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SECOND PUC

ECONOMICS ASSET

(AS PER NCERT NEW SYLLABUS)

PREPARED BY:

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PART-A MICRO ECONOMICS

Chapter - 1

INTRODUCTION

I. Choose the Correct answer: (each question carries 1 mark)

1. The scares resources of an economy have.
a) Competing Usages
b) Unlimited Usages
c) Single Usages
d) None of the above
2. Which of the following is an example of micro economic study?
a) National Income
b) Consumer Behaviour
c) Unemployment
d) Foreign Trade

3. Central problems of an economy includes
a) What to produce?
b) How to produce?
c) For whom to produce?
d) All of the above

4. Traditionally, the subject matter of economics has been studied under the following broad branches.
a) Micro and Macro Economics
b) Positive and Normative economics
c) Deductive and Inductive
d) None of the above

II. Fill in the blanks:(each question carries 1 mark)

1. Scarcity of resources gives rise to **Problem of choice**.
2. In a centrally planned economy all important decisions are made by **The Government sector**
3. **A market** is a set of arrangements where economic agents can freely exchange their endowments or product with each other.
4. In reality , all economies are **Mixed economies**

III. Match the following: (Each question carries 1 mark)

A	B
1. Market Economy	a. Government
2. Service of a teacher	b. Private Sector
3. Centrally planned Economy	c. Skill
4. Positive economics	d. Evaluate the mechanism
5. Normative economics	e .Functioning of mechanism

Solutions:

A	B
1. Market Economy	**Private Sector**
2. Service of a teacher	**Skill**
3. Centrally planned Economy	**Government**
4. Positive economics	**Functioning of mechanism**
5. Normative economics	**Evaluate the mechanism**

IV. Answer the followings:(Each question carries 1 mark)

1. **Why does the problem of choice arise?**
Problem of choice arise due to the scarcity of resources.

2. **What is market economy?**
An economy, in which, the means of production are owned, controlled and operated by the private sector is called market economy.

3. **What do you mean by centrally planned economy?**
An economy, in which, the means of production are owned, controlled and operated by the Government sector is called centrally planned economy.

4. **Give the meaning of micro economics.**
The study of economic behaviour of **individual economic agents** such as particular price, a commodity, a market, individual income etc……

5. **What do you mean by positive economics?**
It explains the causes and effects of economic problems are called positive economics.

6. **What is normative economics?**
It explains the causes, effects and right solutions to the economic problems based on moral judgements are called normative economics.

V. Answer the following: (Each question carries 2 marks)

1. **Mention the central problems of an economy.**
Central problems of an economy are:
1. What to produce?
2. How to produce?
3. For whom to produce?

2. **Distinguish between Micro and Macro economics.**

Micro Economics	Macro Economics
1. In Micro economics we study the behaviour of individual agents in the market for different goods and services. **2.** It studies the partial equilibrium in the economy. **3.** It is a Price theory.	**1.** In Macro Economics we study the behaviour of aggregates of the economy as a whole. **2.** It studies the general equilibrium in the economy. **3.** It is an Income and employment theory.

3. **Distinguish between Positive Economics and Normative Economics.**

Positive Economics	Normative Economics
1. It explains causes and effects. **2.** Functioning of mechanism **3.** It explains Without moral judgements **4.** It as a Narrow scope	**1.** It provides right solutions to the economic problems. **2.** Evaluate the mechanism **3.** It explains With moral judgements **4.** It as a Broader scope

4. **What do you mean by production possibility set?**
All possible combinations of two goods that can be produced with the help of given resources and given technology are as called production possibility set.

5. **What is Opportunity cost?**
It is the cost of next best alternative foregone or scarified order to produce another good is known as opportunity cost.

6. **What is production possibility frontier?**
It is a boundary line shown various possible combinations of two goods that can be produced with the help of given resource and given technology.

VI. Answer the following: (Each question carries 4 marks)

1. Briefly explain, how the Family farm, Weaver, Teacher can use their resources to fulfil their needs in a simple economy.

Think of any society. People in the society need many goods and services in their everyday life including food, clothing, shelter, transport facilities like roads and railways, postal services and various other services like that of teachers and doctors. In fact, the list of goods and services that any individual needs is so large that no individual in society, to begin with, has all things she/he needs. Every individual has some amount of only few of the goods and services that she/he would like to use.

<u>A family farm:</u> A family farm may own a plot of land, some grains, farming equipments, may be a pair of bullocks and also the labour services of the family members.

<u>A weaver:</u> A weaver may have some yarn, some cotton and other instruments required for weaving cloth.

A teacher: The teacher in the local school has the skills required to impart education to the students. Some others in society may have not any resource excepting their own labour services.

Each of these decision making units can produce some goods and services by using the resources that it has and use part of the produce to obtain the many goods services which it needs.

2. Briefly explain the production possibility frontier.

'Production possibility Set shows all the possible combination of **two goods** that can be **produced** with the help of **available resources and technology** at a given period of time'.

Production possibility curve:

'Production possibility curve or frontier is a boundary line which shows the various combinations of **two goods** which can be **produced** with the help of **given resources and technology** at a given period of time'.

An economy can produce two goods say Cotton and corn by using its resources.

The different combination of **Cotton** and **corn** are as follows:

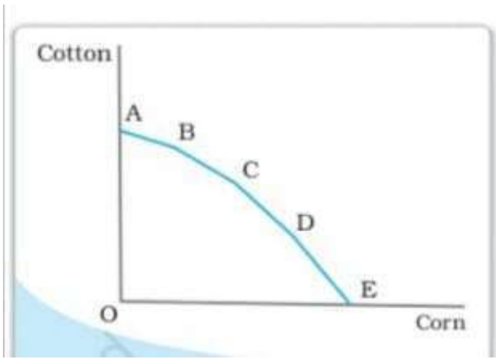
Possibilities	Corn	Cotton
A	0	10
B	1	9
C	2	7
D	3	4
E	4	0

Above table gives some of the combinations of corn and cotton that the economy can produce.

If all the resources are used in the production of corn, the maximum amount of corn that can be produced is 4 units and if all resources are used in the production of cotton, at the most, 10 units of cotton can be produced.

The economy can also produce1 unit of corn and 9 units of cotton or 2 units of corn and 7 units of cotton or 3 units of corn and 4 units of cotton. There can be many other possibilities. The following figure illustrates the production possibilities of the economy.

This can be explained with the help of the following diagram.



The above production possibility frontier gives the combinations of corn and cotton that can be produced when the resources of the economy are fully utilised. If more of the scare resources are used in the production of corn, less resources are available for the production of cotton and vice versa. Therefore, if we want to have more of one of the goods, we will have less of the other good. This is known as opportunity cost of an additional unit of the goods.

3. Briefly explain the central problems of an economy.

Production, Consumption and Exchange of goods and services are among the basic economic activities of human life.

In these activities every society has to face scarcity of resources and it is the scarcity of resources that gives rise to the **Problem of choice**.

Problem of choice is called economic problem. It is arises due to **scare resources** it means scarcity is the root of all economic problem.

Causes of economic problems:

- Scarcity of resources
- Unlimited wants
- Limited resources having alternative uses

The problem of an economy are summarised as follows

1. What is produced and in what quantities?
2. How are these goods produced?
3. For whom are these goods produced?

1. What is produced and in what quantities?
The first central problem of an economy is to decide, what to produce? And how much to be produced? The problem what to produce is the "**Problem of choice between the commodities**" and it is a problem arise due to scare resources. Every economy has limited resources and thus cannot produce all the goods.
2. How are these goods produced?
The next problem of an economy is to decide how to produce goods and services? It is a **problem of choice of technology**. There are 2 alternative methods of production as follows:
A. Labor intensive technology (Man)
B. Capital intensive technology (Machine)
Which of the available technologies to adopt in the production of each of the goods?
3. For whom are these goods produced?
Another basic problem of the economy is to decide for whom the goods are to be produced this is the problem of the economy is to sharing of national output to the different members of the society.

4. Write a short note on a centrally planned economy.

Centrally planned economy is also called Command economy or Socialist_economy. In this economy, the **Government or Central authority** plans all the important activities. Here all important decisions regarding production, exchange and consumption of goods and services are made by the Government or Central authority.
Social welfare is the main motive of this economy.
North koria, Cuba, China and Vietnam are the examples of centrally planned economy.

Features of Central Panned Economy:

1. All the decisions are taken by the Govt.
2. Main motive is social welfare.
3. There is no freedom of choice to the consumers.
4. Profit maximisation is not the major aim.
5. It is an economy provides equal opportunities to all the people.
6. Ownership of property is under government control.

In centrally planned economy Government sector resolving the basic economic problems in following way;

- **What to produce?** It is the first central economic problem. It is a problem of choice of commodities. In this problem Government sector produce, those goods that are needed to the society.
- **How to produce?** It is a problem of choice of technology. Here Government sector select the technology on the basis of availability of resources.
- **FOR Whom to produce?** It is a problem of choice of distribution. In this problem the Government sector take care of the weaker section, which cannot pay the market price.

5. Write a short note on market economy.

Market economy is called capitalist economy. Here all economic activities are organised through the market. Here all productive resources are owned, controlled and operated by **the private individuals.** It is an economic system in which all economic decisions are taken by the **private sector**. Profit maximisation is the main motive. USA, UK & Japan are the examples of market economy or capitalist economy.

Features of Market Economy:

1. All the decisions are taken by private sector.
2. Main motive is profit maximisation.
3. Greater degree of consumer choice.
4. Consumer is the king pin of the market.
5. Here price is determined by market forces.

6. There is no limit to private ownership of property.

In market economy **private sector** resolving the basic economic problems in following way;

- **What to produce?**: It is the first central economic problem. It is a problem of choice of commodities. In this problem private sector produce, those goods are highly demanded in the market.
- **How to produce?:** It is a problem of choice of technology. Here private sector will select the least cost technology for profit maximization.
- **FOR Whom to produce?:** It is a problem of choice of distribution. In this problem the private sector will produce goods for rich people, who can pay the market price.

Chapter- 02
THEORY OF CONSUMER BEHAVIOUR

I. Choose the correct answer: (Each question carries 1 mark)

1. Utility is
a) Objective
b) <u>Subjective</u>
c) Both a and b
d) None of the above

2. The shape of an indifference curve is normally
a) <u>Convex to the origin</u>
b) Concave to the origin
c) Horizontal
d) Vertical

3. The consumption bundles that are available to the consumer depend on
a) Colour and Shape
b) <u>Price and Income</u>
c) Income and quality
d) None of the above

4. The equation of budget line is
a) $Px + P_1x_1 = M$
b) $M= P_0\, x_o + P_x$
c) $\underline{\mathbf{P_1\, x_1 + P_2\, x_2 = M}}$
d) $Y= Mx + C$

5. The demand for these goods increases as Income increases
a) Inferior goods
b) Geffen goods
c) <u>Normal goods</u>
d) None of the above

6. A vertical Demand curve is
a) Perfectly elastic
b) <u>Perfectly inelastic</u>
c) Unitary elastic
d) None of the above

7. Ordinal Utility analysis expresses utility in
a) Numbers
b) Returns
c) <u>Ranks</u>
d) Awards

II. Fill in the blanks: (Each question carries 1 mark)

1. Want satisfying capacity of a commodity is **Utility**.
2. Two indifference curves never **intersect** each other.
3. As income increases, the demand curve for normal goods shifts towards **Rightwards**.
4. The demand for a good moves in the **Opposite** direction of its price.
5. Method of adding two individual demand curves is called **Horizontal summation**. (Market demand curve)

III. Match the followings: (Each question carries 1 mark)

A	B
1.Demand Curve	a. d(p) = a- bp
2. Linear demand Curve	b. Downward sloping
3.Unitary elasticity of demand	c. Pen and ink
4.Complementary goods	d. A family of indifference curve
5.Indifference map	e. |ed|=1

Solutions:

A	B
1.Demand Curve	**Downward sloping**
2. Linear demand Curve	**d(p) = a-bp**
3.Unitary elasticity of demand	**|ed|=1**
4.Complementary goods	**Pen and ink**
5.Indifference map	**A family of indifference curve**

IV. Answer the following in a sentence/ word: (Each question carries 1 mark)

1. **What is budget line?**
   A Graphical representation of budget set is called budget line.
2. **What do you mean by cardinal utility analysis?**
   Utility can be possible to measure in a cardinal or numerical numbers such as 1,2,3,4 etc…. are called as cardinal utility analysis.
3. **Give the meaning of marginal utility.**
   The Utility obtained from the consumption of additional unit of a commodity is called marginal utility.
4. **What is utility?**
   Want satisfying capacity of a commodity is called utility.
5. **Expand MRS.**
   Marginal Rate of Substitution.
6. **What you mean by indifference curve?**
   The graphical representation of various possible combinations of two goods which provide the same or equal level of satisfaction to the consumer is called indifference curve.

7. **What is Demand?**
The quantity of good that a consumer is willing to buy and is also able to afford, given prices and consumer's taste and preferences are called demand.

V. Answer the following in four sentences: (Each question carries 2 marks)

1. **What are the differences between Budget Line and Budget Set?**

Budget Line	Budget Set
1. It is a graphical representation of budget set. **2.** Every point on the budget line indicates those bundles of two goods available to a consumer.	**1.** It is a collection of all bundles available to a consumer. **2.** Collection of all bundles either below the budget line or on the budget line.

2. **What do you mean by inferior goods? Give example.**
Those goods demand increases with fall in income such goods are called inferior goods. Ex: Ragi, Aarka, Navene, Sajje etc….
3. **What is monotonic preference?**
A rational consumer always prefers higher level of indifference curve to get higher level of satisfaction is called monotonic preference.
It means in indifference map, we have more than 2 indifference curves, here a rational consumer prefers higher the indifference curve compare to lower the indifference curve to get more satisfaction.
4. **State the Law of Demand.**
The law of demand states that "other things remaining constant when the price of a good decrease, the demand for it increases and when the price increases, the demand for the good decreases.
5. **Mention two different approaches which explains consumer Behaviour.**
The following are the two different approaches which explain consumer Behaviour:
1. Cardinal utility approach ------- Prof. Alfred Marshall.
2. Ordinal utility approach -------- J.R. Hicks and R.G.D Allen.

6. **What you mean by price elasticity of Demand?**
The responsiveness of quantity of demanded to a change in price, while other things remaining constant are called price elasticity of demand.
It means price elasticity of good is defined as the percentage change in demand for the good divided by the percentage change in its price.

$$\text{i.e. } \mathbf{Ped}= \frac{\textbf{Percentage change in demand for the good}}{\textbf{Percentage change in its price}}$$

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VI. Answer the following questions: (Each question carries 4 marks)

1. Write the differences between Total utility and Marginal utility.

The following are the important differences between total utility and marginal utility. They are;

Total Utility	Marginal Utility
1. The total satisfaction or utility obtained from the consumption of all units of a commodity is called total utility. **2.** Total utility increases as more of a good consumed. **3.** Total utility is expressed as **TU=** $\mathbf{MU_1+MU_2+MU_3+MU_4..... MUn.}$ **4.** After total utility reaches maximum it does not raise further, it starts falling. **5.** Total utility curve increases at a diminishing rate.	**1.** The utility derived from consumption of an additional or extra unit of a commodity is called marginal utility. **2.** Marginal utility decreases as more of a good consumed. **3.** Marginal utility can de expressed as **MUn=TUn-TUn-1.** **4.** When total utility is maximum, marginal utility is zero, when total utility falls. Marginal utility becomes negative. **5.** Marginal utility curve diminishes from the beginning.

2. Explain the indifference map with a diagram.

A set of indifference curves for two commodities (Banana and Mango) showing same level of satisfaction is called indifference map.

An indifference curve represents all the combinations, which provide same or equal level of satisfaction to the consumer. However, every higher or lower level of satisfaction can be shown a different indifference curves. It means, infinite number of indifference curves can be drawn.

In the indifference map, it should be clearly understood that a higher indifference curve denotes higher level of satisfaction and lower indifference curve represents lower level of satisfaction.

Being rational, a consumer always chooses a higher indifference curve to get maximum or higher level of satisfaction, other things remaining equal. Indifference map can be explained with the help of following diagram.

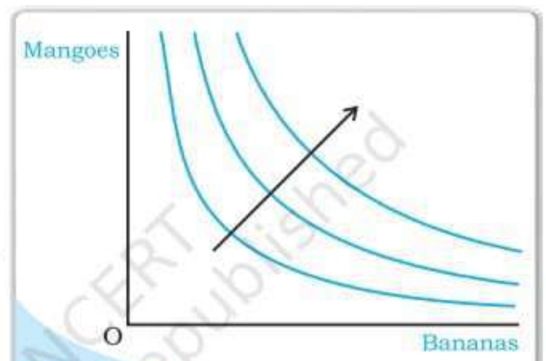

Fig. 2.5

In the above diagram **OX** axis represents banana and **OY** axis represents of mangoes. In the diagram there are three indifference curves such as **IC_1, IC_2** and **IC_3**. These three indifference curves get equal or same level of satisfaction.

3. Briefly explain the budget set with the help of a diagram.

The set of all bundles available to a consumer at the prevailing market price at a given level of income is called budget set.

The budget set is thus the collection of all bundles that the consumer can buy with his income at the prevailing market prices.

Suppose, a consumer has an income of **Rs 20**. He wants to spend it on two commodities: like **X_1** and **X_2** and both are priced at **Rs. 5** each.

1. The bundles that this consumer can afford to buy: **(0, 0), (0, 1), (0, 2), (0, 3), (0, 4), (1, 0), (1, 1), (1 ,2), (1, 3), (2,0), (2,1),(2,2), (3,0),(3,1)** and **(4,0).**

2. Among these bundles, **(0,4), (1,3), (2,2), (3,1),** and **(4,0)** cost exactly **Rs 20** and all the other bundles cost less than **Rs 20**.

3. The consumer cannot afford to buy bundles like **(3, 3),** and **(4, 5)** because they cost more than **Rs. 20** at the prevailing prices.

If both the goods are perfectly divisible, the consumer's budget set would consist of all bundles **(X_1, X_2)** such **X_1** and **X_2** are any numbers greater than or equal to 0 and **$p_1x_1 + p_2x_2 \leq M$.** The budget line can be explained with the help of diagram.

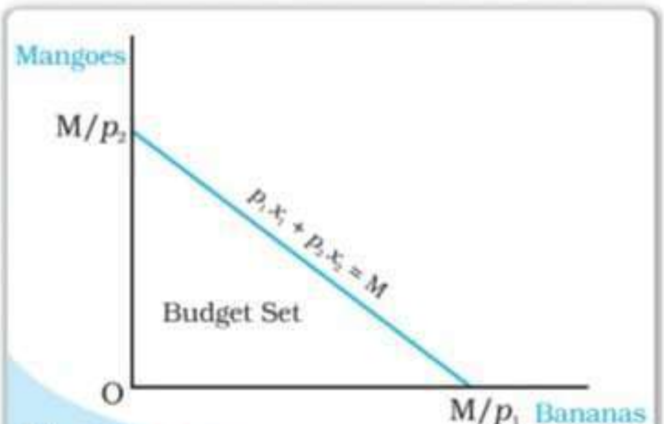

Fig. 2.9

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In the above diagram quantity of bananas is measured along **OX** axis and quantity of mangoes is measured the **OY** axis. All bundles in the positive quadrant which are on or below the line included in the budget set.

4. Explain the derivation of slope of the budget line with the help of diagram.

Budget line is shows of different combinations of the two goods which the consumer consumes and which cost exactly equal to the consumer income.

Let us understand the concept of budget line with the help of an example.

Suppose, a consumer has an income of **Rs. 20** and he wants to spend it on two commodities **Banana(X_1)** and **Mango(X_2)** and both are priced at **Rs. 5** each. Now the consumer has three options to spend the entire income.

1. Buy 4 units of Banana(X_1)
2. Buy 4 units of Mango(X_2)
3. Buy 2 units of Banana(X_1) and 2 units of Mango(X_2)

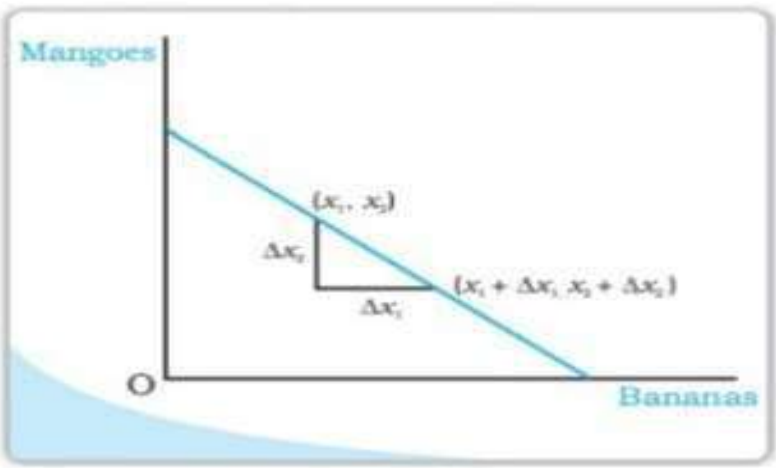
It means, possible bundles can be **(4, 0) (0, 4) (2, 2).** When all these three bundles are represented graphically, we get a downward sloping straight line, known as Budget line or Price line. Budget line is also known as Budget constraint.

The slope of the budget line measures the amount of change in mangoes required per unit of change in bananas along the budget line. Consider any two points **(x_1, x_2)** and (**$x_1 + \Delta x_1$, $x_2 + \Delta x_2$**) on the budget line.

It must be the case that **$p_1x_1 + p_2x_2=M$** and, **$p_1(x_1 + \Delta x_1) + p_2(x_2 + \Delta x_2) =0$**

Subtracting from above formula we obtain **$p_1\Delta x_1 + p_2\Delta x_2=0$**

Slope of the budget line can be explained with the help of diagram.



In the above diagram quantity of bananas is measured along **OX** axis and quantity of mangoes is measured the **OY** axis. The absolute value of the slope of the budget line measures the rate at which the consumer is able to substitute bananas for mangoes when he or she spends his or her entire budget or income.

5. Write the differences between substitutes and complements.

The following are the important differences between substitute goods and complement goods.

Substitute goods	Complement goods
1. Those goods which can be used in the place of one another are called substitute goods. **2.** Two goods are not consumed together. **3.** Direct relationship between the price a good and demand for substitute goods. **4. Example** for substitute goods are Tea and coffee, Diesel and petrol, Electricity and Solar energy etc….	**1.** Those goods which are consumed together are called complementary goods. **2.** Two goods are consumed together. E.g. tea and sugar. **3.** Indirect relationship between the price a good and demand for complementary goods. **4. Example** for complementary goods are Pen and Ink, Tea and Sugar Car and Petrol etc…

6. Explain the differences between normal and inferior goods with examples.

The following are the important differences between normal goods and inferior goods.

Normal Goods	Inferior Goods
1. Those goods whose demand increases with an increase in income such goods are called normal goods. **2.** Income effect is positive in case of normal goods. **3.** There is a direct relationship between income and demand for normal goods. **4. Example** for normal goods are vegetables, fruits, cloth etc…	**1.** Those goods whose demand decreases with an increase in income such goods are called inferior goods. **2.** Income effect is negative in case of inferior goods. **3.** There is an inverse relationship between income and demand for inferior goods. **4. Example** for inferior goods are Ragi, Navane, Araka, Sajje etc…

VII. Answer the following questions: (Each question carries 6 marks)

1. Explain the Law of Diminishing Marginal Utility (LDMU) with the help of a table and diagram.

It is one of the important laws of utility analysis. A German economist "**Gossen's** was first to explain this law" but **Prof. Alfred Marshall** popularized it.

It states that, if a consumer goes on consuming a particular commodity one after another without any time gap. The marginal utility derived by him from all units goes on diminishing.

The following table and diagram shown an imaginary example of the values of marginal and total utility derived from consumption of various amounts of a commodity.

No of Units Consumed	Marginal Utility (MU) Units	Total Utility (TU) Units
1	12	12
2	6	18
3	4	22
4	2	24
5	0	24
6	-2	22

The law of diminishing marginal utility can be explained with the help of a diagram.

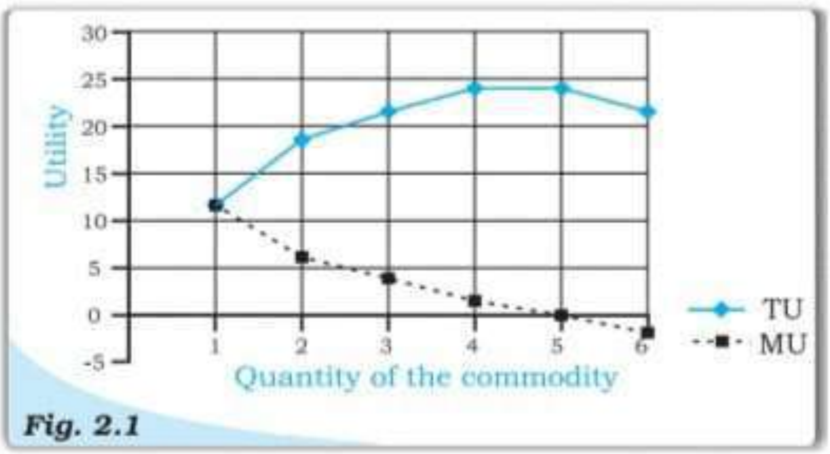


Fig. 2.1

In above diagram **OX** axis represents quantity of the commodity and utility measured on **OY** axis.

MU curve is Marginal Utility curve. This curve slopes downwards from left to right. TU is the total utility curve; it is increasing at a diminishing rate.

As per the above table when consumer consumes 1stunit of a commodity, he gets 12 units of TU and the MU is also same. The 2nd unit of a commodity, he gets 18 units of TU and 6 units of MU, which is less then 1st mango.

If he continues to consume 3rd, 4th units of a commodity, MU diminishing from 6 to 4 and 2.When he consumes 5th units of a commodity TU remains 24units and marginal utility becomes 0.If he consumes 6th units of a commodity, the MU becomes negative and TU starts diminishing.

2. Explain the features of indifference curves with the help of diagrams.

1. Indifference curve slopes downwards from left to right.

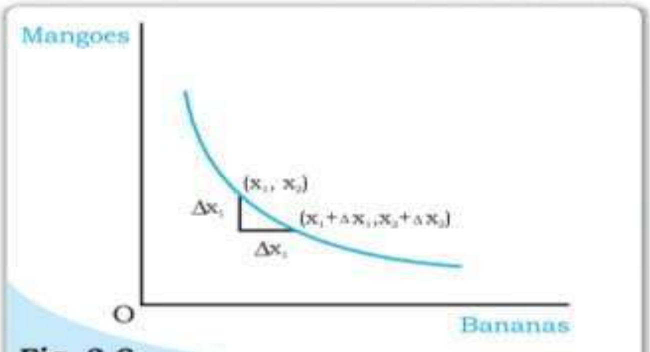


Fig. 2.6

An IC curve slopes downward from left to right, which means the amount of mangos that the consumer has to sacrifice, in order to get an additional banana, her total utility level being same.

2. Higher indifference curve gives higher level of utility or satisfaction.

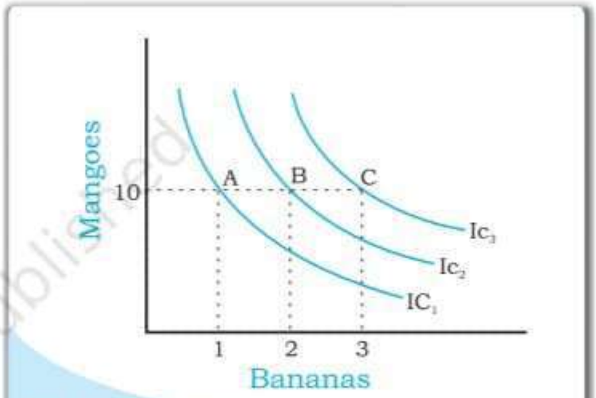


Fig. 2.7

A rational consumer always prefers higher level of indifference curve to get maximum level of satisfaction. It is called monotonic preferences.

3. Two Indifference curve never intersect each other.

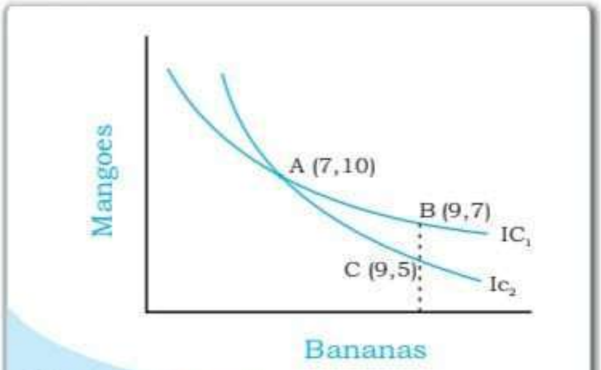


Fig. 2.8

Two indifference curves intersect each other will lead to conflicting results.

3. Explain the optimal choice of consumer with the help of a diagram.

Here just we have to combine the indifference curves with the budget line to determine the combination of two goods that can be purchased within a certain amount of budget. She acts according to her preferences. From the bundles which are available to her, a rational consumer always prefers the maximum satisfaction.

A consumer's equilibrium is achieved at the point at which the **budget line is tangent to a particular indifference curve**. This is the point she get maximum satisfaction. Consumer equilibrium can be explained with the help of a diagram.

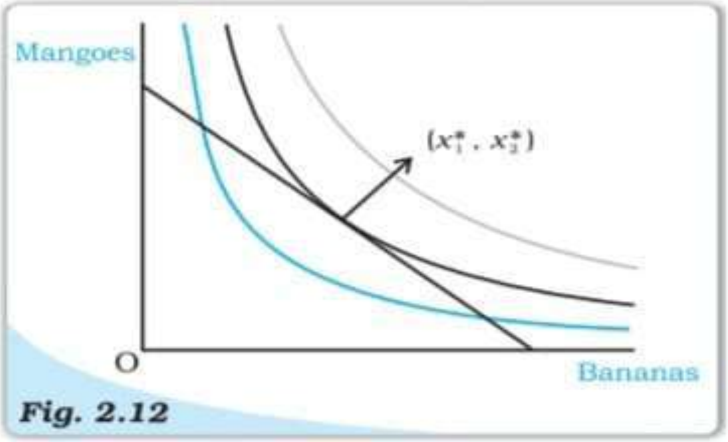


Fig. 2.12

In the above figure Bananas measured on **OX** axis and Mangos measured on **OY** axis.
At **(x_1, x_2),** the budget line is tangent to the black coloured indifference curve. **(IC_2)** Here indifference curves just touching the budget line. Bundles on the indifference curves above this, like the grey one, **(IC_3)** are not affordable. Points on the blue line **(IC_1)** consumer get less satisfaction because blue indifference curve gives less satisfaction compared to black line. Therefore **(x_1, x_2)** is the consumer's optimum bundle.

4. Explain the movement along the demand curve and shift in the demand curve with the help of diagrams.

The quantity of demand depends on price of the goods, prices of other goods, income of the consumer's and tastes and preferences of the consumer. The demand function is a relationship between the amount of the good and its price, when other things remain unchanged. The demand curve is a graphical representation of the demand function. At higher prices, the demand is less, at lower prices, the demand is more. Thus any change in the price leads to movements along the curve. On the other hand, except price, changes in any other things lead to a shift in the demand curve. Shifts in the demand curve are depicted in following figure.

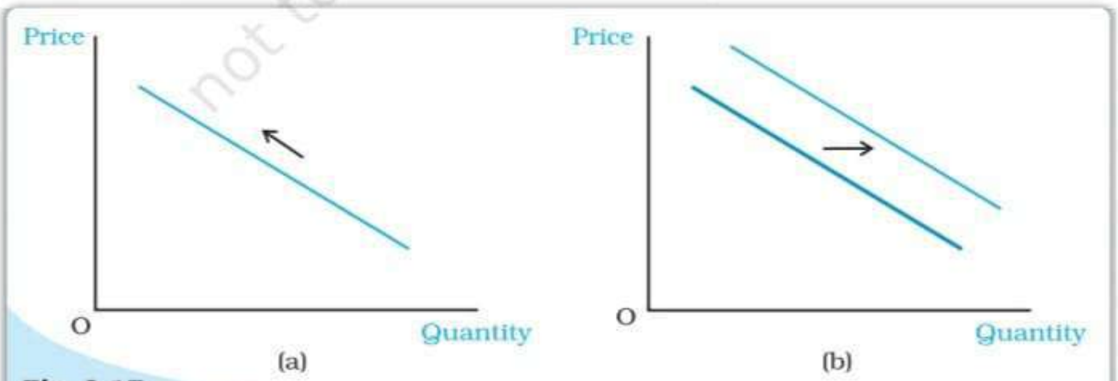


Fig. 2.17

In the above diagram **(a)** and **(b),** Quantity measured on **OX** axis and Price measured on **OY** axis. Figure **(a)** shows leftward shifts demand curve and Figure **(b)** shows rightward shifts demand curve. Except price changes in any of the other things leads to shift in the demand curve.

5. Explain the market demand with the help of diagrams.

The market demand for a good at a particular price is the total demand of all consumers taken together. It is done by adding up horizontally all the individual schedule. The market demand for a good can be derived from the individual demand curves. Suppose there are only **two consumers** in the market for a good. Suppose at **price P** the demand of **consumer 1** is **q1** and that of **consumer 2** is **q2.** Then, the market demand of the good at **P is q1 + q2.** Similarly, at **price Pˆ**, if the demand of **consumer1** is **qˆ1** and that of **consumer2** is **qˆ2.** The market demand of the good at **P is q1 + q2.**

Thus the market demand for the good at each price can be derived by adding up the demand of the two consumers at that price. If there are more consumers in the market for a good, the market demand can be derived similarly. The market demand curve of a good can also be derived from the following individual demand curves.

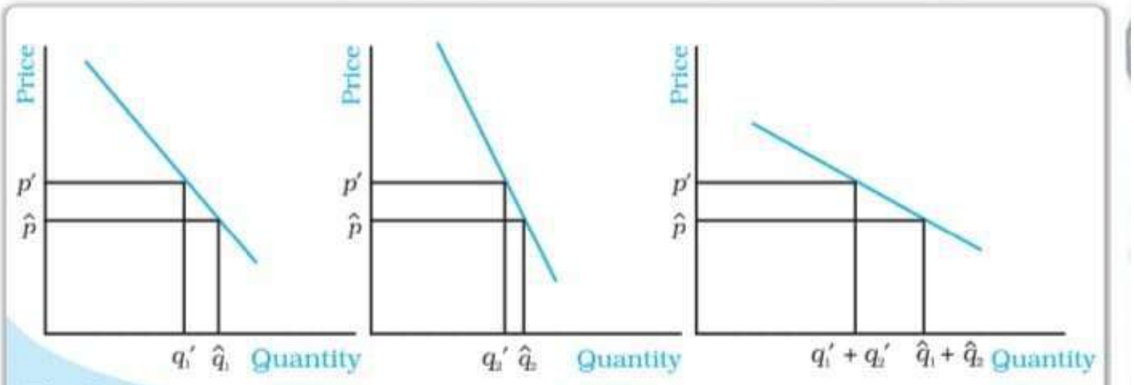


Fig. 2.18

In the above diagram quantity measured on **OX** axis and price measured on **OY** axis. D_1 is the **consumer1** demand curve and D_2 is the **consumer 2** demand curve. When we adding two demand curves, we get market demand curve **DM**.
This method of adding two curves is called **horizontal summation.**

VIII. Assignment and Project - Oriented Question. (5marks)

1. **A consumer wants to consume two goods. The price of Bananas is Rs.5 and the price of Mangos is Rs. 10 The consumer income is Rs.40**

(a) How much Bananas can she consumes if she spend her entire income on that good?

8 Bananas (8 Bananas x Rs. 5=40) OR 40/5=8

(b) How much Mangos can she consumes if she spend her entire income on that good?

4 Mangos (4 Mangos x Rs. 10=40) OR 40/10=4

(c) Is the slope of budget line downward or upward?

Downward sloping Budget line

(d) Are the bundles on the budget line equal to the consumer's income or not?

Yes, the budget line is equal to consumer's income

(e) If you want to have more of Bananas you have to give up Mangos. Is it true?

Yes, it is true

Chapter - 3
PRODUCTION AND COSTS

I. Choose the correct answer: (Each question carries 1 mark)

1. The formula of production function is
a) q=f (L, K)
b) q= d(p)
c) Y= f(x)
d) None of the above

2. In the short run, a firm:
a) Can change all the inputs
b) Cannot vary all the inputs
c) Can keep the inputs fixed
d) None of the above

3. The change in output per unit of change in the input is called.
a) Marginal product
b) Average product
c) Total product
d) Product

4. Cobb-Douglas production function is
a) q= (X, X)
b) q= (X_1, X_2)
c) q= $(X1^{\alpha}, X2^{\beta})$
d) q= (O)

5. TC =
a) TVC
b) TFC
c) TFC+TVC
d) AC+MC

II. Fill in the blanks: (Each question carries 1 mark)

1. In the long run, all inputs are **Variables**.
2. **Average product** is defined as the output per unit of variable input.
3. Marginal product and Average product curves are **Inverse U shape.**
4. SMC curve cuts the AVC Curve at the **Minimum** point of AVC curve from below
5. **Isoquant Curve** is the set of all possible combinations of two inputs that yield the same maximum possible level of output.

III. Match the followings: (Each question carries 1 mark)

A	B
1. CRS 2. SAC 3. LRAC 4. TFC + TVC= 5. SMC	a. $\Delta TC / \Delta Q$ b. Long run Average Cost c. Short Run Average Cost d. Constant Returns to scale e. TC

Solutions:

A	B
1. CRS 2. SAC 3. LRAC 4. TFC + TVC= 5. SMC	**Constant Returns to scale** **Short Run Average Cost** **Long run Average Cost** **TC** $\boldsymbol{\Delta TC/\Delta Q}$

IV. Answer the following in a sentence /word: (Each question carries 1 mark)

1. **What do you mean by Total Product?**
The relationship between variable input and output, when other inputs are constant is called total product.

Or

Summation of marginal products is called Total product.

2. **What is Average product?**
Average product is defined as the output **per unit** of variable input.

Or

Total product divided by number of variable input is called Average product.

3. **Give the meaning of Marginal product.**
The change in output per unit of change in input is called Marginal product.

4. **Write the meaning of cost function of the firm.**
Functional relationship between **cost** and **output** is called cost function of the firm.
i.e C = f (q)

5. **What is Total fixed cost?**
Those cost which **cannot changed** with the level of output is called Total fixed cost.

6. **What is Average fixed cost?**
It is the **per unit fixed cost** of production of a commodity is called Average fixed cost.
AFC = TFC/Q

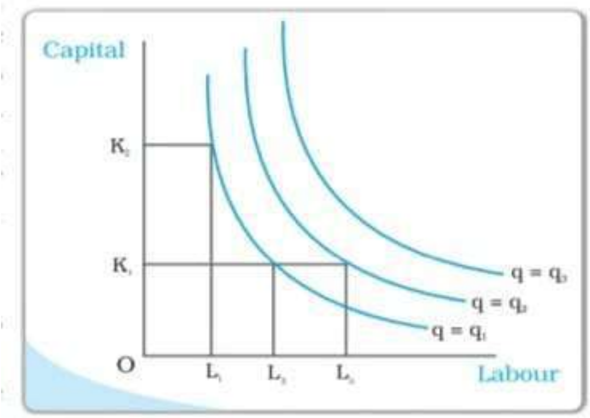
V. Answer the following question in 4 sentences: (Each question carries 2 marks)

1. **What is Isoquant?**
   An Isoquant is the set of all possible combinations of the two inputs (labour and capital) that yield the same maximum possible level of output.
   E.g. when inputs such as labour and capital combined in different proportions, they yield the same level of output.
2. **Give the meaning of the concepts of short run and long run.**
   A period in which output can be changed by changing only variable inputs (factors) is called short period.
   In this period, production can be changed by variable input like labour.
   A period in which output can be changed by changing all inputs (factors) is called long period.
   In this period, production can be changed by increasing all inputs.
3. **Mention the types of returns to scale.**
   The following are the types of returns to scale
   IRS - Increasing Returns to Scale
   CRS - Constant Returns to Scale
   DRS - Diminishing Returns to Scale
4. **Name the short run costs.**
   The following are the types of short run costs:
   TFC - Total Fixed Cost
   TVC - Total Variable Cost
   TC - Total Cost
   AFC – Average Fixed Cost
   AVC -Average Variable Cost
   SAC - Short run Average cost
   SMC -Short run Marginal Cost
5. **What are long run costs?**
   LRAC - Long Run Average Cost
   LRMC -Long Run Marginal Cos

VI. Answer the following question in 4 sentences: (Each question carries 4 marks)

1. Explain Isoquant with the help of the diagram.

In chapter 2, we have learnt about indifference curve. Here, we discuss about similar concept known as Isoquant. It is just alternative way of representing the production function.
An Isoquant is the set of all possible combinations of the **two inputs (Labour and capital)** that yield the same maximum level of output. Higher the Isoquant curve represents, higher the level of output and lower the Isoquant curve represents lower the level of output. The Isoquant can be explained with help of following diagram.



In the above diagram labour measured on **OX** axis and capital measured on **OY** axis. We have three Isoquant for the three output levels. Namely **$q=q_1$**, **$q=q_2$** and **$q=q_3$**. Two inputs combinations **(L_1, K_2)** and **(L_2, K_1)** give us same level of output **q_1.**

2. Explain the TP, MP and AP with the examples.

The concept of product can be looked at from three different angles. Such as Total Product, Average Product and Marginal Product.

1. Total Product (TP): The total volume of goods and services produced during a year is called total product. Total product can be calculated with the help of following formula. **TP= ΣMP**

For ex: Total product produced by 4 units of labour and capital are 70 units. They are sum of marginal product of 1, 2, 3, and 4^{th} units of labour and capital.

i.e. **TP= ΣMP** 70= 25 + 20 + 15 + 10

2. Average Product (AP): Per unit production of the variable factor is known as Average Product. When we divided total output by the quantities of a variable factor, we get average product. The following formula is used to calculate average product.

$AP_L=TP_L/L$ Total product produced by 4 units of labour and capital is 40 calculate average product.

$AP_L=TP_L/L$ $AP_L= 40/4$ **$AP_L= 10$**

3. Marginal Product (MP): The addition to total product by the employment of an additional unit of a factor is called marginal product. Marginal product can be calculated by following formula; **$MP_L=TP_L - TP_{L-1}$**

3. Write a brief note on returns to scale.

The Laws of Returns to Scale explains the relationship between inputs and output in the long run. In the long run both the factors are increased by the proportion. It explains the behaviour of output when the quantities of both inputs are changed in the same proportion.

Stages of returns to scale:

When all the inputs are changed in the same proportion, the total products responds in three different ways, they are;

1. Increasing Returns to Scale **(IRS)**
2. Constant Returns to Scale **(CRS)**
3. Diminishing Returns to Scale **(DRS)**

1. Increasing returns to scale: The proportional increase in output **greater than** the proportional increase in all the inputs is called increasing return to scale.
For Example: If 50% increase in all the factors by a firm result in 75% increase in total output.

2. Constant returns to scale: The proportional increase in output **equal to the** proportional increase in all the inputs are called constant return to scale.
For Example: If increase in all the factors by 50% results in 50% increase.

3. Diminishing Return to Scale: The proportional increase in output **less than** the proportional increase in all inputs are called Diminishing return to scale.
For Example: If 50% increase in all the factors by a firm results in 25% increase in output.

4. Explain the long run costs.

In the long run all the inputs are variables. There is no fixed cost in the long run.
The **total cost** and **total variable cost** are **coinciding** in the long-run. i.e. in the long-run there is no difference between the TC and TVC. Therefore only **two costs** in the long-run. They are;

1. **LRAC**- **L**ong-**R**un **A**verage **C**ost
2. **LRMC- L**ong-**R**un **M**arginal **C**ost

1. Long run average cost (LRAC): Cost per unit output in the long run is called Long run average cost.

LRAC= TC/Q

2. Long run marginal cost (LRMC): It is the change in total cost per unit change in output in the long –run is called LRMC.
When output changes, TC also changes. The difference between **TCn** and **TCn-1** is called Long-Run Marginal Cost. It can be calculated with the help of following formula.

LRMC=TCn - TCn-1

TCn= TC at n units
TCn-1= TC at n-1 units

5. The following table gives the TP_L. Find the AP_L and MP_L.

TP_L	0	15	35	50	40	48
L	0	1	2	3	4	5

Formula: 1. $AP_L = TP_L/L$

2. $MP_L = TP_L - TP_{L-1}$

L	TP_L	AP_L	MP_L
0	0	0	0
1	15	15	15
2	35	17.5	20
3	50	16.67	15
4	40	10	-10
5	48	9.6	8

VII. Answer the following questions: (Each question carries 6 marks)

1. Explain the various short run costs.

In short run there are some factors which are fixed, while others are variables. Similarly short run cost can be divided into following types.

1. Total Fixed Cost (TFC): Those cost which **remains fixed** at all levels of output is called Total Fixed Cost. It is an independent cost. It includes fixed factors like land, machinery, building, equipments etc… It cannot be zero. i.e. **TFC = TC-TVC**

2. Total Variable Cost (TVC): Those cost changes along with the quantity of output is called variable cost. It is an dependent cost and it can be zero. i.e. **TVC = TC – TFC**. Or **∑SMC**

3. Total Cost (TC): The total expenditure incurred by a firm on the factors of production required for the production of a commodity is called total cost. TC is the sum of total fixed cost (TFC) and total variable cost (TVC) at various levels of output. Total cost can be written as, **TC= TFC + TVC** **For example: 30= 20 +10**

4. Average Fixed Cost (AFC): The per unit of fixed cost of production is called average fixed cost. We can obtain average fixed cost by dividing the total fixed cost by the number of units produced. So, **AFC= TFC/Q** **For example: 20/1=20**

5. Average Variable Cost (AVC): The per unit of variable cost of production of a commodity is called average variable cost. It is calculated by dividing TVC by total output. i.e. AVC= TVC/Q **For example: 18/1=18**

6. Short Run Average Cost (SAC): The per unit of total cost of production is called short run average cost. We can obtain average cost by dividing total cost by the numbers of units produced. So, AC**= TC/Q** **For example: 38/2=19**

7. Short Run Marginal Cost (SMC): The cost of producing an extra unit of a commodity is called marginal cost. Marginal cost can be calculated with the help of following formula. **MC=** $\mathbf{TC_n - TC_{n}-1}$ **For example: 10=30-20**

2. Explain the shapes of long run cost curves.

In the long run all the inputs are variables. There is no fixed cost.
The **total cost** and **total variable cost** are **coinciding** in the long-run. i.e. in the long-run there is no difference between the TC and TVC. Therefore Only **two costs** in the long-run. They are
1. **LRAC**- **L**ong-**R**un **A**verage **C**ost
2. **LRMC- L**ong-**R**un **M**arginal **C**ost

1. Long run average cost (LRAC): Cost per unit output in the long run is called Long run average cost. **LRAC= TC/Q**

2. Long run marginal cost (LRMC): It is the change in total cost per unit change in output in the long run is called LRMC. When output changes, TC also changes. The difference between **TCn** and **TCn-1** is called Long-Run Marginal Cost. It can be calculated with the help of following formula.

LRMC=TCn - TCn-1

TCn= TC at n units

TCn-1= TC at n-1 units

We have discussed the **returns to scales**. Now let us see their implications for the shape of LRAC.

IRS implies that if we increase all the inputs in same proportion, we get **more output** compared to inputs. So the Average Cost is falls.

CRS implies that if we increase all the inputs in same proportion, we get **same** level of output. So the Average Cost remains constant.

DRS implies that if we increase all the inputs in same proportion, we get **less output**. So the Average Cost must be rising.

A firm **IRS** is observed at the initial level of production. This is than followed by the **CRS** and then the by the **DRS**.

Accordingly, the LRAC curve is a 'U'- shaped curve. Let us check how the **LRMC** curve looks like. For the first unit of output **both LRMC and LRAC are same**. Then, as output increases, LRAC initially falls, and then, after a certain point, it rises. When AC is falling, MC must be less than the AC. When the LRAC is rising, marginal cost must be greater than LRAC. Therefore LRMC curve is also **'U'- shaped curve**

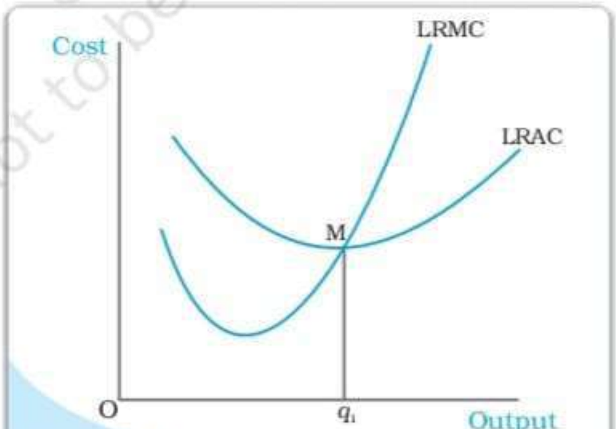


Fig. 3.9

In the above diagram **LRAC** and **LRMC** decreases initially due to operation of **IRS**. LRAC and LRMC curves are flat in the middle due to the operation of **CRS**. LRMC curve cuts LRAC curve at its minimum point. **LRAC** and **LRMC** curves increase due to operation of **DRS**.

3. Explain the shapes of Total product, Marginal product and Average product curves.

The shape of TP curve: The total volume of goods and services produced during a year is called total product. Total product can be calculated with the help of following formula. **TP= ΣMP** TP curve is **positively sloped curve**. Following diagram shows the shape of TP curve.

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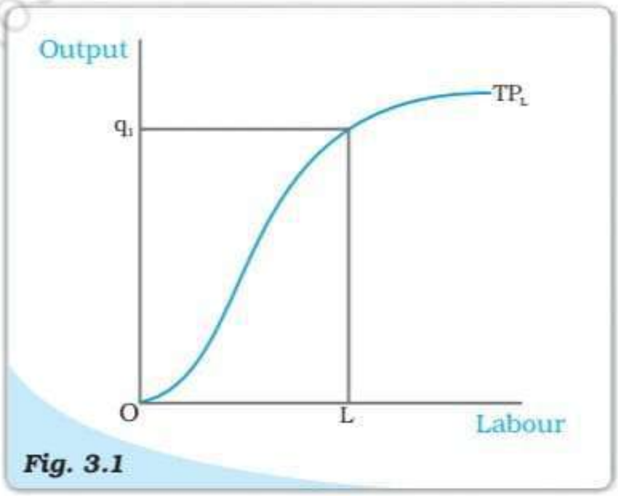


Fig. 3.1

Following diagram shows the shape of **TP** curve. In above diagram we measure units of labour along the **OX** axis and output along the **OY** axis. With $\mathbf{X_1}$ units of labour, the firm can at most produce $\mathbf{q_1}$ units of output. If it increase number of labour, **TP** curve start diminishing.

Shapes of MP and AP curves: According to the Law of variable proportions, marginal product (MP) first increase and then falling. Therefore the MP curve looks like **an inverse 'U'-shaped curve.** Let us we discuss about **AP curve**. For the first unit of variable input, **both MP and AP are same**. When we increase the amount of labour, both the **MP** and **AP** rises but **AP** rises less than **MP**. Then after the point, the **MP** starts falling. Once **MP** has fall sufficiently, its value becomes less than the **AP** and **AP** also stars falling. So **AP** curve is also **inverse 'U'-shaped.** When **AP** falls, **MP** has to be less than **AP.** So that **MP** curve cuts **AP** curve from above at its maximum.

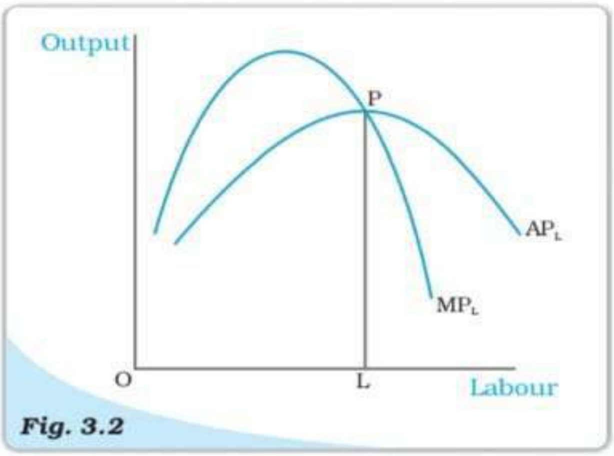


Fig. 3.2

In the above diagram shows the shapes of **AP** and **MP** curves of a firm. The **AP** of a factor is only maximum at **P**. To the left of **P**, **AP** is rising and **MP** is greater than **AP**. To the right of **P**, **AP** is falling and **MP** is less than **AP**.

4. A firms SMC schedule is shows in the following table. TFC is Rs 100. Find TVC, TC, AVC and SAC schedules of the firm.

Q	0	1	2	3	4	5	6
SMC	-	500	300	200	300	500	800

Output (Q)	SMC	TFC	TVC	TC	AVC	SAC
0	-	100	0	100	0	0
1	500	100	500	600	500	600
2	300	100	800	900	400	450
3	200	100	1000	1100	333.33	366.6
4	300	100	1300	1400	325	350
5	500	100	1800	1900	360	380
6	800	100	2600	2700	433.33	450

FORMULA:

1. TVC=ΣSMC
2. TC= TFC + TVC
3. AVC=TVC/Output (Q)
4. SAC= TC/Output (Q)

5. Explain the law of variable proportions with the help of a diagram.

It is one of the most important laws of production. **It explains the relationship between fixed input (K), variable input (L) and output (q) in the short-run.**

Statement of law: Law of variable states that, "The tendency of **marginal product (MP) first increase** and **then fall.** The law say that the **MP** initially rises with change in variable input. But after reaching a certain level of input, it starts falling.

The law of variable proportions can be explained with the help of following table.

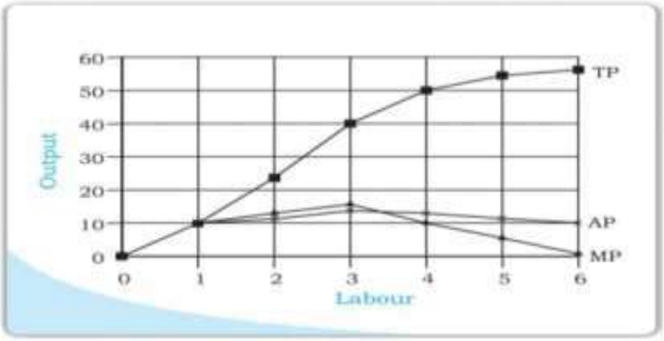
Labour	*TP*	MP_L	AP_L
0	0	-	-
1	10	10	10
2	24	14	12
3	40	16	13.33
4	50	10	12.5
5	56	6	11.2
6	57	1	9.5

Stages of Returns to Scale:

First stage - Increasing stage: At this stage the marginal product increases.

Second stage - Diminishing stage: In this stage marginal product decreases.

Third stage – Negative stage: At this stage, marginal product becomes zero, than 'Negative'. The law of variable proportions can be explained with the help of following diagram.



In the above diagram **OX** axis represents amount of variable factor and **OY** axis represents output. As we hold one factor fixed and keep increasing the other, the factor proportions change. Initially, as we increase the amount of the variable input, the factor proportions become more and more suitable for the production and marginal product increases. But after a certain level of employment, the production process becomes too crowded with the variable input. So the output added by each additional worker is now proportionately less, the marginal product begins to fall.

VIII. Assignment and project-oriented Question. (5marks)

1. **Find the missing product in the following table.**

Factor 1	TP_L	MP_L	AP_L
0	0	0	0
1	10	?	10
2	24	?	12
3	40	16	13.33
4	?	10	?
5	?	6	11.2
6	57	1	9.5

Solutions:

Factor1	TP_L	MP_L	AP_L
0	0	0	0
1	10	**10**	10
2	24	**14**	12
3	40	16	13.33
4	**50**	10	**12.5**
5	**56**	6	11.2
6	57	1	9.5

Formula:

1. $TP_L = \Sigma MP_L$

2. $MP_L = TP_L - TP_L\text{-}1$

3. $AP_L = TP_L / L$

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Chapter - 4
THE THEORY OF FIRM UNDER PERFECT COMPETITION

I. Choose the correct answer: (Each question carries 1 mark)

1. The product in a perfect competition are
a) Heterogeneous
b) <u>Homogeneous</u>
c) Luxury
d) Necessary
2. The increases in total revenue for a unit increase in the output is
a) <u>Marginal Revenue</u>
b) Average Revenue
c) Total Revenue
d) Fixed Revenue
3. The firm's profit is denoted by
a) Σ
b) Δ
c) Ǿ
d) π
4. When the supply curve is vertical the elasticity of supply is
a) $e_s = 1$
b) $e_s > 1$
c) $e_s = 0$
d) $e_s = \infty$
5. The revenue per unit of output of a firm is called as
a) TR
b) MR
c) <u>AR</u>
d) None of the above

II. Fill in the blanks:(Each question carries 1 mark)

1. Price taking behaviour is the single most distinguishing characteristic of **<u>Perfect Competition</u>** market.
2. **<u>Unit tax</u>** is a tax that the government imposes per unit sale of output.
3. For a price taking firm marginal revenue is equal to **<u>Market price</u>**. **(P=AR=MR)**
4. The point of minimum AVC where the SMC curves cuts the AVC curves is called **<u>Shutdown point of the firm</u>**.
5. **<u>Opportunity</u>** cost of some activity is the gain forgone from the second best activity.

III. Match the following:(Each question carries 1 mark)

A	B
1.MR	a. Perfect information
2. π	b. Zero profit
3.AR	c. $\Delta TR/\Delta q$
4.Normal profit	d. TR-TC
5.Perfect competition	e. $\frac{TR}{Q}$

Solutions:

A	B
1.MR	**$\Delta TR/\Delta q$**
2. π	**TR-TC**
3.AR	$\boldsymbol{\frac{TR}{Q}}$
4.Normal profit	**Zero profit**
5.Perfect competition	**Perfect information**

IV. Answer the following in a sentence /word: (Each question carries 1 mark)

1. **Define marginal revenue.**
   The increase in total revenue for a unit increase in the output is called marginal revenue.
2. **To which side does supply curve shift due to the technological progress?**
   Right side
3. **Write the formula to calculate Average revenue.**

$$AR=\frac{TR}{q} = \frac{p\ x\ q}{q} = P \quad OR \quad AR=TR/q$$

4. **What is Normal profit?**
   The minimum level of profit that is needed to keep a firm in the **existing business** is defined as normal profit.
5. **Give the meaning of Super Normal profit.**
   Profit that a firm earns over and above the **normal profit** is called the super normal profit.

V. Answer the following question in 4 sentences(Each question carries 2 marks)

1. Mention the conditions needed for profit by a firm under perfect competition.

a) The price (P)= MC

b) MC must be non-decreasing at q_0.

c) In the short-run price must be greater than the AVC and in the Long-run Price must be greater than the AC.

2. Give the meaning of shut down point.

The shutdown point is that point where short run marginal cost curve cuts AVC curve at the minimum point.

A firm continues to produce as long as the price remains greater than or equal to the minimum AVC. Below the minimum point of AVC there will be no production. Because firm incurring losses.

3. Give the meaning of opportunity cost with an example.

The cost of next best alternative forgone/sacrifice in order to produce that good is called opportunity cost.

Eg: If a person is having one acre of land he can cultivate paddy or wheat by cultivating paddy he earns Rs. 40,000.If he cultivating wheat he may earn Rs. 30,000. In the process of cultivating paddy has to sacrifice Rs.30, 000. So, the opportunity cost of cultivating paddy is Rs. 30,000.

4. Mention two determinates of a firm's supply curve.

A firm's supply curve is determined by the following factors

1. Technological progress
2. Input prices
3. Unit tax
4. Price of the good

5. Give the meaning of price elasticity of supply and write its formula.

The price elasticity of supply refers to the responsiveness of quantity supplied to change in the price of the good.

Formula:

$$e_s = \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}}$$

$$e_s = \frac{\Delta Q}{Q} \text{ x } \frac{P}{\Delta P}$$

VI. Answer the following questions: (Each question carries 4marks)

1. Write a short note on profit maximisation of a firm under the following conditions.

a. P=MC

b. MC must be none decreasing at q_0

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1. Condition No1: Price equal to Marginal Cost (P=MC)

Profits are the difference between total revenue and total cost. Both TR and TC increase as output increases.

If change in **TR greater than** change in **TC**, profits will continue to **increase**. i.e. **M**arginal **R**evenue **greater than M**arginal **C**ost, (MR>MC) profits are increasing. . By the same logic, as long as **MR** is **less than MC**, (MR<MC) profits will fall. It follows that profits to be maximum, **MR should equal MC.** In other words, profits are maximum when the **MR=MC.** So the firm's profits maximizing output becomes the level of output at which **P=MC**.

2. Condition No 2: MC must be none decreasing at q_0: Consider the second condition that must hold when the profit-maximising output level is positive. This can be explained with the help of a following diagram.

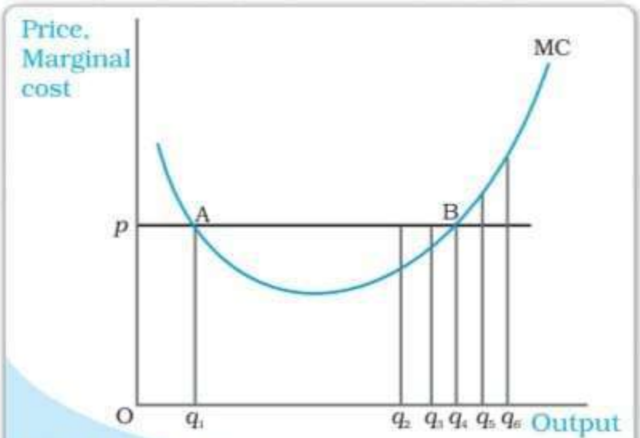

Fig. 4.3

In the above diagram at output levels $\mathbf{q_1}$ and $\mathbf{q_4}$**,** the market price is equal to the marginal cost. However, at the output level $\mathbf{q_1}$, the marginal cost curve is downward solping. We claim that $\mathbf{q_1}$ cannot be a profit maximizing output level. Observe that for all output levels slightly to the left of $\mathbf{q_1}$**,** the market price is lower than the marginal cost. Immediately implies that firm's profit at an output level slightly smaller than $\mathbf{q_1}$, exceeds that corresponding to the output level $\mathbf{q_1}$. This being the case, $\mathbf{q_1}$ cannot be profit-maximizing output level.

2. Explain the determinants of a firm's supply curve.

A firm's supply curve is a part of its marginal cost curve. It is determined by following factors.

1. Technological progress: with every improvement in technology, some specialized tools, capital equipment, raw materials etc... Become available. This may reduce the cost of production and technological progress shifts the supply curve of the firm to the right.

2. Input prices: A change in input prices also affects a firm's supply curve. If the price of an input increases, the cost of production rises. When the production cost is more, the firm's supply curve shifts to the left.

3. Unit Tax: A unit tax is a tax imposed by the Government on per unit sale of output. When the tax is more supply curve shifts to the left.

4. Price of the good: the supply curve very much depends on commodity price. There is direct or positive relationship between the price of a good and quantity of supply.

3. Explain the features of perfect competition.

The following are the main features of perfectly competitive market.

1. Large number of buyers and sellers:

In perfect competition market, there will be large number of buyers and sellers. The number would be so large, that no individual firm would have enough capacity to influence the price, demand and supply.

2. Homogenous product: The producers under perfect competition produce homogenous product. There should not be any differentiation of products by way of quality, colour, design size etc…

3. Free entry and exit of firms:

Under perfect competition market there no restriction of the entry of new firm in the industry or exit of the existing firms from the industry. If the existing firms earn huge profit in the short run, new firms can enter the market.

4. Complete knowledge about market conditions:

In perfect competition the sellers and buyers will have complete knowledge of market conditions. Therefore, the same price would have been enforcing in this market. Because of the complete knowledge of the market there will not be much about the advertisement. (Ads)

5. Price taking behaviour:

It is the single most distinguishing characteristic of perfect competition. In this market price is determined by market forces. (Demand and supply) Therefore all the firms are **price takers** in this market.

4. Write about shutdown point, Normal profit and Break- even point.

Shutdown point: The shutdown point is that point where short run Marginal cost curve cuts AVC curve at the minimum. A firm continues to produce as long as the price remains greater than or equal to the minimum AVC. Below the minimum point of AVC there will be no production. Because firm incurring losses.

The Normal profit: The minimum level of profit that is needed to keep a firm in the **existing business** is defined as normal profit.

Break-even Point: The point on the supply curve at which a firm **earns only normal profit** is called the break-even point of the firm.

VII. Answer the following question in 20 sentences (Each question carries 6marks)

1. Explain the short run supply curve of a firm with the help of a diagram.

A period in which output can be changed by chaining only variable factors is called short run. In the short run fixed inputs like plant machinery, building etc… cannot be changed. Short run supply curve of a firm can be explained with the help of two parts. They are;

Case 1: Price is **greater than** or **equal** to the minimum AVC.
Case 2: Price is **less than** the minimum AVC.

1. Case 1: Price is greater than or equal to the minimum AVC.

We will show that the statement of case 1 with the help of a following diagram.

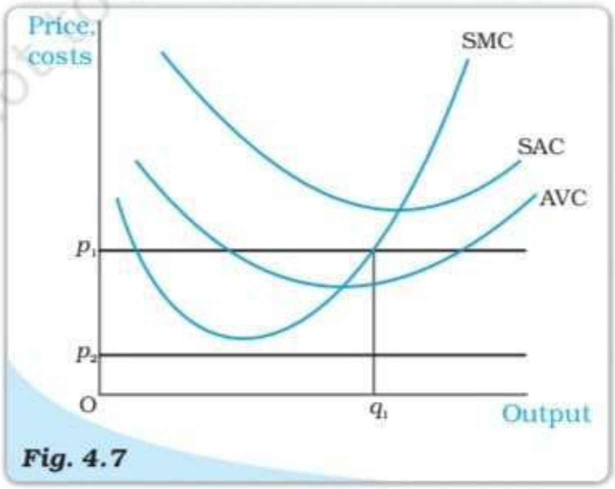

Fig. 4.7

In the above diagram we observe that, the market price is p_1 greater than the minimum of AVC. At q_1 level of output price also equal to the rising part of the SMC curve. Note also that the AVC at q_1 does not more than the market price is p_1. Thus all three conditions are satisfied atq_1.

2. Case 2: Price is less than the minimum AVC.

Suppose the market price is p2, which is less than the minimum of AVC. We have argued that if a profit maximising firm produces a positive output in the short run. But notice that from the above diagram that for all output levels, **AVC more than p_2**. So, if the market price is p_2, the firm produces **zero output**.

Combining cases 1 and 2, we reach an important conclusion

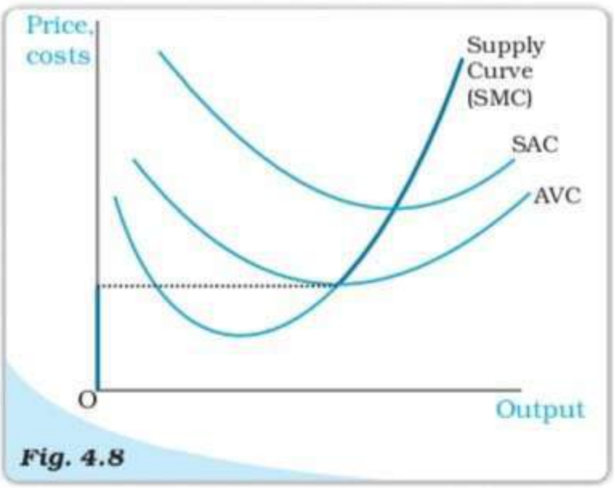

Fig. 4.8

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A firm's **short run supply curve is the rising part of the SMC** curve is shown in the following diagram. In the above diagram, **the bold line** represents the short run supply curve of the firm.

2. Explain the Total revenue and Average revenue of a firm under perfect competition with the help of diagrams.

Total revenue: Total Revenue (TR) of the firm is defined as the market price of the good (p) multiplied by the firm's output (q). Hence, **TR = p X q**

The following table shows how total revenue is related to output.

Boxes sold	Price (Rs)	TR (Rs)
0	10	0
1	10	10
2	10	20
3	10	30
4	10	40
5	10	50

In the above table notice that when no box is sold, TR is equal to zero. If 1 box of candle is sold 1x RS. 10 =10. If 2 boxes candle are sold, TR is equal to 2xRs.10=20 and so on… In the following diagram we plot the **total revenue curve.**

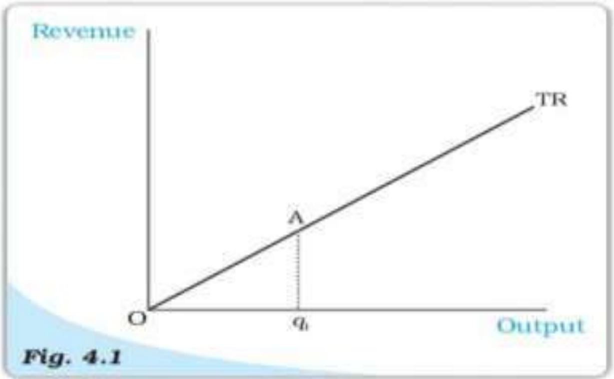

Fig. 4.1

In above diagram, quantity sold or output measured on **OX** axis and revenue earned on **OY** axis.

Three observations are relevant here:

First- when the output zero, the total revenue of the firm is also zero.

Second- the total revenue increases as the output goes up. TR curve is upward rising straight line because **price is constant**.

Third – when the output is one unit (oq_1), the TR is Aq_1.

Average revenue: The Average revenue of a firm is defined as total revenue per unit of output. Average revenue can be calculated with the help of following formula;

$$AR = \frac{TR}{q} = \frac{p \times q}{q} = p \quad \text{or} \quad AR = TR/q$$

For a price taking firm, average revenue equals to the market price. In the following diagram we plot the Average Revenue curve.

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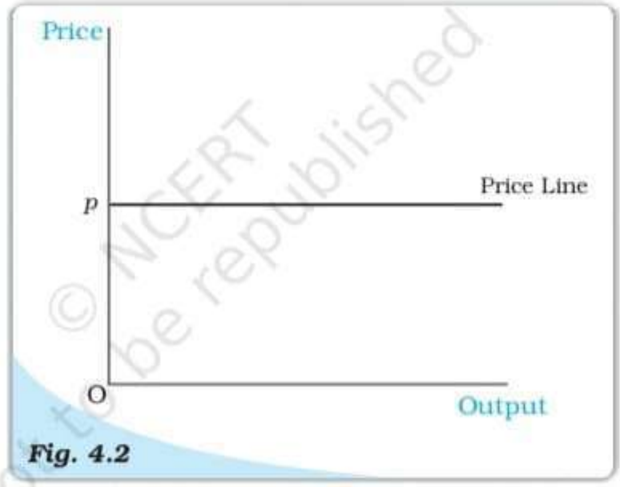

Fig. 4.2

In above diagram quantity output measured on **OX** axis and Market price on **OY** axis. Since the **market price is fixed at p**, we obtain a **horizontal straight line** that cuts the **y-axis** at a height equal to **p.** This horizontal line is called the **Price line**. It is also the firm's **AR curve** under perfect competition. The price line also depicts the demand curve of a firm. Observe that the demand curve is perfectly elastic.

3. Explain the market supply curve with the help of diagram.

Market supply curve is the summation of the supplies of individual firms at that price. For e.g. consider a market with n firms like firm1, firm2, firm3 and so on. Suppose market price is fixed at **p.**

Market supply = firm1 supply at a p price + firm2 supply at p price + firm3 supply at a price + …….. Firm n supply at p price. Here just we assumed only two firms in the market firm1and firm2. The two firms have different cost structure. Firm1will not produce anything if the market price is less than **p_1**, while firm2 will not produce anything if the market price is less than **p_2**

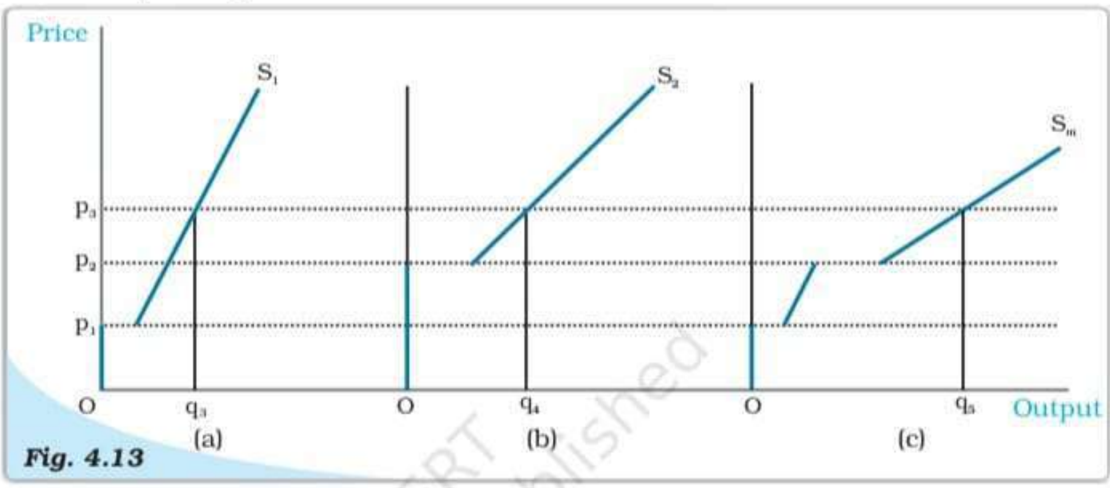

Fig. 4.13

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In the following diagram, we have the supply curve of **firm1** in **panel (a)** it is denoted by **S_1**, in **panel (b)** we have the supply curve of **firm2** it is denoted by **S_2** and **panel (c)** shows the market supply curve it is denoted by **Sm.**
When the market price below the **p_1,** both the firms choose not to produce any quantity of the good, hence market supply will also be **zero.**
For a market price greater than or equal to **p_1** and less than **p_2**, only **firm1** will produce a positive amount of the good.
For a market price greater than or equal to **p_2,** both firms will have positive output levels.
If we assume market price is **p_3**, **firm1** supplies **q_3** units of output while **firm2** supplies **q_4** units of output. So, the market supply at price **p_3** is **q_5**, where **$q_5=q_3 + q_4$.** We obtain the **Sm** by taking a **horizontal summation** of the supply curves of the two firms in the market **S_1** and **S_2**.

VIII. Assignment and project oriented Question. (5marks)

1. **Compute the total revenue, marginal revenue and average revenue schedules in the following table when the market price of each unit of goods is Rs. 10.**

Quantity Sold (Q)	TR	MR	AR
0	-	-	-
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

Solutions:

Quantity sold (Q)	Price (P)	TR=PXQ	MR=TRn-TRn-1	AR=TR/q
0	10	0	0	0
1	10	10	10	10
2	10	20	10	10
3	10	30	10	10
4	10	40	10	10
5	10	50	10	10
6	10	60	10	10

Chapter -5

MARKET EQUILIBRIUM

I. Choose the correct answer: (Each question carries 1 mark)

1. In perfect competition, buyers and sellers are
a) Price Makers
b) Price takers
c) Price analysts
d) None of the above
2. A situation where the plans of all consumers and firms in the market match.
a) In equilibrium situation
b) Equilibrium situation
c) Maximisation situation
d) Partial Equilibrium situation
3. As a result of increase in the number of firms there is an increase in supply, then supply curve
a) Shifts towards left
b) Shifts towards Right
c) Shifts towards both sides
d) None of the above
4. The firms earn super normal profit as long as the price is greater than the minimum of
a) Marginal cost
b) Total cost
c) Average cost
d) Fixed cost
5. The government imposes upper limit on the price of goods and services is called
a) Price ceiling
b) Selling price
c) Price floor
d) None of the above
6. The government imposed lower limit on the price of goods and service is called
a) Goods floor
b) Service floor
c) Price floor
d) None of the above

II. Fill in the blanks: (Each question carries 1 mark)

1. In a perfectly competitive market, equilibrium occurs when market demand **Equal to** market supply.

2. If the supply curve shifts rightward and demand curve shifts leftward equilibrium price will be **decreases.**
3. **Wage rate** is determined at the point where the demand for labour and supply of labour curves intersect.
4. In labour market **families** are the suppliers of labour.
5. Due to rightward shifts in both demand and supply curves the equilibrium price remains **may increase or decrease or remain unchanged**.
6. It is assumed that, in a perfectly competitive market an **Invisible hand** is at play.

III. Match the following (Each question carries 1 mark)

A	B
1. Adam smith	a. Attraction of new firms
2. Price ceiling	b. Operation of invisible hand
3. Market equilibrium	c. Lower limit on price
4. Possibility of supernormal profit	d. Upper limit on price
5. Price floor	e. QD = QS

Solutions:

A	B
1. Adam smith	**Operation of invisible hand**
2. Price ceiling	**Upper limit on price**
3. Market equilibrium	**QD = QS**
4. Possibility of supernormal profit	**Attraction of new firms**
5. Price floor	**Lower limit on price**

IV. Answer the following questions in a sentence (Each question carries 1 mark)

1. **Define market equilibrium.**
   The situation when the quantity demanded of a commodity is equal to the quantity supplied is called market equilibrium. **(QD=QS)**
2. **What is equilibrium price?**
   The price at which the quantity demanded of a commodity is equal to the quantity supplied is called equilibrium price.
3. **What is price ceiling?**
   The government imposes **upper limit on the price** of goods and services is called price ceiling.
4. **What is price floor?**
   The government imposed **lower limit on the price** of goods and services is called price floor.
5. **Through which legislation, the government ensures that the wage rate of the labourers does not fall below a particular level?**
   Minimum wage policy.

IV. Answer the following questions in 4 sentences (Each question carries 2 marks)

1. **Define equilibrium price and quantity.**
   The price at which quantity demanded of a commodity is equal to the quantity supplied is called equilibrium price.
   The quantity demanded and supplied at the equilibrium price is called equilibrium quantity.
2. **How price is determined, when fixed numbers of firms exist in perfect competition?**
   The price is determined by the intersection of the demand and supply curves in the market. If there any imbalances in the equilibrium price invisible hand guides both producers and consumers towards equilibrium.
3. **Write any two possible ways in which simultaneous shift of both demand and supply curves.**
   1. Both supply and demand curves shift rightwards.
   2. Both supply and demand curves shift leftwards.
4. **What is marginal revenue product of labour (MRPL)?**
   An additional benefit equal to marginal revenue times marginal product which is called marginal revenue product of labour.
5. **Distinguish between excess demand and excess supply.**
   A situation when the quantity demanded is more than the quantity supplied at the prevailing market price is called Excess Demand. **(QD>QS)**
   A situation when the quantity supplied is more than the quantity demanded at the prevailing market price is called Excess Supply. **(QS>QD)**
6. **How wage is determined in the labour market?**
   With an upward sloping supply curve and downward sloping demand curve, the equilibrium wage rate is determined at the point where these two curves intersect. Where the labour that the households wish to supply is equal to the labour that the firm with to hire.

VI. Answer the following questions in 12 sentences (Each question carries 4 marks)

1. What is the implication of free entry and exit of firm on market equilibrium? Briefly explain.

Free entry and free exist is the main feature of perfect competitive market. In this market all the firms are **identical**.

Here we assume that no firm earns supernormal profit or incurs loss. i.e. the equilibrium **price** will be **equal** to the minimum **average cost** of the firms. **(P=minimum AC)**

Suppose, at the market price, each firm is earning **supernormal profit**. It will **attract some new firms.** When **new firms enter** the market supply curve shifts rightward. But demand remains unchanged. This causes market **price to fall**. Therefore all firms again **earn normal profit.**

Similarly, if the firms are **earning less than normal profit**, some **firms will exist** from the market which lead to an **increase in price**, the profit of each firm will increase to the level of normal profit. In this situation no more firms will want to leave since they will be earning normal profit here.

Thus free entry and exist, each firm will always earn normal profit at prevailing market price. Therefore, free entry and exist of the firms imply the market price will always equal to the minimum AC. i.e. **P= min AC.** Graphically, this is shown in the following figure.

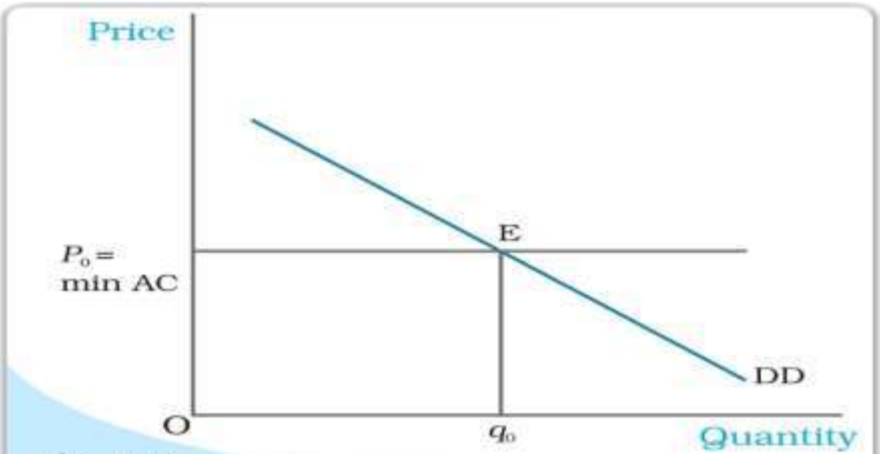

Fig. 5.5

In the above diagram DD is the market demand curve. Here market will be in equilibrium at point 'E' at which demand curve DD intersect Po=Minimum of AC curve. Here market price is P_0 and the total quantity demanded and supplied is equal to q_0. At P_0 = Minimum of AC each firm supplies same amount of output, say q_0.

2. Write a table to show the impact of simultaneous shifts on equilibrium.

Table 5.1: Impact of Simultaneous Shifts on Equilibrium

Shift in Demand	*Shift in Supply*	*Quantity*	*Price*
Leftward	Leftward	Decreases	May increase, decrease or remain unchanged
Rightward	Rightward	Increases	May increase, decrease or remain unchanged
Leftward	Rightward	May increase, decrease or remain unchanged	Decreases
Rightward	Leftward	May increase, decrease or remain unchanged	Increases

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3. Write a note on price ceiling.

The Government imposed **upper limit** on the price of a good or service is called price ceiling. It is generally imposed on necessary items like wheat, rice, kerosene sugar etc….
It is fixed below the market determined price because some section of people will not be able to afford these goods.
Let us examine the effects of price ceiling on market equilibrium through the example of market for wheat.

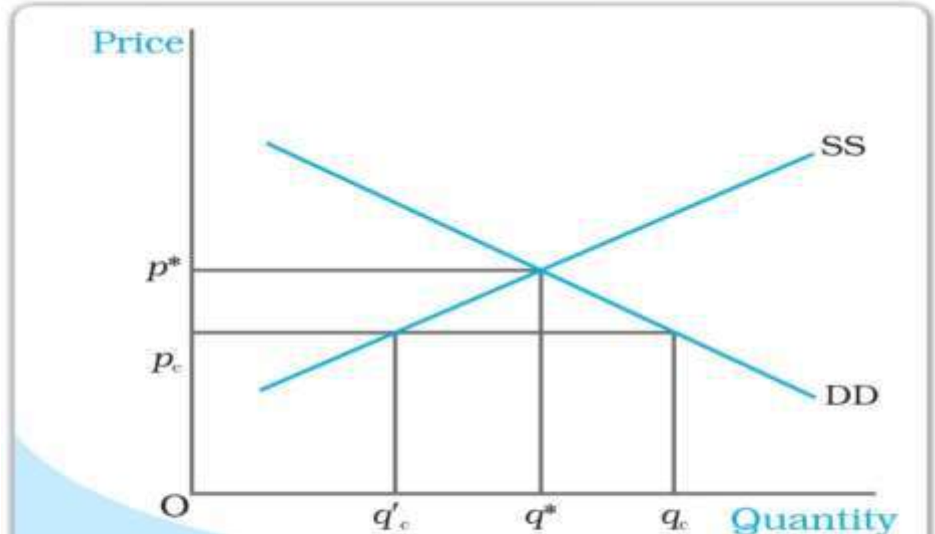

Fig. 5.7

In the above diagram **SS** is the market supply curve and **DD** is the market demand curve for wheat. The equilibrium price is **p***and equilibrium quantity is **q*.** When the government imposes price ceiling at **Pc** which is lower than the equilibrium price level, there will be an excess demand for wheat in the market at that price. In this situation ration coupons are issued to the consumers so that no individual can buy more than a certain amount of wheat.

4. Write a note on price floor.

The Government imposed lower limit on the price of a good or service is called price Floor. It is generally imposed on agricultural price support programmes and minimum wage legislation. It is fixed above the market determined price.
Let us examine the effects of price floor on market equilibrium with the help of following figure.

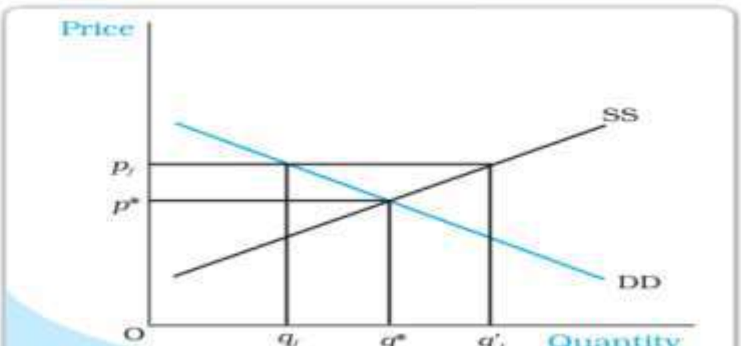

Fig. 5.8

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In the above diagram **SS** is the market supply curve and **DD i**s the market demand curve. The equilibrium price is **p*** and equilibrium quantity is **q***. When the government imposes price floor at P_f which is higher than the equilibrium price level, there will be an excess supply. In this situation government needs to buy the surplus at the predetermined price.

VII. Answer the following questions in 20 sentences (Each question carries 6 marks)

1. Explain the simultaneous shifts of demand and supply curve in perfect competition with the help of diagrams.

Demand and supply model is very easy to use, when there is a change in either demand or supply. The quantity of demand is determined by price of a good, price of the related goods, income of the consumer, tastes and preferences of the consumers etc…
The quantity of supply is determined by technological progress, input prices, tax etc…
If changes in one or more of these factor either the supply or the demand curve or both may shift.
Demand Curve Shifts: The shift in the demand curve explained with the help of following diagram.

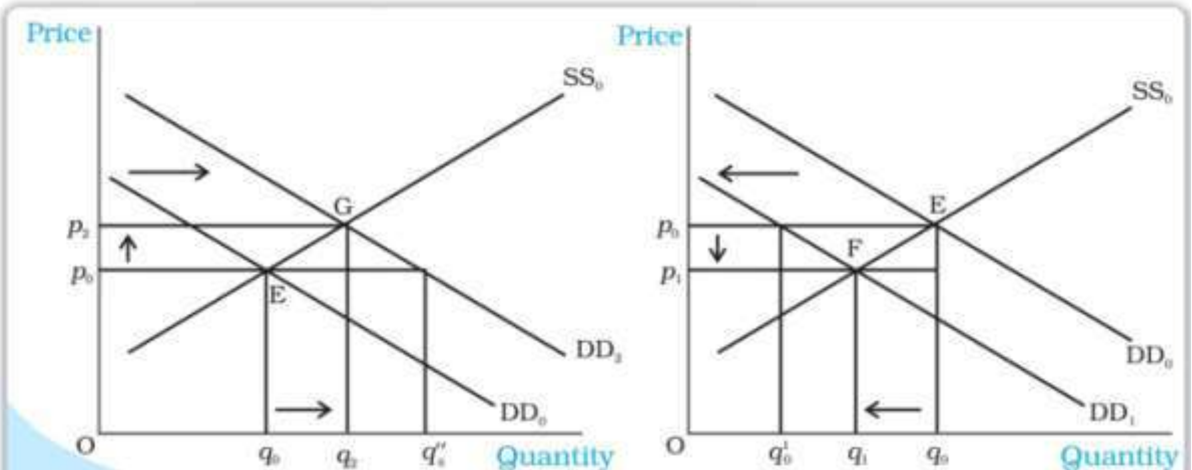

Fig. 5.2

In the above diagram quantity measured on OX axis and price is measured on OY axis. Here initial equilibrium point is E, where the market **demand curve DDo** and the **market supply curve SSo** intersect each other. So that **qo** is the equilibrium quantity and **Po** is the equilibrium price.
Suppose the **market demand curve shifts rightward to DD_2** with supply curve remaining unchanged at **SSo,** as shown in panel (a) this shifts indicating **EXCESS DEMAND** at price po. In this situation some people will be willing to pay higher price and price would tend to rise from po to **p2**. Here the new equilibrium point is attained at G where the equilibrium quantity is **q2** and equilibrium price is p_2.
Similarly if the demand curve shifts **leftward** to DD_1 with supply curve remaining unchanged at **SSo**, as shown in panel (b) this shifts indicating **EXCEESS SUPPLY** at price

p_0. In this situation some people will be willing to pay lower price and price fall from **p_0** to **p_1.** Here the new equilibrium point is attained at F where the equilibrium quantity is **q_1** and equilibrium price is **p_1.**

Supply Curve Shifts: The shift in the supply curve explained with the help of following diagram.

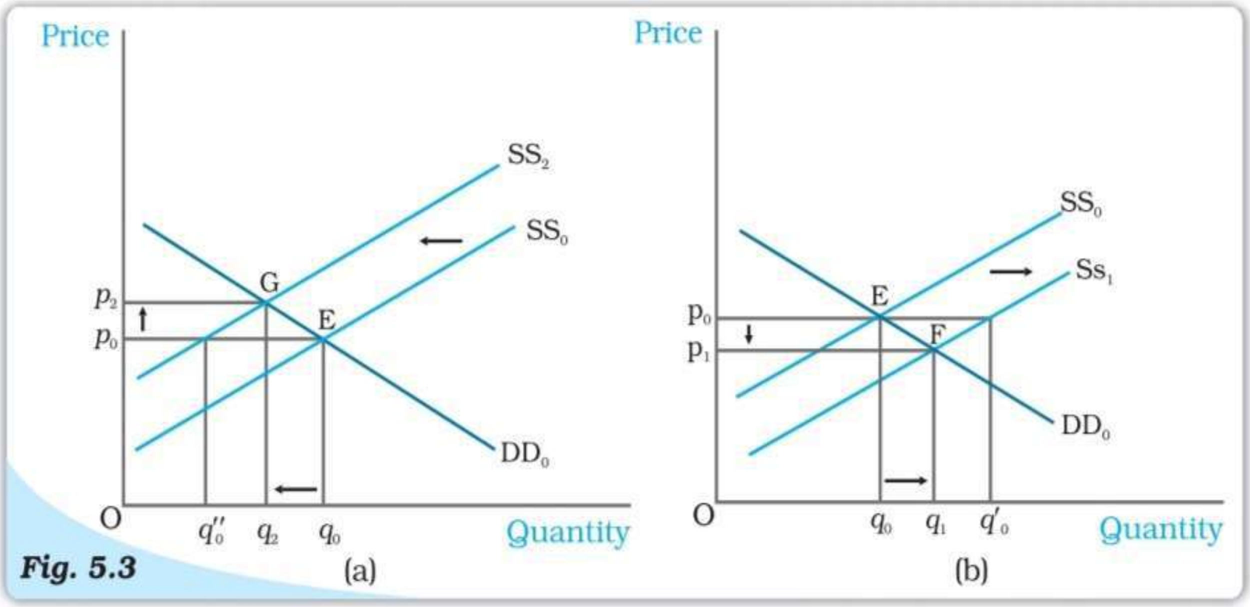

Fig. 5.3

In the above diagram quantity measured on OX axis and price is measured on OY axis. Here initial equilibrium point is E, where the market **demand curve DDo** and the **market supply curve SSo** intersect each other. So that **qo** is the equilibrium quantity and **Po** is the equilibrium price.
Suppose the **market supply curve shifts leftward to SS_2** with demand curve remaining unchanged at **DDo,** as shown in panel (a) this shifts indicating **EXCESS DEMAND** at price po. In this situation some people will be willing to pay higher price and price would tend to rise from **po** to **p2**. Here the new equilibrium point is attained at **G** where the equilibrium quantity is **q2** and equilibrium price is **p_2.**

Similarly if the supply curve shifts rightward to **SS_1** with demand curve remaining unchanged at **DDo**, as shown in panel (b) this shifts indicating **EXCEESS SUPPLY** at price **p_0.** In this situation some people will be willing to pay lower price and price fall from **p_0** to **p_1.** Here the new equilibrium point is attained at F where the equilibrium quantity is **q_1** and equilibrium price is **p_1.**

2. Explain the market equilibrium with the fixed number of firms along with the diagram.

Where the market demand equals market supply is called market equilibrium **(QD=QS)** With the help of demand curve and supply curve, we will look at how supply and demand forces work together to determine where the market will be in equilibrium when the number of firms are fixed.

The following figure illustrates equilibrium for a perfectly competitive market with a fixed number of firms.

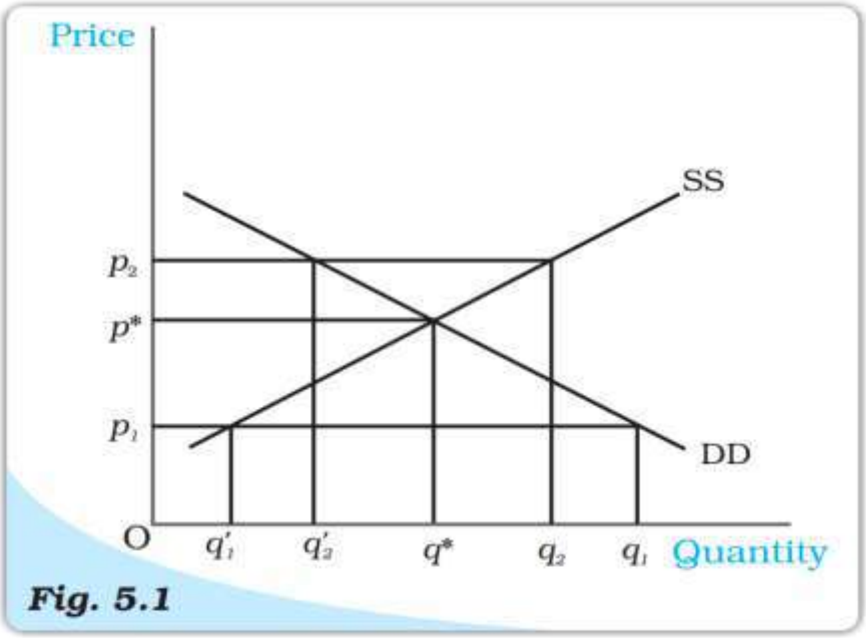

Fig. 5.1

In the above diagram quantity measured on OX axis and price is measured on OY axis. **DD** denotes the market demand curve and **SS** denotes the market supply curve. Graphically, equilibrium is a point where the **market supply (SS)** curve intersects the **market demand (DD)** curve. Here **equilibrium price (p*) i**s determined and **q*** is the **equilibrium quantity**.
If the price is **p_1,** the market demand is $q_1$whereas the market supply is **q'_1.** i.e. when the market price is less demand is more but supply is less. Here excess demand is **q' q_1.**
If the price is **p_2**, the market supply is **q_2** whereas the market supply is **q'_2**. Here market supply more than market demand. Excess supply is **q'_2 q_2.**

3. Suppose the demand and supply curves of wheat are given by qd = 200-P and qs = 120+ P.

a. Find the equilibrium price.
b. Find the equilibrium quantity of demand and supply.
c. Find the quantity of demand and supply when P> equilibrium price.
d. Find the quantity of demand and supply when P< equilibrium price.

Suppose the market demand curve and the market supply curve for wheat are given by Qd=200-p Qs=120+p
First we must calculate equilibrium price.
Market demand (qd) =Market supply (qs)
Qd= (P) =qs= (P)
200-p=120-p
200-120= p + p
80=2p
P=80/2
P=40 equilibrium price

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Now substituting this value of price we get the equilibrium quantity of demand and supply.

Qd=200-p qs=120+p
Qd=200+40 qs=120+40
Qd=160 qs=160
Therefore qd=qs

If the price is less than 40 there will be **excess demand** suppose **price is 35**

Qd=200-p qs=120+p
Qd=200-35 qs=120+35
Qd=165 qs=155
Therefore qd > qs

If the price is greater than 40 there will be **excess supply** suppose **price is 45**

Qd=200-p qs=120+p
Qd=200-45 qs=120+45
Qd=155 qs=165
Therefore qs > qd

So, **a) Equilibrium price is= 40**
b) Equilibrium quantity demand and supply is =160
c) P> equilibrium price, quantity demand is 155 and quantity supply is 165 (Excess supply)
d) P< equilibrium price, quantity demand is 165 and quantity supply is 155 (Excess demand)

Chapter - 6
NON COMPETITIVE MARKETS

I. Choose the correct answer (Each question carries 1 mark)

1. A Market structure which produces heterogeneous products is called
a) Monopoly
b) <u>Monopolistic competition</u>
c) Perfect competition
d) None of the above

2. The change in TR due to the sale of an additional unit is called
a) Total Revenue
b) Average Revenue
c) <u>Marginal Revenue</u>
d) Revenue

3. When the price elasticity of demand is more than one, MR has a
a) Negative value
b) Decreasing value
c) Constant value
d) <u>Positive value</u>

4. Profit =
a) P X Q
b) <u>TR-TC</u>
c) TFC + TVC
d) TR/Q

II. Fill in the blanks (Each question carries 1 mark)

1. The monopoly firm's decision to sell a larger quantity is possible only at **<u>Lower price.</u>**
2. Competitive behaviour and competitive market structure are in general **<u>Opposite</u>** related.
3. In monopoly market, the goods which are sold have no **<u>Substitutes.</u>**
4. TR = **<u>P X Q</u>**
5. The revenue received by the firm per unit commodity sold is called **<u>Average Revenue.</u>**
6. With the zero production cost, when the total revenue of monopoly firm is maximum, the profit is **<u>Maximum.</u>**

III .Answer the following question in a sentence: (Each question carries 1 mark)

1. **What is monopoly?**
   A market situation where there is a **single seller** selling a product which has no close substitutes is called monopoly.
2. **Give the meaning monopolistic competition.**
   A market situation in which there are large numbers of firms which sell closely related, but **differentiated products** is called monopolistic competition.
3. **Give the meaning of oligopoly market.**
   A market situation in which there are a **few firms** selling homogeneous or differentiated products is called oligopoly market.

4. **What is duopoly?**
   The market situation where there are **only two firms** operating in the market is called duopoly market.

IV. Answer the following questions in 4 sentences. (Each question carries 2 marks)

1. **State the meaning of average revenue and marginal revenue.**
   The amount of revenue **per unit** sold is called average revenue.
   The **additional revenue** generated from the sale of an additional unit of the commodity is called marginal revenue.
2. **Sate the relationship between marginal revenue and price elasticity of demand.**

a) It is sufficient to notice only one aspect – price elasticity of demand is more than 1 when the MR has a positive value.
b) Becomes less than 1 unit when MR has a negative value.

3. **Write the meaning of monopolistic competition and give an example.**
   A market situation in which there are large numbers of firms which sell closely related, but differentiated products is called monopolistic competition.
   Examples of Monopolistic competition: Market products like soaps, toothpastes, face creams, cool drinks etc...
4. **Write the features of monopoly.**

1) Single producer (Seller)
2) Restriction on the entry of new firms
3) Absence or No close substitutes
4) Price discrimination or Uniform price

V. Answer the following questions in 12 sentences. (Each question carries 4 marks)

1. Explain the market demand curve for a monopoly firm with the help of a diagram.

In monopoly market demand and Average Revenue curves are same because consumers are willing to purchase more quantity at lower price and less quantity at higher price.
For the monopoly firm, the above argument expresses itself from the reverse direction.
The monopoly firm's decision to sell a larger quantity is possible only at a **lower price** and smaller quantity is possible only at a higher price.
For instance, examining with the help of a following diagram.

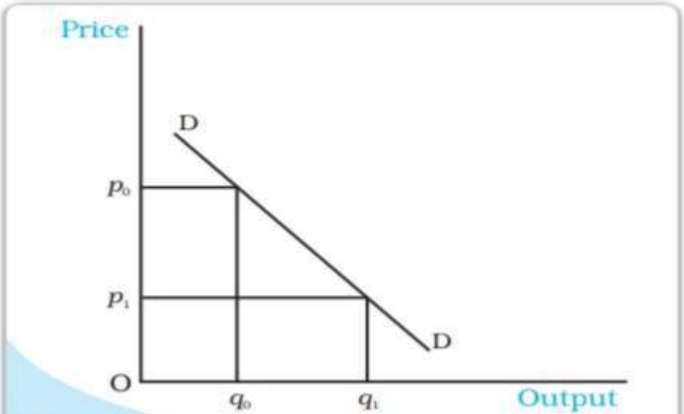

Fig. 6.1

In the above diagram **DD** is the market demand curve and average revenue curve of the monopoly firm. If the market price is at **po** consumers are willing to purchase the quantity **qo**. At the same price monopoly firm wishes to producing and selling **qo.**
On the other hand if the market price is at **p1** consumers are willing to purchase the quantity **q1**. At **p1** price monopoly firm wishes to sell same quantity means **q1.**

2. Calculate TR and MR from the following table.

Q	1	2	3	4	5	6	7	8	9	10
P	100	90	80	70	60	50	40	30	20	10

Answer:

Quantity (Q)	Price (p)	TR= P × Q	MR=TRn-TRn-1
1	100	100	100
2	90	180	180 – 100= 80
3	80	240	240 - 180=60
4	70	280	280 – 240= 40
5	60	300	300 – 280= 20
6	50	300	300 – 300= 0
7	40	280	280 – 300= -20
8	30	240	240 – 280= -40
9	20	180	180 – 240= -60
10	10	100	100 – 180= -80

3. Briefly explain the monopolistic competitive market.

In real world, neither pure competition nor pure monopoly exists, rather a mix of two is found in actual market. **A market situation in which there are large numbers of firms which sell closely related but differentiated products is called monopolistic competitive market**. Examples: Soaps, Toothpastes, Shampoos, Cosmetics, etc…..

Features of Monopolistic Competitive Market:

1. Existence of large number of buyers and sellers: In monopolistic, there will be a large number of producers (firms). Even though the numbers of firms are large, they will be of smaller size.

2. Product differentiation: Product differentiation refers to differentiating the products on the basis of brand name, size, colour, shape etc… Product differentiation is the second characteristic of monopolistic competition.

3. Downward sloping demand curve: Monopolistic competition has a highly elastic demand curve. It is because of the reason that the product has more close substitutes.

A small fall in price can attract a large number of buyers. It is for this reason AR and MR curve showing negative sloping demand curve.

4. Free entry and free exit of firms: Another characteristic of the monopolistic competition is the freedom of entry and exit of firms. In this market there is no restriction upon the firm to enter or leave the industry.

4. Show the relationship between average revenue and marginal revenue of a monopoly market with the help of diagrams.

The revenue of per unit of commodity sold is called average revenue. Average revenue is obtained by dividing the total revenue by the number of unit sold. i.e. **AR=TR/Q**

The additional revenue generated from the sale of an additional unit of output is called marginal revenue. It is the change in TR from sale of one more unit of a commodity. i.e. **MR=ΔTR/ΔQ** OR **TR=TRn-TRn-1.**

The relationship between AR and MR can be explained with the help of following diagram

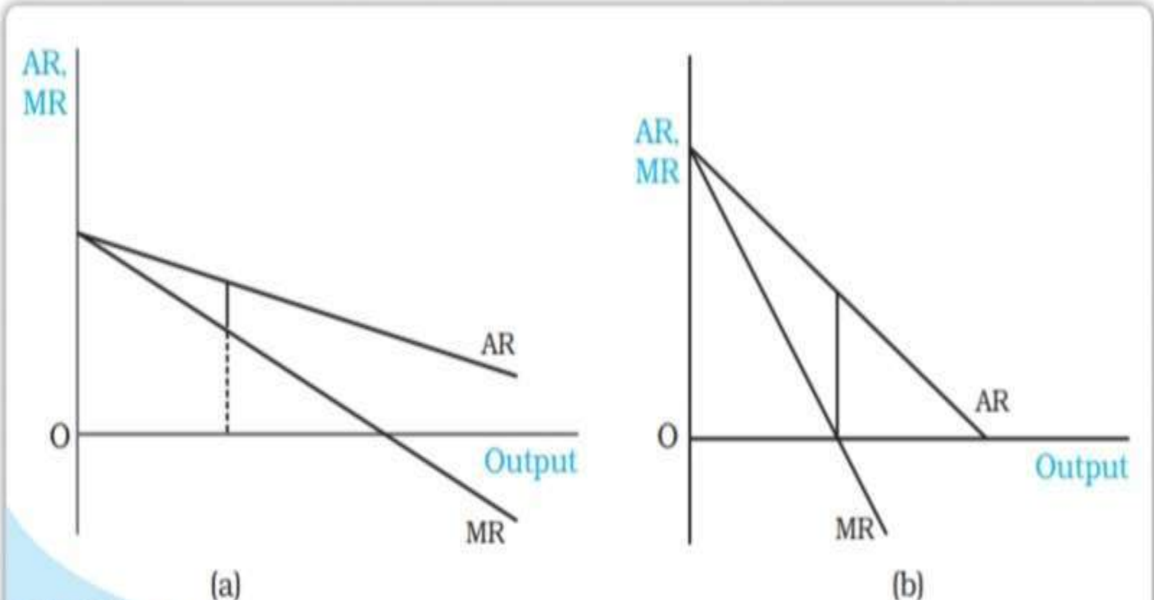

Fig. 6.5

In the above diagram OX axis represent output and OY axis represent AR and MR. When firms can increases their volume of sales only by decreasing the price, then AR falls with increases in sale. It means revenue from every additional unit (i.e. MR) will be less than AR. As a result, both AR and MR curves slope downwards from left to right.

5. Explain how the firms behave in oligopoly.

A market situation in which there are a few firms selling homogeneous or differentiated products is called oligopoly market.

Oligopoly is sometimes, also known as competition among the few sellers **(3-10)** in the market and every seller influences and is influenced by the behavior of other firms.

Features of Oligopoly Market:

1. Few large firms in oligopoly market each firms is in a position to affect the total supply: There are few firms in oligopoly market but each firm is relatively large when compared to the size of the market. As a result each firm is in a position to affect the total supply in the market, and thus influence the market price.

2. Firms could decide to collude with each other: At one extreme, firms could to 'collude' with each other to maximize collective profits. In this case, the firms form a 'cartel' that act as a monopoly. The quantity supplied collectively by the industry and the price charged are the same as a single monopolist would have done.

3. Firms could decide to compete with each other in oligopoly market: At the other extreme, firms could decide to compete with each other. For example: A firm may lower its price a little below the others firms, in order to attract away their customers. Obviously, the other firms would retaliate by doing the same. So the market price keeps falling as long as a firm keeps undercutting each other's prices.

4. Price Rigidity: A situation in which price tends to say fixed irrespective of changes in demand and supply conditions is called price rigidity. Under oligopoly firms are in a position to influence the prices. However they try to avoid price competition for the fear of price war, they follow the price policy of price rigidity. The price rigidity implies that prices are difficult to change. Firms use other methods like advertising, better services to customers etc… to compete with each other**.**

VI. Answer the following questions in 20 sentences. (Each question carries 6 marks)

1. Explain short run equilibrium of the monopolist with the case of zero cost.

This is a monopoly situation when the cost of is zero **(TC=O).** This is very rare case, Let us suppose that there is a village which is situated far away from the other village. In that village we assume there is only one well. All the village people completely depend for their water needs on this well.

We assume that this well is owned by a particular individual and he has the exclusive right over the use of the well. The owner of the well does not allow any villager to draw water from this well without paying for it. Thus he enjoys monopoly and can charge any price that he wishes. There is no production cost for water. That is production cost is zero. Now we shall explain the equilibrium situation.

Monopoly market attains equilibrium when the profit is maximum. Profit of a monopoly firm is given by the difference between total revenue (TR) and total cost (TC).

Symbolically,

π (pie)= TR - TC

Where, profit, TR= Total revenue, TC=Total cost

Then, the profit of a monopoly firm with zero cost is

π= TR - TC

π=TR – O = TR

If the TC zero the maximum profit is total revenue. So when TR is maximum profit also reaches maximum. This situation is explained with the help of a diagram.

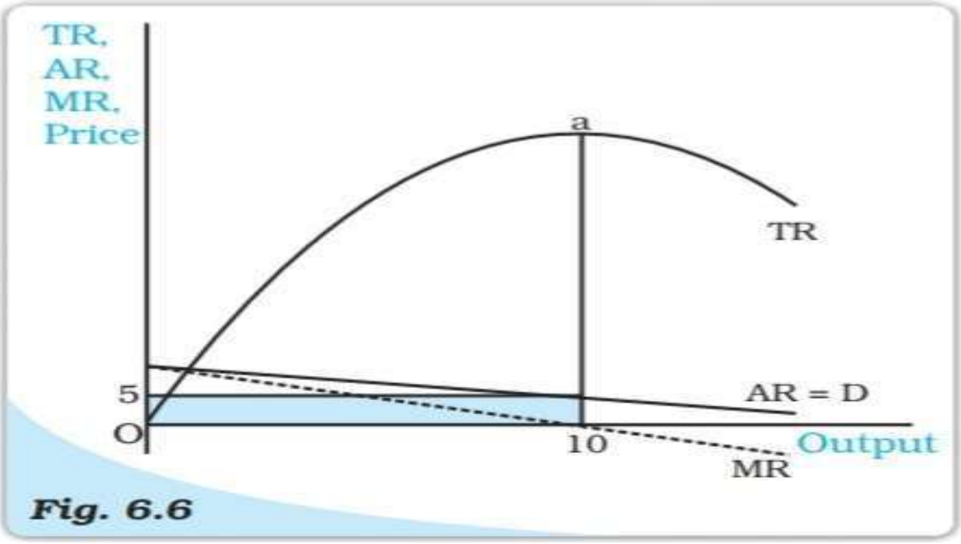

Fig. 6.6

In the above diagram OX axis represent output and OY axis represent price, TR, AR and MR. The profit received by the firm equals the revenue received by the firm minus the cost incurred, that is, Profit =TR-TC. Since in this case TC is zero, profit is maximum when TR is maximum. This occurs when output is of 10 units. This is also the level when MR equals zero. The amount of profit is given by the length of the vertical line segment from ‘a’ to the horizontal axis.

So, π =TR-TC
π = 50-0
π = 50 (profit)

2. Explain short run equilibrium of a monopolist firm, when the cost of production is positive by using TR and TC curves with the help of a diagram.

The level of output where monopolist earns maximum profit is called equilibrium situation.

According to this approach a monopoly firm attains its equilibrium at the point where the difference between total revenue (TR) and total cost (TC) is maximum. At this point monopoly firm reaches equilibrium with maximum profit.

In short run equilibrium situation using TR and TC approach is explained with the help of following diagram.

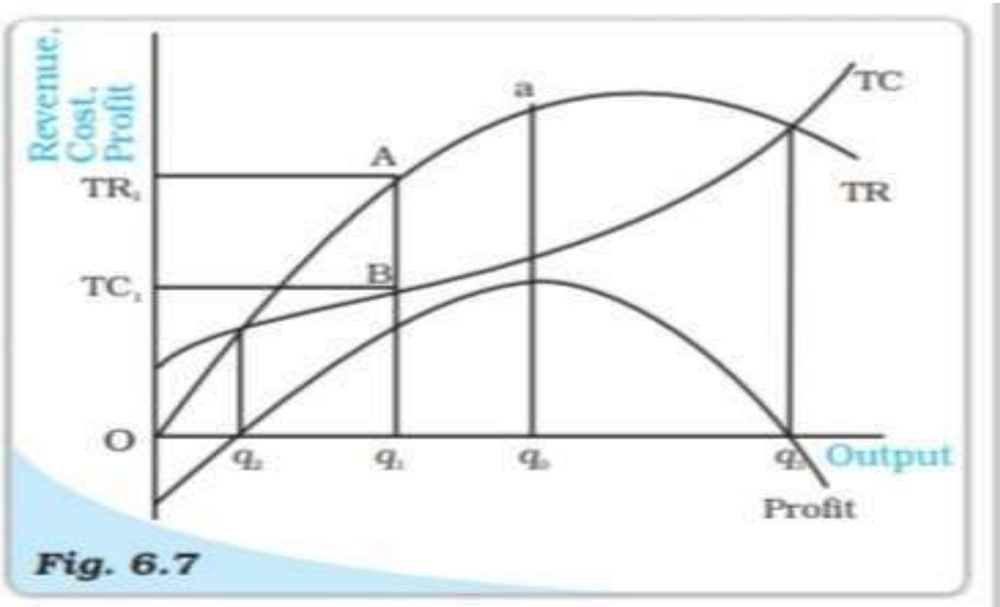

Fig. 6.7

In the above diagram OX axis represent output and OY axis represent income, cost and profit. The profit received by the firm equals the total revenue minus the total cost. In the diagram we can see that if quantity **q1** is produced, the total revenue is **TR1** and total cost is **TC1**. The difference, **TR1-TC1**, is the profit received. The same is depicted by the length of the line segment **AB**, i.e. the vertical distance between the **TR** and **TC** curves at **q1** level of output. It should be clear that this vertical distance changes for different levels output. When output level is less than **q2,** the **TC** curve lies above the **TR** curve, i.e. **TC** is greater **TR**, and therefore profit is negative and the firm makes losses. The same situation exists for output levels greater than **q3.** Hence, the firm can make positive profit only at output levels between **q2** and **q3,** where **TR** curve lies above the **TC** curve. The monopoly firm will chose that level of output which maximizes its profit. This would the level of output for which the vertical distance between the **TR** and **TC** is maximum and **TR** is above the **TC,** i.e. **TR-TC** is maximum. This occurs at the level of output **q0.**

3.

. The market demand curve for a commodity and the total cost for a monopoly firm producing the commodity is given by the schedules below. Use the information to calculate the following:

Quantity	0	1	2	3	4	5	6	7	8
Price	52	44	37	31	26	22	19	16	13

Quantity	0	1	2	3	4	5	6	7	8
Total Cost	10	60	90	100	102	105	109	115	125

(a) The MR and MC schedules
(b) The quantites for which the MR and MC are equal
(c) The equilibrium quantity of output and the equilibrium price of the commodity
(d) The total revenue, total cost and total profit in equilibrium.

Quantity (Q)	**Price (P)**	**Total Cost (TC)**	**TR=P×Q**	**MR=TRn-TRn-1**	**MC=TCn-TCn-1**
0	52	10	0	0	0
1	44	60	44	44	50
2	37	90	74	30	30
3	31	100	93	19	10
4	26	102	104	11	2
5	22	105	110	6	3
6	**19**	**109**	**114**	**4**	**4**
7	16	115	112	-2	6
8	13	125	104	-8	10

1. **MR can be calculated with the help of TR and MC can be calculated with the help of value of TC.**
2. **When quantity of production is 6 MR=MC.**
3. **The equilibrium quantity of output is 6 and equilibrium price is 19.**
4. **Total Revenue is (TR)=114,Total Cost (TC)=109 and Total Profit is = TR-TC=114-109 =05**

PART-B MACRO ECONOMICS

Chapter-1

INTRODUCTION

I. Choose the correct answer: (each question carries 1 mark)

1. The individuals or institutions which take decisions are.

a) Economic Variables

b) Economists

c) Economic Agents

d) None of the above

2. In 1936 British economist J.M. Keynes published his celebrated book

a) Wealth of nations

b) General theory of employment interest and money.

c) Theory of Interest

d) Theory of Employment

3. All the labourers who are ready to work will find employment and all will be working at their full capacity, this school of thought is known as

a) Modern thought

b) Contemporary thought

c) Classical thought

d) None of the above

4. The year of Great Depression

a) 1920

b) 1889

c) 1929

d) 2018

5. In a capitalist country production activities are mainly carried out by

a) Private enterprises

b) Government authority

c) Planning authority

d) None of the above.

II. Fill in the blanks: (each question carries 1 mark)

1. **Macro economics** tries to address situation facing the economy as a whole.
2. Sale of goods by the domestic country to the rest of the world is called **Export Trade**
3. The domestic country may sell goods to the rest of the world. These are **Export Trade**.
4. **Production units** will be called as firms.
5. **Macro Economic** policies are pursued by the state itself or statutory bodies Like the RBI, SEBI etc…

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III. Answer the following: (each question carries 1 mark)

1. Who are economic agents?

1) Consumers
2) Producers
3) Government, Corporation, Banks etc….

2. What 'does classical school of thought say?

All the Labourers who are ready to work will find employment and all the factories will be working at their full capacity, this school thought is known as classical thought.

3. Give the meaning of imports.

Purchase of goods and services by the domestic country from the rest of the world is called import trade.

4. Name the well known work of Adam Smith.

"An Enquiry into the nature and cause of the wealth of nations" (1776)

5. What do you mean by wage rate?

Sale and Purchase of Labour services at a price are called the wage rate.

IV. Answer the following: (each question carries 2 marks)

1. What are the features of capitalistic economy?

The following are important features of capitalistic economy.

1) There is a private ownership of means of production.
2) Production takes place for selling the output in the market.
3) There is sale and purchase of labour service at a price.

2. Name and write the meaning of two kinds of trade in external sector.

There are two kinds of trade in external sector, they are

1) <u>Export Trade</u>: Sale of goods and services by the domestic country to the rest of the world is called export trade.

2) <u>Import Trade</u>: Purchase of goods and services by the domestic country from the rest of the world is called import trade.

3. Who are the macroeconomic decision makers?

The macroeconomic decision makers are,

1) Government
2) Reserve Bank of India (RBI)
3) Securities and Exchange Board of India (SEBI)
4) Other financial intuitions etc….

IV. Answer the following questions: (Each question carries 4 marks)

1. Briefly explain in what way Macro economics is different from Micro economics.

Micro Economics	Macro Economics
1. Micro economics is that part of economics that studies the behavior of individual units of an economy.	**1.** Macro economics is that part of economics that studies the behavior of aggregates of the economy as a whole.
2. It uses tools like individual demand, individual supply, cost of a commodity, firm output etc….	**2.** It uses tools like aggregates demand and supply, general price level, inflation, national income etc….
3. The objective of micro economics is to determine prices of commodities, prices of factors of production, equilibrium of a firm etc….	**3.** The objective of macro economics is to determine per capita income, employment level, investment level etc… in the economy.
4. The pioneer of micro economics are Adam Smith, Alfred Marshall etc…	**4.** The pioneer macro economics are J M Keynes and others.
5. Micro economics has very narrow scope.	**5.** Macro economics has very wider scope.
6. It is a price theory.	**6.** It is an income and employment theory.

2. Explain the working of the economy of a capitalist country.

An economy where production activities are carried out by private enterprises is called capitalist economy.

The working of the economy of capitalist country or economy is as follows;

1. A typical capitalist enterprise has one or major entrepreneurs.
2. They supply their own capital or borrow the capital.
3. They hire the factors of production to conduct economic activity.
4. The output produced is sold in the market to receive money which is called revenue.
5. Part of revenue is paid as rent, wages, interest and rest of the money is considered profits of the entrepreneur.
6. In a nutshell capitalist economy has private ownership, production is undertaken for profits and the sale and purchase of labour is at a price which is called wage rate
7. Example of capitalist economy are USA, UK, JAPAN AUSTRALIA CANADA etc…..

3. Explain the role of the Government (State) and Household sector in both developed and developing countries.

HOUSEHOLD SECTOR: It is defined as "**A single individual who takes decision relating to his own consumption or a group of individuals for whom decisions relating to consumption are jointly determined"**

The household sectors play a very important role in the economy.

They are the owners of the factors of production (land, labour, capital and organisation)

They are the consumers in the market. The market would not have been functioning without the demand made by the household sectors for various goods and services.

Households play a very important role in saving money in the economy which helps in investment and capital formation.

They also pay taxes to the government.

Thus households play a very important role in the functioning of the economy.

GOVERNMENT: Government is another major sector of an economy in both developed and developing countries.

Government is defined as **"A statutory institution also called as the state, which works for the welfare of the well being of the society and economy"**

The role of state is to frame laws, enforce them and deliver justice.

They take the responsibility of providing infrastructure facilities.

They impose and collect taxes from households and firms.

The tax money is used to build schools, hospitals, provide health services, financial assistance etc….

The state will frame and pursue macroeconomic policies itself or with the help of statutory bodies like RBI, SEBI etc….

Thus government play important economic functions to promote the growth and development of an economy.

Chapter - 2

NATIONAL INCOME ACCOUNTING

I. Choose the correct answer (each question carries 1 mark)

1. The study of national Income is related to

a) Micro Economics

b) <u>Macro economics</u>

c) Both Micro and Macro

d) None of the above

2. NNP=GNP-

a) Deduction

b) <u>Depreciation</u>

c) Investment

d) None of the above

3. The value of GDP at the current prevailing prices is

a) Real GDP

b) GDP at factor cost

c) <u>Nominal GDP</u>

d) NDP

4. By deducting undistributed profit from national income, we get

a) Personal Disposable Income

b) <u>Personal Income</u>

c) Private Income

d) Subsidies

5. Measuring the sum total of all factor payments will be called

a) Product Method

b) Expenditure Method

c) <u>Income Method</u>

d) None of the above

II. Fill in the blanks: (each question carries 1 mark)

1. **Stock** are defined at a particular point of time.
2. **Final goods** will not pass through any more stages of production.
3. **Depreciation cost** is an annual allowance for wear and tear of a capital good.
4. **Inventory** is a stock variable.
5. Pollution is an example for **Negative** externalities.
6. The net contribution made by a firm is called its **Value added**.

III. Match the following: (each question carries 1 mark)

A	B
1.Labour	a. Non- Monetary exchange
2.GDP	b. Personal disposable Income
3.Inventory	c. Gross Domestic Product
4. PDI	d. Stock Variable
5.Domestic service	e. Wages

Solutions:

A	B
1.Labour	**Wages**
2.GDP	**Gross Domestic Product**
3.Inventory	**Stock Variable**
4. PDI	**Personal disposable Income**
5.Domestic service	**Non- Monetary exchange**

IV. Answer the following: (each question carries 1 mark)

1. What do you mean by final goods?
Those goods which are ready for final use or consumption such goods are called final goods.

2. Expand CPI.
Consumer Price Index.

3. Expand GNP_{MP}.
Gross National Product at Market Price.

4. How do you get net value added?
If we deduct the value of depreciation from gross value added the obtain net value added.

5. Give the meaning of GDP.
Aggregate money value of all final goods and services produced within the domestic territory of a country is called GDP

6. Give the meaning of Intermediate goods.
Goods which are used up during the process of production of other goods are intermediate goods.

7. What is depreciation?
Depreciation cost is an annual allowance for wear and tear of capital good.

8. How do we get Personal Disposable Income?
Actual income which can be spent on consumption after deducting direct taxes we get Personal Disposable Income.

9. Write the equation of GVA at market prices.
GVA at market prices = GVA at basis prices + Net product taxes.
10. What is GDP deflator?
The ratio of nominal to real GDP is called GDP deflator.

V. Answer the following :(each question carries 2 marks)
1. What are the four factors of production? Mention their rewards.
1) Land: Rent
2) Labour: Wages
3) Capital: Interest
4) Organization: Profit
2. Distinguish between stock and flow. Give Example.
The following are the important differences between Stock and Flow.

Stock	Flow
1. Stock variable refers to that variable, which is measured as a particular point of time.	**1.** Flow variable refers to that variable, which is measured as over a period of time.
2. Stock is a static concept.	**2.** Flow is a dynamic concept.
3. Stock does not have a time dimension.	**3.** Flow has a time dimension as his magnitude can be measured over a period of time.
4. Example: Bank deposits, wealth, food grains etc…	**4.** Example: National Income, imports, exports etc...

3. What is the difference between consumer goods and capital Goods?
The following are the important Differences between Consumption goods and Capital goods.

Consumption goods	Capital goods
1. Consumption goods satisfy human wants directly, so, such goods have direct demand.	**1.** Capital goods satisfy human wants indirectly, so, such goods have derived or indirect demand.
2. Consumption goods do not promote production capacity	**2.** Capital goods help in raising production capacity
3. Most of the Consumption goods have limited expected life.	**3.** Capital goods generally have an expected life of more than one year
4. Examples of Consumption goods are cloth, watch, car, bike etc….	**4.** Examples of Capital goods are machinery, tools, roads, trucks, etc...

4. Mention three methods of measuring GDP (National Income)
1. The product method
2. Expenditure method
3. Income method

5. What do you mean by externalities? Mention its two types.

Unintentional consequences of an economic action of a firm or any entity, good or bad, which accurse to another person or firm is called externalities. There are two types of externalities they are:
1. Positive externalities.
2. Negative externalities.

6. Write the equation of GDP_{MP} and GDP_{FC}.

$GDP_{MP} = C+I+G+X-M$.

$GDP_{FC} = GDP_{MP}$ - NIT (Net Indirect Taxes)

7. Write the difference between nominal and real GDP.

The total money value of goods and services produced in a country during a year expressed at the **current year prices** is called nominal GDP.

The national income expressed in terms of a **base year price** index is called real GDP.

VI. Answer the following questions: (Each question carries 4 marks)

1. Write a short note on the concept of final good.

Those goods which are purchased for final use or consumption such goods are called final goods.

For example: Furniture, Sweets, Television, car, sugar, bike watch etc.…..

While computing national income, the value of only those final goods and services which enter the market is added, because the value of raw materials and intermediate goods are included in the final goods. Therefore counting them separately will lead to the error of double counting.

The distinction between intermediate goods and final goods are made on the basis of the use of product.

For example:

1. Sugar is intermediate good when it is used for making sweets. However if it is used by the consumer then it becomes a final good.
2. Similarly milk is an intermediate good. When it is used in diary shop for resale. However it becomes a final good when it is used by the household.

Features of final goods:

1. Those goods which are used for the final consumption
2. Final goods are included in both national and domestic income.
3. Final goods have a direct demand as they satisfy the wants directly.
4. Final goods have crossed the production boundary.
5. Final goods are ready for use by their final user.

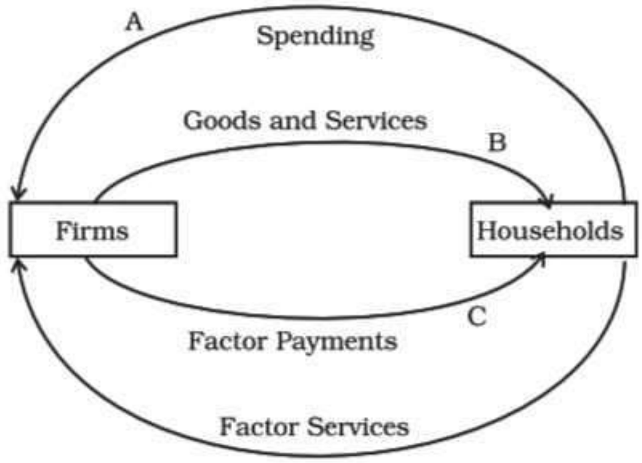
2. Explain the circular flow of income of an economy.

The process whereby the national income and expenditure of an economy flows in a circular manner continuously between different sectors is called circular flow of income.

Let us now study how circular flows of income take place in a simple economy.

A simple economy based on the two sectors 1) Household sector and 2) Firm or Producers sector.

Households sector are the owners of factors of production and firms or producers buy these factors from households, Households receive income by selling the factor services and used their entire income on consumption. There is no savings. Firms sell their entire products to the households. This can be explained with help of a chart.



In the above chart the household sector supplies factors such as land, labour, capital, and organization to firms. And the firms produce and supply goods and service to households. Firms make factor payments such as rent, wages, interest and profit to households as reward for factor services. In this way, production generates factor income, which is converted into expenditure. Thus, production is a continuous activity, because human are unlimited. This makes the flow of income circular.

3. Write a note on externalities.

Unintentional consequences of an economic action of a person or firm that accrues to another person or firm is called externalities.

There are two types of externalities;

1. Positive externalities
2. Negative externalities

1. Positive externalities: The externalities which are increases welfare of the individuals and society are called positive externalities. **(Social benefit more than social cost)**

Example: A beautiful garden maintained by the government, it raises the welfare of the people in the society. So people who use this garden are not pay for it.

2. Negative externalities: The externalities which are decreases welfare of the individuals and society are called negative externalities. **(Social cost more than social benefit)**

Example: Negative externalities occurs when smoke emitted by factories causes air pollution. Environment pollution causes a loss of social welfare of the people. But people are pay for it.

4. Illustrate unplanned accumulation and decumulation of inventories with an example. Or Explain the examples of planned accumulation and decumulation of inventories.

PLANNED ACCUMULATION AND DECUMULATION OF INVENTORIES:

If the firm wants to increase the inventory or stock intentionally or purposefully it is called planned accumulation. It is explained with an example: suppose a firm produces computers. It starts with an inventory of **100 computers**, if it wants to raise its inventories from **100 to 200** computers during the year. Expecting the sales of **1000 c**omputers, the firm produces **1000 + 100 = 1100** computers. If the sales are actually 1000, then its inventory will rise to **100 + 100 =200** as expected this is called planned accumulation of inventories.

If the firm wants to decrease the inventory or stock intentionally or purposefully it is called planned decumulation. Even it is explained with an example: let us suppose the firm wants to reduce inventories from**100** computers to **50** computers, expecting the sales of **1000** computers, the firm will produce **1000- 50 = 950** computers. If the sales turn out to be **1000** computers as expected by the firm, then the firm will sell **50** computers from its inventory. Hence it will be left with less inventories of **50** computers as anticipated. This is called as planned decumulation of inventories.

UNPLANNED ACCUMULATION AND DECUMULATION OF INVENTORIES:

In case of an unexpected fall in sales, the firm will have unsold stock of goods which is not expected or anticipated, hence there will be unplanned accumulation of inventories. We will take the above example only. Suppose a firm starts the year with an inventory of **100** computers and it expects to sell **1000** computers for the coming year and produce the same number of computers.

However, during the year, the sales of computers turned out unexpectedly low, the firm was able to sell only **800** computers. This means that the firm was left with **200** unsold computers. The firm ends the year with **100 + 200 =300** computers. The unexpected rise of inventories by **300** units due to fall in sales will be considered unplanned accumulation of inventories of a firm.

On the other hand, if there is an unexpected rise or increase in the sale of commodities than expected sale it is called unplanned decumulation of inventories. For example, if the sales are more than **1000** computers during a year, the firm will have unplanned decumulation of inventories. Suppose the sales are **1075,** then the firm will have to sell **75** extra computers out of the **100** computers of inventories along with **1000** computers. This **75 (100 -75 =25)** unexpected reduction in the inventories is an example of unplanned decumulation of inventories.

VII. Answer the following questions: (Each question carries 6 marks)

1. Explain the macroeconomic identities.

National income is an important concept of macro economics. There are various aggregates or identities of national income. Each identity has specific meaning, method of measurement and use. The various identities of national income are;

1. Gross Domestic Product (GDP): The aggregate money value of **all final goods and services** produced **within the country** during a year is called Gross Domestic Product. **GDP** we can calculate following formula. $\boxed{\textbf{GDP= C +I + G + X-M}}$

Here, **C** = Gross final consumption expenditure
I = Gross private sector investment
G = Government's consumption and investment expenditure
X-M = Net exports

2. Net Domestic Product (NDP): The aggregate money value of all final goods and services produced within the country **deducting depreciation cost** is called Net domestic product. NDP we can calculate following formula.

Here, $\boxed{\textbf{NDP= GDP – Depreciation cost}}$

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3. Gross National Product (GNP): The aggregate money value of all final goods and services produced by a country in a year **including net income from abroad** is called gross national product .The term GNP is a wider concept than GDP. GNP we can measure following formula.

Hence, **GNP=GDP + Net factor income from abroad**

4. Net National Product (NNP): When depreciation cost is subtracted from GNP, we get NNP. That means deduct depreciation cost from the total value of all final goods and services (GNP), we get Net national product.

Hence, **NNP=GNP – Depreciation cost**

5. Net National Product at factor cost (NNPFc): The sum of income earned by all factors in the production in the form of wages, profit, rent, and interest during a year is called NNP_{FC}.

Hence, **NNPFc = NDP + NFIA** NFIA = Net Factors income from abroad.

6. Personal Income (PI): The sum of all the incomes that are actually received by the households from all the sources is called personal income.

7. Personal Disposable Income (PDI): Actual income which can be spent on consumption after deducting direct or personal taxes is called personal disposable income.

PDI= PI - PERSONAL TAX PAYMENTS –NON TAX PAYMENTS

2. Briefly explain the expenditure method of measuring GDP.

The total final expenditure incurred on goods and services is added up is called expenditure method of calculation of national income.

Expenditure method looks at the demand side of the products. Consumers, investors, and governments purchase goods and services. If we add the gross expenditures made in a year we get national income. Hence we get the **GDP** by adding up all consumption expenditure made by all individual, institution and the government a year.

Firm can make the final expenditure on the following accounts.

1. The final consumption expenditure on the goods and services produced by the firm. We shall denote this by **Ci.** We may note that mostly it is the households which undertake consumption expenditure.

2. The final investment expenditure **Ii,** incurred by the others firms on the capital goods produced by the firm.

3. The expenditure that the government makes on the final goods and services produced by firm. We shall denote this by **Gi** we may point out the final expenditure incurred by the government includes both consumption and investment expenditure.

4. The exports revenues that firms earns by selling its goods and services abroad. This will be denoted by **Xi.**

The sum total of the revenues that the firm earns is given by **RVi** = sum total of final consumption, investment, government and exports expenditure revived by the firm that is **RVi = Ci + Ii+ Gi+ Xi**

We know, **GDP** = Sum total of all the final expenditure received by the firms in the economy. In another words **GDP= ∑N i=1 RV1 =C+I+G+X-M**

The above equation expresses **GDP** according to the expenditure method.

3. Write down the limitations using GDP as index of welfare of a country.

Economic welfare of an individual depends on the amount of goods and services which he consumes. An increase in national income as a result an improvement in economic welfare if it is equally distributed among the people.

GDP is not a barometer of economic welfare. National income is not a reliable index of economic welfare for certain reasons. The following are the main reasons;

1. Distribution of GDP: The distribution of increased income is another important factor to be taken into consideration. If the increased national income is not equitably distributed economic welfare as a whole may be reduced. Countries with unequal distribution of income may have relatively **high per-capita GNP**. Therefore national income is not a right index of welfare.

2. Non-monetary exchanges: Many activities in an economy are not evaluated in monetary terms. **For example**, the domestic services of women perform at home are not paid for it. In the developing countries where many remote regions are underdeveloped, barter exchanges do take place but it is not registered as part of economic activity and they are generally not counted in the GDPs of these countries.

3. Externalities: Unintentional consequences of an economic action of a person or firm that accrues to another person or firm is called externalities.

There are two types of externalities;

1. Positive externalities
2. Negative externalities

1. Positive externalities: The externalities which are increases welfare of the individuals and society are called positive externalities. **(Social benefit more than social cost)**

Example: A beautiful garden maintained by the government, it raises the welfare of the people in the society. So people who use this garden are not pay for it.

2. Negative externalities: The externalities which are decreases welfare of the individuals and society are called negative externalities. **(Social cost more than social benefit)**

Example: Negative externalities occurs when smoke emitted by factories causes air pollution. Environment pollution causes a loss of social welfare of the people. But people are pay for it.

Chapter - 3
MONEY AND BANKING

I. Choose the correct answer: (each question carries 1mark)

1. The main function of Money is

a) Saving

b) Expenditure

c) <u>Medium of exchange</u>

d) Investment

2. The Bank which acts as monetary authority of India.

a) <u>RBI</u>

b) NABARD

c) RRB

d) IDBI

3. The Banks which are a part of the money creating system of the economy are

a) Bankers

b) <u>Commercial Banks</u>

c) RBI

d) None of the above

4. The rate at which the RBI lends money to commercial banks against securities

a) Bank rate

b) <u>Repo rate</u>

c) Reverse Repo rate

d) None of the above

5. The important tool by which RBI influences money supply is

a) <u>Open market operation</u>

b) Closed market operation

c) Money operation

d) None of the above

II. Fill in the blanks: (each question carries 1 mark)

1. Economic exchanges without the use of money are referred to as **Barter system**

2. **RBI** is the only institution which can issue currency in India.

3. **Government of India** Issues coins in India.

4. The principal motive for holding money is to carry out **Transaction**.

5. M_1 and M_2 are known as **Narrow money**

III. Match the following: (each question 1 mark)

A	B
1. SLR	a. Government of India
2. Circulation of coin	b. Statutory Liquidity Ratio
3. Money	c. Broad money
4. M_3 and M_4	d. Repo
5. Repurchase agreement	e. Medium of Exchange

Solutions:

A	B
1.SLR	**Statutory Liquidity Ratio**
2.Circulation of coin	**Government of India**
3.Money	**Medium of Exchange**
4.M_3 and M_4	**Broad Money**
5.Repurchase agreement	**Repo**

IV. Answer the following :(each question carries 1 mark)

1. What do you mean by barter system?
The direct exchange of goods for goods is called barter system.

2. Give the meaning money.
Anything that is commonly accepted as a medium of exchange for goods and services and also acts as a measure of value is called money.

3. What is time deposit?
That deposit in which the amount is deposited with the bank for a fixed period of time is called time deposit.

4. What is Fiat Money?
Money with no intrinsic value is called Fiat Money.

5. Write the meaning of 'High powered Money'.
The currency issued by the central bank can be held by the public or by the commercial banks is called high powered money.

6. Expand CRR.
Cash Reserve Ratio

7. What is Bank Rate?
The rate of interest charged by the RBI for providing loans to the Commercial banks as the lender of last resort are called Bank Rate.

V. Answer the following: (each question carries 2 marks)

1. Mention any two functions of money.

1. Medium of exchange
2. Measure of value.

2. Give the meaning of CRR and SLR.

A certain portion of total deposits of commercial banks, which it has to **keep with the RBI** in the form of cash reserves is called cash reserve ratio.

A certain portion of total deposits of commercial banks, which it has to **keep itself** in the form of cash reserves, is called SLR.

3. State the credit control instruments of RBI.

1. Reserve ratios (SLR and CRR)
2. Open market operation (OMO)
3. Bank rate policy.

4. Mention the two motives of demand for money.

1. The transaction motive
2. The speculative motive

5. How does bank rate influence money supply?

The rate of interest charged by the RBI for providing loans to the commercial banks as the lender of last resort is called bank rate.
By expensive; this reduces the reserves held by the commercial bank and hence decreases money supply. A fall in the bank rate can increase the money supply.

6. What role of RBI is known as 'Lender of Last Resort'?

RBI comes to the rescue of all commercial banks when they are not able to get financial assistance from any source during financial crisis. Since it extends loans and assistance to banks at the time of financial difficulty it is called lender of last resort.

VI. Answer the following questions: (Each question carries 4 marks)

1. 'Money acts as a convenient unit of account'. Explain this sentence with the example.

For smoothen the transactions an intermediate good is necessary which is acceptable to both parties is called money. Let us see how the money acts as a convenient unit of account as follows. The value of all goods and services can be expressed in monetary units. When we say that the value of a certain wrist watch is Rs 500 we mean that the wrist watch can be exchanged for 500 units of money, where a unit of money is rupee in this case. If the price of a pencil is Rs 2 and that of a pen is Rs 10 we can calculate the relative price of a pen with respect to a pencil, viz. a pen is worth 10/2=5 pencils. The same notion can be used to calculate the value of money itself with respect to other commodities. In the above example, a rupee is worth 1/2=0.5 pencil or 1/10=0.1 pen. Thus if prices of all commodities increase in terms of money i.e., there is a general increase in the price level, the value of money in terms of any commodity must have decreased–in the sense that a unit of money can now purchase less of any commodity. We call it deterioration in the purchasing power of money.

2. Briefly explain the functions of RBI.

RBI was established in the year **1935** as a private sector share holder's bank. After independence, RBI was nationalized by the government on **1st January 1949**, was declared the central bank of India with complete monetary authority to control and regulate Indian financial system.

FUNCTIONS OF RBI:

RBI performs many functions, but the most important functions of RBI are:

1. MONOPOLY OF NOTE ISSUE: RBI is the only authority which has the power to print and issue currency notes under section 22 of RBI act. It will print currency of various denominations like RS10, 20, 50, 100, 200, 500 and 2000 and issue to the public.

2. BANKER TO THE GOVERNMENT: The RBI act as agent, advisor and banker to the government. As a banker RBI receives and makes payments of the government. It will also transfer government funds from one account to another account and from one place to another place. Since, RBI takes care of financial transactions of the government it is called banker to the government.

3. BANKER'S BANK: RBI controls and regulates the activities of all commercial banks therefore it is called banker's bank. Regulation is exercised in the form of licensing, branch expansion, credit control etc….

Lender of last resort: RBI comes to the rescue of all commercial banks when they are not able to get financial assistance from any source during financial crisis. Since it extends loans and assistance to banks at the time of financial difficulty it is called lender of last resort.

4. CONTROLLER OF CREDIT OR MONEY SUPPLY: The most important function of RBI is to regulate and control money supply in the economy through its monetary policy tools such as open market operations, variable reserve ratio, bank rate policy etc, in order to maintain stability in economic variables like price, interest rate etc...

5. CUSTODIAN OF FOREIGN EXCHANGE RESERVES: RBI acts as a custodian of FER, because it is mandatory for RBI to maintain FER in order to print new currency notes along with gold and silver reserves. It also holds FER in order to maintain exchange rate stability.

3. Write a note on legal definitions of money.

According to RBI **"The total stock of money in circulation with the public at a particular point of time is called money supply".**

RBI estimates and publishes the alternative measures of money supply which is categorized as follows; they are **M1, M2, M3** and **M4** respectively. They are defined as follows:

1. M_1: M1 is the combination of currency notes held by the public and demand deposits held by the public in commercial banks. Therefore, It is expressed as $\boxed{M_1 = cu + DD}$

2. M_2: M_2 Component of money supply includes M_1 + saving deposits of the public with the post office. It is expressed *as* $\boxed{M_2 = M_1 + \text{saving deposits with post office.}}$

3. M_3. M_3. Component includes M_1 and net time deposits of commercial banks. It is expressed *as* $\boxed{M_3. = M_1 + \text{net time deposits with banks.}}$

4. M_4: It is the last component of money supply and it is a combination of M_3. and total deposits with post office savings. It is expressed as

$$\boxed{M_4 = M_3. + \text{Total deposits with post office.}}$$

M_1 and **M_2** components of money supply are called **'NARROW MONEY'**, which means the most liquid assets held by the people.
M_3. and **M_4** components of money supply are called **'BROAD MONEY'**, which means they are less liquid assets held by the public.
M_1 Is most liquid and easiest used for transactions whereas **M_4** is least liquid of all. ***M_3.*** Is the most commonly used measure of money supply and it is also known as aggregate monetary resources of the economy.

4. Write a brief note on Transactionary and Speculative motives demand for money.

When people hold money in the form of cash for various purposes is called demand for money. Money is the most liquid of all assets which is universally accepted and which is used to exchange the commodities very easily, hence people demand for money.
According to J M Keynes people demand money for 3 important motives or reasons they are;
1. TRANSACTION MOTIVE OR DEMAND FOR MONEY:
Transaction motive relates to demand for money in order to meet day to day expenses of individuals. "Holding cash to meet the daily requirements of individuals is called transaction motive for money". People demand money on daily basis to purchase food items, necessaries, medicines etc….
The transaction motive for money is algebraically expressed as:
MdT = f (Y). Where **MdT**= represents transaction motive for money
Y = represents the income of an individual.
F =represents the functional relationship between the 2 variables.
The symbolic representation indicates that transaction motive is dependent on income i.e. if income increases, transaction motive for money also increases.

2. SPECULATIVE MOTIVE OR DEMAND FOR MONEY:
People hold some money in the form of idle cash balances to speculate the market trends and invest in appropriate bonds, shares or equities to make profits. Therefore **"The amount of cash balances held by people in order to speculate and invest with the aim of earning profits or capital gains is called speculative motive for money".**
Speculative motive for money depends on the rate of interest. It is inversely related to the expected interest rates. It means if the interest rate is high speculation is also high and people will have less cash balances and vice versa.
The speculative motive for money is algebraically expressed as:
MdS = f (Ri). Where **MdS**= represents speculative motive for money **Ri** = represents the expected rate of returns
F =represents the functional relationship between the 2 Variables.
According to J M Keynes, the total demand for money in a country is a summation of all the three motives which is symbolically expressed as:
Total demand for money = **MdT + MdP + MdS**

VII. Answer the following questions: (Each question carries 6 marks)

1. Explain the functions of money and how does money overcome the short comings of barter system?

Money is considered an important tool used to measure the economic activities. An intermediate entity which is accepted by both the parties i.e. producers and consumers to facilitate transactions was considered money.

DEFINITION OF MONEY: According to Professor Walker **"MONEY IS WHAT MONEY DOES"**

The common definition of money is **"Anything that is commonly accepted as a medium of exchange for goods and services and also acts as a measure of value**"

FUNCTIONS OF MONEY:

Money performs various functions the most important functions of money are;

1. MONEY ACTS A MEDIUM OF EXCHANGE: With the introduction of money all goods can be easily exchanged because the value of all the goods is expressed in one common medium that is money. Barter system became difficult in a large economy because of high costs people would have to incur for suitable persons to exchange their surpluses.

2. MONEY ACTS AS CONVENIENT UNIT OF ACCOUNT: It means the value of goods and services can be expressed in terms of monetary units or money. **FOR EXAMPLE:** if we say that the value of a book is RS 50, we mean that book can be exchanged for 50 units of money. As a unit of account money will help us to calculate the relative price of one good with another good.

3. MEASURE OF VALUE: It means the value of any commodity like safety pin, book, pen, gold ETC can be expressed with a measuring yardstick called money.

4. STORE OF VALUE: Money acts as a store of value because it is not perishable. Money can be stored in the form of cash or wealth which can be used in the future without any loss. The storage cost of money is also less and it can be used at any point of time.

5. TRANSFER OF VALUE: Money can be easily transferred from person to person, place to place, country to country without any loss in its value.

6. MONEY ALSO ACTS AS BASIS OF CREDIT AND FUTURE PAYMENTS: This function of money facilitates lending and borrowing of money for various purposes.

Some countries have made an attempt to move towards a cashless economy with digital transactions like Jan Dhan accounts; Aadhar enabled payment systems, E- wallets, national financial switch etc... Thus money is playing a very important role in the economy by performing the above said functions.

2. Write the story of Gold Smith LaLa on the process of deposit and loan (credit) creation by commercial banks.

The ability of banks to increase money supply and credit in the economy by accepting deposits and lending loans is called credit creation.

The process of deposit and credit creation by banks is explained in the form of a story.

Now let us discuss the story:

Once there was a goldsmith named **Lala** in a village. In this village people used gold or other precious metals to purchase Or buy goods and services. People would deposit gold with Lala, for which they would receive a paper receipts by paying a small fee. Slowly the paper receipt began to circulate as money and the paper receipt was accepted as a medium of exchange.

Over a period of time Lala had accumulated **100 KGS of gold** deposits and he had issued paper receipts equal to or corresponding to **100 KGS of gold.**

At this time **Ramu** comes to Lala and asks for a loan of 25KGS of gold. Can Lala give the loan? The **100 KGS of gold** deposits belongs to the people and they can claim it back by returning the paper receipts.

However Lala decided that everyone with gold deposits will not come and withdraw the deposits at the same time, so he can give loan to Ramu and charge him for it (interest)
So Lala gave a loan of **25 KGS gold to Ramu**, Ramu gave this gold to Ali as loan, Ali kept this gold as deposit with Lala in return of paper receipt.
In this process, the receipts acting as money had increased to **125 KGS of gold.** It means that Lala had created money out of thin air. In the same way modern banks will create credit in the economy by converting the public deposits into loans and advances.

3. Explain the open market operation.

OPEN MARKET OPERATION: The process of buying and selling of bonds and securities issued by the government in the open market is called open market operation.
When RBI purchases or buys a government bond in the market, it purchases at a price by giving a cheque, this payment increases the cash reserves and money supply in the economy. On the other hand if money supply is to be reduced RBI will sell the bonds in the open market and absorbs excess money supplied in the economy. This act of buying and selling of government bonds is carried out by RBI on behalf of the government.
There are two types of open market operations:
1. OUTRIGHT OPEN MARKET OPERATIONS: This operation is permanent in nature. When the central bank purchases (buy) the securities, it is without any promise to sell them later. Similarly, when RBI sells the securities, it is without any promise to buy them later. As a result the injection (increase) or absorption (decrease) of the money are permanent in the economy.
2. REPO AND REVERSE REPO OPERATION: When RBI purchases (buy) the security with an agreement of purchase with specific date and price of resale of that security, and then it is called repo rate operation.
The interest rate at which the money is lent in this way is called 'repo rate' operation.
When the RBI will sell the securities through an agreement with a specific date and price for repurchase, then it is called reverse repurchase agreement or reverse repo rate operation. The rate at which money is withdrawn with repurchase agreement is called 'reverse repo rate' operation.

VII. Practical oriented question: (5 marks)

1. Write a note on Demonetization.

The withdrawal of a coins and currency notes from the use as legal tender is called Demonetization. Demonetization was new initiative taken by the government of India in November 2016 to tackle the problem of corruption, black money, terrorism and circulation of fake currency in the economy

Steps taken by the government for demonetization:

The following are the important steps taken by the government for demonetization.

1. Old currency notes of Rs 500, and Rs 1000 were no longer legal tender. New currency notes in the denomination of Rs 500 and Rs 2000 were launched.

2. The public were advised to deposit old currency notes in their bank account till 31 December 2016 without any declaration and up to 31 March 2017 with the RBI with declaration.

3. Further to avoid a complete breakdown and cash crunch, notes government had allowed exchange of Rs 4000 old currency the by new currency per person and per day.

4. Further till 12 December 2016, old currency notes were acceptable as legal tender at petrol pumps, government hospitals and for payment of government dues, like taxes, electric bills, etc….

Chapter - 4

DETERMINATION OF INCOME AND EMPLOYMENT

I. Choose the correct answer: (each question carries 1 mark)

1. Consumption which is independent of income is called

a) Induced Consumption

b) <u>Autonomous Consumption</u>

c) Wasteful Consumption

d) Past Consumption

2. Value of MPC lies between

a) 1 and 2

b) <u>0 and 1</u>

c) 2 and 4

d) 0 and 0.5

3. The point where ex-ante aggregate demand is equal to ex-ante aggregate supply will be

a) <u>Equilibrium</u>

b) Disequilibrium

c) Excess demand

d) Excess Supply

4. Easy availability of credit encourages

a) Saving

b) <u>Investment</u>

c) Rate of interest

d) None of the above

5) In the situation of excess demand

a) Demand is less than the level of output

b) <u>Demand is more than the level of output</u>

c) Supply is less than the level of output

d) Supply is more than the level of output

II. Fill in the blanks: (each question carries 1 mark)

1. $_{C}$Y shows the dependence of consumption on **Income.**

2. Savings is that part of income that is **Not consumed**

3. Average propensity to consume (APC) is the consumption per unit of **Income.**

4. **Investment** is defined as addition to the stock of physical capital.

5. Size of the multiplier depends on the value of **Marginal propensity to consume (MPC)**

6. $\bar{I}$ is a positive constant which represents the **Autonomous** investment in the economy.

III. Match of the following (each question carries 1 mark)

A	B
1. Savings	a. APC (Average Propensity to Consume)
2. Raw material	b. C+I+c.Y
3. Consumption per unit of income	c. Intermediate good
4. Aggregate demand for final goods	d. Leads to rise in the prices in the long run
5.Excess demand	e. Y-C

Solutions:

A	B
1. Savings	**Y-C**
2. Raw material	**Intermediate good**
3. Consumption per unit of income	**APC (Average Propensity to Consume)**
4. Aggregate demand for final goods	**C+I+c.Y**
5.Excess demand	**Leads to rise in the prices in the long run**

IV. Answer the following: (each question carries 1 mark)

1. **Write the meaning of autonomous consumption.**

   Consumption which is independent of income is called autonomous consumption.

2. **Give the meaning of Marginal propensity to save. (MPS)**

   The change in savings per unit change in income is called marginal propensity to save. (**MPS=ΔS/ΔY**)

3. **Define Average Propensity to save (APS)**

   The savings per unit of income is called average propensity to save. **APS = S/Y**

4. Write the meaning of full employment level of income.

The level of income were all the factors of production are fully employed propensity to save. **(MPS=$\Delta S/\Delta Y$)**

5. Mention two fiscal variables which influence aggregate demand.

1. Tax 2. Government expenditure

6. Write the formula of MPC.

MPC= $\Delta C/\Delta Y$

ΔC = Change in consumption

ΔY = Change in income

V. Answer the following: (each question carries 2 marks)

1. Write the meaning of excess demand and deficient demand.

The situation when **aggregate demand is more than the aggregate supply** Corresponding to full employment level of output in the economy is called excess demand.

The situation when **aggregate demand is less than the aggregate supply** Corresponding to full employment level of output in the economy is called deficient demand.

2. Give the meaning of investment multiplier. Write its formula.

The ratio of the total increment in equilibrium value of final goods output to the initial increment in autonomous expenditure is called investment multiplier.

The investment multiplier = **$\Delta Y/ \Delta \bar{I}$= I/I-C =I/S.**

3. Give the meaning of Paradox of thrift.

If all the people of the economy increase the proportion of income they save, the total value of savings in the economy will not increase – it will either decline or remain unchanged. This result is known as the Paradox of thrift

VI. Answer the following questions: (Each question carries 4 marks)

1. Give the meaning of Aggregate demand function. How can it obtained graphically?

The functional relationship between aggregate demand changes and equilibrium level of income changes is called aggregate demand function.

The total value of final goods and services which all the sectors of an economy are planning to buy at a given level of income during a period of one accounting year is called aggregate demand. There are two factors which cause change in aggregate demand. They are;

1. **Change in Consumption**
2. **Change in Investment**

The Aggregate demand function shows the total demand (made up of consumption+ investment) at each level of income. Graphically it means the aggregate demand function can be obtained by vertically adding the consumption and investment.

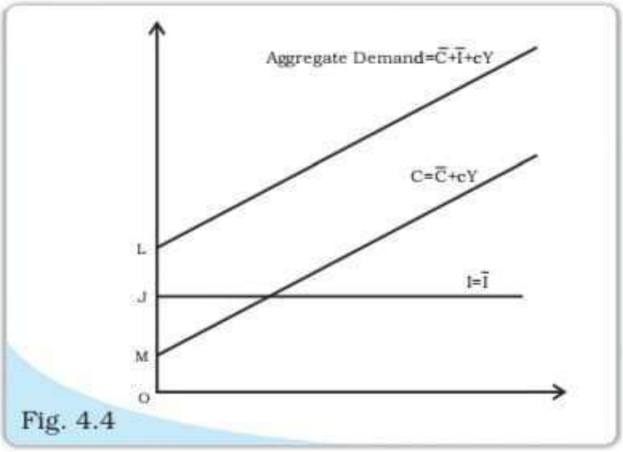


Fig. 4.4

Here, $OM=\bar{C}$

$OJ=\bar{I}$

$OL=\bar{C}+\bar{I}$

The aggregate demand function is parallel to the consumption function i.e. they have the same slope c. It may be noted that this function shows exante demand.

2. Briefly explain consumption function.

The functional relationship between consumption and income is called consumption function.

The simplest consumption function assumes that consumption changes at a constant rate as income changes. Of course, even if income is zero, some consumption still takes place. Since this level of consumption is independent of income, it is called autonomous consumption. We can describe this function as: $\boxed{C=\bar{C}+cY}$

The above equation is called the consumption function. Here C is the consumption expenditure by households. There are two types of consumption. They are;

1. Autonomous Consumption ($\bar{C}$): Minimum level of consumption, which is needed for survival, i.e. Consumption of zero level of national income is called autonomous consumption.

Somashekhar

Autonomous consumption is denoted by $\bar{C}$ and shows the consumption which is independent of income. If consumption takes place even when income is zero, it is because of autonomous consumption.

2. Induced consumption (cY): The level of consumption is dependent on income this is called induced consumption. The induced component of consumption, **cY** shows the dependent of income. When income rises by Re1. Induced consumption rises by **MPC** i.e. **C** or the marginal propensity to consume. It may be explained as a rate of change of consumption as income changes.

3. Explain the investment function with the help of graphs.

The functional relationship between investment and autonomous investment is called investment function. In a two sector model, there are two sources of final demand, the first is **1. Consumption** and second is **2. Investment.**

The investment function was shown as **I=** $\bar{I}$ graphically, this is shown as a horizontal line at a height equal to $\bar{I}$ above the horizontal axis.

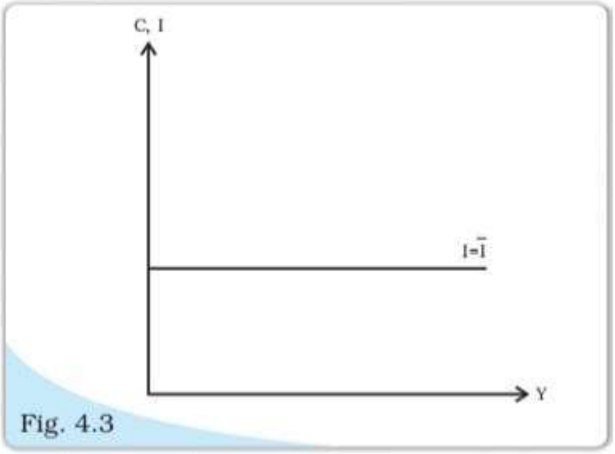


Fig. 4.3

In this model, **I** is autonomous which means, it is the same no matter whatever is the level of income.

VII. Answer the following questions: (Each question carries 6 marks)

1. Explain the effect of an autonomous change in aggregate demand on income and output.

We have seen that the equilibrium level of income depends on aggregate demand. Thus, if aggregate demand changes, the equilibrium level of income changes. This can happen in any one or more combination of the following situations:

1. **Change in consumption:** This can happen due to change in $\bar{C}$ and change in **c.**
2. **Change in investment:** We have assumed that investment is autonomous. However, it just means that it does not depend on income. There are a number of variables other than income which can affect investment. They are;

a. Availability of credit: Easy availability of credit encourages investment.

b. Interest rate: Interest rate is the cost of investible funds, and at higher interest rates, firms tend to lower investment. Now, let investment rise to 20. It can be seen that the new equilibrium will be 300. This can be explaining with the help of diagram.

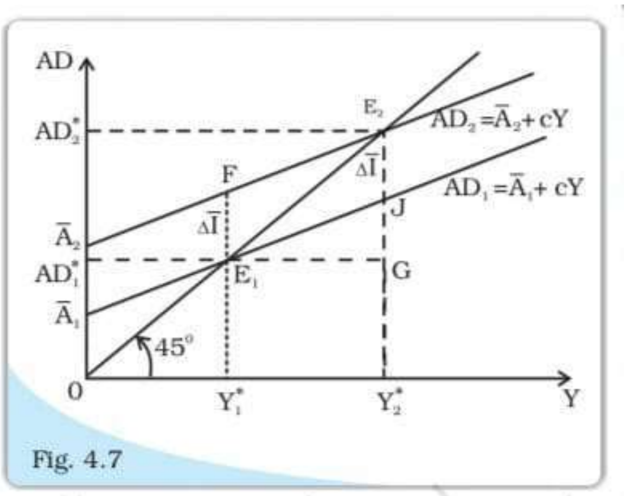


Fig. 4.7

In the above diagram **OX** axis represents income **OY** axis represents aggregate demand. This increase in income is due to rise in investment, which is a component of autonomous expenditure here. When autonomous investment increases, the **AD1** line shifts paralled upwards and assumes the position **AD2.** The valve of aggregate demand at output **Y*1** is **Y*1**F, which is greater than the valve of output **OY*1=Y*1E1** by an amount **E1F.E1F** measures the amount of excess demand that emerges in the economy as a result of the increase in autonomous expenditure. Thus, **E1** no longer represents the equilibrium. To find the new equilibrium in the final goods market we must look for the point where the new aggregate demand line, **AD2,** intersects the **45º** That occurs at point **E2,** which is, therefore, the new equilibrium point. The new equilibrium valves of output and aggregate demand are **Y*2** and **AD*2,** respectively. Note that in the new equilibrium, output and aggregate demand have increased by an amount **E1G=E2G**, which is greater than the than the initial increment in autonomous expenditure, **ΔI= E1F=E2J**. Thus, an initial increment in the autonomous expenditure seems to have a multiplier on the equilibrium valves of aggregate demand and output.

2. Explain the supply side of macroeconomic equilibrium.

In microeconomic theory, we show the supply curve on a diagram with price on the vertical axis and quantity supplied on horizontal axis.

In the first stage of macroeconomic theory, we are taking the price level as fixed. Here, aggregate supply or **GDP** is assumed to smoothly move up or down since they are unused resources of all types available.

Whatever is the level of **GDP** that much will be supplied and price level has no rule to pay. This can be explaining with the help of following diagram.

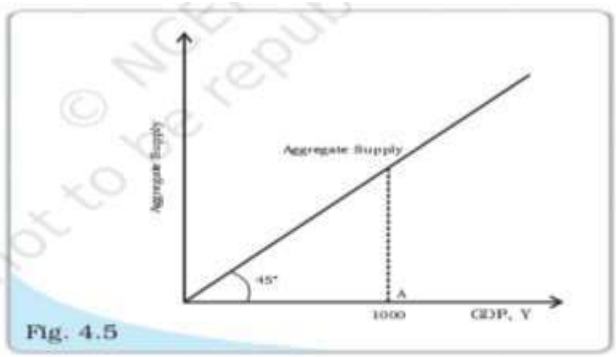


Fig. 4.5

Aggregate supply curve with 45° line.

In the above diagram supply situations in shown by a $\mathbf{45^0}$ line. Now, the $\mathbf{45^0}$ line has the feature that every point on it has the same horizontal and vertical coordinates. In the diagram **GDP is Rs. 1,000** at point A. How much will be supplied? The answer is **Rs. 1,000** worth of goods. How can that point be shown? The answer is that supply corresponding to point **A** is at point **B** which is obtained at the intersection of the $\mathbf{45^0}$ line and the vertical line at **A**.

3. Explain the multiplier mechanism.

The ratio of the total change in income to the initial change in investment is known as multiplier.

The concept of multiplier is an important contribution of Keynes to economic analysis. It occupies an important place in the Keynesian model of employment. The concept of multiplier was first originated by **Lord R.F. Khan**. **Keynes has successfully implemented it, in his employment theory**. i.e.

$$K = \Delta Y / \Delta I$$

Therefore, **ΔY**= increase in income

ΔI = increase in investment

K= Multiplier

Multiplier and Marginal Propensity to Consume: There is a direct relationship between **MPC** and the value of multiplier. Higher of **MPC** more will be the value of multiplier, and vice-versa. The multiplier effect of an initial, increase in investment depends upon marginal propensity to consume. The value of multiplier is determined by **MPC**. If **MPC** is higher, multiplier will also be higher. But the value multiplier is always **more than one (1)**. The multiplier can be calculated by the following formula.

K=1/ 1-MPC

Working of Multiplier: A given new investment will create an additional income by the same amount. The process however does not end there. The increase in income will lead to an increase in consumption; the additional consumption expenditure become the basis of new income and therefore, new consumption expenditure and so on.

Let us assume that new investment is **Rs. 100 crores**. This leads to an additional income of **Rs. 100 crores**. The additional income is expected to be spend on consumption expenditure Let us assume **Marginal Propensity to Consume (MPC)** is **50%** or **0.5**. In other words, out **Rs. 100 crores** of income, Rs. 50 crores is spent for consumption and the reaming amount of **Rs.50 crores** is saved. This amount of **Rs. 50 crores** investment will be income for other people. Out of this income, those people will spent **Rs. 25 crores**. This process will go on until the consumption becomes zero. The total income so far created is **100+ 50+25+….. = 200 crores**.

3. Discuss the Paradox of thrift.

If all people of the economy increase the proportion of income they save (i.e. if the MPS of the economy increase) the total value of savings in the economy will not increase –it will either decline or remain unchanged. This result is known as the Paradox of Thrift.

People become more thrifty they end up saving less or same as before. This result, though sounds apparently impossible, is actually a simple application of the model we have learnt.

Let us continue with the example. Suppose at the initial equilibrium of **Y=250**, there is an exogenous or autonomous shift in peoples expenditure pattern,-they suddenly become more thrifty. This may happen due to new information regarding an imminent war or some other impending disaster, which makes people more circumspect and conservative about their expenditure. This can be regarded as an autonomous reduction in consumption expenditure.

But as aggregate demand decreases **by 75**, there emerages an excess supply **equal to 75** in the economy. Stocks are piling up in warehouses and producers decide to cut the value of production **by 75** in the next round to restore equilibrium in the market.

But that would mean a reduction in factor payments in the next round and hence a reduction in income **by 75**.

As income decreases people reduce consumption proportionately but, this time, according to the new value of **MPC** which is **0.5**. Consumption expenditure, and hence aggregate demand, decreases **by 75**, which creates again an excess supply in the market.

In the next round therefore, producers reduce output further **by 75**. Income of the people decreases accordingly and consumption expenditure and aggregate demand goes down again **by 75**. The process goes on. However, as can be inferred from the dwindling values of the successive round effects, the process is convergent.

Paradox of Thrift can be explained with the help of following diagram.

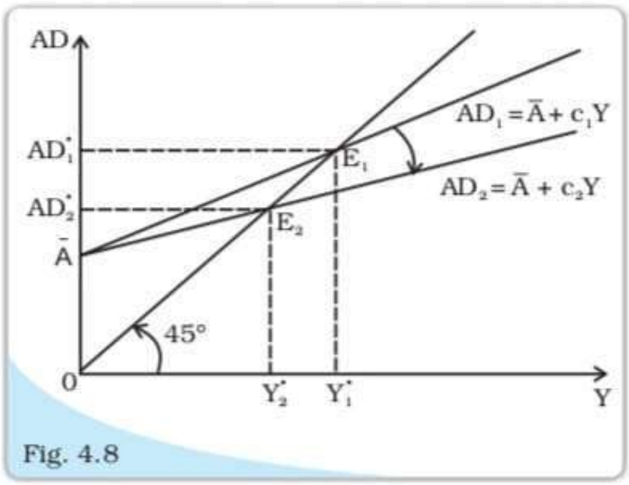


Fig. 4.8

Paradox of Thrift – Downward Swing of AD Line

In the above diagram **OX** axis represents and **OY** axis represents aggregate demand.

When $\bar{A}$ changes the line shifts upwards or downwards parallel. When **C** changes, however, the line swings up or down. An increase in **MPS** or a decline in **MPC** reduces the slope of the **AD** line and it swings downwards.

Chapter - 5
GOVERNMENT BUDGET AND THE ECONOMY

I. Choose the correct answer: (Each question carries 1 mark)

1. The taxes on Individual and firms are
a) <u>Direct Taxes</u>
b) Indirect Taxes
c) Fixed Taxes
d) Non Tax Revenues
2. Duties levied on goods produced with in the country
a) Service Tax
b) Estate Duties
c) <u>Excise Duties (Taxes)</u>
d) Custom Duties
3. The Tax which acts as an automatic stabiliser
a) Qualitative income Tax
b) Income Tax
c) Quantitative Tax
d) <u>Proportional income Tax</u>
4. Which of the following is an example for ' Paper taxes'
a) Income Tax
b) Excise Taxes
c) <u>Wealth Tax</u>
d) Customs Tax
5. When Demand exceeds the available output under conditions of high level of employment, this may give rise to
a) <u>Inflation</u>
b) Deflation
c) Stabilisation
d) None of the above

II. Fill in the blanks:(Each question carries 1 mark)

1. Non paying users of public goods are known as **<u>Free riders</u>**
2. Financial year runs from **<u>1st April</u>** to **<u>31 March</u>** in India.
3. Taxes imposed on goods imported into exported out of India are called **<u>Export Import Tax</u>**
4. The Government may spend an amount equal to the revenue it collects. This is known as **<u>Balanced Budget</u>**
5. Revenue deficit = Revenue expenditure ____ **<u>Revenue Income</u>**

III. Answer the following in a sentence /word: (Each question carries 1 mark)

1. **What are public goods?**
Those goods which are cannot be provided by the market mechanism such goods are called as public goods.

2. **Who are 'free – riders'?**
   Non paying users of public goods and services are known as free riders.
3. **What do you meant by public provision?**
   Those provision which are financed through the budget and can be used without any direct payment is called Public provision.
4. **Give the meaning of progressive Tax.**
   A tax system in which the rate of tax increases s income increases is called progressive tax.
5. **What are Revenue receipts?**
   Revenue earned by the Government from tax and non- tax sources is called revenue receipts.
6. **Write the meaning of capital receipts.**
   Those receipts of the government which create liability or lending to reduction in assets is called capital receipts.
7. **Give the meaning of Revenue expenditure.**
   The expenditure incurred for purposes, other than the creation of physical or financial assets of the central government is called revenue expenditure.
8. **Give the meaning of Capital expenditure.**
   The expenditure incurred on the acquisition of assets such as land, building, machinery, and equipments. etc... is called capital expenditure.
9. **Expand FRBMA.**
   Fiscal Responsibility and Budget Management Act.
10. **What is primary deficit?**
    The excess of fiscal deficit over interest payments is called primary deficit.

IV. Answer the following question in 4 sentences(Each question carries 2 marks)

1. **Write the difference between Public provision and Public production.**

Public provision	Public production
1. Those provision which are financed through the budget and can be used without any direct payment is called Public provision. **2.** Public provision can be obtain without any direct payment.	**1.** When goods are produced directly by the government is called public production. **2.** Public goods produced by the government

2. **Who are Free riders? Why are they called so?**
   Non paying users of public goods and services are known as free riders. The following are the causes responsible to call the free riders.
   1. Consumers will not voluntary pay for what they can get for free.
   2. For which there is no exclusive title to the property being enjoyed.

3. Distinguish between surplus and deficit budget.

Surplus Budget	Deficit Budget
1. Estimated receipts are more than the estimated expenditure is known as surplus budget.	**1.** Estimated expenditure is more than the estimated receipts are known as deficit budget.
2. Surplus budget indicates financial soundness of the government.	**2.** Deficit budget indicates deliberate excessive expenditure by the government.

4. Why public goods must be provided by the Government.

Public goods must be provided by the government, because,

1. There is no way of excluding any one from enjoying the benefits of the good.
2. Public goods are called non- excludable for any one.

5. Mention the non- tax revenues of the Central Government.

1. Interest receipts.
2. Profit from the public sector under takings.
3. Fees, fines and penalties.
4. Grants –in Aids from foreign countries and international organisations

V. Answer the following question in 12 sentences (Each question carries 4 marks)

1. Write the chart of the Government budget.

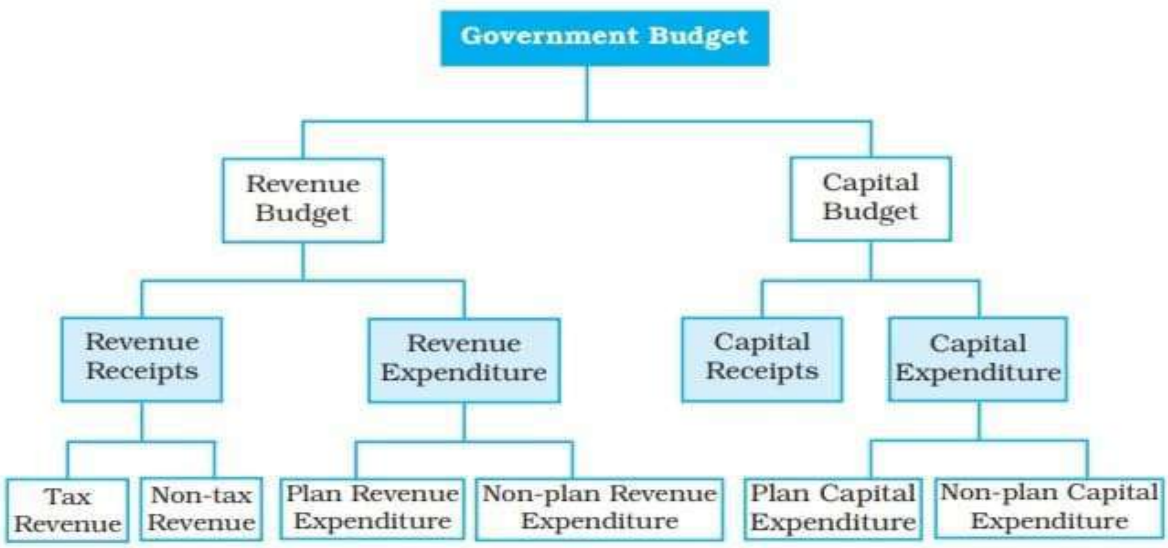


Chart 1: The Components of the Government Budget

Somashekhar

2. Distinguish between Revenue expenditure and Capital expenditure.

Revenue Expenditure	Capital Expenditure
1. The expenditure incurred for purpose other than the creation of physical or financial assets of the central government is called revenue expenditure.	**1.** The expenditure incurred on the acquisition of assets such as land, building, machinery, and equipments etc… is called capital expenditure.
2. Revenue expenditure neither creates any asset nor reduces liability of the government.	**2.** Capital expenditure either crates an asset or reduces a any liability of the government.
3. It is incurred for normal running of government departments and provision of various services.	**3.** It is incurred mainly for acquisition of assets and granting of loans and advances**.**
4. It is recurring in nature as such expenditure is spent by government on day to day.	**4.** It is non - recurring in nature activities.
5. It includes Salary, pension, interest etc…	**5.** It includes Repayment of borrowings, expenditure on acquisition of capital asset etc….

3. Briefly explain the revenue deficit and fiscal deficit.

The excess of budgetary expenditure over its budget receipts is called budget deficit. It is expressed as **Budget deficits = Total expenditure – Total receipts.**

There are 3 types of budget deficits important among them are;

1. Revenue Deficit: The excess of government revenue expenditure over its revenue receipts is called Revenue deficit. It signifies that government's own revenue is insufficient to meet the normal running of the government. Revenue deficit results in borrowing. It can be expressed as **Revenue Deficit = Revenue expenditure – Revenue receipts.**

2. Fiscal Deficit: The difference between the government's total expenditure and its total receipts excluding borrowings is called fiscal deficit. It indicated the total amount of borrowing of the government in a fiscal year. It can be expressed as **Fiscal Deficit = Total expenditure – Revenue receipts + Non debt creating capital receipts.**

VI. Answer the following question in 20 sentences (Each question carries 6 marks)

1. Explain the classification of receipts.

Receipts of the Government classified into two types. They are;

A. Revenue Receipts **B. Capital Receipts**

A. Revenue Receipts: Revenue earned by the government from tax and non-Tax sources is called revenue receipts. Revenue receipts of the Government are generally classified under 2 types:

1. Tax Revenue

2. Non Tax Revenue

1. Tax Revenue: A tax is a compulsory payment made by the people to the government without expecting any direct returns. Tax revenue we can classify into two types.

1. **Direct Taxes**
2. **Indirect Taxes**

1. Direct Taxes: The Tax burden cannot be shifted from one person to other person is called direct taxes. It is imposed on the income and wealth. The important direct taxes are;

a. Personal Income Tax: Taxes imposed on income from salaries, business, profession, property and other sources of individuals (Person)

b. Wealth Tax: It is imposed on the wealth accumulated by individuals.

c. Corporation Tax: It is imposed on the income of domestic companies and business corporations.

d. Wealth Tax, Gift tax: Wealth tax, gift taxes have never brought in large amount of revenue.

2. Indirect Taxes: Tax burden can be shifted from, one person to other person is called indirect taxes. The important indirect taxes are;

a. Excise Duties: Central excise duties are imposed on the production of sugar, cotton, cloth, tobacco, match boxes, cement, sprit etc……

b. Customs Duties: It is imposed on the imported and exported goods.

c. Service Tax: This tax is imposed by the government on different types of services. Government of India introduced **GST on July 1st 2017**

2. Non-tax Revenue:

Receipts of the government from all other than tax receipts is called Non- tax revenue.
The important Non-tax revenues are;

1. Interest receipts:

Government receives interest on loans given by it to state government, private and general public.

2. Profits of public sector undertakings:

Government earns profit through public sector undertaking like Indian railways, LIC, etc.

3. Fees, Fines and Penalties:

Those payments which are imposed on law breakers are called fees, fines and penalties.

4. Grants – in – Aid from foreign countries and international organizations

B. Capital receipts:

Those receipts of the government which create liabilities or lending to reduction in assets is called capital receipts

The important source of capital receipts are

1. Raising loan from the market, central bank, foreign government and international institutions.
2. Loans raised from public by issuing bonds.
3. Recoveries of loan granted to local governments.
4. Public provident fund.
5. Receipts obtained from Dis-investment of public sector units.

2. Explain the classification of expenditure.

For the purpose of the development of the economy Government expenditure is very essential. Expenditure of the Government broadly classified in to two types. They are;

1. Revenue expenditure

2. Capital expenditure

1. Revenue Expenditure

The expenditure which neither creates any asset nor causes reduction in any liability of the government is called revenue expenditure.

Revenue expenditure classified in to **PLAN REVENUE EXPENDITURE** and **NON PLAN REVENUE EXPENDITURE.**

A. Plan revenue expenditure: - It relates expenditure incurred on implementation of economic plan. The Government provisions to assist the plans of local Governments etc. the important plan revenue expenditure are;

1. Plan expenditure relates to central plans.
2. Central assistance for state and union territories.
3. Assistance to local body governments.

B. Non Plan revenue expenditure:

Non plan revenue expenditure is the important component of the revenue expenditure. It relates to the expenditure incurred on defence service law and order, interest payments salaries, subsidies, pensions etc.

The important non plan expenditure are

1) Expenditure on Defence and law and order
2) Expenditure on subsidy and grants
3) Expenditure on interest payment
4) Expenditure on pension and salaries. Etc…..

2. Capital Expenditure:

The expenditure incurred on the acquisition of assets such as land, building, machinery and equipments etc… is called capital expenditure.

Capital expenditure classified in to **PLAN CAPITAL EXPENDITURE** and **NON PLAN CAPITAL EXPENDITURE**.

A. Plan capital expenditure: Expenditure incurred for creating permanent revenue yielding assets is called plan capital expenditure. For example: Developmental expenditure like Agriculture, Industries, Transport, Irrigation, Power, Science and Technology etc….

B. Non Plan capital expenditure: Non plan capital expenditure covers various general, social and economic services provided by the Government. It relates to the expenditure incurred on compensation, rehabitation facilities during natural calamities etc….

VIII. Assignment and project oriented Question. (5marks)

1. Prepare a budget on monthly income and expenditure of your family.

INCOME	EXPENDITURE
1. Income from salary Rs. 20,000 2. Income from Agriculture Rs. 5,000 3. Income from Business Rs. 10,000 4. Income from Rent Rs. 10,000	1. Expenditure on education Rs. 20,000 2. Monthly Ration and others Rs. 10,000 3. Electricity, Milk paper etc... Rs. 5,000 4. Petrol Rs. 5,000 5. Savings Rs. 5,000
Total = 45,000	**Total = 45,000**

Chapter - 6
OPEN ECONOMY

I. Choose the correct answer: (Each question carries 1 mark)

1. The consumers and producers can choose between domestic and foreign goods, this market linkage is called
a) Financial Market linkage
b) <u>Output Market linkage</u>
c) Labour Market linkage
d) None of the above
2. The exchange rate is determined by the market forces of demand and supply is called as
a) Fixe Fixed exchange rate
b) Dirty floating exchange rate
c) <u>Flexible exchange rate</u>
d) None of the above
3. The balances of payments (BOP) record these transactions between residents and with the rest of the world.
a) Goods
b) Services
c) Assets
d) <u>All of the above</u>
4. The rate at which the price of one currency in terms of Foreign currency is called
a) Exchange Control
b) Interest Rate
c) <u>Foreign Exchange Rate</u>
d) None of the above

5. In this standard all currencies were defined in terms of gold.
a) Metal Standard
b) Silver Standard
c) <u>Gold Standard</u>
d) None of the above

II. Fill in the blanks:(Each question carries 1 mark)

1. **<u>Current Account</u>** is the record of trade in goods and services and transfer payments.
2. **<u>Capital Account</u>** records all international transactions of assets.
3. The price of foreign currency in terms of domestic currency has increased and this is called **<u>Depreciation</u>** of domestic currency.
4. **<u>Managed Floating</u>** is a mixture of flexible and fixed exchange rate system.
5. The Bretton woods conference held in the year **<u>1944</u>**

III. Match the following:(Each question carries 1 mark)

A	B
1. SDR	a. Dirty floating
2. Balance of payment	b. Flexible exchange rate
3. Balance of trade	c. Paper gold
4. Floating exchange rate	d. Trade in goods
5. Managed floating	e. Trade in goods and services

Solutions:

A	B
1. SDR	**Paper Gold**
2. Balance of payment	**Trade in goods and services**
3. Balance of trade	**Trade in goods**
4. Floating exchange rate	**Flexible exchange rate**
5. Managed floating	**Dirty floating**

IV. Answer the following in a sentence /word: (Each question carries 1 mark)

1. **What do you mean by open economy?**
   An economy which has economic relations with other countries of the world is termed as open economy.
2. **What is Balance of payment?**
   The difference between total value of visible and invisible exports and imports in a given period of time is called balance of payment.
3. **What is Balance of trade?**
   The difference between the value of only visible items of exports and imports during a year is called balance of trade.
4. **What do you mean by fixed exchange rate?**
   The rate which is officially fixed by the government or monetary authority is called fixed exchange rate.
5. **Give the meaning of official reserve sale.**
   Total of a nations holding of tradable foreign currencies, gold reserves and SDRs sale with dollar is called official reserve sale.
6. **Give the meaning of managed floating.**
   A mixture of flexible and fixed exchange rate system is called managed floating.

V. Answer the following question in 4 sentences(Each question carries 2 marks)

1. Mention the three linkages of open economy.

1. Financial Market linkage
2. Output Market linkage
3. Labour Market linkage

2. What is the difference between current account and capital account?

Current Account	Capital Account
1. Current account transactions bring a change in the current level of a country's income. **2.** It is a flow concept as it includes all items of flow nature.	**1.** Capital transactions bring about a change in the capital stock of a country. **2.** It is a stock concept as it includes all items expressing changes in stock.

3. When do surplus and deficit arise in capital account?

Surplus in capital account arises when credit items are more than debit items. It includes net inflow of capital.

Deficit in capital account arises when debit items are more than credit items. It indicates net out outflow of capital.

4. What are the types of balance of trade?

1. Surplus Balance of Trade
2. Deficit Balance of Trade
3. Balanced Balance Trade

5. Why do people demand foreign exchange?

People demand foreign exchange because,

1. They want to purchase goods and services from other countries.
2. They want to send gifts abroad.
3. They want to purchase financial assets of a certain country.

6. What is foreign exchange rate?

The rate at which one country currency is exchanged for the other country currency is called foreign exchange rate. **For example:** An exchange of **one dollar = Rs. 74.** It means that **one dollar buys 74 Indian rupees.**

VI. Answer the following question in 12 sentences (Each question carries 4 marks)

1. Write a note on balance of trade.

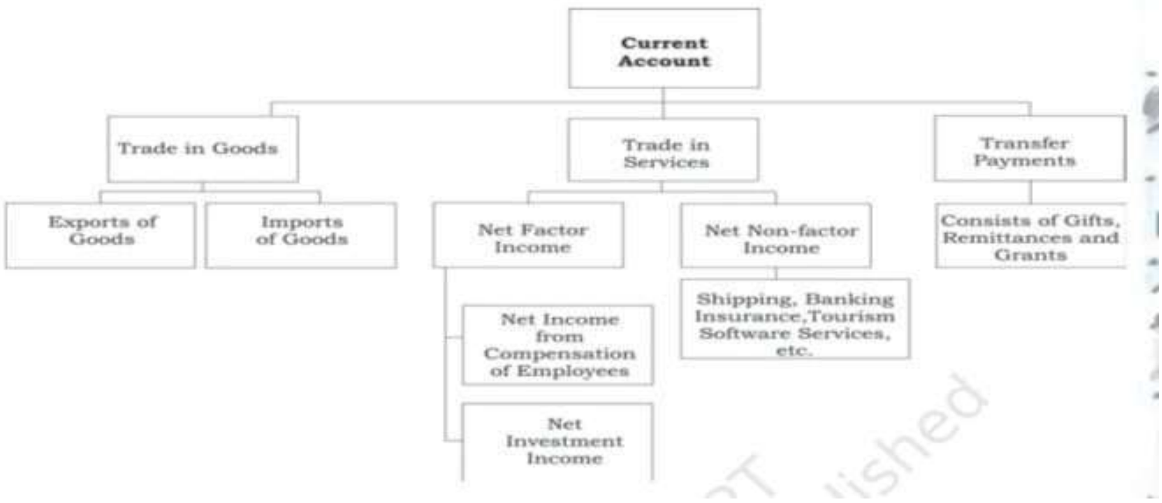
Balance of trade refers to the differences between the value of visible items of exports and imports during a year is called balance of trade. There are three types of balance of trade they are;

1. Surplus balance of trade
2. Deficit balance of trade
3. Balanced balance of trade

1. Surplus balance of trade: Surplus balance of trade if the value of visible exports is more than the value of visible imports.
2. Deficit balance of trade: Deficit balance of trade if the value of visible imports exceeds the value of visible exports.
3. Balanced balance of trade: Balanced balance of trade if the value of visible export are equal to the value of visible imports.

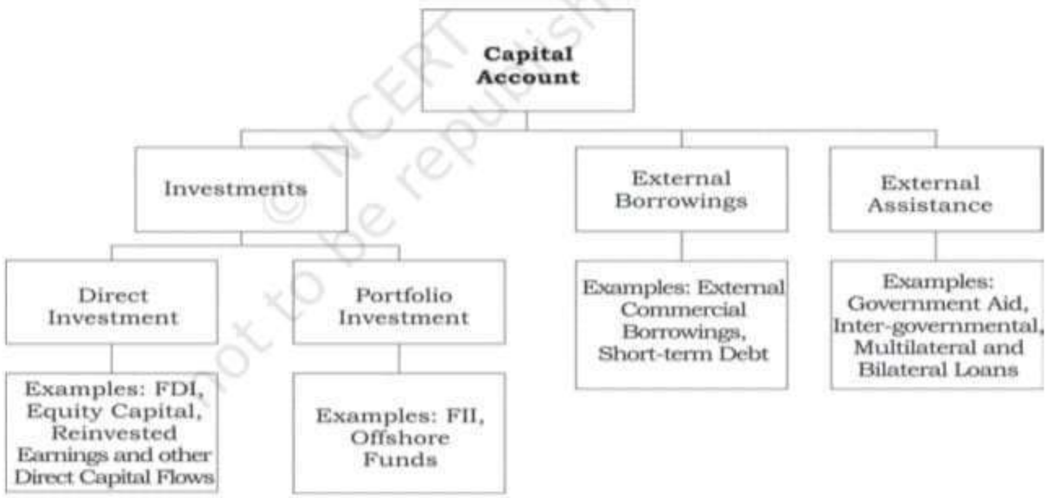
2. Write the chart of components of Current Account.

Fig. 6.1: Components of Current Account



3. Write the chart of components of Capital Account.

Fig. 6.2: Components of Capital Account



4. Explain the merits and demerits of Flexible and Fixed exchange rate system.

1. Flexible exchange rate: The exchange rate which is determined by forces of demand and supply in the foreign exchange market is called flexible exchange rate.

Merits of Flexible Exchange Rate:

1. The major advantage of flexible exchange rates is that movements in the exchange rate automatically take care of the surpluses and deficits in the BOP.

2. Flexible exchange rate is self - adjusting and automatically removes the disequilibrium in the balance of payments. (BOP)

3. There is no need for the government to hold large foreign exchange reserves.

Demerits of Flexible Exchange Rate:

1. It encourages speculation.

2. There can be wide fluctuations in exchange rate which

3. It generates inflationary trends in the economy, when there is increase in the prices of imports due to depreciation of the currency.

2. Fixed exchange rate: The exchange rate which is officially fixed by the government OR monetary authority on daily OR monthly basis is called fixed exchange rate.

Merits of Fixed Exchange Rate:

1. It provides stability to the foreign exchange market.

2. It creates conditions for smooth flow of foreign capital between nations.

3. This system attracts foreign capital investments which promotes economic growth.

Demerits of Fixed Exchange Rate:

1. As exchange rate is fixed by the government, it eliminates the possibility of speculative transactions in foreign exchange.

2. Fixed exchange rates are not permanently fixed.

3. It is very difficult to determine the level at which the exchange rate should be fixed.

VII. Answer the following question in 20 sentences (Each question carries 6 marks)

1. Write a note on Balance of payment.

Balance of payment is the differences between value of visible and invisible items of exports and imports during a year.

Structure of balance of payment: Balance of payment has three accounts they are;

1. Current Account
2. Capital Account
3. Official Reserve Account

1. Current Account: Current account includes the export and import of goods and services and transfer payments made in the current year.

Current account includes:

1. Trade in goods: Calculation of export and import of visible goods is called trade account.

2. Trade in services: Calculation of export and import of invisible services like Insurance, Foreign and Domestic services, Banking, Transport, Tourism etc….

3. Transfer payments: Transfer payments includes unilateral receipts, unilateral payments, Grant-in Aid, subsidy, social security etc…

2. Capital Account: Capital account includes lending and borrowings, repayment of loan and loan recoveries of loan and FDI (Foreign Direct Investment) and Nations investment in foreign.

3. Official Reserve Account: The sale and purchase of gold, foreign currency, SDRs (Special Drawing Rights) etc…. are calculated in this account.

VIII. Assignment and project oriented Question. (5marks)

1. Name the currencies of any five countries of the following.

USA, UK, Germany, Japan, China, Argentina, UAE, Bangladesh, Russia.

COUNTRIES	CURRENCY
1. U.S.A	Dollar
2. U.K	Pound Sterling
3. Germany	Euro
4. Japan	Yen
5. China	Renminbi
6. Argentina	Peso
7. U.A.E	Diram
8. Bangladesh	Taka
9. Russia	Rubel

0593653

M – 2022

Register Number :

Subject Code : 22 (NS)

ECONOMICS

(Kannada and English Versions)

Time : 3 Hours 15 Minutes] [Total No. of questions : 60] [Max. Marks : 100

(Kannada Version)

ಸೂಚನೆಗಳು : 1. *ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆಗಳನ್ನು ಮಾರ್ಜಿನ್‌ನಲ್ಲಿ ಸ್ಪಷ್ಟವಾಗಿ ಬರೆಯಿರಿ.*

2. *ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಉತ್ತರವು ನಿರಂತರವಾಗಿರಬೇಕು.*

ಭಾಗ – ಎ

I. ಈ ಕೆಳಗಿನ ಪ್ರಶ್ನೆಗಳಿಗೆ ಸರಿಯಾದ ಉತ್ತರವನ್ನು ಆರಿಸಿ ಬರೆಯಿರಿ : **(5 × 1 = 5)**

1) ಒಂದು ಆರ್ಥಿಕತೆಯ ಕೊರತೆ ಸಂಪನ್ಮೂಲಗಳು

a) ಸ್ಪರ್ಧಾತ್ಮಕ ಬಳಕೆಯನ್ನು ಹೊಂದಿವೆ

b) ಏಕ ಬಳಕೆಯನ್ನು ಹೊಂದಿವೆ

c) ಅಪರಿಮಿತ ಬಳಕೆಯನ್ನು ಹೊಂದಿವೆ

d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

2) ಸಾಮಾನ್ಯವಾಗಿ ಒಂದು ಔದಾಸೀನ್ಯ ವಕ್ರರೇಖೆಯ ಆಕಾರವು

a) ಮೂಲಕ್ಕೆ ಪೀನ ಮಧ್ಯವಾಗಿರುತ್ತದೆ

b) ಮೂಲಕ್ಕೆ ನಿಮ್ನ ಮಧ್ಯವಾಗಿರುತ್ತದೆ

c) ಸಮಾನಾಂತರವಾಗಿರುತ್ತದೆ

d) ಲಂಬವಾಗಿರುತ್ತದೆ

3) ಏಕರೂಪವಲ್ಲದ ಸರಕುಗಳನ್ನು ಉತ್ಪಾದಿಸುವ ಮಾರುಕಟ್ಟೆ ಸಂರಚನೆಯನ್ನು ಹೀಗೆನ್ನುವರು

a) ಏಕಸ್ವಾಮ್ಯ b) ಸ್ವಾಮ್ಯಯುತ ಪೈಪೋಟಿ

c) ಪರಿಪೂರ್ಣ ಪೈಪೋಟಿ d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

4) ಆರ್ಥಿಕ ನಿರ್ಣಯಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳುವ ವ್ಯಕ್ತಿಗಳು ಅಥವಾ ಸಂಸ್ಥೆಗಳೆಂದರೆ

a) ಆರ್ಥಿಕ ಚಲಕಗಳು b) ಅರ್ಥಶಾಸ್ತ್ರಜ್ಞರು

c) ಆರ್ಥಿಕ ಏಜೆಂಟರು d) ಮೇಲಿನ ಯಾವುದೂ ಅಲ್ಲ

5) ಜಗತ್ತಿನ ಇತರೆ ದೇಶಗಳು ಮತ್ತು ದೇಶೀಯ ವಾಸಿಗಳ ನಡುವೆ ಈ ವ್ಯವಹಾರಗಳನ್ನು ಸಂದಾಯ ಬಾಕಿಯು ದಾಖಲಿಸುತ್ತದೆ.

a) ಸರಕುಗಳು b) ಸೇವೆಗಳು

c) ಆಸ್ತಿಗಳು d) ಮೇಲಿನ ಎಲ್ಲವೂ

II. ಈ ಕೆಳಗಿನ **ಯಾವುದಾದರೂ** ಐದು ಪ್ರಶ್ನೆಗಳಿಗೆ ಖಾಲಿ ಬಿಟ್ಟ ಸ್ಥಳ ಭರ್ತಿ ಮಾಡಿ : **(5 × 1 = 5)**

6) ಆದಾಯ ಹೆಚ್ಚಾದಂತೆ ಸಾಮಾನ್ಯ ಸರಕುಗಳ ಬೇಡಿಕೆ ರೇಖೆಯು ________ ಭಾಗಕ್ಕೆ ಪಲ್ಲಟಗೊಳ್ಳುತ್ತದೆ.

7) ಸೀಮಾಂತ ಉತ್ಪನ್ನ ಮತ್ತು ಸರಾಸರಿ ಉತ್ಪನ್ನ ರೇಖೆಗಳೆರಡೂ ________ ಆಕಾರದಲ್ಲಿವೆ.

8) ಶ್ರಮದ ಮಾರುಕಟ್ಟೆಯಲ್ಲಿ ________ ಶ್ರಮದ ಪೂರೈಕೆದಾರರಾಗಿರುತ್ತಾರೆ.

9) ಏಕಸ್ವಾಮ್ಯ ಮಾರುಕಟ್ಟೆಯಲ್ಲಿ ಮಾರಾಟವಾಗುವ ಸರಕುಗಳಿಗೆ ________ ಸರಕುಗಳಿರುವುದಿಲ್ಲ.

10) ಸ್ವದೇಶವು ಜಗತ್ತಿನ ಇತರ ರಾಷ್ಟ್ರಗಳಿಗೆ ಸರಕುಗಳನ್ನು ಮಾರುವುದನ್ನು ________ ಎಂದು ಕರೆಯುತ್ತೇವೆ.

11) ಉಳಿತಾಯವು ಆದಾಯದ ________ ಭಾಗವಾಗಿದೆ.

12) ಸರ್ಕಾರವು ಅದು ಸಂಗ್ರಹಿಸುವ ಆದಾಯಕ್ಕೆ ಸಮಾನದ ಮೊತ್ತವನ್ನು ವೆಚ್ಚ ಮಾಡುತ್ತದೆ. ಇದನ್ನು ________ ಎಂದು ಕರೆಯುತ್ತೇವೆ.

13) ________ ಖಾತೆಯು ಎಲ್ಲಾ ಅಂತರರಾಷ್ಟ್ರೀಯ ಆಸ್ತಿಗಳ ವ್ಯವಹಾರವನ್ನು ದಾಖಲಿಸುತ್ತದೆ.

III. ಹೊಂದಿಸಿ ಬರೆಯಿರಿ. (5 × 1 = 5)

14)

	A		B
a)	ಶಿಕ್ಷಕರ ಸೇವೆ	i)	ಕೂಲಿ
b)	TFC + TVC	ii)	ಮಧ್ಯವರ್ತಿ ಸರಕು
c)	ಪರಿಪೂರ್ಣ ಪೈಪೋಟಿ	iii)	TC
d)	ಶ್ರಮ	iv)	ಕೌಶಲ್ಯ
e)	ಕಚ್ಚಾ ಸರಕು	v)	ಪರಿಪೂರ್ಣ ಮಾಹಿತಿ

IV. ಕೆಳಗಿನ **ಯಾವುದಾದರೂ** ಐದು ಪ್ರಶ್ನೆಗಳಿಗೆ **ಒಂದು** ವಾಕ್ಯ ಅಥವಾ **ಒಂದು** ಪದದಲ್ಲಿ ಉತ್ತರಿಸಿ : (5 × 1 = 5)

15) ಸಂಖ್ಯಾಸೂಚಕ ತುಷ್ಟಿಗುಣ ವಿಶ್ಲೇಷಣೆ ಎಂದರೇನು?

16) ಸರಾಸರಿ ಆದಾಯವನ್ನು ಲೆಕ್ಕಾಚಾರ ಮಾಡುವ ಸೂತ್ರವನ್ನು ಬರೆಯಿರಿ.

17) ಮಾರುಕಟ್ಟೆ ಸಮತೋಲನವನ್ನು ವ್ಯಾಖ್ಯಾನಿಸಿ.

18) ಸ್ವಾಮ್ಯಯುತ ಪೈಪೋಟಿ ಮಾರುಕಟ್ಟೆ ಅರ್ಥ ನೀಡಿ.

19) GDPಯ ಅರ್ಥ ನೀಡಿ.

20) ಸ್ವಾಯತ್ತ ಅನುಭೋಗದ ಅರ್ಥವನ್ನು ಬರೆಯಿರಿ.

21) ಮುಕ್ಕಟ್ಟೆ ಸವಾರರೆಂದರೆ ಯಾರು?

22) ವ್ಯಾಪಾರ ಬಾಕಿ ಎಂದರೇನು?

ಭಾಗ – ಬಿ

V. ಈ ಕೆಳಗಿನ **ಯಾವುದಾದರೂ ಒಂಭತ್ತು** ಪ್ರಶ್ನೆಗಳಿಗೆ ಪ್ರತಿಯೊಂದಕ್ಕೂ **4** ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿ. **(9 × 2 = 18)**

23) ಬೆಲೆ ಬೇಡಿಕೆ ಸ್ಥಿತಿಸ್ಥಾಪಕತ್ವ ಎಂದರೆ ಏನೆಂದು ಅರ್ಥೈಸುವಿರಿ?

24) ಕೆಳದರ್ಜೆಯ ಸರಕುಗಳೆಂದರೇನು? ಉದಾಹರಣೆ ಕೊಡಿ.

25) ದೀರ್ಘಾವಧಿ ವೆಚ್ಚಗಳಾವುವು?

26) ಸದಾವಕಾಶ ವೆಚ್ಚದ ಅರ್ಥವನ್ನು ಉದಾಹರಣೆ ಸಹಿತ ಬರೆಯಿರಿ.

27) ಸ್ಥಿರ ಸಂಖ್ಯೆಯ ಉದ್ಯಮ ಘಟಕಗಳಿದ್ದಾಗ ಪರಿಪೂರ್ಣ ಪೈಪೋಟಿಯಲ್ಲಿ ಮಾರುಕಟ್ಟೆಯ ಬೆಲೆ ಹೇಗೆ ನಿರ್ಧಾರವಾಗುತ್ತದೆ?

28) ಏಕಸ್ವಾಮ್ಯ ಮಾರುಕಟ್ಟೆಯ ಲಕ್ಷಣಗಳನ್ನು ಬರೆಯಿರಿ.

29) ಅನುಭೋಗಿ ಸರಕುಗಳು ಮತ್ತು ಬಂಡವಾಳ ಸರಕುಗಳ ನಡುವಿನ ವ್ಯತ್ಯಾಸವೇನು?

30) GDP (ರಾಷ್ಟ್ರೀಯ ವರಮಾನ) ಮಾಪನದ ಮೂರು ವಿಧಾನಗಳನ್ನು ತಿಳಿಸಿ.

31) ಹಣದ ಎರಡು ಕಾರ್ಯಗಳನ್ನು ತಿಳಿಸಿ.

32) ಹೆಚ್ಚುವರಿ ಬೇಡಿಕೆ ಮತ್ತು ಕೊರತೆ ಬೇಡಿಕೆಗಳ ಅರ್ಥವನ್ನು ಬರೆಯಿರಿ.

33) ಮಿತವ್ಯಯದ ವಿರೋಧಾಭಾಸದ ಅರ್ಥವನ್ನು ನೀಡಿ.

34) ಮಿಗುತೆ ಮುಂಗಡಪತ್ರ, ಮತ್ತು ಕೊರತೆ ಮುಂಗಡಪತ್ರದ ನಡುವಿನ ವ್ಯತ್ಯಾಸವನ್ನು ತಿಳಿಸಿ.

35) ವಿದೇಶಿ ವಿನಿಮಯ ದರ ಎಂದರೇನು?

36) ಮುಕ್ತ ಆರ್ಥಿಕತೆಯ ಮೂರು ಕೊಂಡಿಗಳನ್ನು ತಿಳಿಸಿ.

ಭಾಗ – ಸಿ

VI. ಈ ಕೆಳಗಿನ **ಯಾವುದಾದರೂ** ಏಳು ಪ್ರಶ್ನೆಗಳಿಗೆ **ಪ್ರತಿಯೊಂದಕ್ಕೂ 12** ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿ. **($7 \times 4 = 28$)**

37) ಉತ್ಪಾದನಾ ಸಾಧ್ಯತಾ ಗಡಿಯನ್ನು ಸಂಕ್ಷಿಪ್ತವಾಗಿ ವಿವರಿಸಿ.

38) ಒಟ್ಟು ತುಷ್ಟಿಗುಣ ಮತ್ತು ಸೀಮಾಂತ ತುಷ್ಟಿಗುಣಗಳ ನಡುವಿನ ವ್ಯತ್ಯಾಸಗಳನ್ನು ತಿಳಿಸಿ.

39) ಸಮ ಉತ್ಪನ್ನ ರೇಖೆಯನ್ನು ರೇಖಾಚಿತ್ರದ ಸಹಾಯದಿಂದ ವಿವರಿಸಿ.

40) ಪ್ರತಿಫಲಗಳ ಪ್ರಮಾಣದ ಬಗ್ಗೆ ಒಂದು ಸಂಕ್ಷಿಪ್ತ ಟಿಪ್ಪಣಿಯನ್ನು ಬರೆಯಿರಿ.

41) ಪರಿಪೂರ್ಣ ಪೈಪೋಟಿ ಮಾರುಕಟ್ಟೆಯ ಲಕ್ಷಣಗಳನ್ನು ವಿವರಿಸಿ.

42) ಈ ಕೆಳಗಿನ ಷರತ್ತುಗಳಡಿಯಲ್ಲಿ ಪರಿಪೂರ್ಣ ಪೈಪೋಟಿಯಲ್ಲಿ ಉದ್ಯಮ ಘಟಕದ ಲಾಭ ಗರಿಷ್ಠಗೊಳಿಸುವಿಕೆಯ ಬಗ್ಗೆ ಸಂಕ್ಷಿಪ್ತ ಟಿಪ್ಪಣಿಯನ್ನು ಬರೆಯಿರಿ :

a) $P = MC$

b) MC ಯು q_0 ನಲ್ಲಿ ಇಳಿಕೆಯಾಗುವುದಿಲ್ಲ.

43) ಸಮಗ್ರ ಅರ್ಥಶಾಸ್ತ್ರವು ಸೂಕ್ಷ್ಮ ಅರ್ಥಶಾಸ್ತ್ರಕ್ಕಿಂತ ಯಾವ ರೀತಿಯಲ್ಲಿ ಭಿನ್ನವಾಗಿದೆ ಎಂಬುದನ್ನು ಸಂಕ್ಷಿಪ್ತವಾಗಿ ವಿವರಿಸಿ.

44) ಒಂದು ಆರ್ಥಿಕತೆಯ ಆದಾಯದ ವೃತ್ತಾಕಾರದ ಚಲನೆಯನ್ನು ವಿವರಿಸಿ.

45) ಯೋಜಿತವಲ್ಲದ ತಪಶೀಲು ಪಟ್ಟಿಯ ಶೇಖರಣೆ ಮತ್ತು ಕುಸಿತವನ್ನು ಉದಾಹರಣೆಯೊಂದಿಗೆ ವಿವರಿಸಿ.

46) ಬಾಹ್ಯತೆಗಳನ್ನು ಕುರಿತು ಒಂದು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

47) ಹೂಡಿಕೆ ಬಿಂಬಕವನ್ನು ರೇಖಾಚಿತ್ರ ಮೂಲಕ ವಿವರಿಸಿ.

48) ಚಾಲ್ತಿ ಖಾತೆಯ ಭಾಗಗಳ ಪಟವನ್ನು ಬರೆಯಿರಿ.

ಭಾಗ – ಡಿ

VII. ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳಿಗೆ ಪ್ರತಿಯೊಂದಕ್ಕೂ 20 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿ. **(4 × 6 = 24)**

49) ಇಳಿಮುಖ ಸೀಮಾಂತ ತುಷ್ಟಿಗುಣ ನಿಯಮವನ್ನು ಕೋಷ್ಟಕ ಮತ್ತು ರೇಖಾ ಚಿತ್ರದ ಸಹಾಯದಿಂದ ವಿವರಿಸಿ.

50) ಅನುಭೋಗಿಯ ಆದರ್ಶ ಆಯ್ಕೆಯನ್ನು ರೇಖಾಚಿತ್ರದ ಸಹಾಯದಿಂದ ವಿವರಿಸಿ.

51) ಪರಿಪೂರ್ಣ ಪೈಪೋಟಿ ಮಾರುಕಟ್ಟೆಯಲ್ಲಿ ಬೇಡಿಕೆ ಮತ್ತು ಪೂರೈಕೆಯ ಏಕಕಾಲದ ಪಲ್ಲಟಗಳನ್ನು ರೇಖಾಚಿತ್ರದೊಂದಿಗೆ ವಿವರಿಸಿರಿ.

52) ಸರಕಿನ ಮಾರುಕಟ್ಟೆ ಬೇಡಿಕೆ ರೇಖೆ ಮತ್ತು ಉದ್ಯಮ ಘಟಕವು ಉತ್ಪಾದಿಸುವ ಸರಕಿನ ಒಟ್ಟು ಉತ್ಪಾದನಾ ವೆಚ್ಚವನ್ನು ಈ ಕೆಳಗಿನ ಅನುಸೂಚಿಯಲ್ಲಿ ನೀಡಲಾಗಿದೆ. ಈ ಅನುಸೂಚಿಯನ್ನು ಆಧರಿಸಿ ಕೆಳಗಿನವುಗಳನ್ನು ಲೆಕ್ಕ ಹಾಕಿ.

ಪ್ರಮಾಣ (Q) :	0	1	2	3	4	5	6	7	8
ಬೆಲೆ (P) :	52	44	36	31	26	22	19	16	13

ಪ್ರಮಾಣ (Q):	0	1	2	3	4	5	6	7	8
ಒಟ್ಟು ವೆಚ್ಚ (TC) :	10	60	90	100	102	105	109	115	125

a) MR ಮತ್ತು MC ಅನುಸೂಚಿ.

b) ಯಾವ ಪ್ರಮಾಣದಲ್ಲಿ MR ಮತ್ತು MC ಗಳು ಸಮವಾಗಿರುತ್ತದೆ?

c) ಉತ್ಪನ್ನದ ಸಮತೋಲನ ಪ್ರಮಾಣ ಮತ್ತು ಸರಕಿನ ಸಮತೋಲನ ಬೆಲೆ

d) ಸಮತೋಲನದಲ್ಲಿ ಒಟ್ಟು ಆದಾಯ, ಒಟ್ಟು ವೆಚ್ಚ ಮತ್ತು ಒಟ್ಟು ಲಾಭ.

53) ಸಮಗ್ರ ಆರ್ಥಿಕತೆಯ ಅನನ್ಯತೆಗಳನ್ನು ವಿವರಿಸಿ.

54) ಮುಕ್ತ ಮಾರುಕಟ್ಟೆ ಕಾರ್ಯಾಚರಣೆಯನ್ನು ವಿವರಿಸಿ.

55) ವೆಚ್ಚದ ವರ್ಗೀಕರಣವನ್ನು ವಿವರಿಸಿ.

56) ಸಂದಾಯ ಬಾಕಿಯ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

ಭಾಗ – ಇ

VIII. ಈ ಕೆಳಗಿನ **ಯಾವುದಾದರೂ ಎರಡು** ಕಾರ್ಯಭಾರ ಮತ್ತು ನಿಯೋಜನೆ ಆಧಾರಿತ ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ. **(2 × 5 = 10)**

57) ಒಬ್ಬ ಅನುಭೋಗಿಯು ಎರಡು ಸರಕುಗಳನ್ನು ಅನುಭೋಗಿಸಲು ಬಯಸುತ್ತಾಳೆ. ಬಾಳೆಹಣ್ಣಿನ ಬೆಲೆ ರೂ. 5 ಮತ್ತು ಮಾವಿನ ಹಣ್ಣಿನ ಬೆಲೆ ರೂ. 10 ಆಗಿದ್ದು ಅನುಭೋಗಿಯ ಆದಾಯ ರೂ. 40 ಆಗಿದೆ. ಈ ಕೆಳಗಿನವುಗಳಿಗೆ ಉತ್ತರಿಸಿ.

a) ಅನುಭೋಗಿಯು ತನ್ನ ಸಂಪೂರ್ಣ ಆದಾಯವನ್ನು ಖರ್ಚು ಮಾಡಿ ಎಷ್ಟು ಪ್ರಮಾಣದ ಬಾಳೆಹಣ್ಣನ್ನು ಅನುಭೋಗಿಸಬಹುದು?

b) ಅನುಭೋಗಿಯು ತನ್ನ ಸಂಪೂರ್ಣ ಆದಾಯವನ್ನು ಖರ್ಚು ಮಾಡಿ ಎಷ್ಟು ಪ್ರಮಾಣದ ಮಾವಿನಹಣ್ಣನ್ನು ಅನುಭೋಗಿಸಬಹುದು?

c) ಬಜೆಟ್ ರೇಖೆಯ ಇಳಿಜಾರು ಕೆಳಮುಖ ಅಥವಾ ಮೇಲ್ಮುಖವಾಗಿರುತ್ತದೆಯೇ?

d) ಬಜೆಟ್ ರೇಖೆಯ ಮೇಲಿನ ಎಲ್ಲಾ ಸಂಯೋಜನೆಗಳು ಅನುಭೋಗಿಯ ಆದಾಯಕ್ಕೆ ಸಮನಾಗಿರುತ್ತವೆಯೇ ಅಥವಾ ಇಲ್ಲವೇ?

e) ಒಂದು ಬಾಳೆಹಣ್ಣನ್ನು ಹೆಚ್ಚುವರಿಯಾಗಿ ಪಡೆಯಲು ಮಾವಿನಹಣ್ಣನ್ನು ಬಿಟ್ಟುಕೊಡಬೇಕಾಗುತ್ತದೆ. ಇದು ಸರಿಯೇ?

58) ಕೆಳಗೆ ನೀಡಿರುವ ಕೋಷ್ಟಕದಲ್ಲಿ ಸರಕಿನ ಪ್ರತಿ ಘಟಕದ ಮಾರುಕಟ್ಟೆ ಬೆಲೆ ರೂ. 10 ಇದ್ದಾಗ ಒಟ್ಟು ಆದಾಯ, ಸೀಮಾಂತ ಆದಾಯ ಮತ್ತು ಸರಾಸರಿ ಆದಾಯದ ಅನುಸೂಚಿಗಳ ಲೆಕ್ಕಾಚಾರ ಮಾಡಿ.

ಮಾರಾಟ ಪ್ರಮಾಣ	TR	MR	AR
0			
1			
2			
3			
4			
5			
6			

(ಅಂಧ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಮಾತ್ರ)

TR, MR ಮತ್ತು AR ಗಳ ಅರ್ಥ ಬರೆಯಿರಿ.

59) ಅನಾಣ್ಯೀಕರಣ ಅಥವಾ ಹಣದ ಅಮಾನ್ಯೀಕರಣ (ನೋಟು ರದ್ಧತಿ) ಬಗ್ಗೆ ಒಂದು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

60) ಈ ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ಐದು ದೇಶಗಳ ಕರೆನ್ಸಿಯನ್ನು ಹೆಸರಿಸಿ.

USA, UK, ಜರ್ಮನಿ, ಜಪಾನ್, ಚೀನಾ, ಅರ್ಜೆಂಟೈನಾ, UAE, ಬಾಂಗ್ಲಾದೇಶ, ರಷ್ಯಾ.

(English Version)

Instructions : *1. Write the question numbers **legibly** in the margin.*

2. Answer for the questions should be continuous.

PART – A

I. Answer the following questions by choosing the correct answer : **(5 × 1 = 5)**

1) The scarce resources of an economy have

a) Competing usages b) Single usages

c) Unlimited usages d) None of the above

2) The shape of an indifference curve is

a) Convex to the origin b) Concave to the origin

c) Horizontal d) Vertical

3) A market structure which produces heterogeneous product is called

a) Monopoly b) Monopolistic competition

c) Perfect competition d) None of the above

4) The individuals or institutions which take economic decisions are

a) Economic variables b) Economists

c) Economic Agents d) None of the above

5) The Balance of Payments (BOP) record these transactions between residents and with the rest of the world.

a) Goods b) Services

c) Assets d) All of the above

II. Answer any **five** of the following questions by fill in the blanks : **(5 × 1 = 5)**

6) As income increases the demand curve for normal goods shifts towards ________.

7) Marginal Product and Average Product curves are ________ in shape.

8) In Labour market ________ are the suppliers of labour.

9) In monopoly market, the goods which are sold have no ________.

10) The domestic country may sell goods to the rest of the world are called ________.

11) Savings is that part of income that is ________.

12) The government may spend an amount equal to the revenue it collects. This is known as ________.

13) ________ account records all international transactions of assets.

III. Match the following. **(5 × 1 = 5)**

14)

	A		B
a)	Service of a teacher	i)	Wages
b)	TFC + TVC	ii)	Intermediate good
c)	Perfect competition	iii)	TC
d)	Labour	iv)	Skill
e)	Raw materials	v)	Perfect information

IV. Answer any **five** of the following questions in a word or a sentence. **($5 \times 1 = 5$)**

15) What do you mean by Cardinal Utility Analysis?

16) Write the formula to calculate Average Revenue.

17) Define Market equilibrium.

18) Give the meaning of monopolistic competition.

19) Give the meaning of GDP.

20) Write the meaning of autonomous consumption.

21) Who are 'free-riders'?

22) What is balance of trade?

PART – B

V. Answer **any nine** of the following questions in **four** sentences **each**.

($9 \times 2 = 18$)

23) What do you mean by price elasticity of demand?

24) What do you mean by Inferior goods? Give example.

25) What are long run costs?

26) Write the meaning of opportunity cost with an example.

27) How price is determined when fixed number of firms exist in perfect competition?

28) Write the features of monopoly.

29) What is the difference between consumer goods and capital goods?

30) Mention three methods of measuring GDP (National Income).

31) Mention two functions of money.

32) Write the meaning of excess demand and deficient demand.

33) Give the meaning of paradox of thrift.

34) Distinguish between surplus budget and deficit budget.

35) What is foreign exchange rate?

36) Mention the three linkages of open economy.

PART – C

VI. Answer **any seven** of the following questions in **twelve** sentences **each**. **(7 × 4 = 28)**

37) Briefly explain the production possibility frontier.

38) Write the differences between total utility and marginal utility.

39) Explain Isoquant with the help of the diagram.

40) Write a brief note on returns to scale.

41) Explain the features of perfect competition.

42) Write a short note on profit maximisation of a firm under the following conditions :

   a) P = MC

   b) MC must be non decreasing at q_0.

43) Briefly explain why macro economics is different from micro economics.

44) Explain the circular flow of income of an economy.

45) Illustrate unplanned accumulation and decumulation of inventories with an example.

46) Write a note on externalities.

47) Explain the investment function with the help of diagram.

48) Write the chart of components of current account.

PART – D

VII. Answer **any four** of the following questions in **twenty** sentences **each.** **($4 \times 6 = 24$)**

49) Explain the law of diminishing marginal utility with the help of a table and diagram.

50) Explain the optimal choice of consumer with the help of a diagram.

51) Explain the simultaneous shift of demand and supply curves in perfect competition with the help of diagrams.

52) The market demand curve for a commodity and the total cost for a monopoly firm producing the commodity is given by the schedules below, use the information to calculate the following :

Quantity (Q) :	0	1	2	3	4	5	6	7	8
Price (P) :	52	44	36	31	26	22	19	16	13

Quantity (Q) :	0	1	2	3	4	5	6	7	8
Total cost (TC) :	10	60	90	100	102	105	109	115	125

a) The MR and MC schedules.

b) The quantity for which the MR and MC are equal

c) The equilibrium quantity of output and the equilibrium price of the commodity.

d) The Total Revenue, the Total Cost and Total Profit in equilibrium.

53) Explain the macro economic identities.

54) Explain the open market operation.

55) Explain the classification of expenditure.

56) Write a note on Balance of Payment.

PART – E

VIII. Answer **any two** of the following Project and Assignment oriented questions.

(2 × 5 = 10)

57) A consumer wants to consume two goods. The price of Banana is Rs.5 and the price of Mangoes is Rs.10. The consumer income is Rs.40.

a) How much Bananas can she consumes if she spends her entire income on that good?

b) How much Mangoes can she consumes if she spends her entire income on that good?

c) Is the slope of budget line downward or upward?

d) Are the bundles on the budget line equal to the consumer's income or not?

e) If you want to have one more of Bananas you have to give up Mangoes. Is it true?

58) Compute the Total Revenue, Marginal Revenue and Average Revenue Schedules in the following table, when market price of each unit of good is Rs. 10

Quantity Sold	TR	MR	AR
0			
1			
2			
3			
4			
5			
6			

(For Blind students only)

Explain the meaning of TR, MR and AR

59) Write a note on Demonitization.

60) Name the currencies of any five countries of the following :

USA, UK, Germany, Japan, China, Argentina, UAE, Bangladesh, Russia.

MARCH - 2019

(English Version)

Instructions : *1. Write the question numbers* ***legibly*** *in the margin.*

2. Answer for ***a*** *question should be continuous.*

PART – A

I. Choose the correct answer : **(5 × 1 = 5)**

1) The scarce resources of an economy have

a) Competing usages b) Single usages

c) Unlimited usages d) None of the above

2) When the supply curve is vertical the elasticity of supply is

a) $es = 1$ b) $es > 1$

c) $es = 0$ d) $es = \infty$

3) The change in TR due to the sale of an additional units is called

a) Total Revenue b) Average Revenue

c) Marginal Revenue d) Revenue

4) The year of great depression

a) 1920 b) 1889

c) 1929 d) 2018

5) Easy availability of credit encourages

a) Savings b) Investment

c) Rate of Interest d) None of the above

II. Fill in the blanks of the following : (5 × 1 = 5)

6) Scarcity of resources gives raise to ————————.

7) ———————— is determined at the point where the demand for labour and supply of labour curves intersect.

8) Competitive behaviour and Competitive market structure are in general ———————— related.

9) ———————— goods will not pass through any more stages of production.

10) Financial year runs from ———————— to ———————— in India.

III. Match the following : (5 × 1 = 5)

11)

	A		B
i)	TFC + TVC =	a)	None monetary exchange
ii)	π	b)	Government of India
iii)	Domestic services	c)	TR – TC
iv)	Circulation of coin	d)	Y – C
v)	Savings	e)	TC

IV. Answer the following questions in a sentence / word each : (5 × 1 = 5)

12) Expand MRS.

13) What is Monopoly?

14) Name the well known work of Adam Smith.

15) Who are "Free-Riders"?

16) What do you mean by open economy?

PART – B

V. Answer **any nine** of the following questions in **4** sentences **each** : **(9 × 2 = 18)**

17) What is Monotonic preference?

18) Mention two different approaches which explain consumer behaviour.

19) Give the meaning of price elasticity of supply and write its formula.

20) Give the meaning of shut-down point.

21) Mention the conditions needed for profit by a firm under perfect competition.

22) Write the meaning of monopolistic competition and give an example.

23) What are the four factors of production? And mention their rewards.

24) Mention three methods of measuring GDP (National Income).

25) Mention any two functions of money.

26) Write the meaning of excess demand and deficient demand.

27) Give the meaning of investment multiplier. Write its formula.

28) Write the differences between public provision and public production.

29) Mention the three linkages of open economy.

30) Why do people demand foreign exchange?

PART – C

VI. Answer **any seven** of the following questions in **12** sentences **each** : **(7 × 4 = 28)**

31) Briefly explain the central problems of an economy.

32) Explain the indifference map with a diagram.

33) The following table gives the TP schedule of labour. Find the corresponding average product and marginal product schedules.

TP_L	0	15	35	50	40	48
L	0	1	2	3	4	5

34) Write a table to show the impact of simultaneous shifts on equilibrium.

35) Explain the features of Perfect Competition Market.

36) Briefly explain in what way macro economics is different from micro economics.

37) Explain the circular flow of income of an economy.

38) Write a note on Externalities.

39) Briefly explain the functions of RBI.

40) Briefly explain consumption function.

41) Explain the merits and demerits of flexible and fixed exchange rate system.

PART – D

VII. Answer **any four** of the following questions in **20** sentences **each** :

(4 × 6 = 24)

42) Explain the law of diminishing Marginal Utility with the help of a table and diagram.

43) A Firms SMC schedule is shown in the following table. TFC is Rs.100, find TVC, TC, AVC and SAC schedules of the firm.

Q	0	1	2	3	4	5	6
SMC	–	500	300	200	300	500	800

44) Explain the Market equilibrium with the fixed number of firms with the help of a diagram.

45) Explain how the firms behave in Oligopoly.

46) Explain the Macro economic identities.

47) Explain the classification of receipts.

48) Write a note on balance of payment.

PART – E

VIII. Answer **any two** of the following Project and Assignment related questions :

(2 × 5 = 10)

49) A consumer wants to consume two goods, the price of Bananas is Rs.4, and the price of Mangoes is Rs.5. The consumer income is Rs.20.

a) How much Bananas can she consumes if she spend her entire income on that good?

b) How much Mangoes can she consumes if she spend her entire income on that good?

c) Is the slope of budget line downward or upward?

d) Are the bundles on the budget line equal to the consumer's income or not?

e) If you want to have more of Bananas you have to give up Mangoes. Is it true?

50) Write a note on Demonetisation.

51) Name the currencies of any five countries of the following:

USA, UK, Germany, Japan, China, Argentina, UAE, Bangladesh, Russia.

MARCH - 2020

(English Version)

Instructions : *1. Write the question numbers **legibly** in the margin.*

*2. Answer for **the** questions should be continuous.*

PART – A

I. Choose the correct answer. Each question carries **1** mark. **(5 × 1 = 5)**

1) Which of the following is an example of micro economic study?

a) National income b) Consumer behaviour

c) Unemployment d) Foreign trade

2) The change in output per unit of change in the input is called

a) Marginal product b) Average product

c) Total product d) None of the above

3) When the supply curve is vertical the elasticity of supply is

a) es = 1 b) es > 1

c) es = 0 d) es = ∞

4) In 1936 British economist J.M. Keynes published his celebrated book

a) Wealth of nations

b) General theory of employment interest and money

c) Theory of interest

d) Theory of employment

5) Value of MPC lies between

a) 1 and 2 b) 0 and 1

c) 2 and 4 d) 0 and 0.5

II. Fill in the blanks. Each question carries 1 mark. **(5 × 1 = 5)**

6) In a centrally planned economy all the important decisions are made by ————.

7) It is assumed that in a perfectly competitive market an ———— is at play.

8) The net contribution made by a firm is called as its ————.

9) Non – paying users of public goods are known as ————.

10) The Bretton woods conference held in the year ————.

III. Match the following. Each question carries 1 mark. **(5 × 1 = 5)**

11)

	A		B
a)	Possibility of super normal profit	i)	Broad money
b)	Inventory	ii)	Paper Gold
c)	M_3 M_4	iii)	Y – C
d)	Savings	iv)	Attraction of new firms
e)	SDR	v)	Stock variable

IV) Answer the following questions in a sentence / word. Each question carries 1 mark. **(5 × 1 = 5)**

12) What do you mean by cardinal utility analysis?

13) Give the meaning of oligopoly market.

14) Who are economic agents?

15) Expand – FRBMA.

16) Give the meaning of managed floating.

PART – B

V. Answer **any nine** of the following questions in **4** sentences **each**. Each question carries **2** marks. **(9 × 2 = 18)**

17) Write the differences between budget line and budget set.

18) State the law of demand.

19) Mention the types of returns to scale.

20) Give the meaning of opportunity cost with example.

21) Define equilibrium price and quantity.

22) How wage is determined in labour market.

23) Distinguish between stock and flow. Give examples.

24) What do you mean by externalities? Mention its types.

25) Mention the two motives of demand for money.

26) Give the meaning investment multiplier. Write its formula.

27) Give the meaning of Paradox of thrift.

28) Mention the three linkages of open economy.

29) Mention the types of Balance of Trade.

30) Why do people demand foreign exchange?

PART – C

VI. Answer **any seven** of the following questions in **12** sentences. Each questions carries **4** marks. **(7 × 4 = 28)**

31) Briefly explain production possibility frontier.

32) Write the differences between substitutes and complements.

33) Explain Isoquant with the help of the diagram.

34) Explain the determinants of a firm's supply curve.

35) Write a note on Price Ceiling.

36) Briefly explain monopolistic competitive market.

37) Explain the role of The Government (State) and Household sector in both developed and developing countries.

38) Illustrate unplanned accumulation and decumulation of inventories with examples.

39) Briefly explain the functions of RBI.

40) Briefly explain consumption function.

41) Write the chart of components of capital account.

PART – D

VII. Answer **any four** of the following questions in **20** sentences. Each question carries **6** marks. **(4 × 6 = 24)**

42) Explain the features of indifference curves with the help of diagrams.

43) The market demand curve for a commodity and the total cost for a monopoly firm producing the commodity is given by the schedules below Use the information to calculate the following.

Quantity	0	1	2	3	4	5	6	7	8
Price	52	44	36	31	26	22	19	16	13

Quantity	0	1	2	3	4	5	6	7	8
Total cost	10	60	90	100	102	105	109	115	125

(a) The MR and MC schedules

(b) The quantities for which the MR and MC are equal

(c) The equilibrium quantity of output and the equilibrium price of the commodity

(d) The total revenue, total cost, and total profit in equilibrium

44) Explain the market supply curves with the help of diagrams.

45) Explain the macro economic identities.

46) Write the story of Goldsmith Lala on the process of deposit and loan (credit) creation by commercial banks.

47) Explain the classification of expenditure.

48) Write a short note on the gold standard.

PART – E

VIII. Answer **any two** of the following Project and Assignment oriented questions. Each question carries **5** marks. **($2 \times 5 = 10$)**

49) A consumer wants to consume two goods. The price of Banana is Rs.5, and the price of Mango is Rs.10. The consumer's income is Rs.40.

a) How much Bananas can she consume if she spends her entire income on that good?

b) How much Mangoes can she consume if she spends her entire income on that good?

c) Is the slope of the budget line downward or upward?

d) Are the bundles on the budget line equal to the consumer's income or not?

e) If you want to have one more Banana, you have to give up Mangoes. Is it true?

50) Find the missing products in the following table.

Factor – 1	TP	MP_1	AP_1
0	0	0	0
1	10	–	10
2	24	–	12
3	40	16	13.33
4	–	10	–
5	–	6	11.2
6	57	1	9.5

(For Blind students only)

Explain the meaning of TP, MP, AP

51) Prepare a budget on the monthly income and expenditure of your family.