PM SHRI STUDY MATERIAL
Class: 10+2, Subject: Economics
Part: Micro Economics

Question: What do you mean by Economics?

Answer: Economics is that science in which those activities of human beings are studied which they perform in relation to limited resources that satisfy unlimited wants and the proper utilization of those resources. This word of the English language is derived from two words of the Greek language, **Oikos (Household) + Nemein (Management)**. It means household management. The needs of every human being are unlimited. But the resources to satisfy them, such as clothes, food, etc., are limited. Every human being would like to use their wealth correctly in such a way that they can satisfy their maximum wants. In this way, a producer allocates his scarce resources to produce various goods and services in such a way that he can obtain maximum profit. Economics is that social science which is concerned with the allocation of limited resources in such a manner that the consumer can maximize his satisfaction. The producer can maximize his profit and society can maximize its social welfare.

Question: Give the wealth definition of Economics.

Answer: The wealth definition of Economics was first given by Adam Smith in 1776 in his book "An inquiry into nature and causes of wealth of Nation". He is known as the Father of Economics. According to this definition, we study such activities in Economics which are related to wealth. According to Adam Smith, wealth refers only to material goods which have some shape and which can be seen and touched; in this way, in his definition, he kept services out of the scope of Economics. According to him, the main concern of Economics is to study the nature of wealth available in different nations, kind of wealth present in different countries, such as natural wealth which we obtain from nature, human wealth which refers to skilled labor, financial wealth which refers to money available for investment, material wealth which refers to machines, etc., and how the quantity of this wealth can be increased in these countries?

Question: Give the material welfare definition of Economics.

Answer: Dr. Marshall gave definition of Economics in 1890 in his book Principles of Economics. According to Marshall, 'Economics is 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 with the use of the material requisites of well-being.' In this definition, Dr. Marshall says that the main subject of Economics is to study human welfare and this welfare is obtained by people from material goods, i.e., those goods which can be seen and touched. In this way, he kept services out of the scope of Economics. Along with this, Dr. Marshall says that in Economics, one should not study the economic man, but the social man, who lives in society and works as a member of society.

Question: Describe the scarcity definition of Economics.

Answer: Lord Robbins gave the scarcity definition of Economics in 1932. According to Lord Robbins, "Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses". Therefore, in Economics, those activities of human beings are studied which they perform to obtain limited resources to satisfy their unlimited wants. These resources are not only limited, but they also have alternative uses. In this way, Economics is the study of (1) satisfying unlimited wants with (2) limited resources that have alternative uses.
Criticism: Economists like Durbin, Fraser, Ely, etc., also criticize this definition. According to them, Robbins has turned Economics into merely a science of choice or price determination. It has not been related to human welfare and solving its economic problems by Robbins. This is an impractical, complex, and static definition of Economics.

Question: Describe the growth-oriented definition of Economics.

Answer: According to modern economists such as Nobel Prize winner Prof. Samuelson, Ferguson, etc., "Economics is the science in which those activities are studied, which are performed in relation to the proper use of limited resources

to achieve greater satisfaction". These economists have included the definitions of both Marshall and Robbins in their definition. According to them, Economics is concerned with the efficient allocation and consumption of resources so that, as a result, the rate of economic growth can be accelerated and social welfare can be increased.
According to Nobel Prize-winning economist Samuelson, "Economics is the study of how people and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time and distribute them for consumption now and in the future among various persons and groups of society." It analyzes the costs and benefits of improving patterns of resource allocation.

Question: What are the various reasons responsible for the problem of choice in Economics?

Answer: The problem of choice arises because (1) resources are limited as compared to human wants and (2) these resources have alternative uses.
Causes of the Problem of Choice:

1. **Limited Resources** - Economic resources are scarce in comparison to their demand. If all economic resources were available in great abundance, there would be no economic problems. The scarcity of resources is the cause of the problem of choice.
2. **Alternative Uses** - The alternative use of various resources is another cause of the problem of choice. Every family must satisfy its unlimited wants with its limited resources. For example, milk is a scarce commodity. It can be used to make tea, coffee, cheese, etc. From this, the problem of choice arises as to which need should be fulfilled first and which one later? Therefore, we have to see which commodity we have to sacrifice in order to obtain another commodity by using our limited resources.

In this way, due to our resources being limited and our wants being unlimited, the problem of choice arises; in fact, the problem of choice is the main economic problem.

Question: What do you mean by Micro Economics?

Answer: In the English language, the word 'Micro' is derived from the Greek word '**MIKROS'**, which means small. When we study economic problems by dividing them into small parts and studying each part individually, it is called microeconomic analysis. According to Prof. Shapiro, Microeconomics is concerned with small parts of the economy. The units of Microeconomics include individual consumers or households, individual production units such as firms, individual industries, or individual factors of production. In Microeconomics, it is explained how these individual units make their decisions. In this way, economic problems or economic relationships are studied at an individual level, such as the economic problems of a consumer, a firm, or a household.

Question: What is the meaning of Macro Economics?

Answer: The word Macro is derived from the Greek word '**MAKROS'**, which means large. Therefore, Macroeconomics is that branch of Economics that deals with various economic activities or economic problems at the level of the economy as a whole. The main subject matter of Macroeconomics is the study of aggregates, such as aggregate demand, aggregate supply, aggregate consumption, national income, foreign exchange rate, balance of payments, etc., because Macroeconomics studies various economic problems and economic activities related to the entire economy. Tis why it is also called aggregate economics. According to Fellner, "Macroeconomics studies the aggregate of individual decision-making units, especially the whole economy".

Question: Discuss the differences between Microeconomics and Macroeconomics.

Answer: The main difference between these two types of economics can be made on the basis of the nature of variables and the level of economic activity etc. The main differences between these two types of economics are explained as follows:

Microeconomics	Macroeconomics
1. The word Micro is derived from the Greek word MIKROS, which means small.	1. The word Macro is derived from the Greek word MAKROS, which means large.
2. Microeconomics is related to economic activities of individual level.	2. Macroeconomics is related to economic activities performed at the level of the economy as a whole.
3. The subject matter of Microeconomics are issues related to individual consumers, individual producers, individual households, individual firms, or individual industries.	3. The subject matter of Macroeconomics are issues related to full employment, national income, balance of payments, or monetary stability, etc.
4. Microeconomics is also called the theory of price determination because it is related to the determination of prices of goods and services; and price of factors of production.	4. Macroeconomics is called the theory of income, output, and employment because it is related to their determination in the economy.
5. In Microeconomics, the market plays a major role because it is related to the determination of prices, and prices are determined in the market. Therefore, the market plays the main role.	5. Because Macroeconomics is related to the determination of national income and national output, and it is the government that determines all these. Thus, government plays the main role in Macroeconomics.
6. Microeconomics assumes that there is no change in macro variables. This means that when the price and production of a firm or industry are studied, it is assumed that there is no change in the total volume of production.	6. Macroeconomics assumes that there is no change in micro variables. This means that when total production and national income are studied, it is assumed that there is no change in the distribution of income at the individual level.
7. Microeconomics depends on Macroeconomics.	7. Macroeconomics depends on Microeconomics.
8. While analyzing in Microeconomics, we always use the concept of counting because it is easy to measure variables at individual level.	8. While analyzing in Macroeconomics, we always use the concept of estimation because we can only estimate macroeconomic variables.

Question: What are the different central problems of an economy? Explain in detail.

Answer: Due to limited resources, unlimited wants, and alternative uses of resources, every economy primarily faces three central problems.The central problems of an economy can be explained as follows:

1. **What to produce and in what quantity? :** The first problem an economy faces is deciding which goods and services are to be produced. Additionally, the economy needs to decide the quantity in which these goods and services should be produced. Let's understand this problem with the help of an example: Suppose an economy can only produce two types of things, such as consumer goods (e.g., rice, wheat, laptops, etc.) and capital goods (e.g., machinery, bridges, etc.). Now, with the amount of available resources, the economy needs to decide which consumer goods and which capital goods should be produced. Thus, the economy faces a choice whether to produce more capital goods and fewer consumer goods or fewer capital goods and more consumer goods?

2. **How to produce? :** The next problem the economy faces is deciding which production technique is to be employed in the production of selected goods and services. Below are two techniques of production: **(a) Labor-**

Intensive Technique: This production technique uses more labor relative to capital or machines. For example, in India, agricultural activities use more laborers and fewer machines. Therefore, they use labor-intensive techniques. **(b) Capital-Intensive Technique:** This production technique uses more capital or machines relative to labor units. For example, the production of durable goods like TVs, refrigerators, vehicles, etc., requires use of capital-intensive production techniques.The economy needs to determine which specific production technique to adopt to use its available resources in the best, efficient, and optimal way. For instance, India is a labor-abundant country; thus, it would be more beneficial for India to choose labor-intensive techniques as it will not only reduce production costs but also help in reducing unemployment.

3. **For whom to produce? or the problem of distribution of national product:** This economic problem is actually related to the distribution of the final goods and services produced. The distribution of final goods and services is equal to the distribution of national income (or national product) among the factors of production like land, labor, capital, and entrepreneur. The economy needs to determine a method for distributing final goods and services among different sections of the population to reduce income inequality. This problem is concerned with who receives more or who receives less? Which items should be available for free or at a low (nominal) price, and for which section? etc.

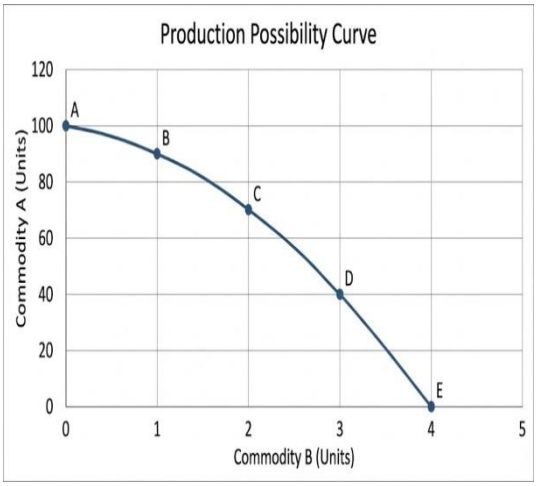
Question: What is Production Possibility Curve? State its assumptions and characteristics.

Answer: The curve that represents the combinations of two goods and services that can be produced with given resources and a specific level of technology is called the Production Possibility Curve (PPC). It is also known as the Production Possibility Frontier or Transformation Curve.

Assumptions of the Production Possibility Curve: In an economy, the Production Possibility Curve is constructed based on the following assumptions: The economy produces only two good ; The quantity of resources in the economy is fixed; The level of technology remains constant (no change in technology) ; Available resources are used fully and efficiently; Resources are not equally efficient in the production of all goods.

Table: Production Possibilities

Production Possibilities	Commodity A (Units)	Commodity B (Units)
A	100	0
B	90	1
C	70	2
D	40	3
E	0	4



Explanation: In the above table and graph, various production possibilities (A, B, C, D, and E) of two goods (A and B) are shown. We plot these possibilities on a graph with Commodity B on the X-axis and Commodity A on the Y-axis. By joining all these points, we obtain the Production Possibility Curve, AE. Point A indicates that if all resources are used to manufacture Commodity A, then 100 units of Commodity A can be produced, and at this time, the production of Commodity B will be zero. Similarly, point E indicates that if all resources are used to manufacture Commodity B, then 4 units of Commodity B can be produced, and at this time, the production of Commodity A will be zero. Thus, the economy needs to choose how much of the available resources should be used for the production of Commodity A and how much for Commodity B.

Characteristics of the Production Possibility Curve: The following are the two main characteristics of this curve:

1. **PPC slopes downwards from left to right:** This is because, with the given resources, if we want to increase the production of one Commodity, we must decrease the production of the other Commodity.
2. **PPC is concave to the point of origin:** This is because as we increase the production of one Commodity, the marginal opportunity cost of producing it increases. This means we have to sacrifice more and more units of the other Commodity for every additional unit of this Commodity.

Question: What is opportunity cost?

Answer: Due to very scarce resources and unlimited wants, the problem of choice arises before the economy as to which goods and services should be produced with these resources and which goods and services should be sacrificed. If an economy decides that more of its resources will be used to manufacture consumer goods, it means that fewer resources will be used to manufacture capital goods, resulting in lower production of these capital goods. Therefore, it is necessary to sacrifice some units of the second commodity to produce more of one commodity, and these sacrificed units will be called the opportunity cost of the units produced.

Question: What is marginal opportunity cost?

Answer: Sometimes we consider opportunity cost and marginal opportunity cost as the same concept. But there is a big difference between these two concepts. While opportunity cost represents the total sacrifice made by producing additional units of a commodity, on the other hand, marginal opportunity cost represents those units of a commodity sacrificed that are given up to produce one additional unit of another commodity. The slope of the production possibility curve is always equal to the marginal opportunity cost.

Question: Define consumer equilibrium?

Answer: The main objective of the consumer is to spend his limited income on various final goods and services in such a way that maximum satisfaction can be obtained from their use. If a consumer spends his limited income on different goods and services based on their given market prices in such a way that they are getting maximum satisfaction, then in this situation he considers his current behavior to be the best. He does not want to make any kind of change in it, but if there is any change in the conditions, i.e., his income or the given price of the commodity, then the consumer equilibrium will change. There is a shortage of resources compared to unlimited wants; therefore, a consumer takes consumption-related decisions keeping in view certain principles to achieve maximum satisfaction. There are two main theories for studying consumer equilibrium. They are as follows:

1. **Cardinal Utility Analysis:** According to this, it is possible for the consumer to measure the level of utility obtained from a commodity in numbers. This assessment of utility can be done in different units such as utils, money, and in the form of opportunity cost.
2. **Ordinal Utility Analysis:** According to this, there is no need to measure the satisfaction obtained from the consumption of a commodity in numbers. A consumer can also make their consumption decisions based on a fixed rank or order according to his preference.

Question: What is utility?

Answer: Whenever we use any commodity or service, it is used by us because we need that commodity or service, and when we use that commodity or service, our need is fulfilled, and we get satisfaction upon fulfillment of the need. This means that whatever commodity or service is used by us has some power in it by which our need is fulfilled and we get satisfaction.

Question: What is 'Util'?

Answer: The concept of 'Util' is related to cardinal utility because cardinal utility analysis is based on the assumption

that utility can be measured in numbers. Therefore, we need a unit in which utility can be measured. This unit is called 'Util'. 'Util' is a unit in which utility is measured. For example, when we drink a glass of water, we say that we get satisfaction from it equal to 10 utils.

Question: Explain the relationship between total utility and marginal utility.

Answer: Utility is the satisfaction a consumer receives from consuming a product or service. Cardinal utility analysis assumes a rational consumer can express this satisfaction in "utils". There are two key concepts of utility: total utility and marginal utility. Total utility (TU) refers to the utility obtained from consuming all units of a commodity. Marginal utility (MU) is the change in total utility resulting from the consumption of one additional unit of a commodity. Total utility is the sum of marginal utilities. The relationship between total and marginal utility can be shown through a table and diagram.

Table showing Total Utility and Marginal Utility

Units of Commodity X	Total Utility (TU) (utils)	Marginal Utility ($MU_n=TU_n-TU_{n-1}$)
1	50	50 - 0 = 50
2	100	100 - 50 = 50
3	130	130 - 100 = 30
4	150	150 - 130 = 20
5	160	160 - 150 = 10
6	160	160 - 160 = 0
7	150	150 - 160 = -10

Based on the table above, the relationship between total utility and marginal utility is explained as follows:

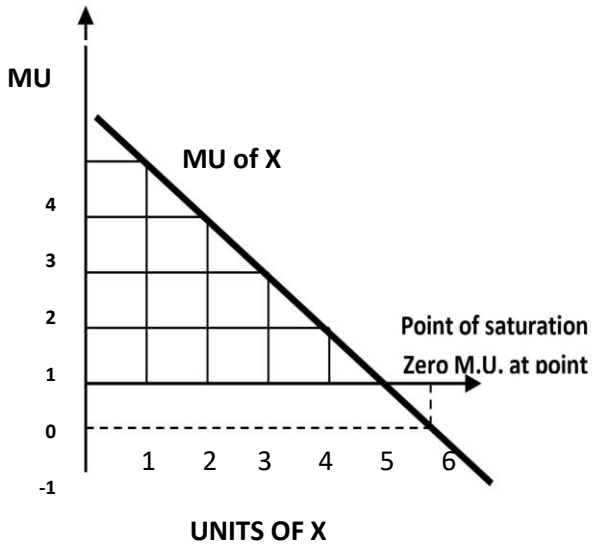
1. As units of commodity X are consumed, the marginal utility obtained from each additional unit decreases. With the continuous consumption, marginal utility becomes zero and eventually negative (MU is zero at the 6th unit and negative at the 7th unit).
2. As long as the marginal utility (MU) from additional units is positive, total utility (TU) increases (MU is positive until the 5th unit).
3. When total utility (TU) reaches its maximum (called the point of full satisfaction), marginal utility (MU) becomes zero. At the 6th unit, TU is at a maximum of 160 utils and MU is zero.
4. When total utility (TU) begins to decrease, marginal utility (MU) becomes negative. After the 7th unit, MU is negative and TU drops from 160 utils to 150 utils.
5. Marginal utility is calculated from total utility: $MU = TU_n - TU_{n-1}$. Total utility is calculated by summing the marginal utilities: $TU_n = MU_1 + MU_2 + MU_3 + \ldots\ldots + MU_n = \sum MU$.

Question: Describe the Law of Diminishing Marginal Utility.

Answer: According to Marshall, "The additional benefit which a person derives from a given increase of his stock of a thing diminishes with every increase in the stock that he already has."

The law can be explained with the following table and diagram:

Units of Commodity X (Quantity)	Marginal Utility of X (MU)
1	4
2	3
3	2
4	1
5	0
6	-1



It is clear from the table and diagram that as additional units of commodity X are consumed, the marginal utility obtained from each unit decreases.

Question: Explain consumer equilibrium in the case of a single commodity.

Answer: Consumer Equilibrium in the Case of a Single Commodity: In the case of consuming a single commodity, a consumer will be in equilibrium when the marginal utility obtained from the last unit of money spent on the commodity becomes equal to the marginal utility of money. That is, the marginal utility obtained from one rupee = marginal utility of money.

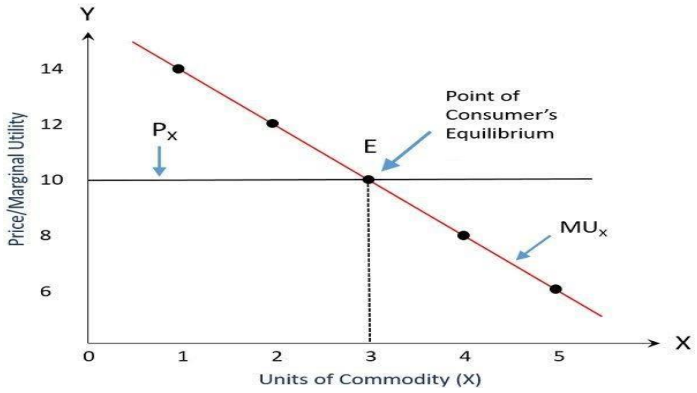
$MU_x/P_x = MU_m$, MU_x refers to the marginal utility of commodity X and P_x refers to the price of the commodity. MU_m is the Marginal utility of money which refers to the real value of one rupee as perceived by the consumer. This is a subjective concept, and a consumer determines its value himself. In utility analysis, the marginal utility of money is assumed to be constant.

Consumer Equilibrium: A consumer is in equilibrium when the marginal utility of one rupee becomes equal to the marginal utility of money. Thus, $MU_x/P_x = MU_m$

Explanation with the help of a Table: Suppose the marginal utility of money is 5 utils and the price of commodity X is 5 rupees. The marginal utility obtained from different units of commodity X is recorded in the following table:

Units of Commodity X	Marginal Utility of X (MUx) (utils)
1	30
2	28
3	25
4	20
5	10
6	2
7	-5

It is clear from the above table that the consumer reaches equilibrium at the consumption of 3 units of commodity X. At this point, the marginal utility of one rupee is equal to the marginal utility of money. At this point, $MU_x/P_x = MU_m$ because for 3 units of commodity X, $MU_x = 25$ and $MU_m = 5$ and $MU_x/P_x = 25/5=MU_m=5$



In the above diagram, units of commodity X are marked on the x-axis, while the price and utility of commodity X are marked on the y-axis. The MU_m curve is a line parallel to the x-axis, representing the constant marginal utility of money. The slope of the MU_x curve is negative, representing the diminishing marginal utility of commodity X. Consumer equilibrium occurs at point E, where the marginal utility of one rupee becomes equal to the marginal utility of money.

Question: Discuss the factors affecting demand.

Answer: The demand for a commodity depends on various factors besides its own price. The relationship between these factors and the demand for a commodity can be presented as demand function. Demand functions can be of two types:

1. Individual Demand Function: An individual demand function provides information about the effect of various determinants on the quantity demanded by an individual consumer. The determining factors of an individual demand function are shown below:

i. **Own price of the commodity**: When other factors do not change, there is an inverse relationship between the price of a commodity and its demand. This means that when the price of that commodity increases, its demand decreases, and when the price decreases, its demand increases.

ii. **Price of other related goods**: Besides its own price, the demand for a commodity is also affected by the prices of related goods. Any two goods are considered related when a change in the price of one commodity leads to a change in the demand for the other. Related goods can be classified into the following categories:

- **Substitute Goods**: Substitute goods are those goods that can be used in place of each other. In other words, they can be substituted for one another. For example, tea and coffee, Colgate and Pepsodent, Cello pen and Reynolds pen, etc., are examples of substitute goods. In the case of these goods, when the price of one commodity increases, the demand for the other commodity increases. For example, if the price of tea increases, the demand for tea will decrease. As a result, consumers will shift their consumption toward coffee, and the demand for coffee will increase.
- **Complementary Goods**: Complementary goods refer to those goods that are used together. The joint consumption of these goods satisfies need of a consumer. For example: tea and sugar, ink pen and ink, printer and paper, etc. In the case of complementary goods, if the price of one commodity increases, a consumer reduces their demand for the other complementary commodity. For example, sugar and tea are complementary goods. Since sugar and tea are consumed together, an increase in the price of tea decreases the demand for sugar and vice versa.

iii. **Income of the consumer**: A change in the consumer's income also affects the demand for goods. The effect of a change in income on demand depends on the type of commodity. Normal goods have a direct relationship with income. This means that in the case of normal goods, the demand for a commodity increases with an increase in income and decreases with a decrease in income. Inferior goods have an inverse relationship with income. This means that in the

case of inferior goods, the demand for a commodity decreases as income increases and increases as income decreases. Giffen goods are those goods that are very inferior goods. Like inferior goods, the demand for Giffen goods also has an inverse relationship with income. This means that in the case of Giffen goods, the demand for a commodity decreases with an increase in income and increases with a decrease in income.

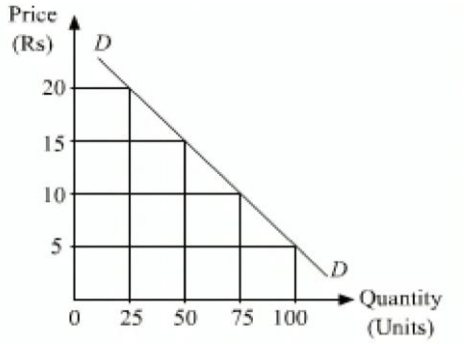
iv. Consumers' taste and preference: Consumers' tastes and preferences greatly affect the demand for goods. Taste and preferences include factors such as habits, religious customs, etc. If a consumer prefers one commodity over another, his demand for that commodity increases and vice versa.

2. Market Demand Function: Similar to the individual demand function, the market demand function represents the relationship between the market demand for a commodity and its various determinants. It can be in the form of the following functions:

i. Size of population: The market demand for a commodity is also affected by the size of the population. Other things being equal, an increase in population size increases the market demand for a commodity and a decrease in population decreases the market demand for a commodity. **ii. Distribution of income:** If the distribution of income in a society is fair and equal, the demand for a commodity is higher compared to a situation with an unequal distribution of income.

Question: What is meant by the law of demand? Describe its assumptions.

Answer: We know many factors affect the demand for a commodity. Price is the most important of all those factors that affect demand. The law of demand explains this fundamental relationship between the demand for a commodity and the price of the commodity. According to the law of demand, if other things do not change, then there is an inverse relationship between a consumer's demand for a commodity and the price of that commodity. In other words, if there is no change in income, price of related goods, and consumer's tastes and preferences, then there is an inverse relationship between the price of that commodity and its quantity demanded. The law of demand can be explained with the help of the following demand table. The table shows that as the price of commodity-X increases from 5 rupees to 10 rupees, the demand for the commodity falls from 100 units to 75 units. Thus, there is a negative relationship between demand and price. If we show the above table on graph paper, we can obtain a demand curve. Therefore, the quantity demanded is shown on the X-axis and the price on the Y-axis. By joining different combinations of price and demand, we get a curve DD; this curve is the demand curve which shows the inverse relationship between price and demand.



Price of Commodity X (Rs)	Quantity Demanded of X (units)
5	100
10	75
15	50
20	25

Assumptions of the law of demand: The law of demand is based on certain assumptions which are explained below:

It assumes that the consumer's income remains constant. If a person's income increases, his demand for products also increases, which is against the law of demand.

1. It assumes that the consumer's preferences remain the same.
2. It assumes that fashion shows no change, because if fashion changes, people will not buy those products that are out of fashion.

3. It assumes that there is no change in the age structure, size, and sex ratio of the population. This is because if the population size increases, the number of buyers increases, which in turn directly affects the demand for the product.
4. It assumes that no innovations will take place which could affect the demand for the existing product.
5. It assumes that there is no change in the distribution of income.
6. It assumes that there is no change in government policies. changes in any kind of fiscal policies of a nation's government will affect the demand for products.

Question: What is meant by Law of Variable Proportion? Describe its assumptions and stages of production.

Answer: Law of Variable Proportion states if more and more variable factor (labor) is used with the same quantity of fixed factor (capital), then initially total output will increase but gradually after a certain point, total output will start to decrease.

Law of diminishing marginal returns to a factor:

According to law of diminishing marginal returns to a factor if the quantity of a variable factor is continuously increased with a fixed quantity of a fixed factor, then after a point a situation will arise where marginal product of variable factor will start decreasing and at a point it will become zero and thereafter it will become negative.

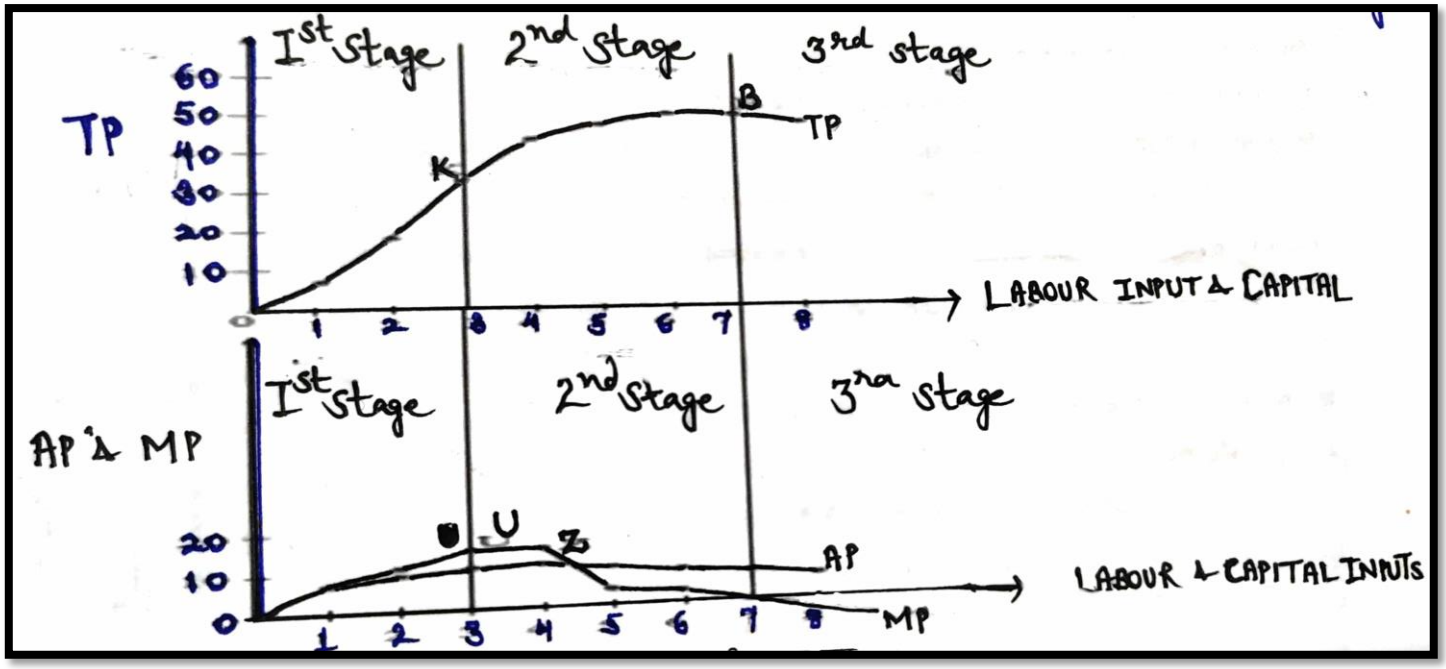
Note: Both the above laws explain the same concept but with different perspectives. While the law of variable proportion is based on total output of a firm and the law of diminishing marginal returns is based on the concept of only marginal output of a firm.

Assumptions of the Law of Variable Proportion:

1. The level of technology remains constant.
2. All units of a variable factor are homogeneous. This means that all units of labor are equally productive.
3. Only one factors of production can be changed at a time and the remaining factors of production remain fixed.
4. There is no change in prices of inputs such that wages (price of labor) and interest (price of capital) remain same,
5. It is believed that the increase in output may occur in a different proportion to the proportion in which inputs are increased. For example, if 3 units of labor and 1 unit of capital are used to produce 10 units of output, then 5 units of labor and 1 unit of capital are used to produce 15 units of output. The unit can be used. In the first example, the labor-capital ratio is 3:1, while in the second it is 5:1.

This law can better be explained with the help of below given table and diagram:

Units of Capital (K)	**Units of Labour (N)**	**Total Production (TP)**	**AP=** $\frac{TP}{L}$	**MP=**$\frac{\Delta TP}{\Delta L}$	**STAGES OF RETURNS**
1	0	0	0	-	**Increasing Returns to a factor**
1	1	7	7	7	
1	2	18	9	11	
1	3	33	11	15	
1	4	44	11	11	**Diminishing Returns to a factor**
1	5	48	9.6	4	
1	6	51	8.5	3	
1	7	51	7.4	0	
1	8	49	6.1	-2	**Negative Returns to a factor**



Explanation of the law of Variable Proportion:

The entire production phase can be shown in three different production stages.

First stage: Increasing Returns to a Factor

This stage starts from the initial point O and continues along total production (TP) curve till it reaches up to point K. During this stage, total production curve rises at an increasing rate and marginal production (MP) curve reaches its maximum point (U) when marginal product curve increases (in the figure). Throughout this stage, average product (AP) curve continues to rise.

Second stage: Diminishing Returns to a Factor

This stage runs from point K to B along total production curve. In this stage total production curve continues to rise and reaches its maximum point at point B, where it remains constant, on the other hand marginal product continues to rise and it cuts average product curve at its maximum point (Z) and at this point both average product and marginal product are equal. When total product attains its maximum point (B) then marginal product becomes zero. The average product, initially rises in this stage, attains its maximum point at point Z and starts falling thereafter.

Third stage: Negative Returns to a Factor

This stage begins from point B on total product curve. During this, total product curve starts falling and marginal product curve becomes negative from zero. At the same time, the average product curve continues to fall and approaches (but does not touch) near the X-axis. Like the first stage, this stage is called the non-economic zone because no rational producer will work in this stage. As here total product is getting lesser and lesser even by using additional units of labor. This means that even by employing more & more labor TP does not increase rather it will increase cost of production in the form of additional wages.

Ques: Why is average cost curve U-shaped?

Answer: U shape of average cost curve can be explained as follows: -

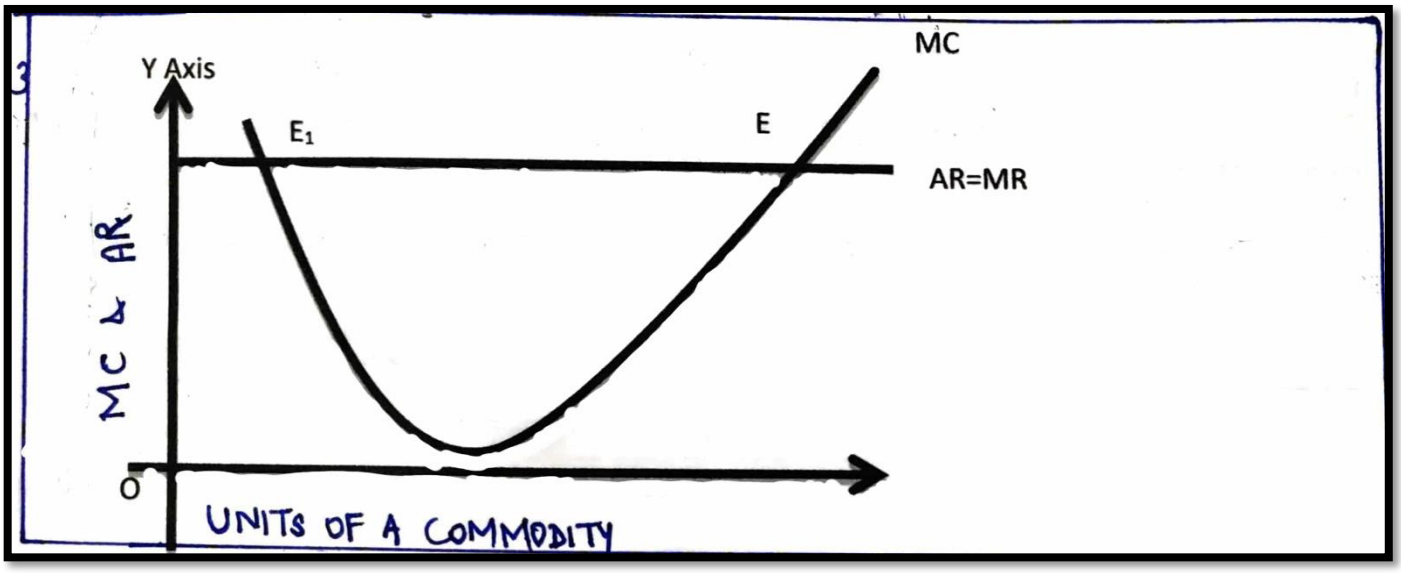
As we know that average cost is the sum of average fixed cost and average variable cost. In the initial stage of production, both average fixed cost and average variable cost decrease, due to which average cost also decreases and its slope is downwards. After that, average fixed cost keeps on decreasing, but average variable cost starts increasing and the increase in average variable cost is more than the decrease in average fixed cost, therefore average cost starts increasing and its slope goes up. Due to which its shape becomes like English letter 'U'.

Due to Economies and Diseconomies: In the initial stages of production, economies (savings) received by a producer are greater than the losses suffered by him, due to which he gets profits so average cost curve decreases. After a certain stage, losses suffered by the producer are greater than the savings received by him, due to which he starts getting losses. The average cost curve starts increasing and its slope rises upwards. Due to which its shape is like the English letter U.

Due to Law of Variable Proportion: Due to law of variable proportion, increasing returns to a factor are obtained first, i.e. marginal product increases. Due to which average and marginal cost curve decrease. After this, the stage of

decreasing returns to a factor begins, due to which average and marginal cost increase and average cost curve rises upwards. Due to which its shape becomes like the English letter U. That is why average cost curve is U-shaped.
Question: Explain the relationship between average cost and marginal cost.
Answer: The following provides an overview for the relationship between average and marginal cost.
1. When average cost falls, marginal cost is lower than average cost: When average cost falls, marginal cost also falls. It is visible from the figure that AC is falling from point A to till point E and MC curve is below the AC curve in this situation. In this case, marginal cost falls more rapidly than average cost. This is why when marginal cost (MC) curve falls down, it is below the average cost (AC) curve. As explained in the figure.
2 When AC rises, MC is greater than AC: When AC rises, MC is greater than AC. Now, AC curve starts rising from point E and from here MC curve is above the AC curve.
3. The marginal cost curve cuts average cost curve at its lowest point: When average cost is at its lowest, then MC = AC. From the diagram, we can see that the MC curve intersects AC curve at its minimum point.
Question: Describe various factors that influence supply.
Answer: The supply of a commodity depends on various variables other that price of that commodity. The relationship between these variables and supply of a commodity can be expressed in a functional form called the supply function.
1. Price of a Commodity - Other things being equal, at high prices, producers prefer to increase their supply to increase their sales and conversely, when the price of the commodity falls, producers will reduce supply of commodity. Thus, there is a direct relationship between price and supply of a commodity.
2. The price of Related Goods - An increase in price of substitute good will make it profitable for a producer to produce those goods, so the producer will try to increase the production of those goods (substitutes). This will leave the producer with less resources to allocate for the production of other good, so the supply of other good will decrease. For example, if a producer produces both tea and coffee and price of coffee increases, producer will try to allocate more available resources to the production of coffee, which will automatically reduce the production (and supply) of tea. Thus, there is a negative relationship between change in the price of the substitute good and the supply of the other good. Like substitute goods, price of complementary goods also affects supply of related goods. An increase in price of a complementary good will encourage a producer to produce more of its related complementary good. For example, suppose the price of ink increases, then it will be more profitable for a pen-producing firm to produce more of ink-pens. Therefore, the supply of pens will increase (due to the increase in the price of ink). Thus, there is a positive relationship between a change in the price of a complementary good and the supply of the related good.
3. Price of inputs - Due to increase in cost of production, it becomes relatively less profitable for producer to produce, as a result, less quantity is supplied at the fixed price. On the other hand, if price of inputs decreases, the cost of production also decreases, thus, the producer supplies more quantity of goods at the fixed price. Thus, change in the price of inputs has a positive effect on the supply of concerned product.
4. State of Technology - Other things being equal, if level of available technology increases, per unit cost of production decreases, which means higher supply of goods and vice versa.
Question: What is meant by producer equilibrium?
Answer: Producer equilibrium refers to a situation in which the producer gets maximum benefits or suffers minimum losses. In such a situation, the producer does not want to change the level of production.
Question: Explain concept of producer equilibrium according to Marginal Revenue(MR)-Marginal Cost(MC) method.
Answer: Producer equilibrium refers to a situation in which the producer gets maximum benefits or faces minimum losses. In such a situation, producer does not want to change the level of production. Every producer in the economy wants to achieve a state of equilibrium. According to the marginal revenue-marginal cost method, there are two conditions for achieving a state of equilibrium. To achieve a state of equilibrium, both these conditions must be fulfilled.
Conditions of producer equilibrium according to the marginal revenue-marginal cost method:
1. The marginal cost of production and marginal revenue from sales must be equal.
Marginal Revenue (MR) = Marginal Cost (MC)
2. At the point where marginal cost and marginal revenue are equal, marginal cost must be increasing. That is, the marginal cost curve cuts marginal revenue curve from its below.
Explanation of producer equilibrium with the help of diagram:
The producer equilibrium can be shown with the help of below given diagram This diagram is drawn on the basis of assumption that there is a perfect competition in the market.

The diagram shows units of a good produced on the X-axis and the marginal cost of producing the good and the marginal revenue from selling the good on the Y-axis.



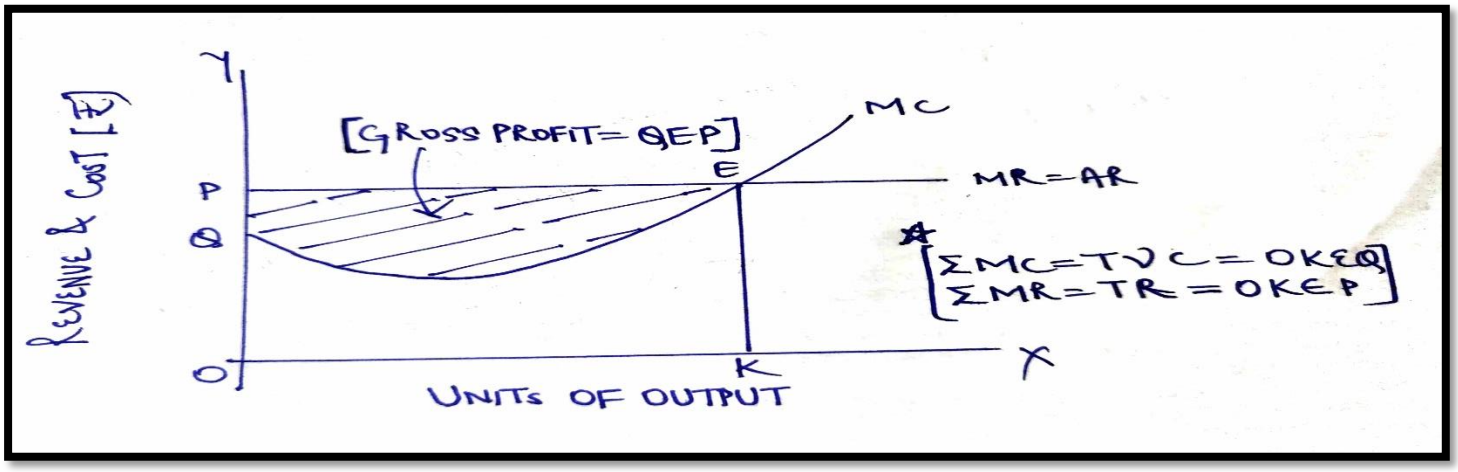
In the diagram, MC is the marginal cost curve and AR/MR is the average/marginal revenue curve. The marginal cost curve intersects the marginal revenue curve at points E_1 and E. At point E_1, marginal revenue is equal to marginal cost, which means that the first condition is fulfilled. But at point E_1, the marginal cost curve is intersecting the marginal revenue curve from above. Therefore, both the conditions of producer equilibrium at point E_1 are not fulfilled. Therefore, the producer is in equilibrium at point E Here marginal revenue is equal to marginal cost and marginal cost curve is also intersecting marginal revenue curve from its below. Therefore, both the conditions of producer equilibrium at point E are fulfilled. Therefore, the producer is in equilibrium at point E. After point E, marginal cost becomes more than marginal revenue, so the producer will not increase production after point E.

Question: What do you mean by Gross Profit?

Answer: The difference between total revenue and total variable cost is total profit. The income earned from sale of goods or services produced by a producer during a time period is called total revenue and total expenditure incurred by producer on variable factors of production is called total variable cost.

Gross Profit (GP) = Total Revenue (TR) - Total Variable Cost (TVC)

Explanation with diagram:



In the figure, production is shown on the X-axis and on Y-axis income and cost are shown. MC is marginal cost curve and MR / AR are marginal and average revenue curves. MC curve cuts MR curve from its below at point E. So, OK is the equilibrium level of production. In this stage:

Total Income of Producer (TR) = ΣMR = OKEP

Total Variable Cost of Producer (TVC) = ΣMC = OKEQ

Gross Profit of Producer (GP) = TR - TVC

Question: What do you mean by net profit?

Answer: Net profit is the difference between total revenue and total cost. The income earned from sale of goods or services produced by a producer during a time period is called total revenue and total expenditure incurred by the producer on all the factors of production is called total cost (TC= TFC + TVC).

Net profit = Total revenue - Total cost

Question: What do you mean by break-even point?

Answer: The break-even point is the situation when the producer's total revenue and total cost are equal or when the price/AR is equal average cost (AC). Break Even Point: TR = TC (or) [AR / P = AC]

Question: What is the shut down point?

Answer: The shut down point is the point at which the producer can recover only total variable cost from the revenue from his sales.

Question: Match below given column 1 with column 2.

Column – I	Column – II
AR	AR*Q
TR	TVC_N-TVC_{N-1}
MC	TR/Q
Profit	TR-TC

Answer:

Column – I	Column – II
AR	**TR/Q**
TR	**AR*Q**
MC	**TVC_N-TVC_{N-1}**
Profit	**TR-TC**

Question: What is meant by market?

Answer: In common parlance, the word market is used for a specific area or place, but in economics, market is entire area where goods are bought and sold. It is not necessary for the buyer and seller to meet each other to have a transaction. They can also establish a relationship through telephone, e-mail or fax. Now a days, online shopping is also increasing rapidly.

According to J.C. Edwards, a market is the process in which buyers and sellers come into contact with each other. It is not necessary to have a specific location.

Questions: Explain features/characteristics of market.

Answer: The characteristics of the market are described as follows:

1. Area: In Arabic literature, the term market does not refer to any specific area but to the entire area in which sellers and buyers are spread.

2 Buyers and Sellers: There must be a buyer and a seller. It is not necessary that buyer and seller should be present at the same place, but there must be contact between them through any means of communication. For example, telephone, e-mail.

3. A commodity: In economics, every commodity has a separate market. The market for wheat and the market for sugar is separate. That is, there are as many markets as there are commodities.

4. Free Competition: There is free competition between buyers and sellers in the market, meaning the seller tries to sell the item at highest possible price while the buyer tries to buy the needed item at the lowest possible price.

Question: What is meant by perfect competition and explain its characteristics?

Answer: In a perfectly competitive market, the number of buyers and sellers is very large. All firms produce identical goods. No one religion can affect the market price. The price of a good is determined by market demand and market supply. Each firm has to sell the good at the prevailing price in the market.

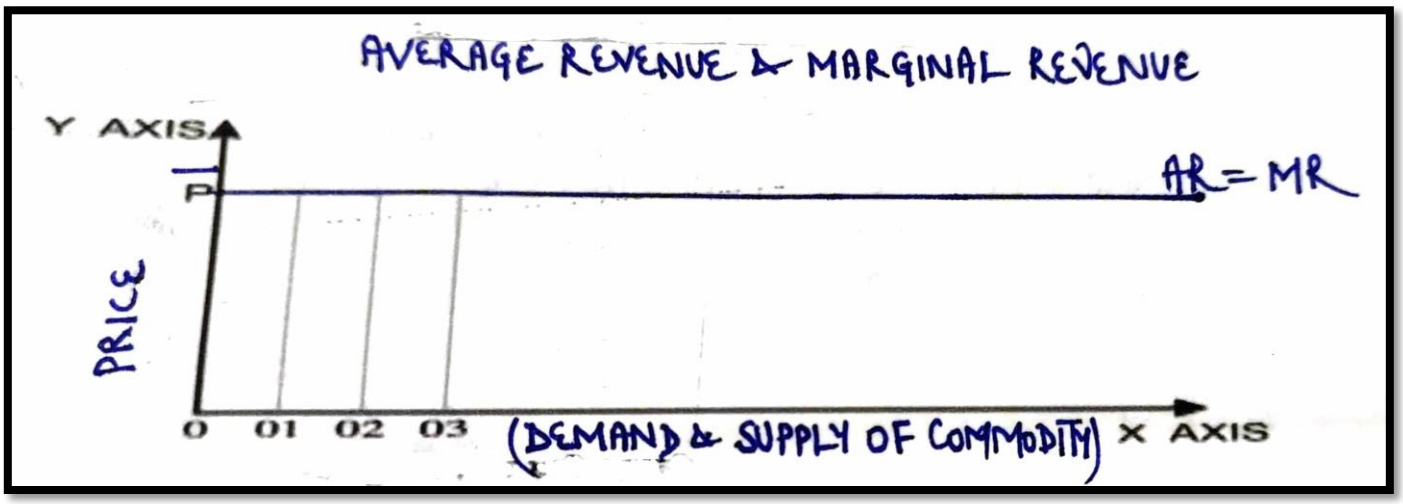
Characteristics of a perfectly competitive market:

1. Large number of buyers and sellers. In a perfectly competitive market, there are a large number of buyers and sellers.

2. Homogeneous goods - The goods produced by all producers are homogeneous and have the same price in the market.

3. Freedom of firms to enter and exit the industry - In perfect competition, each firm has the freedom to enter the industry at its own will and to leave the industry whenever it wants.

4. Price of a commodity – The price of a commodity is determined by market demand and market supply. Each firm has to sell the commodity at prevailing price in the market. If a firm sets a price higher than the market price, the buyer will leave the commodity of this firm and buy the commodity of another firm. A firm cannot affect the market price by changing the price.
5. Absence of selling costs - Since the goods produced by all the producers are identical, there is no expenditure on advertising.
6. Perfect Mobility: In perfect competition, there is complete mobility of resources, goods and services.
7. Complete knowledge - Buyers and sellers have complete knowledge of prevailing price in the market.
8. Average revenue and marginal revenue: In a perfect competition, average revenue and marginal revenue are equal.



Question: How are price and output determined in perfect competition?
Answer: Perfect competition refers to a market situation where there are a large number of buyers and sellers of identical/homogenous products.
Definitions:
A perfectly competitive market is a situation where a large number of buyers and sellers are engaged in the purchase and sale of similar goods, who are in close contact with each other and who buy and sell freely among themselves. - ***Boulding***
"Perfect competition is characterized by the presence of many firms, all of which sell the same product. The seller is a price taker," -***Bilas***
In the words of ***Marshall***, **"Both elements of demand and supply are required to determine the price of a commodity in the same way that two blades are required to cut a cloth.**"
As discussed in previous chapters, market demand in industry is defined as the quantity demanded by each individual organization in the industry.
On the other hand, market supply refers to the quantity supplied by individual organizations in the industry. In perfect competition, the price of a product is determined at a point where the demand and supply curves intersect, this point is known as equilibrium point as well as this price is also known as the equilibrium price. Furthermore, at this point, the quantity demanded and supplied is called the equilibrium quantity. Let us discuss price determination under perfect competition in the following sections.
Demand under perfect competition:
Demand refers to quantity of a product that consumers are willing to purchase at a particular price. Other factors remaining constant, a consumer demands more quantity at a lower price and less quantity at a higher price. Therefore, demand varies at different prices.
Figure 1 shows the demand curve under perfect competition:

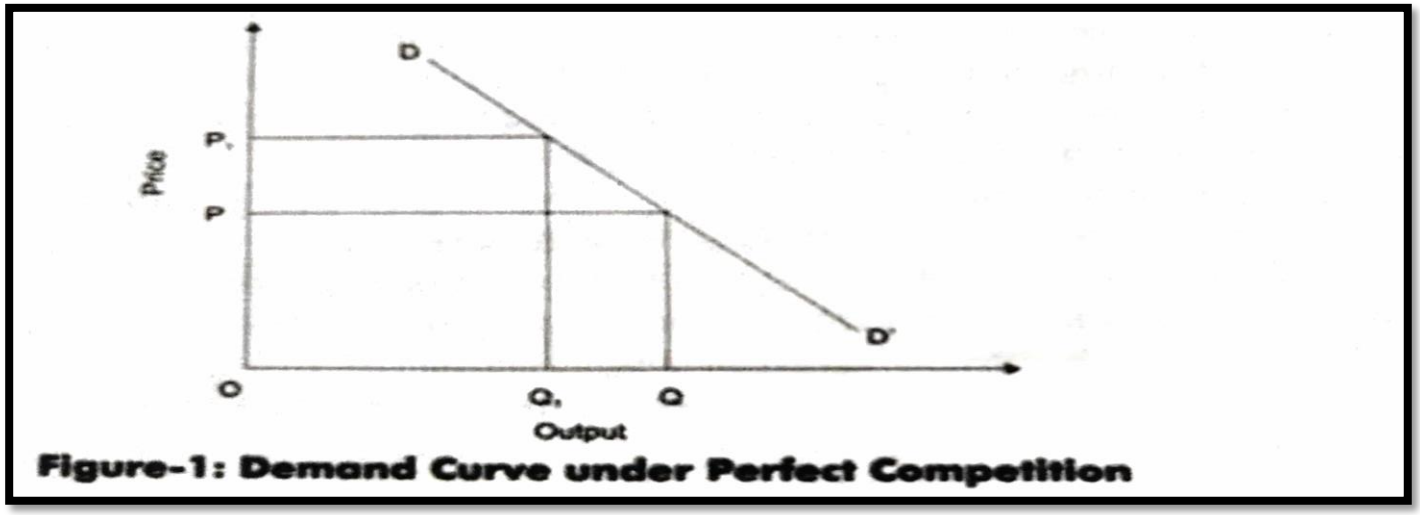


Figure-1: Demand Curve under Perfect Competition

As shown in Figure -1, when the price is OP, the quantity demanded is OQ. On the other hand. when the price increases to OP_1, the quantity demanded decreases to OQ_1. Therefore, under perfect competition, the demand curve (DD) shifts downwards.

Supply under perfect competition:-

Supply refers to the quantity of a product that producers are willing to supply at a particular price. Generally, the supply of a product increases at a high price and decreases at a low price.

Figuer-2 shows the supply curve under perfect competition:

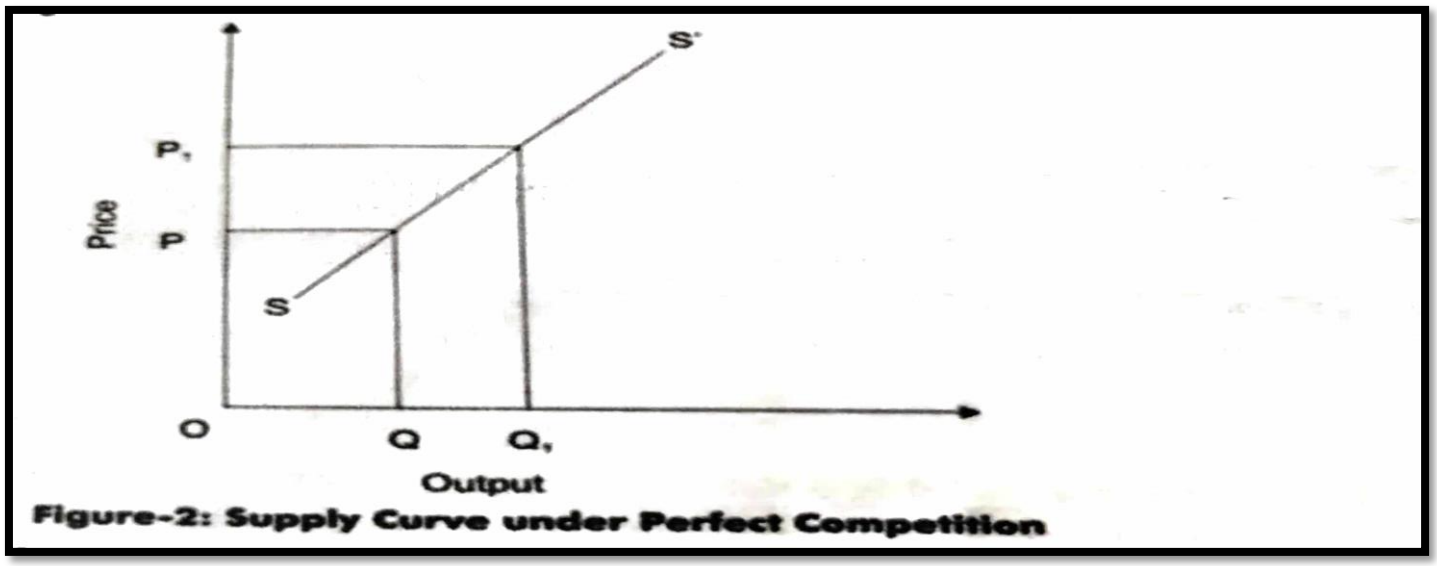


Figure-2: Supply Curve under Perfect Competition

In Figure-2, when the price is OP, the quantity supplied is OQ. When the price increases to OP_1, the quantity supplied increases to OQ_1. This is because producers are able to earn a larger profit by supplying products at a higher price. Therefore, under perfect competition, supply curve 'SS' shifts upwards.

Equilibrium under Perfect Competition: As mentioned earlier. In perfect competition, the price of a product is determined at a point where the demand and supply curves intersect, this point is called the equilibrium point. At this point, quantity demanded and supplied is called the equilibrium quantity.

Table : Determination of equilibrium price in perfect competition

Price of commodity X (in rupees)	Quantity supplied of item X (In dozens)	Quantity demanded of commodity X (In dozens)
5	50	10
4	40	20
3	30	30
2	20	40
1	10	50

In the above table, when price of commodity X is Rs. 5, the market demand of commodity X is rs.10 dozen and the market supply is 50 dozen. This is a situation of excess supply and excess stock; the pressure of excess stock reduces the market price. So, Price falls from rs.4 to 5. But at this price market demand is less than its supply. Excess stock of

20 dozen (40-20) will remain unsold at the price of Rs. 4. The sellers reduced the price of commodity X to Rs. 3. At this price the market demand of the commodity is equal to its supply, which is 30 dozen. Therefore, Rs. 3 is to be fixed as the price at which the market supply and market demand are equal. There are no excess demand and excess supply in the market. Figure 3 shows equilibrium under perfect competition:

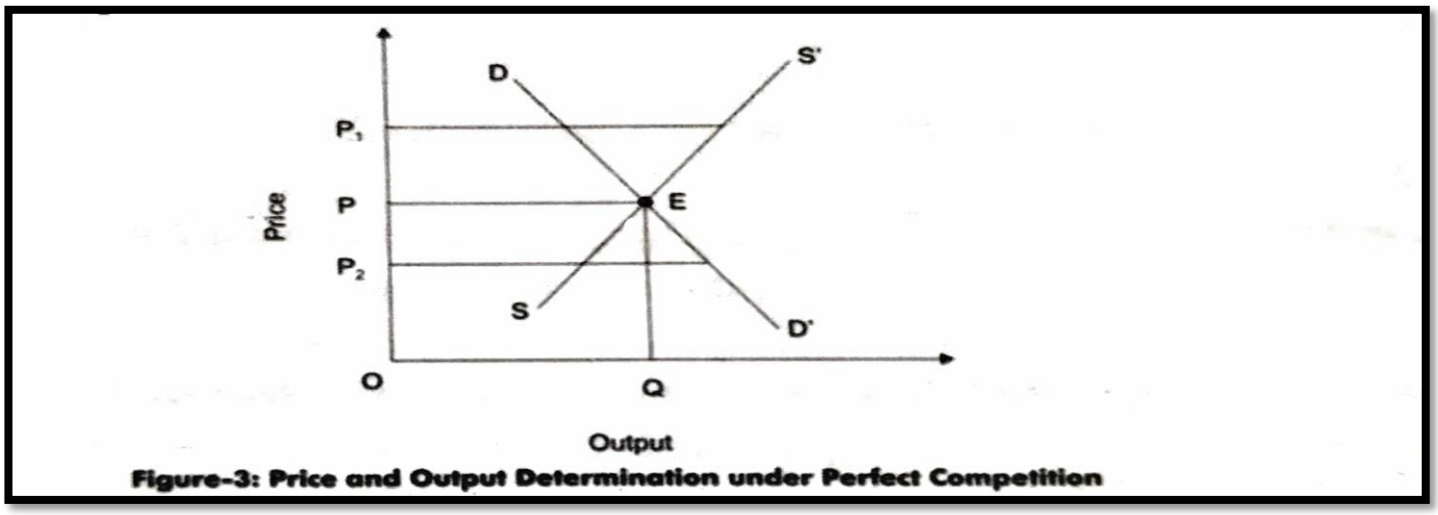


Figure-3: Price and Output Determination under Perfect Competition

In Fig. 3, it can be seen that at price OP_1. Supply is more than demand. Therefore, price will fall to OP. Similarly at price OP_2 Demand is more than supply. Similarly in such a case, price will rise to OP. Thus 'E' is an equilibrium at which equilibrium price is OP and equilibrium quantity

Part: Macroeconomics

Question: Describe the importance of macroeconomics.

Answer: Macroeconomics has great importance in economics from both theoretical and practical aspects. From the theoretical aspect, macroeconomics helps in understanding the functioning of the economy. From the practical aspect, macroeconomics helps in policy formulation related to the entire economy so that a state of rapid economic growth can be achieved by solving the economic problems of the economy. The importance of macroeconomics is clear from the following elements:-

1.Helpful in understanding the Functioning of an Economy

2. Formulation of Economic Policy

3. Information about macroeconomic variables

4. Helps in controlling Business Cycles

5. Helpful in the Study of Microeconomics

6. Information about National Income

Question: Describe the circular flow of income and production in the Two Sector Model.

Answer: The flow of income is called circular flow for the following two reasons.

(1) For every real flow in one direction, there is a flow of money/income in the opposite direction. Example: Along with the flow of factor services from the household sector to the producing sector (which is a real flow), there is also a flow of factor payments from the producing sector to the household sector (which is a monetary flow). (2) The receipts received by one sector from another sector are equal to the payments made to the other sector. If the receipts are less than the payments or the payments are less than the receipts, the circular flow will definitely stop at some point or the other.

Two-sector model:- It studies the circular flow of income between (1) the Household Sector and (2) the Producing Sector or firms.

Two Sector Model of circular flow of Income:- The Sector model of circular flow of income involves the circular flow between the sectors of the economy, namely (1) the household sector and (2) the firms or producing sector.

Assumptions

1. There are only two Sectors in the economy (a) Producing Sectors: This sector produces final goods and uses the services of factor of production like labour, capital etc. (b) Household Sector: This sector provides the services of factor of production to the producing sector and consumes the final goods and services produced by the producing sector.
2. Government has no influence over the economic activities.
3. It is closed economy, meaning thereby that no export or import activities is undertaken by the producing sector and Household sector depends on domestic production.
4. Household sector spends all its income on goods and services in other hand, no saving is done.

Circular flow of Two Sector Model:- The inner circle represents money flow and outer circle represents monetary flow. Real flow indicates that services of the factor flow from household sector to producing sector and goods and services flow from producing sector to household sector. Monetary flow expresses that wages, rent, interest and profit in term of money flow from producing sector to household sector. On the other hand, the expenditure on consumption of goods and services in terms of money flow from household sector to producing sector or firms.

This model offers following information:

(i) Total production of goods and services by firms = Total consumption of goods and service by the household sector.

(ii) Factor payments by firms = Factor incomes of the household sector.

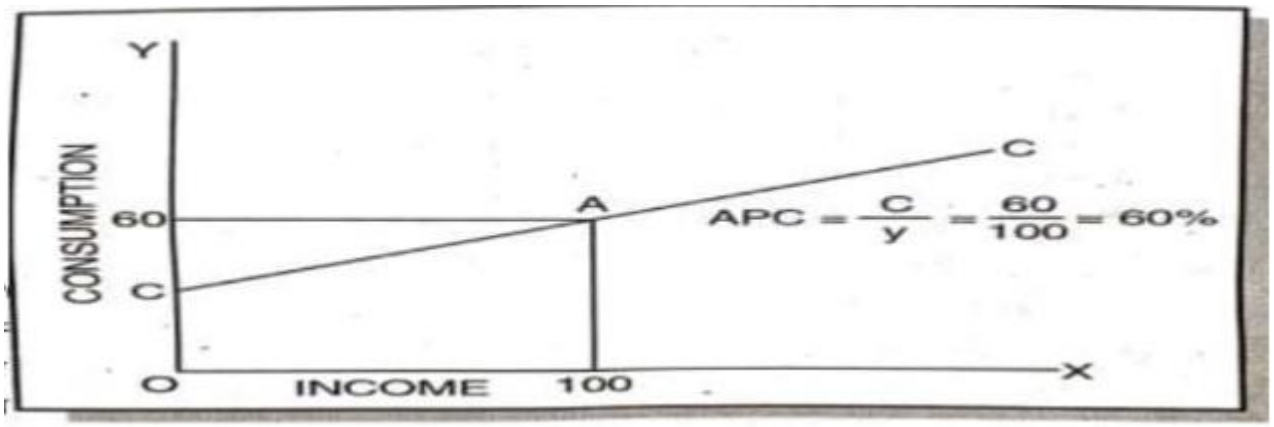
(ii) Consumption expenditure of household sector = Income of household sector (.. Saving = 0).

(iv) Real flows of production and consumption of firms and households = Money flows of income and expenditure of firms and households.

Question: Explain Average Propensity to Consume and Marginal Propensity Consume with the help of diagram.

Answer: Types of Propensity to Consume:-Keynes explains the two type of propensity to consume.

a. Average Propensity to Consume:- Average Propensity to Consume is the ratio between total consumption (C) and total income (Y). For instance, if out of a total income of Rs.100 crore people spend Rs.60 crore on consumption.

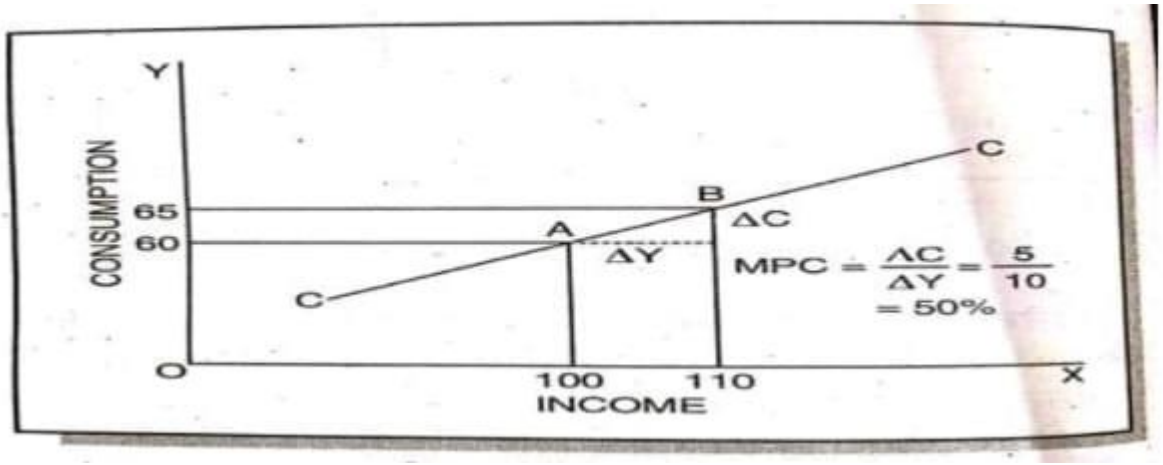


b. Marginal Propensity to Consume (MPC): MPC is the ratio of change in consumption to change in income. It explains what proportion of a specific change in income will be spent on consumption.

Marginal Propensity to Consume = Change in Consumption/ Change in Income

MPC = ΔY/ΔC

It becomes clear from the figure that change in consumption (C) is Rs.5 crore, whereas change in income (Y) is 10 crore. So, MPC is 0.5. If MPC is 0.5, it means that 50% of the change in income will be spent on consumption



Question: Describe the aggregate demand, aggregate supply method of determining the equilibrium level of production.

Answer: According to traditional economists, equilibrium in the economy is always determined at the state of full employment, i.e. equilibrium in the economy comes at the point where all those who want to work and are able to do the work at the current wage rate are getting work and no involuntary unemployment is found in the economy.

But according to Keynes, equilibrium refers to a situation where aggregate demand and aggregate supply in the economy are equal to each other or savings and investment are equal to each other and this equality can occur anywhere, meaning it is not necessary that these two forces are always equal to each other at full employment, they can be equal to each other before full employment, at the level of full employment and even after full employment. Of all these, imperfect employment equilibrium, i.e. where equilibrium in the economy comes before full employment, is the most realistic situation.

According to this method, equilibrium in the economy is determined at the point where aggregate demand and aggregate supply in the economy are equal to each other. That is

1. Aggregate Demand Curve According to Keynes: As we have already made it clear that Keynes in his analysis

Aggregate demand is considered as a function of income, in which there is a direct relationship between income and aggregate demand, i.e., when income increases, aggregate demand increases and when income decreases, aggregate demand decreases, due to which the aggregate demand curve is upward sloping. According to Keynes, aggregate demand is the sum of two types of demand, which are consumption demand and investment demand, if both of these are added together, then aggregate demand can be obtained. The following process should be included in it:

Aggregate demand = Consumption demand + Investment demand

Since both consumption and income depend on income, aggregate demand also depends on income.

2. Aggregate Supply Curve According to Keynes: According to Keynes, in an economy, aggregate output, aggregate supply, aggregate income and the level of employment is always equal to each other, so Keynes uses total output, total supply, total income and employment as synonymous terms in his analysis. The reason for this is that Keynes always assumes the concept of short run in which it is not possible to change technology to increase production. Therefore, if production is to be increased, it can be done only by increasing the quantity of variable inputs i.e. labor. That is, the level of production in an economy depends on the level of employment in the economy and as the level of employment increases, the level of production increases, so production and employment can be considered synonymous. After this, the amount produced by a producer will be supplied in the market, that is, there will be no producer who will keep the production with him, so production and supply will always be equal to each other. After this, the production done by a producer will be done with the help of the means of production, due to which the same income will be provided to the means of production in exchange for their resource services, due to which the means of production will receive the same income. Due to which the following equality is found in an economy:

Total employment = Total production = Total supply = Total income

3. Determination of equilibrium level according to Keynes: To determine equilibrium in the economy, it is very important that aggregate demand and aggregate supply are equal to each other. This equality is shown by the table given below:

Level of employment (In lakhs)	Aggregate Supply (In Rs. Cr)	Aggregate Demand (In Rs. Cr)
0	0	20
10	10	25
20	20	30
30	30	35
40	40	40
50	50	45
60	60	50
70	70	55
80	80	60

In the above table, the level of employment is shown in lakhs and accordingly, the aggregate supply is shown in crores of rupees which increases as the employment increases. Even when the aggregate employment or aggregate supply is zero initially, the level of aggregate demand is still Rs. 20 crores. This is because aggregate demand is the sum of consumption demand and investment demand. When the income level is zero, neither consumption demand is zero nor investment is zero because it is automatic investment, so aggregate demand is not zero. Now in this situation, aggregate demand is greater than aggregate supply, due to which producers will get an incentive to produce more because they will feel that since aggregate demand is greater than aggregate supply in the economy, they need to produce more, due to which they will increase aggregate supply. In this way, they will take the level of employment to 4 million, where aggregate demand and aggregate supply are equal to each other. Now this equality is showing the equilibrium in the economy, but it is not the level of full employment in the economy because the level of full employment in the economy is 6 million, but in this equilibrium situation, work is being provided to only 4 million people. This means that 2 million people are unemployed in the economy, which will be called involuntary unemployment. This unemployment is because according to the producers, if they give work to 60 lakh workers, then the total supply will be Rs. 60 crore, but since the demand in the economy is only Rs. 40 crore, then why will they give work to 60 lakh people and make the supply of

Rs. 60 crore? Since the level of total demand in the economy is low, they will also reduce the total supply and therefore provide work to fewer workers, due to which not all the people present in the economy will get work and the economy will be in equilibrium, but this equilibrium will not be at full employment, but before full employment, i.e. at underemployment.

Question: Calculate Aggregate demand and Aggregate supply from the following data

National Income	Consumption Expenditure	Investment	Aggregate Demand	Aggregate Supply
200	200	100		
400	350	100		
600	500	100		
800	650	100		
1000	800	100		

Answer:

National Income	Consumption Expenditure	Investment	Aggregate Demand	Aggregate Supply
200	200	100	300	200
400	350	100	450	400
600	500	100	600	600
800	650	100	750	800
1000	800	100	900	1000

Question: Explain the working of the investment multiplier.

Answer: Mechanism (Working) of Investment Multiplier The mechanism (working) of Investment Multiplier is the mechanism of income generation in the economy. When the investment multiplier is applied, an increase in investment by a certain amount increases the income many times. The mechanism (working) of investment multiplier can be clarified through an example. Suppose there is an investment of Rs. 200 crore in the economy, and the marginal propensity to consume is 1/2 i.e. 0.5. This means that half of the increase in income is spent on consumption and the remaining part is saved. In such a situation, due to the mechanism of investment multiplier in the economy, there will be an increase in income of Rs. 400 crore. The process of income growth in the economy due to the mechanism of investment multiplier can be explained by the following list.

Working of Investment Multiplier

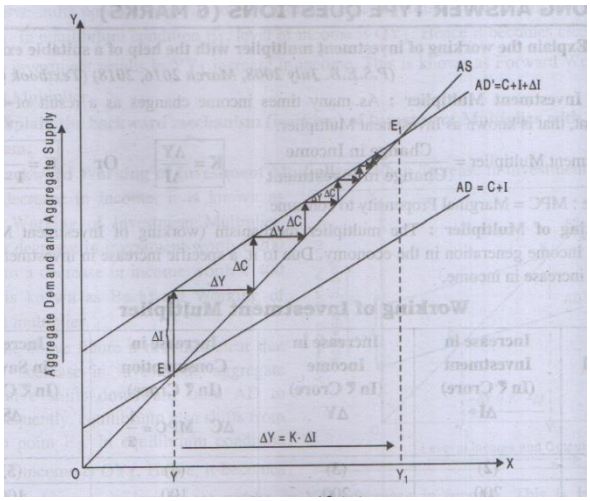
Period	Increase in Investment Expenditure (₹ crore)	Change in Income (ΔY) (₹ crore)	Induced Change in Consumption (MPC = 0.5) (₹ crore)	Leakage or Saving (₹ crore)
0	100	100	50	50
1	—	50	25	25
2	—	25	12.50	12.50
3	—	12.5	6.25	6.25
4	—	6.25	3.12	3.12
5	—	3.12	1.56	1.56
6	—	1.56	0.78	0.78
7	—	0.78	0.39	0.39
8	—	0.39	0.20	0.20
9	—	0.20	0.10	0.10
Total	100	200	100	100

Assumptions: Increase in investment = Rs 200 crore; Marginal propensity to consume = 1/2 = 0.5, Investment multiplier = 2

Figures approximated up to 2 decimal points.

(1) The table shows that as a result of initial increase in investment assumption is that MPC is 0.5. Hence, on account of increase in by Rs. 100 crore, there is change in income by Rs.100 crore. Our and remaining Rs.50 crore will be saved. income by Rs.100 crore, consumption will increase byRs.50 crore

(ii) Expenditure of one man is an income of another in an economy. Hence, due to expenditure of Rs. 50 crore on consumption, there will be an increase in income by Rs.50 crore in the second time period. As a result of it, there will be increase in consumption by 25 crore and in saving also by Rs.25 crore.



(iii) On account of increase in consumption expenditure by Rs. 25 crore, there will be increase in income byRs.25 crore in the next timeIn the above figure, initially aggregate demand curve AD and aggregate supply curve AS cut each other at point E which is the equilibrium point. So, income is OY. But, when investment increases by ΔI, aggregate demand curve AD shifts to become AD'. This results in the process of income generation through income-consumption-income and it continues till the achievement of new equilibrium at point E_1. Hence, income increases from OY to OY_1 meaning thereby that income has increased by YY_1. This YY_1 increase in income is manifold of the increase in investment ΔI. So $\Delta Y = K. \Delta I$ Or $YY_1 = K. \Delta I$

Question: Match economic problem to economic policy from the following table.

Economic Problem	Economic Policy
Excess Demand	Cheap Monetary Policy
Deficit Demand	Decrease in non development expenditure
Deficit Budget	Dear Monetary Policy
Unemployment	Directly and Indirectly development

Answer:

Economic Problem	Economic Policy
Excess Demand	Dear Monetary Policy
Deficit Demand	Cheap Monetary Policy
Deficit Budget	Decrease in non development expenditure
Unemployment	Directly and Indirectly development

Q. What is meant by money? Explain the functions of money.

Ans: Money can be anything that is generally accepted as a means of exchange and at the same time act at a measure and as a store of value. Legally, money is anything proclaimed by law as a medium of exchange.

Functional definition of money is a narrow definition of money. It includes only notes, coins and demand deposits (or chequeable deposits) as money. A broad definition of money also includes time deposits / fixed deposits with the bank or post offices as a component of money.

Primary or Main Functions:

(i) Medium of Exchange: Medium of Exchange is an important function of money. It means that money act as an intermediary that can be used in exchange for goods and services.

(ii) Measure of Value: Money serves as a measure of value in terms of unit of account. Unit of account means that the value of each good or service is measured in the monetary unit.

Secondary or Subsidiary Functions:

This category includes those functions of money which is supplementary to the primary functions. These are

(i) Standard of Deferred Payments: Deferred Payments refer to those payments which are made in some time in future. Payment of loans also refers to the deferred payments. Money has rendered deferred payments or transactions relating to loans much easier than before. This function is much used in farm and factories. However, there are certain notable demerits of money as a standard of deferred payments.

(ii) Store of Value: Money acts also as a store of value. Individuals try to save a part of their income for their future needs. This is called the store of value function. It was not possible to store value in the barter system of exchange because goods were like to wear out or perish. Savings in terms of money is much more secured than those in terms of goods. This function of money is also called Asset Function of Money.

(iii) Transfer of Value: Money also serves as convenient mode of transfer of value. It facilitates movement of capital from one individual to other and from one place to other. This quickens the process of investment and growth across all regions of the country. It facilitates mobility of capital. It is because of this function of money the people can loan out their surplus wealth and earn interest on it.

Q. Define money. Explain the Contingent Functions of money

Ans. Money is used in the economy as a medium of exchange. Accordingly, anything that serves as a medium of exchange becomes eligible to be called money.

Definition :

In the words of Crowther "Money can be anything that is generally accepted as a means of exchange and at the same time act as a measure and as a store of value". Legally, money is anything proclaimed by law as a medium of exchange. Paper notes and coins constitute money as a matter of law. Currency is also called Fiat money because it commands 'fiat' of the government. Fiduciary money refers to money backed up by trust between payer and payees.

Contingent Functions of Money:

- Basis of Credit Creation: Presently, in all most all countries of the world, instruments like cheques, drafts, bills of exchange are used. Basis of these instruments of credit is money. Out of their income people deposit some money in banks. They can withdraw their deposits in terms of money by cheque.
- Measurement of Maximum Satisfaction: By spending wealth in terms of money, a consumer can get maximum satisfaction and a producer can maximise profit. Study of such economic relationships has become possible only due to money.
- Distribution of National Income: With the introduction of money, distribution of national income become much easier than before. Every factor of production now gets its reward in terms of money.
- Bearer of Option: It implies that by accumulating wealth in the form of money we can change our decision regarding the purpose of goods and services as and when the situation demands. Suppose ,you have saved money for the purpose of buying LED tv but you suddenly need money for your brother's sickness . You can without any difficulty change your decision, money thus can be a bearer of option.

- Guarantee of Solvency: Money serves as a guarantee of solvency for an individual or an institution. With a view to retaining its solvency, every individual firm ,bank or insurance company prefers to keep some money ready as cash in the form of deposits. So money serves as guarantee and solvency.
- Increase in liquidity of capital: Due to merits of general acceptability, money helps maintain liquidity of capital.

Q: Explain static or dynamic functions of money.

Ans: Prof. Colborn and Paul Einzing have classified the functions of money into two categories:

(i) Static Functions: It refers to conventional fixed and passive functions. Such functions help to regulate economic system. They do not infuse any element of dynamism into the system. These includes primary and secondary functions of money like medium of exchange, measure of value, store of value, a transfer of value and standard of deferred payments.

(ii) Dynamic Functions: These refers to those functions of money which impart dynamism to the economy. Dynamism means to ensure stability of price level as well as to improve the level of income and employment. Dynamic functions of money are

(A) To control the situation of inflation or deflation
(B) Full utilization of natural or human resources
(C) To facilitate deficit financing
(D) Expansion of international trade
(E) To attain the objective of economic development, price stability etc. through monetary policies of the government.

Q: Match the following column 1 to column 2:

Column 1	Column 2
Commercial bank	Wide concept of money
Money	Narrow concept of money
M1, M2	Credit creation
M3, M4	Measure of value

Ans:

Column 1	Column 2
Commercial bank	Credit creation
Money	Measure of value
M1, M2	Narrow concept of money
M3, M4	Wider concept of money

Q: What do you mean by commercial banks? Explain its functions.

Ans: A commercial bank is that financial institution which accepts deposits from the people and gives loans for the purpose of consumption or investment. besides commercial banks these days perform various other functions such as credit creation, transfer of funds, agency jobs and general service.

Functions of commercial banks:

(i) Primary functions: commercial bank performs two primary functions:

(1) accepting deposits: a) fixed or time deposit account. b) current or demand deposit account c) saving deposit account d) recurring deposit account

(2) advancing loan: a) cash credit b) overdraft c) demand loans d) short term loans

(3) credit creation

(ii) Secondary functions:

1.agnecy function: a) collection and payments of various items b) purchase and sale of securities. c) trustee and executor d) remitting money. e) purchase and sale of foreign exchange. f) letter of reference g) underwriting.

2. General utility service: a) locker facilities. b) traveler cheques and letter of credit. c) business information and statics. d) help in transportation of goods.

(iii) Social functions and role of bank in economic development: Capital formation ; inducement to innovations ; investment friendly interest rate structure; contribution in development of rural sector ;increase in market demand ;implementation of monetary policy ;employment opportunities.

Q: Explain primary functions of commercial banks.

Ans: Commercial banks perform two primary functions:

(1) Accepting deposits: a bank accepts deposits from the public, people can deposit their cash balance in the following accounts to their convenience

(a) fixed or time deposit account: cash is deposited in this account for a fixed period. The depositor gets a receipt for the amount deposited.it is called fixed deposit receipt. The receipt indicated the name of the depositor, amount of the deposit, rate of interest and the period of the deposit. This receipt is non transferrable. If the depositor stands in need of the amount before the expiry of fixed period, he can withdraw the same after paying the discount to the bank. This type of deposit attracts high rate of interest.it is also called time liability of the bank.

(b)recurring deposit account: under thus account a specified amount is deposited every month for six months to one twenty months. Like time deposit account, interest paid on this account is higher than the saving account.

(c) current account: a depositor can deposit his funds any numbers of time he likes and can also withdraw the same any number of times he wishes. Ordinarily, businessman deposit their funds in this account. generally, no interest is paid by the bank on the current account rather the bank demands some charges from the depositors. If the amount laying in the account fall below the minimum limit. the amount from this account is withdraw through cheques. This type of account is also called demand liability.

(d) saving account: thus, account is meant for encouraging small savings. restrictions were imposed by the bank on the amount to be withdrawn by the depositor. Bank pay interest on this account less than the rate of the interest paid on the fixed account

(2) Advancing loan: another primary function of the commercial bank is to advance loans. a certain part of the cash received by the banks as deposit is kept in the reserve and the rest is given as loan, bank advance loans mostly for productive purpose on approved securities. bank advance following types of loans:

(a) cash credit: The debtor is allowed to withdraw a certain amount on a given security. The debtor withdraws the amount within this limit. The interest is charged by the bank on the amount actually withdrawn.

(b)demand loans: loans are given for some fixed time but without any specified maturity. The interest is chargeable on the amount from the day the loan is sanctioned. these loans are offered against personal security

(c) overdraft: client who have current account by the bank are guaranteed the facility to withdrawing more money than actually lying in their accounts. it is called overdraft. This facility is available for short term to reliable person. Suppose a person has ₹25,000 lying in current account if the bank allows him to issue cheques up to ₹30,000 then the amount of ₹ 5,000 will be called overdraft.

(d) short term loans: short period loans generally include 1) personal loans; 2) loans to finance working capital.

Q: Explain functions of central bank.

Ans: It is the apex bank responsible for controlling the entire banking system of a country.in case of under developed economies it is instrumental in the process of growth.

(1) Bank of issuing notes: in modern times central bank alone has he exclusive right to issue notes in every country of the world. The note issued by the central bank are unlimited legal ender through the country. These banks were known as the bank of issue.

(2) Bankers of the government: central bank act as a banker agent and financial advisor of the bank. that's why it is called bankers to the government.as a banker to the government it keeps the account of the all-government banks and manage government treasuries. The loans are given to the government without any interest to the short term.it also transfers government funds .it also buys and sells securities, treasury bills on the behalf of government. being the apex bank of the country, it advises the government from time to time on economic, financial and monetary matters.

(3) Bankers bank: it performs the function of a banker of all other banks of the country. Central bank keeps part of the cash balance of the commercial banks as deposit with a view to meeting liability of these banks in the time of crisis.

(4) Central bank also supervises the commercial banks. The supervision of commercial banks relates to ; (a) Licensing of the commercial banks ; (b) expansion of the commercial banks ; (c) Merger of different banks ; (d)Liquidation of the banks.

(5) Lender of the last resort: the central bank also acts as lender of the last resort for the other banks of the country.it means that if a commercial bank fails to get financial accommodation from anywhere it approaches to the central bank as a last resort.

(6) Custodian of the nation reserves of the foreign exchange: central bank like RBI in India is the Custodian of the nation reserves of the foreign exchange.it is the responsibility of the central bank to keep the external value of the country's currency stable.

(7) Control of credit ; Clearing house function ; Promote economic development and collection of statistics are other functions of central bank.

Q: What do you mean by government budget? Discuss objective of budget.

Ans: Government Budget: Budget is the details of the estimated income and expenditure of the government for the coming year. That is, the budget tells from which sources the government will collect money and on which works it will spend it. In India, the budget is presented every year on 1 February, which is for the coming year i.e. (1 April to 31 March). The main emphasis in the budget is on the estimated income and estimated expenditure of the coming period. The government budget is a description of the estimated income and expenditure of the government during a financial year period.

In a developing country like India, the objectives of the budget are as follows: -

1. Growth: Growth is the central objective of the government's budgetary policy. This happens in two ways:(a) Through public investment expenditure. (b) By encouraging private investment through tax exemption and financial assistance.

2. Economic stability:The aim of the budget is that prices in the country should neither increase nor decrease too much because too much increase or decrease in prices is more harmful to the economy. Therefore, the government tries to achieve economic stability through the budget policy. When prices are increasing in the country, then the government imposes more taxes on the people to reduce the prices and reduces the expenditure. On the contrary, if prices are decreasing in the country, then through the budget it imposes less taxes on the people and increases the expenditure.

3.Distribution of resources: Through the budgetary policy, the government of the country distributes resources in such a way that a balance can be achieved between maximum benefit and social welfare. Therefore, keeping the welfare of the people in mind, the government imposes high taxes on the production of luxury goods and liquor etc. and the production of common utility goods is encouraged by providing financial assistance. So that the valuable resources of the country are diverted from the production of luxury goods and towards essential goods.

4.Redistribution of income and wealth; Equal distribution of wealth and income is a symbol of social justice, which is the main objective of any welfare state like India. Social justice means reducing the gap between the rich and the poor. Through the budget, the government imposes taxes on the rich at a progressive rate and implements various types of assistance schemes for the poor. So that the economic condition of the poor is good, the gap between the rich and the poor is reduced.

5.Eliminating poverty and unemployment ; 6.Balanced regional development ; 7.Development of Infrastructure are other important objectives .

Q: Define tax . What are its characteristicsand list the types of taxes?

Ans: - Definition of tax: - Tax is a payment that is necessarily made to the government by households, firms or institutional units. The benefit received by the taxpayer from the government has no direct relation to it.

Characteristics of Tax : 1. Tax is a compulsory payment. 2. Payment of tax is the responsibility of the individual or firm. 3. Tax is levied according to a legal process. 4. Income received from tax is used for public welfare. 5. The government does not provide any benefit to the taxpayer in return for tax. 6. Tax is a monetary burden on the taxpayer. 7. Tax is not the price of services provided to the public.

Types of Taxes: - A. Progressive and Regressive Taxes : 1. Progressive taxes - In this tax system, the tax rate increases with the increase in income. Its real burden is more on the rich and less on the poor. Income tax in India is a progressive tax. 2. Regressive Tax: - In this tax system, the tax rate decreases with the increase in income. The actual burden of these is less on the rich and more on the poor. This tax is mostly levied on those goods which are discouraged by the society. Like: - Tobacco and alcohol etc.

B. Value Added and Special Taxes: 1. Value Added Tax -This is the indirect tax which is levied on the increase in value occurring in different stages of production. The difference between the total value of a commodity and the value of intermediate goods is called value added. It is levied at each stage of production. Goods and Services Tax (GST) is a value added tax. 2. Specific Tax: - It is levied on a commodity according to its unit size or weight.

C. Direct Tax and Indirect Tax: 1. Direct Tax: Direct taxes are those taxes whose ultimate burden is borne by the person on whom it is levied. The burden of this tax cannot be shifted to another person. Income tax, corporation tax, gift tax, wealth tax etc. are examples of direct taxes. 2. Indirect Taxes: Indirect taxes are those taxes, the initial burden of which falls on one person but he succeeds in shifting this burden to another person. Goods and Services Tax, Excise duty, Customs duty, Entertainment Tax etc. are examples of indirect taxes.

Q: Explain the meaning and types of revenue receipts?

Ans: In the budget, government receipts mean the estimated monetary receipts of the government in the coming financial year. Government receipts are divided into the following two parts.

A. Revenue receipts: - These are the receipts which the government receives but does not create any liability or does not reduce its liabilities. Characteristics of revenue receipts: -

1.Revenue receipts which do not create any liability for the government such as tax. Tax is a mandatory payment, which is made by an

individual or a firm. But the government does not promise to provide benefits to the taxpayer.

2. Revenue receipts do not cause any reduction in the liabilities of the government in any way.

Mainly, revenue receipts are divided into two categories: -

B. Tax Revenue Receipts: Receipts from various taxes are included in tax revenue receipts, generally the following are: - 1) Income Tax ; 2) Corporation Tax; 3) Wealth Tax ; 4) Gift Tax; 5) Import Tax ; 6) Goods and Services Tax etc.

Q: Explain the types and meaning of capital receipts.

Meaning of capital receipts: - Receipts that are made in the form of loans to the government are called capital receipts,

These receipts have two main features.

1. Capital receipts create liabilities for the government. Example: The loan taken by the government is a liability of the government, because it has to be repaid by the government.

2. Capital receipts cause a decrease in the assets of the government, because for these receipts the government has to sell some part of its assets, which is called disinvestment. Example: If the government has received capital by selling its shares in Maruti Industries Limited, then this has caused a decrease in the assets of the government.

It is clear that capital receipts are those receipts received by the government under the budget, which either create a liability of the government or which cause a decrease in the assets of the government.

1. Government Debt: It is a resource taken by the government. The government borrows from the public of the country, the central bank of the country or various economic units. This loan is usually obtained by selling government securities. It is worth noting here that the loan taken by the government from the public is also called market loan. The government borrows from foreign governments and international organizations like the World Bank, International Monetary Fund, IMF etc. The government's liabilities arise from the acquisition of loans.

2. Recovery of loans: - Recovery of loans given by the government to state units is also included in the capital receipts of the government. When the government lends money, the assets of the government decrease and the liabilities of the government arise. But the recovery of the loan increases the capital and assets of the government. The recovery of this loan is included in the capital gains of the government.

Other capital gains: Capital gains to the government in the form of disinvestment etc. are included in the capital gains. Disinvestment means the sale of shares in the enterprises by the government. Thus, disinvestment is the opposite concept of investment. By this, the government transfers the ownership of the government enterprises to private hands. As a result, the assets of the government decrease and it gains capital. Therefore, disinvestment is considered as a capital gain by the government.

Q: How is the flexible exchange rate determined? Discuss the determination of the exchange rate through the principle of demand and supply of foreign exchange.

Ans: The determination of the elastic exchange rate is the same as the determination of the price of a commodity. Accordingly, it can be said that just as the demand and supply of a commodity determine the price. In the same way, the demand and supply of foreign exchange also help in the determination of the elastic exchange rate. The foreign exchange rate is determined where the demand and supply of foreign exchange are equal.

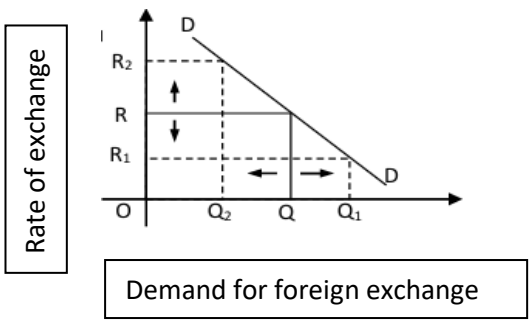
Demand for foreign exchange: Foreign exchange is demanded for the following reasons.

1. To pay off international debts.

2. To import from the rest of the world.

3. To invest in the rest of the world.

4. To travel abroad.



Demand for foreign exchange

5. To give financial assistance or gifts to the rest of the world.

There is an inverse relationship between the demand for foreign exchange and the exchange rate, i.e. when the exchange rate is high, its demand decreases

and conversely when the exchange rate is low, its demand increases. This can be represented by a diagram as follows.

Supply of foreign exchange:

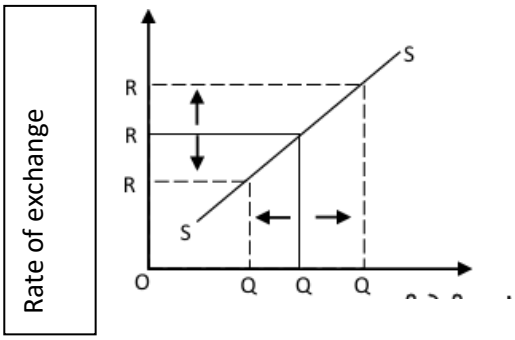
The following are the determinants of supply of foreign exchange.

1) By determining the rest of the world.

2) Foreign direct investment.

3) From foreigners visiting the country.

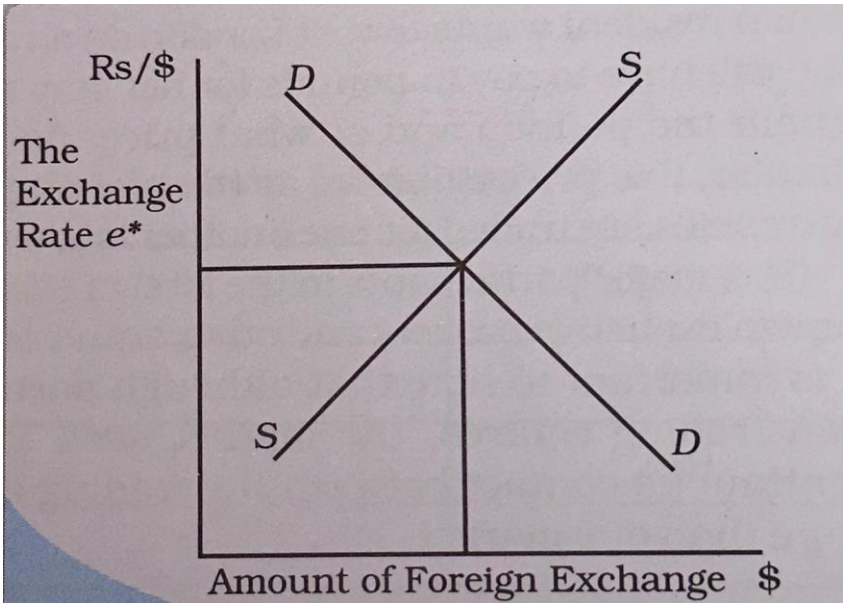
4)Gifts and financial assistance received from foreign countries.



Supply of foreign exchange

There is a direct relationship between foreign exchange rate and supply. That is, when the foreign exchange rate increases, the supply of foreign exchange increases and when the rate decreases, the supply decreases. This can be explained by the diagram.

Determination of the Market Exchange Rate : The equilibrium rate of exchange rate is determined at the level where the demand and supply of foreign exchange are equal to each other. This can be explained by the diagram. The equilibrium level of foreign exchange rate is determined at the point in the figure where the demand and supply of foreign exchange are equal. And the equilibrium exchange rate is e^*.



Q: Describe the current account and capital account of the balance of payments.

Ans: Current account means: The account in which the export and import of goods and services and unilateral transfers are included.Current account consists of the following: 1. Unilateral transfers ;2. Import and export of goods. 3. Import and export of services.

Current account balances include the following: 1. All imports of services are generally recorded as positive (-) units. 2. All exports of goods and services are entered as positive (+) units. 3. The difference between exports and imports is called the invisible balance. 4. The difference between exports and imports of goods is called the visible balance. 5. The contributions of unilateral transfers are entered as negative (-) units. 6. The receipts of unilateral transfers are entered as positive (+) units.

7. The current account balance is known as the net value of the outstanding balance.

The meaning of the capital account: The account in which all such transactions are included, with the help of the citizens of one country, with the citizens of other countries, by which their capital assets and liabilities are exchanged.

The following are the transactions included in the capital account;

1. Official transactions: Official transactions relating to the liabilities and assets of the government or its agencies. 2. Non-governmental transactions: This means transactions. The transaction is a real estate transaction involving real estate, houses, park units and non-governmental units. 3. Direct or indirect: This refers to the purchase of property outside the country where the buyer has full control over the capital assets. 4. Portfolio or indirect: This refers to the purchase of capital assets outside the country where the buyer has full control over the capital assets. Important points :

1. All capital transactions are recorded as positive (+) items in the capital account of the beneficiary (inward flow of foreign currency) 2. All capital transactions are recorded as negative (-) items in the capital account of the beneficiary (outward flow of foreign currency) 3. The amount outstanding in the account is recorded as a balance in the capital accounts.

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