoning. The term 'methodology' is also commonly, though incorrectly, used as an impressive synonym for method(s). Rather, methodology is the study of method(s).

The objective of economic modelling is to produce an abstract representation of a real economic context. Such a representation can be used to explain how the context works, to instruct about it, to forecast its behaviour and to stimulate policy in regard to its function.

Economists regard modelling as a form of scientific method. When the term "Scientific Method" is

INTRODUCTION TO ECONOMICS AND ECONOMY / 3

mentioned, people often think of experimentation within a laboratory setting. Such experimentation generates data which can serve as the basis for an inference about the validity of a scientific theory or hypothesis. Economists have only upon occasion undertaken experiments as a means of discerning the economic nature of the world.

Economic Laws

Economics, like all other sciences, has drawn its own set of generalizations or laws. Economic laws are nothing more than careful conclusions and inferences drawn with the help of reasoning or by the aid of observation of human and physical nature. In everyday life, we see man is always busy in satisfying his unlimited wants with limited means. In doing so, he acts upon certain principles. These principles or generalizations which an average man usually follows when he is engaged in economic activity are termed, "Economic Laws". Economic laws are the statements of general tendencies. In the words of Marshall, "Economic Laws are those social laws which relate to branches of conduct, in which the strength of motive chiefly concerned can be measured by money prices."

- 1. Laws of economics are less exact: The nature of economic laws is that they are less exact as compared to the laws of natural sciences like Physics, Chemistry, Astronomy, etc. An economist cannot predict with surety as to what will happen in future in the economic domain. He can only say as to what is likely to happen in the near future.
- 2. Economic laws are essentially hypothetical: Economic laws, writes *Seligman*, are essentially hypothetical. They are true under certain given conditions. If these conditions are fulfilled, the conclusions drawn from them will be true and exact as those of the laws of physical sciences. From this statement that laws of economics are hypothetical, we should not conclude that, they are useless or unreal. The hypothetical element is also there in the laws of physical sciences.
- 3. Economic laws are qualitative and not quantitative: Laws of economics are qualitative in nature. They are not exactly stated in quantitative terms. They tell the direction of change which is expected rather than the amount of change. For example, according to the law of demand, the quantity

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demanded varies inversely with price. We do not say that 10% rise in price will lead to 30% fall in the quantity demanded.

4. Applies on the average in normal conditions: Economic laws do not deal with any particular individual, firm, commodity, etc. It takes an average economic unit and lays down its economic behaviour.

Inductive and Deductive Reasoning

Inductive reasoning, also known as induction or inductive logic, is a type of reasoning that involves moving from a set of specific facts to a general conclusion. It uses premises from objects that have been examined to establish a conclusion about an object that has not been examined. It can also be seen as a form of theory-building, in which specific facts are used to create a theory that explains relationship between the facts. Inductive reasoning is used when a sequence of individual pieces of information is generalized into a conclusion that relates to those pieces of information (e.g., after several cakes baked in the same cake pan came out burnt). Carl concluded that if he bakes a cake in that particular cake pan it will probably come out burnt).

For example: 3 + 5 = 8 and eight is an even number. Therefore, an odd number added to another odd number will result in an even number.

Deductive reasoning, also called deductive logic, is reasoning which constructs or evaluates deductive arguments. In logic, an argument is deductive when its conclusion is a logical consequence of the premises. Deductive arguments are valid or invalid, never true or false. A deductive argument is valid if and only if the conclusion does follow necessarily from the premises. Logic is used to move from premises to conclusions. Each premise can be true or false. If the conclusion is invalid, then at least one of the premises must be false. And if a deductive argument is not valid then it is invalid. Deductive reasoning is used when a generalization relating pieces of information is known, and a conclusion about a specific piece of information is desired. (e.g., the baseball coach knows the opposing batsman hits fast-balls well, so she instructs her pitcher not to throw a fast-ball).

Equilibrium

Equilibrium is the condition of a system in which competing influences are balanced. In economics, economic equilibrium is simply a state of the world where economic forces are balanced and in the absence of external influences the (equilibrium) values of economic variables will not change. It is the point at

which quantity demanded and quantity supplied are equal.

Equilibrium can be analysed in two forms:

- **1. Partial:** In partial equilibrium analysis we concentrate on a single market in isolation from the rest of the economy.
- **2. General:** In general equilibrium analysis, we analyse simultaneously all the markets in the economy on the basic premise that everything depends on everything else.

POSITIVE VERSUS NORMATIVE ECONOMICS

Positive economics is the branch of economics that concerns the description and explanation of economic phenomena. It focusses on facts and cause and effect relationship and includes the development and testing of economic theories. Positive economics as science concerns analysis of economic behaviour. Positive economics as such avoids economic value judgements. For example, a positive economic theory might describe how money supply growth affects inflation, but it does not provide any instruction on what policy ought to be followed.

Normative economics is the branch of economics that incorporates value judgements (normative judgements) about what the economy ought to be like or what particular policy actions ought to be recommended to achieve a desirable goal. Normative economics deals mostly with value judgements regarding the economy. It focusses on what a good economy should look like and what should be recommended to get there. Whereas, a positive economy focusses only on factual information, statistics, and scientific formula to determine what the economy should look rather than value of judgement discussion. Positive Economics (sometimes called Descriptive Economics) is the study of economic reality and why the economy operates as it does. It is purely biased on facts rather than opinions. This type of economics is made up of positive statements which can be accepted or rejected through applying the scientific method.

MICRO ECONOMICS AND MACRO ECONOMICS

Micro economics is the study of decisions that people and businesses make regarding the allocation of resources and prices of goods and services. This aslo means also taking into account taxes and regulations created by governments. Micro economics focuses on supply and demand and other forces that determine the price levels seen in the economy. For example, micro economics would look at how a specific company could maximize its production and capacity so it could lower prices and better compete in its industry.