ECONOMICS (P220)

BACKGROUND TO THE SUBJECT OF ECONOMICS

The paper code for the subject is P220.

The subject consists of two papers i.e. Economics paper one (P220/1) and Economics paper two (P220/2).

ECONOMICS PAPER ONE (P220/1)

This paper tests the candidates' understanding of the basic economic principles.

The questions set in this paper are open and usually demand for answers which can apply in any country. The questions usually end with the phrase "in an economy".

ECONOICS PAPER TWO (P220/2)

This paper tests the candidates' understanding of the application of the economic principles.

This paper concentrates on examining economics as it applies to Uganda in particular.

When answering questions in paper 2;

- Pay a lot of attention to the tense used in the question
- Do not use a speculative language i.e. avoid using words like will and shall.

The duration of each paper is 3 hours.

Each paper has two sections i.e. Section A and Section B.

SECTION A

Section A has one compulsory question having five parts (a – e) each carrying 4 marks making a total of 20 marks.

Answers to this section should be concise and precise.

SECTION B

Section B consists of 6 essay type questions each carrying 20 marks out of which a student is required to attempt only four questions making a total of 80 marks.

THE COURSE OUTLINE (TOPICS TO BE COVERED)

1. Introduction to economics
2. Price theory
3. Production
4. National income
5. Economic growth and development
6. Money and banking
7. Population, labour and wages.
8. Unemployment
9. Structure of Uganda's economy
10. Public finance and fiscal policy
11. International trade
12. Inflation
13. Economic development planning

INTRODUCTION TO ECONOMICS

Economics centers on how human beings can make the best use of the available scarce resources to satisfy the competing ends (needs). Economics deals with the ways in which production and distribution change over time. Therefore it is the use (allocation) and organization of resources that constitute the subject matter of economics.

DEFINITION OF ECONOMICS

There are many definitions of economics as put forward by different economists among which are the following;

1. Professor Alfred Marshal defines economics as a study of mankind in an ordinary business way of life. This means that the subject is concerned with the study of how man lives, moves and thinks in an ordinary business way of life.
2. Professor A.C. Pigou defines economics as a means of how to increase production in order to raise people's standards of living.
3. The classical economists led by Adam Smith define economics as the science of accumulation of wealth. This means that economics as a subject is concerned with the way people and the nation become rich. However, this definition has been criticized for being narrow because it does not address the main problem facing man i.e. scarcity of resources.
4. Economist Lionel Robbins said in 1935 that "Economics is a social science that studies human behaviour as a relationship between ends and scarce means which have alternative uses.

NOTE

By the term ends, we refer to human needs (endless desires of man)

By the term scarce means, we refer to inadequate resources.

WHY ROBBINS DEFINITION IS PREFERRED

Robbins definition is the most widely acceptable definition of economics because it carries three main important factors in economic analysis i.e. key economic issues facing man and countries.

1. It recognizes that human needs are unlimited (endless)
2. The resources to satisfy the unlimited human wants are scarce.
3. The scarce resources have got alternative uses and thus there is need to make the right choices when allocating resources.

The definition also recognizes economics as a social science i.e. it deals with that part of economic activity which is concerned with the satisfaction of the material needs.

ECONOMICS AS A SCIENCE AND SOCIAL SCIENCE

Economics has elements that make it a science discipline and these include;

- It is based on facts in real life.
- It is research based i.e. it makes experiments to prove certain things.

- It develops theories, principles and laws.
- It makes scientific observations.

Economics also has elements which qualify it to be a social science. These include;

- It is based on value judgement i.e. peoples' opinions
- It is dynamic i.e. it changes depending on the social and political conditions.
- It is based on human reasoning and human satisfaction.

ASSUMPTIONS IN ECONOMICS

It is not possible to isolate the problems in an economy. Economists make assumptions to enable them study the behaviour of an aspect/ phenomenon and hence draw conclusions or predictions whenever there is a change in one variable. Economists use the term **"Ceteris paribus."** This is a Latin word which stands for **"other factors held constant."**

ECONOMIC CONCEPTS

1. ECONOMIC THEORY

This is a body of concepts and principles which help us understand/explain and make predictions in economics. It is divided into two major parts;

a) Microeconomics.

Microeconomics is a branch of economics that deals with the economic behaviour of small units. The prefix **micro** comes from the Greek word **"Mikros"** which means **small.** So microeconomics deals with the behaviour of individual economic agents like consumers, producers and resource owners.

b) Macroeconomics.

Macroeconomics is the branch of economics that studies the economy as a whole. It assumes that the economy is a single functioning unit and any decision made affects all economic units. It deals with the behaviour of economic aggregates such as unemployment, inflation, aggregate demand and supply, national income, public finance and fiscal policy, economic development planning, etc.

2. STATEMENTS IN ECONOMICS

a) POSITIVE STATEMENT

In economics, a positive statement concerns what **"is", "was"** or **"will be"** and contains no indication of approval or disapproval. (What should be). Positive statements are testable or at least it is possible to imagine facts that disapprove them. Examples of positive statements include;

i. The moon is made of black and gold cheese. (This is empirically false but is still a positive statement as it is a statement about what is and not what should be.
ii. The price of sugar is high compared to what it was last year.
iii. If the government raises the tax on bear, this will lead to a fall in the profits of brewers.

b) NORMATIVE STATEMENT

A normative statement expresses a value judgement about whether a situation is subjectively desirable or undesirable. It concerns **"What ought to be."** Normative statements are characterized by the modal verbs **"should", "would"** or **"could".** Examples of normative statements include;

i. The world would be a better place if the moon were made of green cheese.
ii. The price of milk should be Shs. 1500 a gallon to give daily farmers a higher living standard.
iii. The government should increase the minimum wage to Shs. 500,000 to reduce poverty.

3. THE THREE FUNDAMENTAL (BASIC) ECONOMIC PRINCIPLES (PROBLEMS)

a) Scarcity

Scarcity refers to the limited supply of economic resources in relation to peoples' requirements/wants e.g. there is scarcity of land, scarcity of trained labour, scarcity of trained entrepreneurs, scarcity of capital, etc.

The problem of scarcity is considered to be the most fundamental problem and it gives rise to the other two.

b) Choice

Choice is defined as the making of the best decision out of the available alternatives.

Because of scarcity of resources, man must make a scale of preference.

A scale of preference is a list of wants arranged starting with the most pressing needs and ending with the least pressing ones.

When the consumer chooses the first item, second, third and so on, he is said to be making a choice.

Importance of choice

- ✓ Guides producers on what goods to produce and in what quantity.

- ✓ Guides producers on how to produce various goods and services.
- ✓ Guides producers on how to distribute the goods and services.
- ✓ Guides consumers when making consumption plans.

c) <u>Opportunity cost/ Trade off cost/ Alternative cost/ Real cost</u>

Opportunity cost is the second best alternative foregone when choice is made.

Opportunity cost arises out of scarcity and choice. When a consumer uses a scale of preference to make choice, it implies that he is making a decision to satisfy one set of wants. This necessarily means sacrificing some other set. It is because of the consumer's limited resources (income) that he chooses commodity A and leaves B for the mean time. By making choice therefore, he is sacrificing commodity B for A. It is this sacrifice that is referred to as opportunity cost in economics.

<u>USES/IMPORTANCE OF THE CONCEPT OF OPPORTUNITY COST IN ECONOMICS</u>

- ✓ **It guides producers in resource allocation/ making production decisions.** That is what to produce, when to produce, how to produce, where to produce and for whom to produce.
- ✓ **It helps consumers in making consumption decisions i.e.** consumers choose commodities that yield maximum utility.
- ✓ **The concept is used in pricing factors of production e.g.** workers that a producer cannot do without are paid high wages because they create a heavy opportunity cost when they are missing.
- ✓ **The concept is used when specializing in international trade.** It is used in international trade under the principle of comparative cost advantage whereby a country specializes in the production of a commodity where it has the least opportunity cost.
- ✓ **It is a basis of economic planning.** Government planners always look at the second best alternative foregone during the planning process. E.g. the government can spend more money on providing basic services like universal education than on recreational facilities like sports stadia.
- ✓ **It helps workers to make employment decisions.** That is whether to work or enjoy leisure.

<u>ASSIGNMENT</u>

Under what circumstances may the opportunity cost principle be applied in economics?

(04 marks)

<u>LIMITATIONS OF THE CONCEPT OF OPPORTUNITY COST</u>

- ✓ It is based on the assumption that producers and consumers are rational which is not always true. Many producers and consumers are not guided by a calculating mind. They simply produce or consume without looking at the opportunity cost.
- ✓ It lacks uniformity because different people have different priorities.
- ✓ Opportunity cost does not have a monetary value and therefore it is very hard to attach a money value to it.
- ✓ Some factors of production are specific in that they cannot be put to alternative uses.
- ✓ The concept assumes perfect markets which not existent in the real world.
- ✓ It is not applicable in situations where factor immobility exists.

RELATIONSHIP BETWEEN SCARCITY, CHOICE AND OPPORTUNITY COST

Due to scarcity of resources, one has to make a choice out of the many alternatives, leaving some needs unsatisfied, hence opportunity cost.

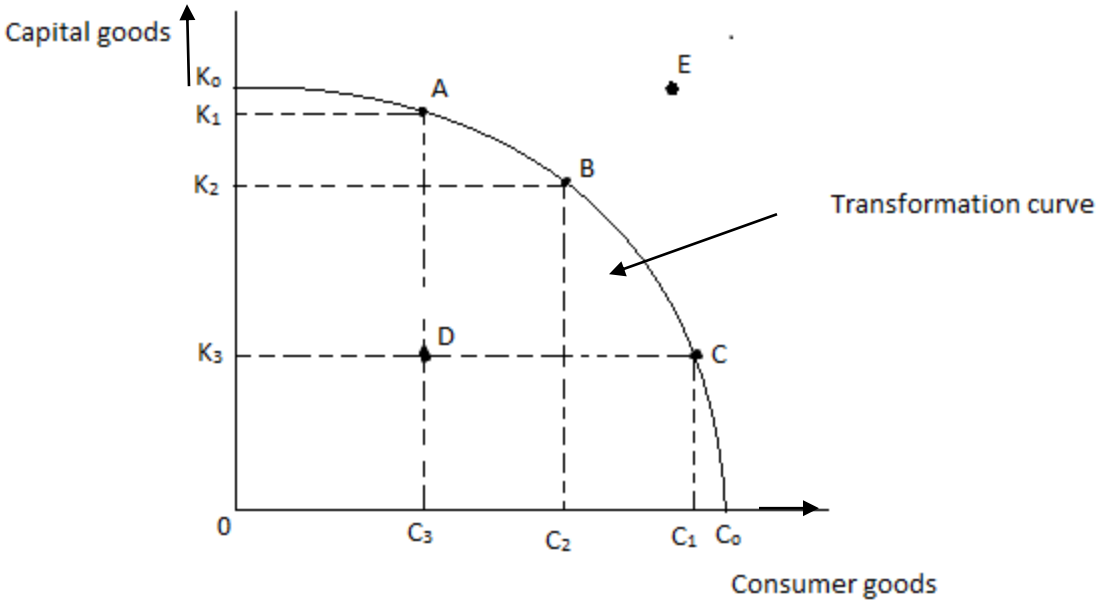
4. THE PRODUCTION POSSIBILITY FRONTIER/ CURVE (PPF/PPC) / TRANSFORMATION CURVE/ OPPORTUNITY COST CURVE

The PPF/C refers to a locus of points showing various combinations of two commodities that can maximumly be produced when all the country's available resources are fully and efficiently utilized.

ASSUMPTIONS OF THE PPF/C

- ✓ Assumes only two commodities being produced e.g. capital goods and consumer goods.
- ✓ Assumes a closed economy.
- ✓ Assumes full employment of resources.
- ✓ Assumes constant technology.
- ✓ Assumes perfect mobility of factors of production.
- ✓ Producers are assumed to be rational in their production decisions.

ILLUSTRATION OF THE PPF/C



Points along the PPF/C show the maximum amount of both capital goods and consumer goods that can be produced using all the available resources i.e. efficient utilization of resources.

If all resources are devoted to the production of capital goods, the economy/ country will have a maximum of K_o and no consumer goods.

If all resources are devoted to the production of consumer goods, the economy will have a maximum of C_o and no capital goods.

However, both commodities are needed in the society thus the society or producer would decide on how much of each commodity is to be produced. The society can either produce at point A (more capital goods and less consumer goods) or at point C (more consumer goods and less capital goods) or at point B (same amount of capital goods and consumer goods).

Along the PPF/C, society can produce more of one good but only by reducing the amounts produced of the other good. For example moving from point A to C, more consumer goods are produced but the amount produced of capital goods is reduced. A movement from one point to another along the PPF creates opportunity cost.

A point inside the PPF/C (Point D) represents under utilization of resources (excess capacity).

A point outside the PPF/C (point E) is desirable but unattainable because of scarcity of resources.

NOTE

Movement of the PPF/C outwards illustrates economic growth and better utilization of resources.

USE OF THE PPF/C TO EXPLAIN THE BASIC ECONOMIC PRONCIPLES

The PPF/C can be used to explain the concepts of scarcity, choice and opportunity cost.

a) Scarcity

Since resources are scarce, man is forced to produce along the PPF/C. man cannot produce beyond the PPF/C using the available resources and at constant technology.

b) Choice

A choice has to be made concerning how much of each commodity is to be produced. The society can decide to produce only capital goods or only consumer goods or a combination of the two.

c) Opportunity cost

Along the PPF/C, if society chooses to produce at point A rather than point B, then the value of the combination at point B becomes the opportunity cost.

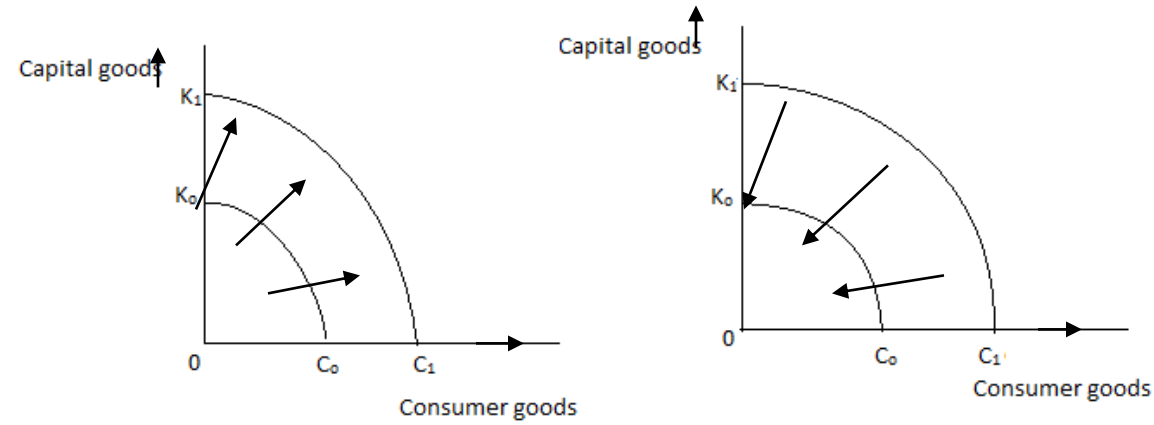
NOTE

For uses of the PPF/C, refer to the uses of the opportunity cost concept.

A SHIFT IN THE PPF/C

The PPF/C can either shift to the left (inwardly) or to the right (outwardly).

ILLUSTRATION



a) outward shift of the PPF

b) Inward shift of the PPF

Such a shift is caused by a change in factors that favour/disfavour production of both capital goods and consumer goods.

CAUSES OF THE PPF TO SHIFT OUTWARDS (Part a))

- ✓ Discovery of new natural resources e.g. oil deposits.
- ✓ Improvement in technology.
- ✓ Improvement in entrepreneurship skills.
- ✓ The economy becoming open leading to capital inflow.
- ✓ An increase in the size of the labour force.
- ✓ Improvement in the skills of workers/ increase in the efficiency of workers
- ✓ Increase in the level of capital stock.
- ✓ Political climate becoming favourable
- ✓ Improvement in the existing infrastructures.

CAUSES OF THE PPF TO SHIFT INWARDS (Part b))

- ✓ Depletion/ exhaustion of natural resources
- ✓ Decline in the level of technology.
- ✓ Reduced entrepreneurship ability
- ✓ Increased capital outflow.
- ✓ Decrease in the size of the labour force.
- ✓ Decrease in the skills of workers/decrease in workers efficiency

- ✓ Decrease in the level of capital stock.
- ✓ Political climate becoming unfavourable.
- ✓ Destruction of the existing infrastructures.

NOTE

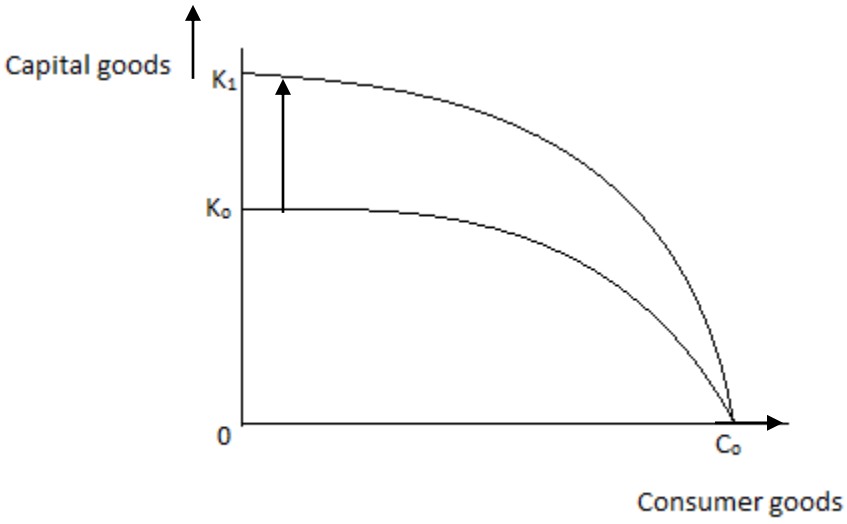
For factors that cause a shift in the PPF, begin with the word "change" in all your points.

Assignment

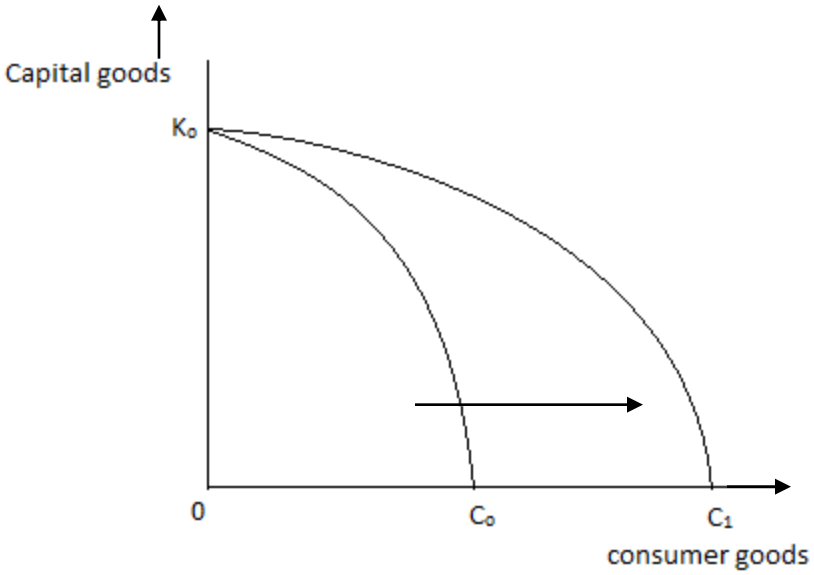
Outline any four factors that make the PPF to shift.

ROTATION OF THE PPF

This is caused by a change in factors that favour production of only one commodity. For example if the above mention factors such as technology, natural resource, etc change in favour of capital goods , the PPF will rotate as shown in the diagram below.



On the other hand if the factors change in favour of consumer goods, the PPF will rotate as shown in the diagram below.



5. **RESOURCES**

These are goods/ inputs out of which man produces goods and services to satisfy his wants.

OR

Resources are tangible and intangible things including human labour that man makes use of to satisfy his unlimited wants.

Examples of human resources include labour and entrepreneur.

Resources are also known as factors of production, factor inputs or means of production.

Resources can either **be renewable** or **non-renewable.**

Renewable resources are those resources which can be regenerated e.g. forests.

Non-renewable resources are those resources which cannot be regenerated e.g. minerals.

6. **GOODS/ COMMODITIES**

These are tangible items which satisfy human wants directly like clothes.

TYPES OF GOODS

a) Producer/ capital/ goods/ goods of second order.

These are goods used by producers to transform raw-materials into finished goods. These goods are used in the production of other goods. They satisfy human wants indirectly for example factory machines, buildings, raw materials, ovens, blender.

b) **Consumer/ final goods/ goods of first order.**

These are goods which are meant for final use by the final consumer and are capable of providing direct satisfaction to man's wants E.g. salt, soap, foodstuffs, books, clothes, cars, computer.

c) **Intermediate goods.**

These are goods which are produced but have not reached their final stage of production. That is they still need more processing in order to obtain a final good e.g. sugar canes are intermediate goods in the making of sugar, sugar in the making of sweets, wheat flour in the making of bread.

d) **Durable goods.**

These are goods which are capable of giving a long term service e.g. buildings, furniture, machines, television set, computers.

e) **Perishable goods.**

These are goods whose capacity to satisfy human wants ends after a short period of time i.e. they go bad after a short period of time e.g. vegetables, bread, meat, chapatti, milk.

f) **Private goods.**

Are those enjoyed solely/ exclusively by an individual such that one's consumption excludes others. A non owner must always seek permission from the owner before using the good E.g. personal cars, clothes, houses, laptops, textbooks, radio.

Characteristics of private goods

- ✓ They are excludable i.e. owners prevent those who have not paid for it from using the good/ no free – riders.
- ✓ There is rivalry in their consumption i.e. consumption by one necessarily prevents that of another.
- ✓ They involve direct payment to be consumed.
- ✓ They are scarce which causes competition for them

g) **Public goods.**

Are those which when provided, usually by the state, for a particular individual or group of individuals become available for others to use at zero or no extra costs and consumption by one person does not reduce the amount available for other users.

Examples of public goods include public roads, national defence, law and order, street lights, public clocks, public schools, public hospitals.

Characteristics of public goods

- ✓ Non-exhaustibility. Consumption by one person does not reduce the amount available for other users.
- ✓ Non-excludability. It is difficult to stop a person from consuming public goods or from getting the benefits of public goods.
- ✓ Non-divisibility (Indivisible). They are equally available to all individuals in the society.
- ✓ Usually provided by the state.
- ✓ They are indirectly paid for i.e. through taxes.
- ✓ No competition for them (There is non-rivalry in their consumption).

h) **Free/ natural/ original goods.**

Are those which exist in natural abundance and are enough for everyone to consume as much as they want at zero cost. E.g. rain water, sunshine, moonlight, soil, air, etc.

Characteristics of free goods

- ✓ They are provided by nature
- ✓ They are in abundant supply.
- ✓ They are consumed at zero cost.
- ✓ They provide utility.

i) **Economic goods.**

Are goods that are scarce and for one to consume them, a cost has to be incurred.

OR

Are goods that arise out of scarcity and choice.

Any commodity which is paid for is an economic good e.g. clothes, vehicles, pens.

Characteristics of economic goods

- ✓ They are relatively scarce.
- ✓ They provide satisfaction/ utility
- ✓ They command a price/ be marketable/ have a monetary value.

- ✓ They have opportunity cost.
- ✓ Their ownership is transferable

j) Merit goods.

Are those whose consumption is deemed intrinsically desirable and are meant to improve the quality of life of the people and their consumption should be encouraged. Examples of merit goods are safe water, health care and education.

k) **Demerit goods.**

These are goods considered to be socially undesirable and reduce the quality of life of individuals and the society at large e.g. cigarettes, alcohol, pornographic materials.

l) **Normal goods.**

These are goods whose demand increases as the consumer's income increases. E.g. first hand cars, first hand shoes, first hand suits.

m) Inferior goods.

Are those whose demand reduces as the income of the consumer increases e.g. cassava and beans, second hand clothes, second hand computers, second hand shoes.

OR

Are goods with negative income elasticity of demand.

n) Giffen goods.

Are those whose demand increases with the price and take a big percentage of the budget/ income of the low income earner e.g. the basic foodstuffs.

OR

Are goods with positive price elasticity of demand consumed by low income earners.

OR

Are goods with positive elasticity of demand and negative income elasticity of demand consumed by low income earners.

Examples of Giffen goods are basic foodstuffs like bananas, maize flour, bread, bread, cassava, potatoes etc.

NB

All giffen goods are inferior but not all inferior goods are giffen.

o) **Superior goods/ articles of ostentation/ luxuries/ status symbols.**

These are goods that are desirable only when they are expensive and people buy them show their class or to impress/ attract the attention of others for example golden earrings, sports cars, perfumes, golden watches, expensive phones, etc. The demand for superior goods increases as the price increases.

p) **Necessities/ essential goods.**

These are goods that that a consumer cannot do without for example food, shelter, water, clothing, soap, fuel. The demand for necessities first increases when there is an increase in the consumers' income up to a certain point beyond which further increase in income does not affect the quantity demanded. (Quantity demanded remains constant).

q) **Complementary goods.**

These are goods where the quantity demanded of one commodity varies inversely as the price of the other commodity. (As the price of one commodity goes up, the demand for the other falls).

OR

Complementary goods are goods that are consumed together.

Examples include cars and fuel, guns and bullets, tooth brush and tooth paste, etc.

r) **Substitute goods.**

These are goods where the quantity demanded of one commodity varies directly as the price of the other commodity. (As the price of one goes up, the demand for the other also rises).

OR

Substitute goods are goods which can be used for the same purpose.

OR

Substitute goods are goods which can be used interchangeably.

Examples include Colgate and fresh-up, tea and coffee, Omo and Nomi, etc.

7. SERVICES

These are intangible items that are helpful in making our lives comfortable and useful e.g. medical services, teaching services hair dressing services, banking services.

OR

These are intangible items used to facilitate the production of goods and services.

They can be classified as;

a) Personal services.

These are provided by individuals directly e.g. pastors, doctors, services of a teacher, etc.

b) **Commercial services**

These are services provided by institutions and are related to aids to trade e.g. insurance companies, communication networks, banking services, transport services, etc.

8. **HUMAN WANTS/ NEEDS**

These are desires of man which are satisfied by consuming goods and services.

They can also be defined as biological, physical and cultural needs of an individual or society.

They can be categorized as;

a) **Basic needs/ wants.**

These are necessities of life without which life would hardly exist. E.g. shelter, food, water and clothes.

b) **Secondary needs.**

These are needs that are required to make life comfortable. E.g. television sets, cars, air conditioners, etc.

c) **Material needs/ wants.**

These are desires which are satisfied through consumption of tangible/ physical goods e.g. desire for clothes, food, houses, chair, phone, etc.

d) **Immaterial needs.**

These are desires satisfied by consumption of services e.g. entertainment, security, health care, knowledge, etc.

e) **Private wants.**

These are desires of individuals and are always satisfied using personal resources e.g. the desire for eye glasses, wheel chair by a lame person, phone, etc.

f) Public wants/ needs.

These are collective needs of society which are satisfied by public goods and service e.g. the desire for public health centres, public schools, public roads, national defence, etc.

g) **Satiable wants.**

These are wants which can be satisfied by the available resources at a given period of time e.g. one's desire to quench thirst is satisfied by water for some hours.

h) **Insatiable wants.**

These are wants which cannot be satisfied using the available resources in a short period of time. Such wants cannot be satisfied because of the limited resources e.g. the desire for money and knowledge.

FEATURES/ CHARACTERISTICS OF HUMAN WANTS

- ✓ Human wants are unlimited i.e. they are endless e.g. man's desire for education, security, leisure is unlimited.
- ✓ They are dynamic, i.e. they keep changing from time to time depending on the prevailing social, political and economic conditions.
- ✓ They are varied, i.e. they are many and of different types e.g. spiritual, biological, physical, etc.
- ✓ They are competitive in nature, i.e. individuals always compete for the limited resources in order to satisfy the unlimited needs.
- ✓ They are recurrent (insatiable) i.e. there is a continuous need to satisfy wants from time to time/ they are hardly satisfied once and for all/ it is impossible to satisfy human wants. E.g. one's desire to quench thirst re-occurs.
- ✓ They are complementary, i.e. they are jointly satisfied e.g. one's desire for a car calls for other desires like buying fuel and car service.

9. WEALTH

Is a stock of productive goods/ assets which satisfy private and social needs of people.

OR

Wealth is the stock of assets and other resources existing in an economy at a given time which are used to generate more income.

FEATURES/CHARACTERISTICS OF WEALTH

- ✓ It is relatively scarce.
- ✓ It creates utility/ provides satisfaction
- ✓ It's ownership is transferrable
- ✓ It has a monetary value/ commands a price.
- ✓ Can be used to produce more wealth.

TYPES OF WEALTH

1. **Personal wealth.**

   These are assets that are owned by an individual and they are used to satisfy the individual owner, e.g. personal clothes, furniture, books, vehicle, house, land, cattle.

2. **Business wealth.**

   These are assets that are owned by a business firm with a view of making profits e.g. company vehicles, raw-materials, commercial buildings, industrial machines, generator and furniture.

3. **Social/ public/ collective wealth.**

   These are assets that are owned by the state/government and are collectively used by all members of the society, e.g. public roads, schools, hospitals, public springs/ wells, street lights.

10. ECONOMIC QUESTIONS

An economy or an individual is faced with a number of economic questions. These include;

a) **What to produce.**

Since resources or factors of production are scarce, a choice of what is to be produced must be made. Some societies would prefer to have more food, clothing and medical care while others would prefer more schools, roads and other forms of infrastructures.

b) **When to produce.**

That is choosing to produce now for present consumption or in the future. Most people prefer to consume now than postponing it for tomorrow. **"A bird in hand is better than a thousand in the bush."** A situation in which present consumption is preferred to future consumption is termed as **"positive rate of time preference"** while a situation in which future consumption is preferred to present consumption is termed as **"negative rate of time preference."**

c) **Where to produce.**

This concerns the location of the business. That is whether to produce near the source of raw materials or near the market or anywhere without considering any pull factor. A low cost locality is where the industry is usually located.

d) **How to produce.**

This concerns the method of production. That is whether to use capital intensive or labour intensive technology. In a country like Uganda where labour is abundant and cheaper than capital, more labour is used to produce goods and services. In contrast, developed countries have vast capital equipment and therefore use capital intensive methods at different production levels.

e) **For whom to produce.**

This concerns the nature of the consumers who are to consume the products. That is whether to produce for the rich or the poor, male or female, young, adults or old people and so on.

f) How much to produce.

This depends on the demand for the commodity and the objective of the firm. The more the demand for the commodity, the more quantities producers are likely to produce and put on the market. Also if the objective of the firm is to maximize sales, more is produced than when the firm's objective is to maximize profits.

11. ECONOMIC SYSTEMS

An economic system is an organization of ownership, allocation and distribution of resources in a given country. The above fundamental economic questions are answered differently depending on the type of economic system. There are three basic types of economic systems which exist in the world today and these are;

a) Free enterprise/free market/laissez faire/unplanned/ capitalist economy
b) Centralized/command/planned/socialist economy
c) Mixed economy.

THE FREE ENTERPISE ECONOMY

Is an economic system where resources are owned, allocated and distributed by private individuals through market forces of demand and supply with little or no government intervention.

CHARACTERISTICS/ FEATURES OF THE FREE ENTERPRISE ECONOMY

- ✓ Resources are owned by private individuals.
- ✓ The price is determined by the market forces of demand and supply.
- ✓ The production of commodities depends on demand.
- ✓ Producers aim at profit maximization and consumers aim at utility maximization.
- ✓ There are many buyers and sellers in the market.
- ✓ There is reliance on price mechanism in the allocation of resources.
- ✓ There is limited or no government intervention especially in resource allocation and decision making.
- ✓ Characterized by self interest.
- ✓ There is freedom of choice. Producers are not forced to produce certain commodities and consumers are not forced to consume what they do not want.

- ✓ Existence of high levels of competition amongst producers and consumers in both factor and commodity markets respectively.

MERITS OF THE FREE ENTERPRISE ECONOMY

1. There is limited wastage of resources since production is according to demand.
2. Encourages exploitation of idle resources. This results into creation of more employment opportunities.
3. Provides an incentive to economic growth. The private ownership of resources facilitates the exploitation and utilization of resources in an economy. This increases the production of goods and services hence economic growth.
4. Leads to production of better quality products due to competition in production.
5. Promotes efficient allocation of resources due to competition and the profit motive of producers.
6. Encourages creativity and innovativeness due to competition in production.
7. Encourages the growth of entrepreneurship due to the urge to earn high profits.
8. Consumers enjoy goods at lower prices due to benefits of competitive production. This leads to better standards of living.
9. Avoids administrative costs by the government because of automatic allocation of resources by the invisible hand.
10. There is low bureaucracy in decision making. This reduces wastage of time and delays because production decisions are quickly made without consulting government offices.
11. Promotes consumer sovereignty. This is because consumers are given freedom to decide on what is to be produced and consumed.
12. Provides a variety of goods and services due to a large number of producers.

DEMERITS OF THE FREE ENTERPRISE ECONOMY

1. Distorts consumer choices due to persuasive advertisement.
2. Subjects the economy to economic instabilities such as inflation, instability in balance of payments due to absence of government interference.
3. Leads to unemployment and underemployment due to closure of some weak firms.
4. Monopoly is likely to develop with its negative consequences especially exploitation of consumers. Monopolistic firms restrict output and charge high prices with an aim of maximizing profits.

5. Worsens income and wealth inequalities due lack of a regulatory body. Resource owners tend to accumulate a lot of wealth while the poor grow poorer.
6. Leads to wastage of resources through excessive advertisement and duplication of goods and services.
7. Does not provide public goods such as defence, justice and sewage collection and merit goods like education, public health and safe water. This mainly because it would be impossible to charge them prices since "free riders" are not excluded in their consumption.
8. Some resources may be over exploited leading to their quick depletion and others may remain idle.
9. Production of goods and services is in favour of the rich (luxury goods) than the poor (necessities). As a result, cheap goods disappear from the market.
10. Results into production and consumption of harmful but profitable goods like alcohol, cigarettes.
11. Does not respond to rapid/ sudden structural changes like flooding, famine, earthquakes which require proper government planning.
12. There is divergence between private benefits and social costs. Under free enterprise economy, private benefits overweigh public benefits. In trying to achieve private benefits, social costs rise e.g. pollution, deforestation, exhaustion of resources, etc.

NOTE

The government intervenes in a free market economy through its policies which include the following;

- ✓ Taxation
- ✓ Subsidization of producers
- ✓ Price legislation (maximum or minimum price)
- ✓ Government planning
- ✓ Rationing of consumers (government provides scarce resources to consumers)
- ✓ Wage determination (minimum wage)
- ✓ Formation of consumer associations through which the government sensitizes people about their rights.

THE COMMAND/COMMUNISM/ CENTRALLY PLANNED/ SOCIALIST ECONOMY

Is an economic system where resources are owned, allocated and distributed by the central authority on behalf of the citizens.

The government creates a department called the central planning authority and this department makes decisions on ownership, control and allocation of resources. Examples of countries that are largely socialist include Russia, China, North Korea, East Germany, Cuba.

FEATURES OF THE COMMAND ECONOMY

- ✓ Economic or productive resources are owned by the state i.e. the state owns all the natural resources and businesses in the country.
- ✓ The economic or productive resources are publicly owned. The productive resources belong to everyone in the country and are used with the guidance of the government.
- ✓ Prices are determined by the state that is by either setting a minimum price to benefit producers or a maximum price to benefit consumers.
- ✓ The main aim of production is to maximize peoples' welfare. The government does not aim at making profits but producing goods and services that improve peoples' welfare.
- ✓ Decisions pertaining to economic activities such as resource exploitation are handled by a central planning authority and therefore some resources are reserved for future use.
- ✓ Self reliance is always the major goal of the government whenever economic resources are being designed.
- ✓ There is limited competition in production because the government is not profit motivated and consumers have to wait for what the government is to provide.
- ✓ Extensive planning by the central authority is done. The government is in charge of planning for everything.

MERITS OF THE COMMAND ECONOMY

1. Income is fairly distributed since resources are publicly owned.
2. Resources are not wasted since there is effective planning for the economy. Scarce resources can therefore be effectively utilized.
3. It eliminates the inefficiencies that tend to result from meaningless competition.

4. Private monopolies are controlled by the state. This helps to protect the consumers from being exploited in form of high prices charged by private monopolists.
5. People's welfare is improved since emphasis in production is on welfare and not commercial gains.
6. It ensures that adequate resources are devoted to production of public and merit goods.
7. The system can cope with rapid structural changes such as drought, famine, floods, earthquakes, etc through proper planning by the central planning authority.
8. The system caters for the unprivileged groups of people in the society such as the lame and the poor hence equal distribution of opportunities.
9. It controls the production of harmful products in the economy. The government is in position to regulate the production of such commodities like alcohol, cigarettes through taxation.
10. Some key areas like production of fire arms cannot be left in the hands of private individuals. This is because it may cause insecurity in the country hence a need for a planned economy.
11. More employment opportunities are provided as the government tries to improve welfare and even out income distribution.

DEMERITS OF THE COMMAND ECONOMY

1. Many officials are required to estimate wants and to direct factors of production accordingly. This results into high costs.
2. It is hard to accurately estimate peoples' needs since there are many. This leads to wastage of resources due to poor judgement of wants and some needs may remain unsatisfied.
3. Bureaucracy and red tape which are associated with the system lead to delay in production and planning. This makes development to move at a slow pace.
4. There is inefficiency in production due to absence of stiff competition.
5. The quality of final goods and services produced is low due to lack of competition.
6. Limited variety of goods is produced as government's interest is in provision of necessities of life. This limits the choice of consumers and they may be forced to consume goods which are not of their choice.
7. The system is a disincentive to private or individual initiative due to state ownership of resources. I.e. what belongs to the state is no man's resource.
8. The system is associated with limited inventions and innovations due to absence of competition.
9. The system is associated with high levels of corruption and embezzlement of government funds. This is because the sector cannot supervise all the sectors effectively.

10. It leads to imbalance in regional resource allocation and development. This is due to state influence in resource distribution basing on political support.

11. It leads to budgetary deficits in the economy. This is due to high administrative costs and subsidization of parastatals which are not economically productive.

12. It is difficult to coordinate all the economic activities at the same time. This is because the government has a lot of responsibilities.

ASSIGNMENT

Present the advantages of capitalism over socialism.

MIXED ECONOMY

Is one where resources are owned, allocated and distributed by both the state and the private individuals (market forces of demand and supply).

FEATURES OF A MIXED ECONOMY

- ✓ Ownership of resources is both by the state and private individuals. Some productive resources like land and industries belong to the government while others are privately owned.
- ✓ Economic decisions are made by both the state and private individuals.
- ✓ Production is both for profit and welfare maximization. The state produces goods to improve peoples' welfare while private individuals produce to maximize profits.
- ✓ Resource allocation is by both the market forces of demand and supply and the central planning authority.
- ✓ There is co-existence of both the private and public sector.
- ✓ There is existence of indicative planning. Indicative planning is one where the government draws plan targets and provides (conducive) political, social and economic policies to guide the private sector but it does not participate in plan implementation.
- ✓ Regulated competition in production and consumption. The government uses its authority to check on competition between firms.

MERITS OF A MIXED ECONOMY

1. Limited resource wastage due to regulated competition.
2. Better quality products are produced because of competition between the private and public sectors.
3. Production of a wide variety of products by both the private and public sectors
4. Reduced income inequalities due to state control.
5. Individuals' self interests are regulated e.g. over exploitation of resources and consumer exploitation.
6. It increases employment opportunities due to existence of both the private and public sectors.
7. The public sector provides essential goods and services that the private sector would not provide.
8. There is economic stability due to government intervention.
9. Increased rate of economic efficiency in production due to competition and planning.
10. The taxes got from the private sector can generate income for the government to fulfill its obligations.

DEMERITS

1. In most cases, the private sector suffers from restrictions and taxes imposed by the state yet the public sector is subsidized thus the ground for competition is not leveled.
2. Where the private sector is dominant, the consumers are exploited by the profit motivated producers. The producers can also influence government decisions politically and economically.
3. An inefficient public sector is a big burden to the government since the government incurs losses, experiences corruption and nepotism. If the public sector is kept on going by the state through subsidies which increase its expenditures, it will lead to public debts and an increased debt burden.

THE ROLE OF GOVERNMENT IN A MIXED ECONOMY

NB:

In economics, we look at the **role of**……..from a **functional perspective** i.e. in this particular case, we focus on what the government does or what it puts in place in a mixed economic system. Hence the role (functional work) of government in a mixed economy is thus;

1. **Enacting and enforcing laws that govern trade or business activities.** The government creates a set of laws for example the law of contract, consumer protection laws, Sale of goods Act, Food and drugs Act, etc. such laws help in regulating the way commercial activities are to be conducted in an economy.

2. **Supplementing and modifying the price mechanism.** The government in a mixed economy may intervene in the working of price mechanism through measures like price controls, taxation and subsidization. For example, legislation of maximum price by the government helps in protecting consumers from being exploited by producers through over charging.
3. **It reduces or checks income inequality.** The government uses policies like progressive taxation, supporting small and medium scale enterprises, diversification of the economy, etc to create a fair distribution of income among people in an economy. Fair distribution of income promotes savings and investment.
4. **Ensuring macro-economic stability.** The government is in charge of fighting inflation by regulating the volume of money in circulation. It also ensures that the exchange rates are stable in order to promote international trade. Macro-economic stability is important because it promotes investment which gives rise to production of more goods and services.
5. **Providing essential goods and merit goods to the public at affordable prices.** The government in a mixed economy provides merit goods such as safe water, health care (immunization programmes) and education usually at subsidized costs. E.g. The government of Uganda is currently providing universal primary and secondary education in government – aided schools.
6. **It checks social costs (negative externalities) in a country.** The government uses environment protection laws to check or reduce the degradation or pollution of the environment. It ensures that there is proper treatment and disposal of industrial waste, garbage. By controlling the social costs, the government is able to improve the quality of life of the people.
7. **Ensuring that political stability prevails in an economy.** By promoting political stability, there is assured security of life and property of people. This stimulates investment both in the public and private sector.
8. **It levies taxes to generate revenue to finance her development programmes or activities.** The government is able to finance its capital and re-current expenditure by using the revenue generated from taxes levied on incomes of individuals, goods, profits of companies, etc.
9. **Undertaking strategic ventures which cannot be left in the hands of private investors.** Such ventures include the manufacturing of ammunitions, printing of the national currency, etc.
10. **Undertaking projects that require large initial capital which the private investors are unable to raise.** Such projects include construction of hydro – electric power generating dams, construction of

roads and rail lines, etc. By financing such projects, the government directly supports the activities of the private sector.

11. **Influencing the location of industries in particular areas.** This is achieved by gazetting land for industrial activities such that the areas become industrial estates. For example Namanve industrial estate which was gazetted by the government of Uganda.
12. **Supporting up-coming investors by providing investment incentives such as tax holidays and subsidies.** These investment incentives help investors to incur lower costs of production. This increases production by private investors in a mixed economy.
13. **Formulating/ laying down plans to be followed by the private sector or private investors and the public sector.** For example, the **Plan for Modernization of Agriculture** (PMA) which was designed by the government of Uganda requires participation of both the public and private sector in the economy for its effective implementation.
14. **Providing and maintaining the physical infrastructure in an economy (roads, rail lines, power dams).** Such infrastructure greatly supports the production process leading to increased output in terms of goods and services. The production of more goods and services gives rise to economic growth.
15. **Ensuring creation of more employment opportunities for its people.** In a mixed economy, government sets up and runs public enterprises that operate alongside private enterprises. Private and public investment expands and more jobs are created. The employed people earn income to buy basic needs of life and this improves their standard of living.

PRICE THEORY

Price theory is a microeconomics principle that involves the analysis of demand and supply in determining an appropriate price point for a good or service.

This section is concerned with the study of prices and it forms the basis of economic theory.

PRICE DEFINITION

Price is the exchange value of a commodity expressed in monetary terms.

OR

Price is the monetary value of a good or service.

For example the price of a mobile phone may be shs. 84,000/=.

PRICE DETERMINATION

Prices can be determined in different ways and these include;

1. **Bargaining/ haggling.**

   This involves the buyer negotiating with the seller until they reach an agreeable price. The seller starts with a higher price and the buyer starts with a lower price. During bargaining, the seller keeps on reducing the price and the buyer keeps on increasing until they agree on the same price.

2. **Auctioning/ bidding**

   This involves prospective buyers competing to buy a commodity through offering bids. The commodity is usually taken by the highest bidder.

   This method is common in fundraising especially in churches, disposal of public and company assets and sell of articles that sellers deem are treasured by the public.

   Note that the price arising out of an auction does not reflect the true value of the commodity.

3. **Market forces of demand and supply.**

   In this case, the price is determined at the point of intersection of the market forces of demand and supply. This is common in a free enterprise economy. The price set is called the equilibrium price.

4. **Fixing price by treaty/ agreement.**

   This involves the buyer sitting with the seller to negotiate and fix the price at which a good or service shall be sold and the price remains fixed. The price agreed upon at the time of signing the agreement can be changed or revived by amending the treaty. For example hire purchase and deferred payments agreement, rental agreements, land purchase agreements

5. **Price leadership**

   This is the setting of price by either a leader firm or low cost firm in the industry and other firms follow by charging the same price. This form of price determination is common in oligopolistic firms.

   Price leadership takes on the following forms;

   - Dominant price leadership
   - Barometric price leadership
   - Aggressive or exploitative price leadership

6. **Price legislation/ control/ administration.**

   This is where the government fixes prices of commodities that is either a maximum price to protect consumers or a minimum price to protect producers.

7. **Offers at fixed prices**

   This is where individuals, government and institutions set the price at which a commodity is to be sold and whoever is to buy from them must pay the fixed price. For example UNEB fixes prices for its examinations, UMEME for a unit of electricity, NWSC for a litre of piped water, in super markets.

8. **Collusion.**

   This involves sellers agreeing on the price to charge the buyers. It is common when there are few sellers who wish to reduce competition among them and avoid price wars.

   For example different operators of bus services can collude or agree to charge a uniform transport fare from passengers on given routes along which their buses operate.

9. **Resale price maintenance.**

   This is a mechanism of price determination where manufacturers set the prices at which their commodities are to be sold to the final consumers by retailers. The price is usually written on the commodity. In Uganda, resale price maintenance is practiced by;

   - ❖ Post office on stamps
   - ❖ The press industry on newspapers
   - ❖ The telecommunication network industry on airtime cards, simpacks and phones on promotion.

MERITS OF RESALE PRICE MAINTENACE

1. Ensures price stability in the market.
2. Stabilises income and profits of retailers
3. Protects small retailers from being outcompeted by large scale retailers.
4. Saves time which would have been spent on bargaining.
5. Enables producers to easily calculate their revenue from sales.
6. Reduces consumer exploitation in form of increased prices by sellers/ retailers.
7. Facilitates the collection of taxes by government because prices are stable.
8. Enables consumers to make consumption plans/ budgets.

CLASSIFICATION OF PRICE

Price may be classified into;

a) **Market price**

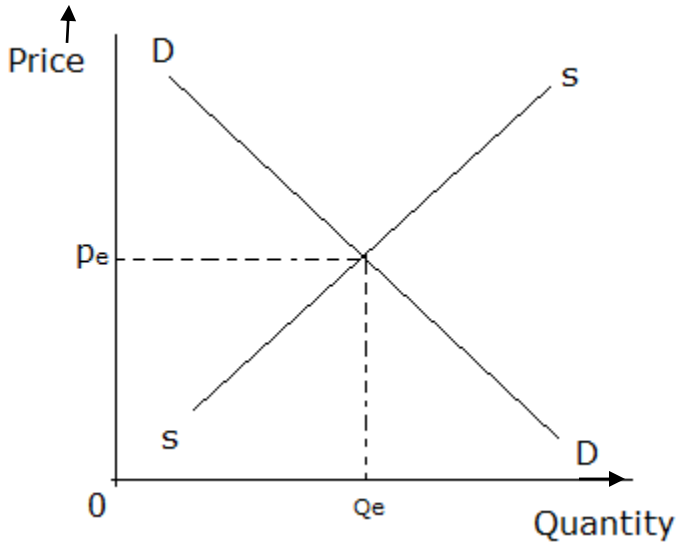
This is the ruling/ prevailing price in the market at a particular time determined by buyers and sellers. This price changes from time to time since it is determined by a number of factors.

b) Equilibrium price

This is the price at which quantity demanded is equal to quantity supplied in the market.

The equilibrium quantity and price are got at the point of intersection of the demand and supply forces.

Illustration



OP_e is the equilibrium price.

a) Normal price

Is the price attained/ obtained when quantity demanded equals quantity supplied in the long run.

OR

This is the long run equilibrium price that persists in the market when supply and demand conditions have settled. It is an ideal price which may never be realized and the market price tends to oscillate around it.

b) Reserve/ reservation price.

Is the least/ minimum/ lowest price a producer/ seller is willing to accept in exchange of his/ her commodity below which he/ she retains the commodity.

DETERMINANTS OF RESERVE PRICE

1. **Expected future demand for a commodity.**

A producer who expects demand for his commodities to increase in the nearby future sets a high reserve price to retain many goods for sell in the future when demand increases while a producer who expects demand for his commodities to fall in the nearby future sets a low reserve price currently so as to sell off the commodity very fast before demand falls.

2. **Expected future price of the commodity.**

   A seller who expects the future price of the commodity to increase sets a high reserve price so as to retain many goods for sell at a higher price in the future. However, sellers expecting reductions in future prices set low reserve prices such that they sell more currently and avoid the lower prices in the future.

3. **Nature of the commodity (perishable goods vs durable goods)**

   A seller dealing in durable goods sets a high reserve price because his goods are long lasting and can remain in good condition even when not bought urgently. However, a seller who deals in perishable goods sets a low reserve price to sell off the goods before they go bad.

4. **Degree of necessity of the commodity.**

   Sellers dealing in commodities with a high degree of necessity set high reserve prices because they know that consumers cannot do without them. However, sellers dealing in commodities with a low degree of necessity set low reserve prices because they know that consumers can do without them.

5. **Size of transport (carriage) and storage charges.**

   High storage and transport charges lead to a low reserve price because the seller wishes to sell off the commodity very fast before incurring more of these charges. However, low transport and storage charges lead to a high reserve price because the seller is not scared of transporting or storing goods for a long period of time.

6. **The length of the gestation period**

   A long gestation period leads to a high reserve price because the producer is aware of the inconveniences he/ she is going to go through to produce the next commodities. However, a short gestation period implies that the seller needs less time to produce the commodity and therefore he sets a low reserve price.

7. **Level of liquidity preference of the producer/seller.**

   Sellers with urgent need for cash (high liquidity preference) set low reserve prices to ensure that they actually sell the goods for the money they need. However, sellers with no urgent need for cash (low liquidity preference) set high reserve prices.

8. **The cost of production.**

   Producers who incur high costs of production set high reserve prices because it is expensive for them to replace the sold goods. However, producers who incur low costs of production set low reserve prices because it is cheap for them to replace the sold goods.

   NB

   1. ***Gestation period is the time it takes before new supplies of goods reaches the market for example maize takes 3-4 months while mushrooms take 1 month.***
   2. ***Liquidity preference (demand for money) is the desire by individuals to hold assets/ wealth in cash form or near cash form (rather than investing it).***

ASSIGNMENT

Explain the factors that lead to high reserve price.

FACTORS THAT INFLUENCE PRICING OF GOODS AND SERVICES

1. **Forces of demand and supply.**

   As supply exceeds demand, low prices are set due to a surplus of commodities on the market. However when demand exceeds supply, high prices are set for commodities because they are scarce.

2. **Aim/ objective of the producer.**

   Where producers aim at profit maximization, they restrict output charge a high price and where producers aim at sales maximization, they charge relatively lower prices to encourage people to buy as much quantities as possible.

3. **Cost of production.**

   High cost of production leads to a high price set since producers aim at profit maximization and low cost of production leads to a low price set for the commodity.

4. **Rate of taxation.**

   Heavy taxes imposed on goods and services lead to high prices set since producers tend to shift the burden of paying taxes to consumers in form of increased prices. However, low taxes imposed on goods and services lead to low prices set.

5. **Quality of the commodity.**

   High quality goods are highly priced since producers incur high costs in producing them while low quality goods are lowly priced as they are cheap to produce.

6. **Elasticity of demand for a commodity.**

Producers set high prices for commodities whose demand is price inelastic since people continue to buy even if prices increase and they set low prices for those whose demand is price elastic since any slight increase in price results a big fall in quantity demanded.

USES OF PRICE IN A MARKET ECONOMY

- It is used to determine what to produce.
- It is used to determine how to produce.
- It is used to determine where to produce.
- It is used to determine for whom to produce
- It is used to determine when to produce.
- It is used to determined how much to produce.
- It is used to determine the value of a good.

THE MARKET CONCEPT

A market is a mechanism in which buyers and sellers come into contact and exchange goods and services.

A market where goods and services are traded is known as a **commodity market.**

FEATURES OF A MARKET

- ✓ There should be sellers
- ✓ There should be buyers
- ✓ There should be an interaction between sellers and buyers.
- ✓ There should be a commodity to be exchanged.
- ✓ There should be an established medium of exchange.

DEMAND THEORY

DEFINITIONS

Demand is the desire backed by the ability to pay a given amount of money for a particular amount of a commodity in a given period of time.

OR

Demand is the amount of a good that a consumer is willing and able to buy at a given price in a given period of time.

Market demand is the total demand for a commodity in the market by all consumers at a given price in a given period of time.

Effective demand is the actual buying of goods and services at a given time.

TYPES OF DEMAND

1. **Joint/ complementary demand.**

   This is the demand for commodities which are used together; an increase in the demand for one commodity leads to an increase in the demand for the other commodity.

   Examples of joint demand include;

   - Demand for cars and fuel
   - Demand for books and pens
   - Demand for DVD players and DVDs.
   - Demand for guns and bullets
   - Demand for cameras and films
   - Etc

2. **Competitive demand.**

   This is the demand for commodities which serve the same purpose; an increase in the demand for one commodity leads to a decrease in the demand for the other commodity.

   Examples of competitive demand include;

   - Demand for butter and honey
   - Demand for bread and cakes
   - Demand for tea and coffee
   - Demand for Omo and Nomi
   - Demand for close up and fresh up
   - Demand for beans and peas
   - Etc

3. **Independent demand.**

   This refers to demand for commodities which are not related such that the demand for one commodity does not directly affect the demand for another commodity.

   Examples of independent demand include;

   - Demand for clothes and food
   - Demand for a car and a pen

- Etc

4. Composite demand

This is the total demand for a commodity which has several/ many uses.

Examples of composite demand include;

- Demand for electricity (for lighting, ironing, cooking, etc)
- Demand for water (for cooking, bathing, etc)
- Demand for timber (for construction, furniture making, manufacturing, etc)
- Demand for cotton wool (for cloth making, cushioning, cleaning, etc)
- Demand for steel (for manufacturing machines, motor cars, roofing, etc)
- Demand for clay (for making pots, bricks, cups, etc)
- Demand for an axe (for splitting wood, tool of defence, etc)
- Demand for skins and hides (for making shoes, bags, belts, etc)
- Demand for paper (for making books, bank notes, envelopes, toilet paper, etc)
- Demand for cloth (for adornment, protection, etc)
- Etc.

5. Derived demand.

This is the demand for a commodity not for its own sake but for the sake of what it helps to produce.

OR

It is the demand for a commodity due to the demand for the commodity that it helps to produce.

Examples of derived demand include;

- Demand for land
- Demand for labour
- Demand for capital
- Demand for entrepreneurship
- Demand for organisation.

ASSIGNMENT

1. a) What is composite demand? (01 mark)
   b) State any three examples of commodities with composite demand in your country. (03 marks)

THE DEMAND SCHEDULE

This is a table showing the amount of a commodity demanded at various prices by a consumer or groups of consumers during a particular period of time. This schedule can be compiled either for an individual or for all individuals in the market.

INDIVIDUAL AND MARKET DEMAND SCHEDULES

Price (in Shs. Per kg)	Quantity demanded By Consumer A	Quantity demanded by Consumer B	Market demand (in kg)
5,000	40	20	60
4,000	60	40	100
3,000	80	60	140
2,000	100	80	180
1,000	120	100	220

The market demand schedule is derived by horizontal summation of the quantities purchased at each price by all the individuals / consumers in the market. The quantities in the market schedule are larger than those of the individuals demand schedule.

One major characteristic of a demand schedule is that the higher the price the lower the quantity demanded and the lower the price the higher the quantity demanded of the commodity in question other factors being constant.

The information tabulated in a demand schedule can be summarized or represented graphically on a curve

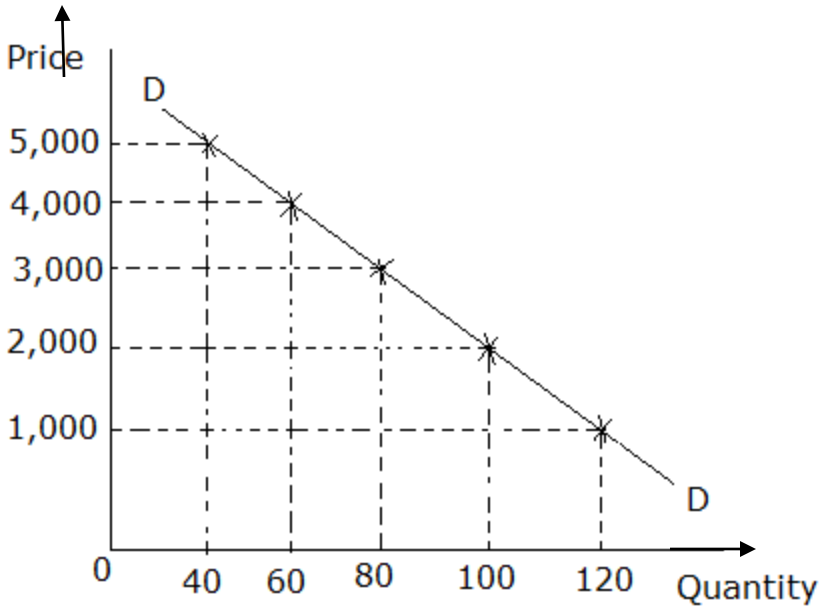
THE DEMAND CURVE

The demand curve is a graphical representation of the demand schedule.

The demand curve is a locus of points showing the quantities demanded of a commodity at various prices in a given period of time.

Price is represented on the vertical axis while quantity demanded is on the horizontal axis.

From the above table, an individual demand curve (Consumer A) can be drawn as shown below.



A normal demand curve is downward sloping from left to right, that is it has a negative slope meaning that there is an inverse relationship between price and quantity demanded. (As the price increases, quantity demanded decreases and vice versa).

QUALITIES OF A NORMAL DEMAND CURVE

1. It must be downward sloping from left to right.
2. It should not touch either of the axes. If it touches the Y-axis, it implies that a consumer incurs a cost for a commodity which has not been obtained. (He pays a price at zero quantity). If it touches the X-axis, it implies that the consumer is buying a commodity at zero prices.

THE LAW OF DEMAND

The law of demand states that "the higher the price of a commodity, the lower the quantity demanded and the lower the price of a commodity, the higher the quantity demanded holding other factors constant (Ceteris paribus).

REASONS WHY THE DEMAND CURVE SLOPES DOWNWARDS FROM LEFT TO RIGHT (EXPLAINING THE LAW OF DEMAND)

A normal demand curve is one that slopes downwards from left to right following the law of demand. The following reasons explain why the demand curve slopes downwards from left to right.

1. **The law of diminishing marginal utility**

   According to this law, when a consumer buys more units of the commodity, the marginal utility of that commodity continues to decline; and therefore the consumer will buy more units of the commodity only when the price reduces. When fewer units are available, utility will be high and the consumer will be prepared to pay more for that commodity. This proves that demand will be low at a higher price and that is why the demand curve is downward sloping.

2. **The substitution effect of a price change.**

   When the price of the commodity falls, the price of substitutes remaining the same, a consumer reduces the quantities of other substitute goods whose prices now appear relatively high and increases the quantity of the commodity whose price has fallen. When the price of the commodity under consideration increases, the consumer leaves the commodity and buys the substitutes, given constant prices of substitutes hence the downward sloping demand curve.

3. **The income effect of a price change. (Real income effect)**

   When an individual has a fixed income and the price of the commodity reduces, his real income increases and hence he can buy more units of the commodity with his fixed income. On the other hand when the price increases, the consumer's real income decreases and hence he buys less units of the commodity hence the downward sloping demand curve.

4. **The total effect of a price change.**

   This is the combination of the substitution and income effects. When the price of the commodity falls, the quantity demanded increases because many new buyers are attracted while an increase in price leads to a decrease in demand because it scares away buyers hence the inverse relationship between price and quantity demanded which produces a downward sloping demand curve.

5. **Behaviour/presence of low income earners.**

   The demand curve depends upon the behaviour of low income earners. They buy more when price reduces and less when the price increases. This leads to a downward sloping demand curve. (The rich do not have effect on the demand curve because they are capable of buying the same quantity even at a higher price)

6. **Different/various uses of certain commodities.**

   Some goods have more than one use e.g. water, electricity, etc such that when the price of the commodity increases, consumers tend to use it for essential purposes only hence reducing on its

demand. On the other hand when the price reduces, the consumers put the commodity to many uses thereby increasing quantity demanded hence a downward sloping curve.

DETERMINANTS/ FACTORS INFLUENCING/ AFFECTING DEMAND.

1. **Price of the commodity in question.**

   A high price leads to low demand because it scares away some buyers. However, a low price attracts new buyers hence high commodity demand.

2. **Price of substitutes.**

   A high price of substitutes leads to high commodity demand because the commodity appears relatively cheaper. On the other hand, a low price of substitutes leads to low commodity demand because the commodity appears to be relatively expensive.

3. **Price of complements.**

   A high price of a complement leads to low commodity demand because it is expensive to use both goods together. On the other hand a low price of a complement leads to high commodity demand because it is cheap to use both goods together.

4. **Level of consumer's income.**

   High level of consumer's income leads to high purchasing power hence high commodity demand. However, low level of consumer's income leads to low purchasing power hence low commodity demand.

5. **Tastes and preferences of consumers.**

   Favourable tastes and preferences result in high commodity demand because they are able to raise the consumer's interest in the commodity. However, unfavorable tastes and preferences result into low commodity demand because they make the consumer to develop bias against the commodity.

6. **Population size.**

   A large population size creates high commodity demand because it is associated with many buyers. However, a small population size leads to low commodity demand because it has few buyers.

7. **Nature of income distribution.**

   A fair distribution of income leads to high commodity demand because many people can afford to purchase a commodity. However, high level of income inequality between individuals and different groups of people leads to low commodity demand because there are few people who can afford to purchase the commodity.

8. **Future price expectation.**

Expectation of a high price in the nearby future leads to high commodity demand currently because buyers stock more goods to avoid the higher prices in the future. However, expectation of a low price in the nearby future leads to low commodity demand currently because the buyer reserve some money so as to buy more when the price falls.

9. **Government policy on taxation.**

   High level of direct taxation leads to low commodity demand because people have low disposable income while low level of direct taxation leads to high commodity demand because people have high disposable income.

10. **Seasonal factors.**

    Certain commodities are demanded in particular seasons. Favourable season leads to high commodity demand and unfavourable season leads to low commodity demand. It is common to see vendors selling success cards during examination periods, Christmas cards in Christmas period and Easter cards in the Easter period. However outside those periods, one can hardly find them on the market because no one is willing to purchase them.

11. **Level of advertising.**

    A high level of advertising leads to high commodity demand because it results into high level of awareness of the consumers about the availability of the commodity. On the other hand, low level of advertising leads to low commodity demand because it leads to low level of awareness of the consumers about the availability of the commodity.

12. **The prevailing economic conditions in an economy.**

    Commodity demand tends to be high during periods of economic prosperity (boom) because during such times, people are employed and earn fair income to purchase the commodity. However, commodity demand is low during periods of economic depression because many people have no jobs and thus have no income to purchase the commodity.

13. **Quality of the commodity.**

    A high quality of the commodity encourages people to buy hence high commodity demand while a low quality of the commodity forces people to abandon it hence low commodity demand.

14. **Availability of credit facilities.**

    Commodity demand is high when consumers are allowed to take goods on credit because many consumers without immediate cash are able to buy the commodity. However, commodity demand is

low when consumers are not allowed to buy goods on credit because the few buyers with cash are the only ones who buy.

15. **The law of diminishing marginal utility.**

    With high marginal utility, commodity demand is high because the commodity is highly enjoyable and satisfying to the buyer. However at low marginal utility, commodity demand is low because the commodity is less enjoyable and satisfying to the buyer.

16. **Socio-economic factors.**

    These include age, sex, religion, culture etc. One or a combination of these factors to some extent influence demand for a commodity. For instance demand for pork is low in places where there are many Muslims as compared to places where there are many Christians especially Catholics and Pentecostals.

ASSIGNMENT

1. Explain the factors that lead to high demand of a commodity.
2. Explain the factors that lead to low demand of a commodity.

SHIFTS IN DEMAND

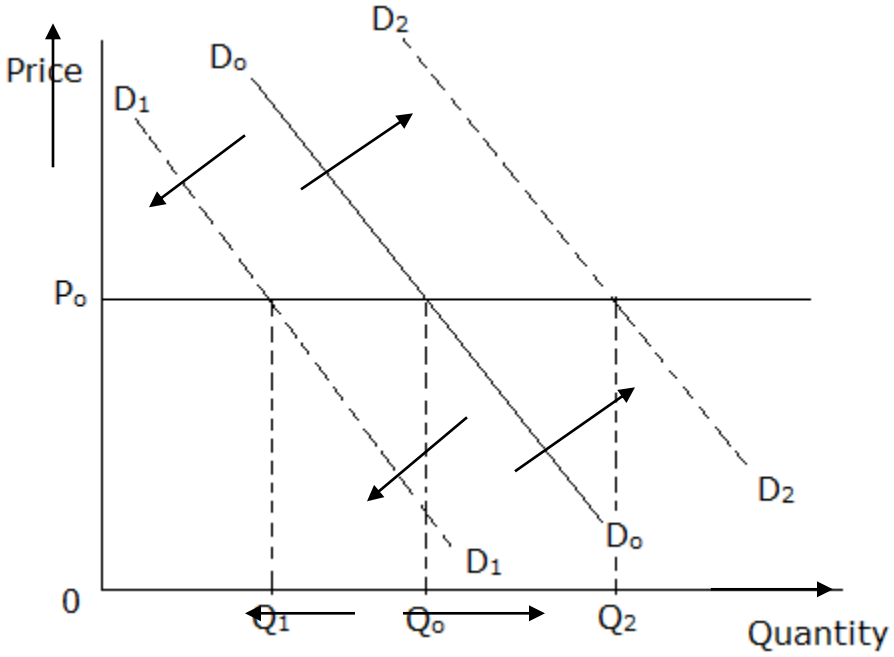
These involve change in demand and change in quantity demanded.

CHANGE IN DEMAND

A change in demand refers to an economic situation where more or less units of a commodity are demanded at a constant price brought about by a change in other factors affecting demand for that particular commodity.

It is illustrated by a total shift of the demand curve either inwards to the left or outwards to the right holding the commodity price constant.

Illustration



From the above illustration, D_OD_O is the original demand curve.

D_1D_1 shows a shift of the demand curve inwards from D_OD_O representing a decrease in demand.

D_2D_2 shows a shift of the demand curve outwards from DoDo representing an increase in demand.

QUESTION

Explain the factors that cause a change in demand for a commodity.

Solution

NOTE

1. The factors that cause a change in demand are generated from the determinants of demand other than the commodity's own price.
2. Words that can be used when stating the point include;
   - Change
   - Variations
   - Instabilities.

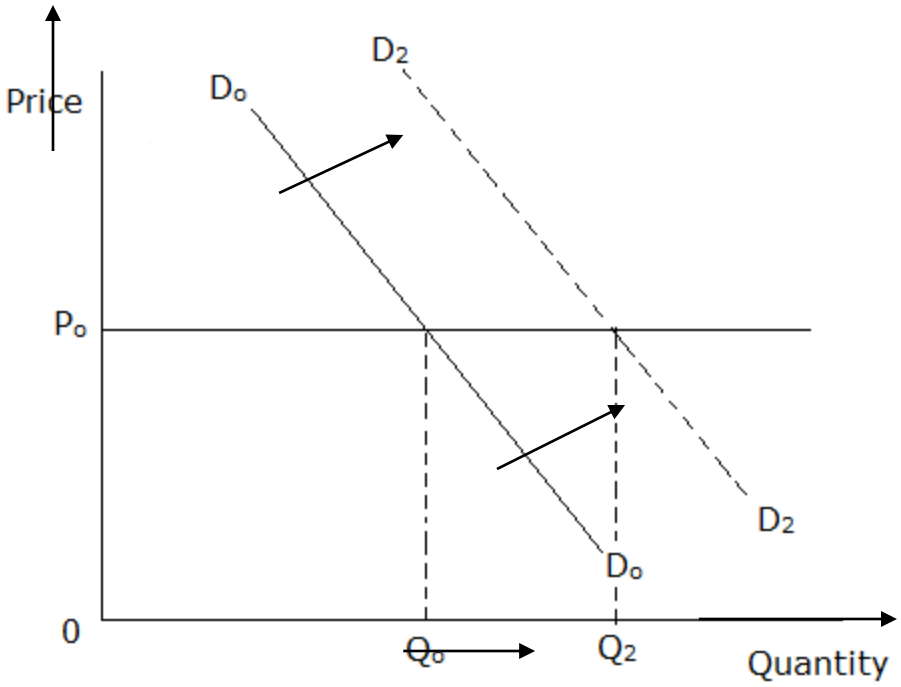
3. Avoid words like high/ low in your explanation. Use words like increase, rise, decrease, decline, fall, etc.

1. A change in prices of substitutes.
2. A change in prices of complements.
3. A change in the level of consumer's income
4. A change in the population size
5. Expectation of a future change in the price of the commodity.
6. A change in government policy of taxation and subsidization.
7. A change in the level of advertisement.
8. A change in seasons.
9. A change in tastes and preferences
10. A change in the quality of the commodity
11. A change in the economic conditions.
12. A change in the nature of distribution of income.

INCREASE IN DEMAND

This is the demand for more quantities of a commodity due to conditions of demand/ factors that influence demand becoming (more) favourable while holding price of the commodity (in question) constant.

It is represented by a total shift of the demand curve outwards to the right holding the commodity price constant.



ASSIGNMENT

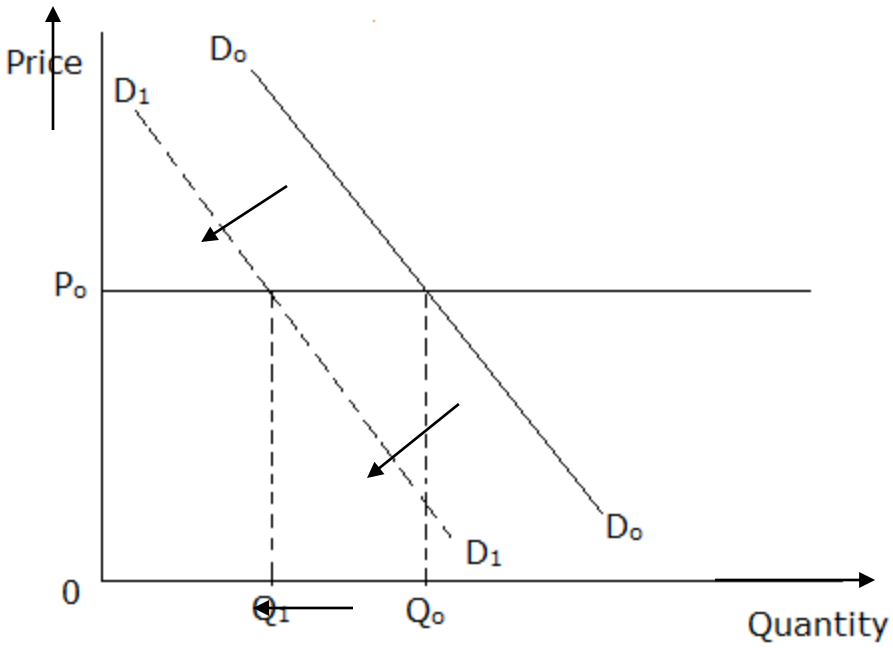
Explain the factors that lead to an increase in demand for a commodity in your country.

(20 marks)

DECREASE IN DEMAND

This refers to a decline in quantity demanded of a commodity due to factors that influence demand becoming unfavourable while holding price of the commodity (in question) constant.

It is represented by a total shift of the demand curve inwards to the left holding the commodity price constant.



ASSIGNMENT

Account for a decrease in commodity demand in your country (20 marks)

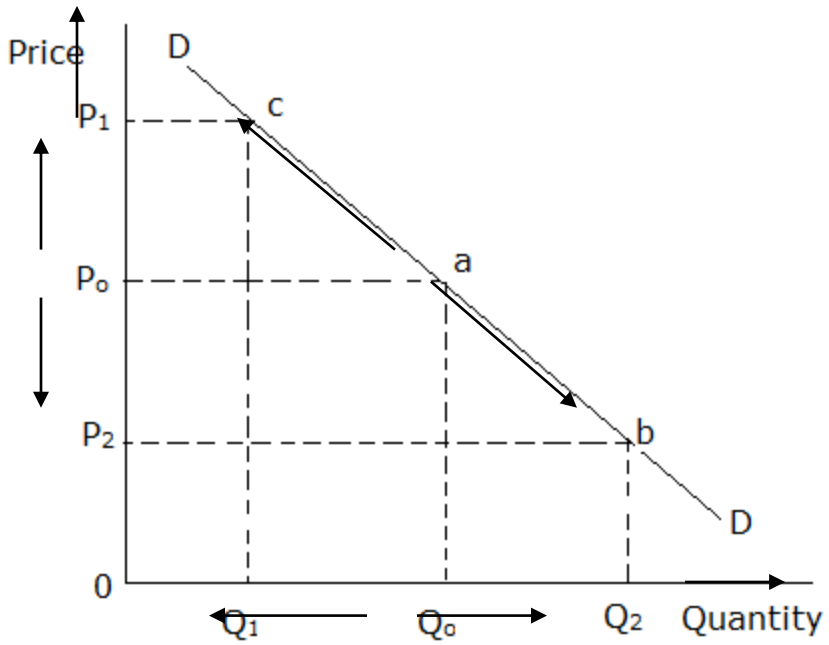
CHANGE IN QUANTITY DEMANDED

This is an economic situation where more or less units of a commodity are demanded due to change in its price when other factors affecting demand for that particular commodity have not changed.

OR

A change in quantity demanded refers to a rise or fall in the amount of a commodity demanded due to changes in price levels of a commodity assuming other determinants of demand are held constant. It is illustrated by the movement along the demand curve either upward due to price increase or downward due to price fall.

Illustration



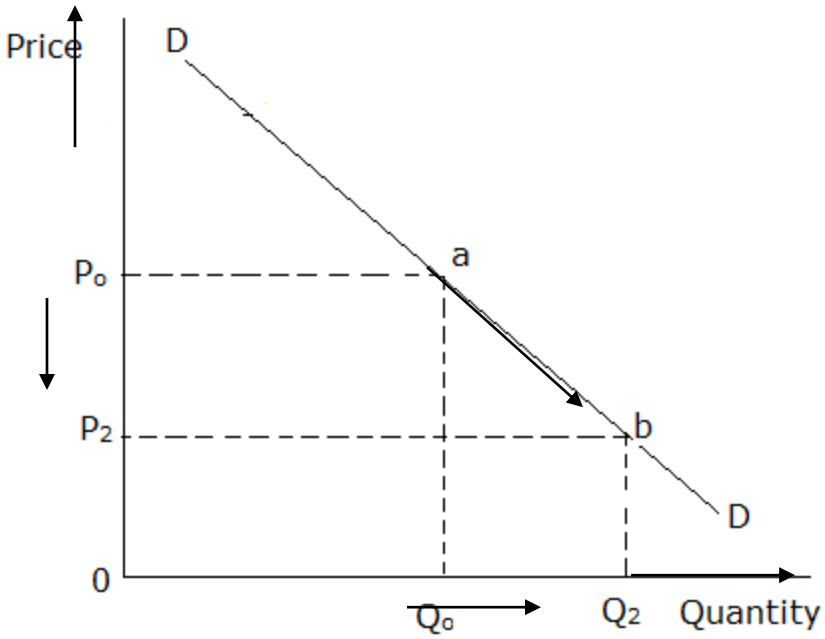
A fall in price from OP_o to OP_2 leads to an increase in quantity demanded from OQ_o to OQ_2 as illustrated by the movement along the demand curve downwards from point a tob.

A rise in price from OP_o to OP_1 leads to a decrease in quantity demanded from $OQ_o$to OQ_1as illustrated by the movement along the demand curve upwards from point a toc.

INCREASE IN QUANTITY DEMANDED

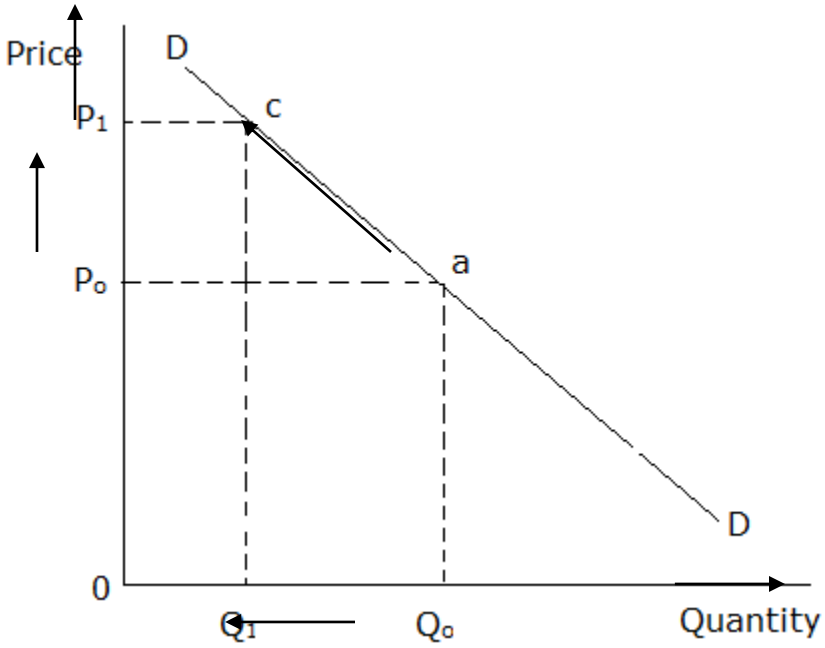
This refers to the demand for more units of a commodity due to a fall in its price while holding other factors constant/ ceteris paribus.

Illustration



DECREASE IN QUANTITY DEMANDED

This refers to the demand for lesser quantity of a commodity due to increase in its price ceteris paribus.



ABNORMAL/ REGRESSIVE/ EXCEPTIONAL DEMAND CURVES

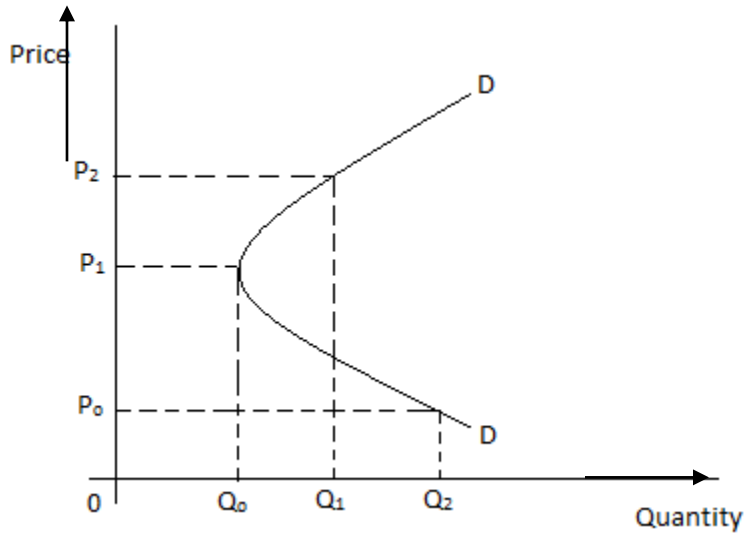
These are curves which do not obey the law of demand.

Such curves take a different shape from the one of the normal demand curve.

The following are the factors that violet the law of demand.

1. **Demand for articles of ostentation/ luxuries/ conspicuous consumption.**

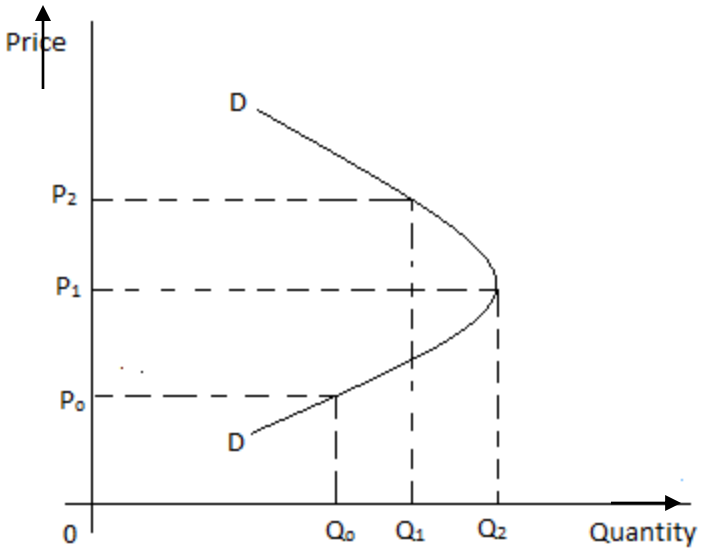
   These are goods bought by the rich people to impress or attract the attention of others for example sports cars, golden earrings. More of such goods are demanded at a higher price than at a lower price. The demand curve for luxuries is regressive at the upper level.



   The quantity demanded is very high at a low price. As the price increases to an average price, the quantity demanded reduces so much because many poor people can no longer afford. As the price increases further to a very high price, the quantity demanded increases because all the rich people start buying the commodity.

2. **Demand for giffen goods.**

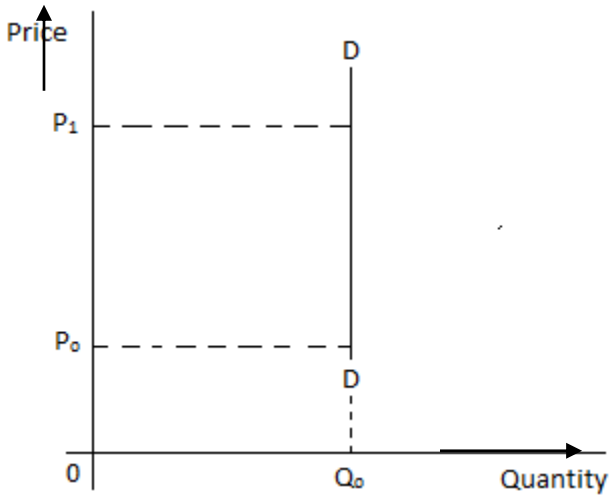
   These are inferior goods which take a large proportion of the budget of low-income earners such that when their prices increase, the consumer reduces the consumption of other goods and buys the giffen good. Examples of giffen goods are the basic foodstuffs such as rice, maize, bananas and cassava. For these giffen goods, the demand curve is regressive at the lower level such that if prices over increase, consumers have to lower the demand altogether.



An increase in the price from OP_o to OP_1 causes an increase in amount demanded i.e. from $OQ_o$to OQ_2.

3. **Demand for necessities.**

Goods which are very essential tend to have a fixed demand at different price levels. E.g. salt.



4. **Speculation (future price expectations)**

There are cases when people buy more as prices rise because they expect them to rise even further in future and less as prices fall because they expect them to fall even further. Such behaviour is known as speculation and it's common in stock exchange, real estate, etc. This creates a positive relationship between price and quantity demanded.

5. **Ignorance effect.**

Some consumers may buy more units of the commodity at high prices due to information asymmetry/ market imperfection. Some also buy the more expensive item because they believe it to be of better quality.

6. **Effect of an economic boom or depression.**

   In times of a depression, fewer quantities of goods are purchased even when their prices are reduced because purchasing power is very low. In times of an economic boom, more quantities of goods are purchased even when their prices are increased because purchasing power is very high. In both cases, the demand curve is positively sloped.

7. **Addiction to the consumption of the commodity.**

   Consumers who are addicted to consumption of particular commodities normally buy the same quantities of the good even if the price increases e.g. smokers.

8. **Special seasons.**

   The demand for some goods depends on seasons. A favourable change in seasons for the commodity leads to an increase in commodity demand even if the prices are increasing hence violating the law of demand.

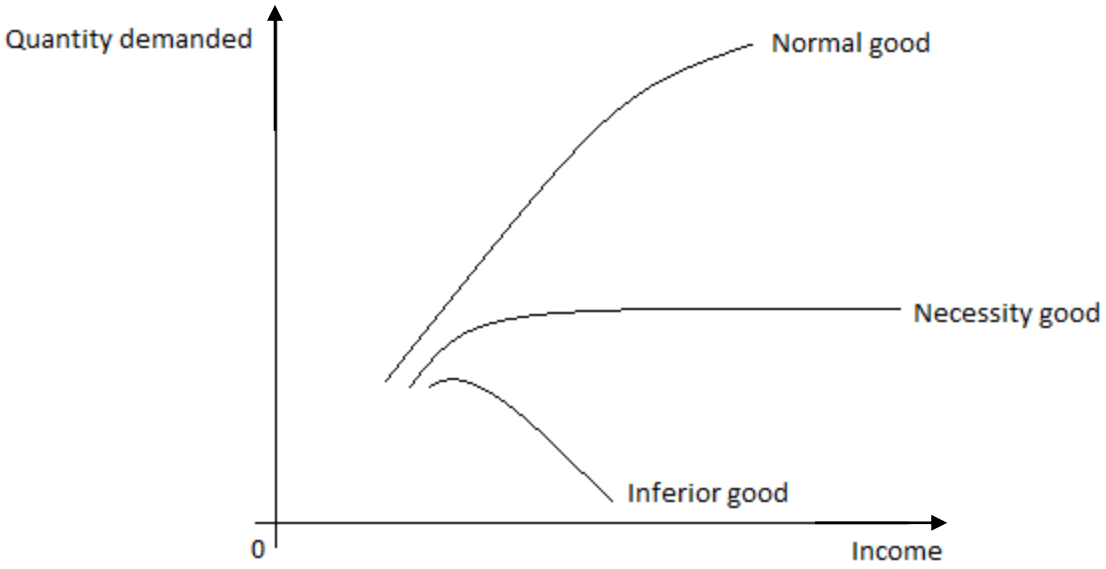
Assignment

a) Define the term **market demand.**

b) State the determinants of market demand in an economy.

ENGEL CURVE

This is a curve that describes how household expenditure on a particular good or service varies with household income. It was named after the German statistician Ernst Engel (1821 – 1896) who was the first to systematically investigate the relationship between demand and income of the consumer in 1857.



From the diagram above, the following can be observed.

1. For normal goods, the Engel curve has a positive gradient. That is as income increases, the quantity demanded also increases. Conclusively, normal goods have a positive income elasticity of demand
2. For inferior goods, the Engel curve has a negative gradient. That means that as the consumer's income increases, fewer amounts of the inferior good are bought because they are capable of purchasing better goods. Conclusively, inferior goods have a negative income elasticity of demand.
3. For necessity goods, as the consumer's income increases, the amount demanded increases slightly and then becomes constant. Conclusively, necessity goods have zero income elasticity of demand.

REASONS WHY PEOPLE DEMAND FOR GOODS

1. **For functional reasons/ to create utility.**

   Some people buy goods to use them to satisfy their needs. A commodity is demanded because of its function or use. For example one buys a bottle of water to quench thirst.

2. **Impulsive effect.**

   This is the demand for a good after seeing it. For example as a hawker is moving around, some people may develop the idea of buying a product because they have seen it.

3. **Speculative demand/ effect.**

   Some people buy more of certain goods hoping that they might become scarce in the future. Others buy goods hoping to make gains by buying at a lower price and selling them at a higher price in the future.

4. **Snob effect/ conspicuous consumption.**

   This is the demand for a good in order to impress the public or to show off. In this case, the good is demanded highly when its price is high. The consumption of expensive commodities in order to show off is referred to as conspicuous consumption.

5. **Veblen effect/ exclusivity.**

   This is the demand for a good in order to look unique or look different from others.

6. **Band wagon effect/ inclusivity.**

   This is the demand for a good so as to like others. Some people buy goods because they have seen others using them.

7. **For purposes of producing other goods.**

   Some people buy capital goods for use in the production of other goods.

8. **For complementary reasons.**

   Some people buy goods because they want to make other goods in their possession useful or operational e.g. one buys fuel to make a car useful.

THE THEORY OF CONSUMERS' BEHAVIOURS

A consumer is an individual who buys products or services for personal use and not for manufacture or resale.

A consumer is always faced with a problem of allocating a fixed income among a variety of available options.

A consumer is assumed to be rational i.e. given his income and the market prices of the various commodities; he plans the spending of his income so as to attain the highest possible utility.

DEFINITION OF CONCEPTS

1. Utility

   This is the satisfaction derived from consuming a certain amount of a good or service.

   OR

   Utility is the ability of a commodity to give satisfaction for example water has utility because it can quench your thirst.

   Utility can be measured in monetary units by the amount of money a consumer is willing to sacrifice for a given amount of a commodity.

2. Total utility

This refers to the total satisfaction obtained from the consumption of all possible units of a commodity.

3. Marginal utility

This is the additional satisfaction derived from consuming an extra unit of a commodity.

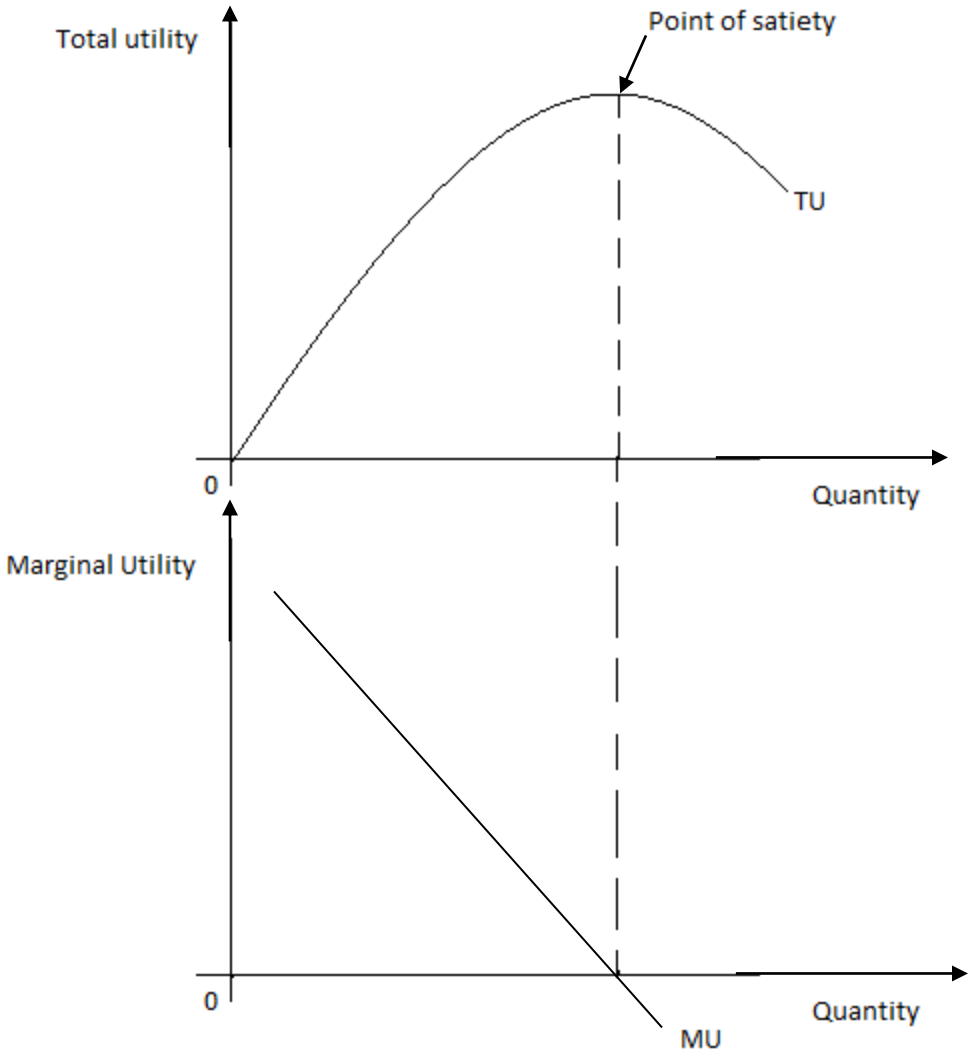
Marginal utility is calculated as follows.

$$Marginal\ utility = \frac{Change\ in\ Total\ Utility}{Change\ in\ number\ of\ units}$$

$$MU = \frac{\Delta TU}{\Delta Q}$$

The concepts of total utility and marginal utility can be better understood from the following schedule and diagram.

Units consumed	Total Utility	Marginal Utility
0	0	–
1	20	20
2	37	17
3	47	10
4	52	5
5	52	0
6	47	−5
7	35	−12



From the schedule and the diagram above, we note the following;

- As total utility is increasing, marginal utility is falling but positive.
- When total utility is at its maximum (point of satiety), marginal utility is zero.
- When total utility is decreasing, marginal utility becomes negative and this shows disutility.

4. Disutility

This is the loss of satisfaction due to consumption of so many units of a commodity.

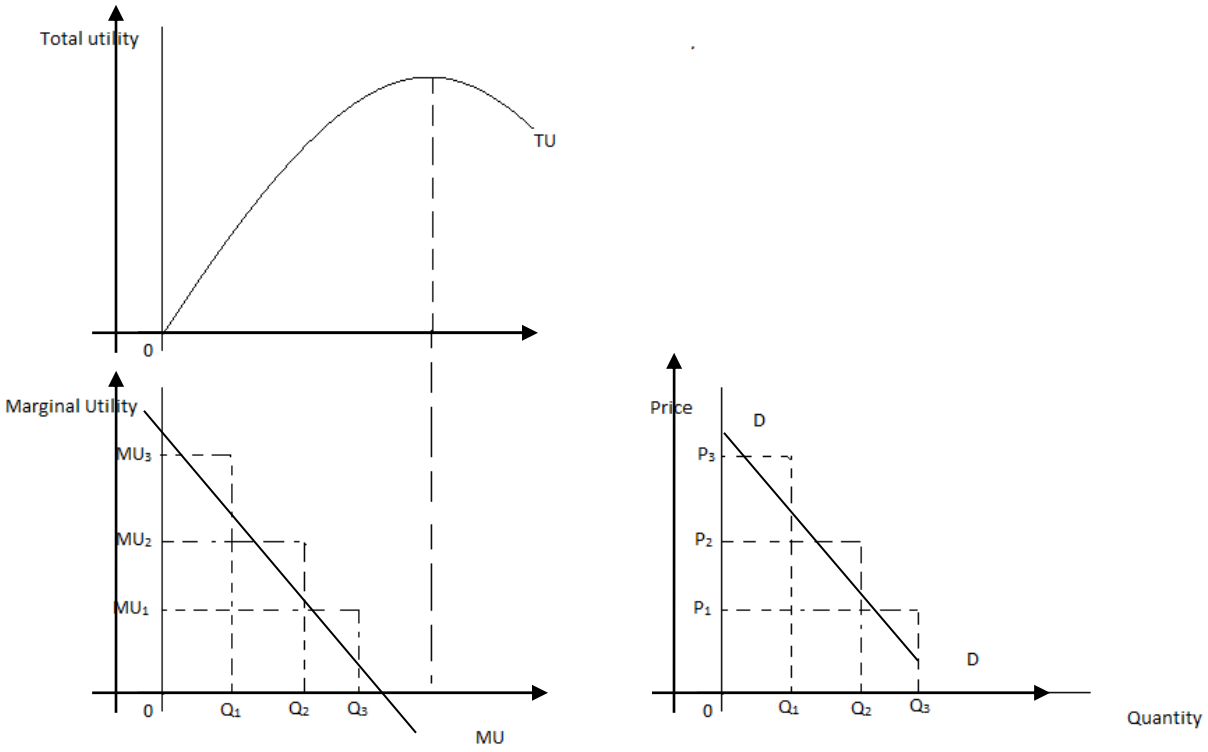
THE LAW OF DIMINISHING MARGINAL UTILITY

It is states that as more and more units of a commodity are consumed in succession, the satisfaction derived from each additional unit consumed reduces.

ASSUMPTIONS UNDERLYING THE LAW OF DIMINISHING MARGINAL UTILTIY

- It assumes that the consumer aims at utility maximization.
- The consumer has a fixed level of income.
- The commodity prices are fixed and constant.
- The consumer has perfect knowledge about the prevailing market conditions.
- The consumer's tastes and preferences and preferences are constant.
- It assumes consumption of only one commodity whose units are homogeneous.
- It assumes that the commodity has uniform sizes i.e. the commodity is divisible into similar portions.
- It assumes continuity in consumption i.e. the units of the commodity should be consumed in succession one after the other.
- It assumes that the consumer does not develop addiction to the commodity.
- It assumes that utility is measurable in monetary units (utils).
- It assumes that the commodity consumed is a normal good.

RELATIONSHIP BETWEEN MARGINAL UTILITY AND THE DEMAND CURVE



The derivation of the demand curve is based on the law diminishing marginal utility. Marginal utility is the slope of the total utility curve.

As marginal utility declines, the consumer is willing to pay less for the commodity. The consumer can buy more if the price is reduced since marginal utility is low.

When fewer units of the commodity are available, marginal utility is high and the consumer is willing to pay high prices for the commodity. This implies that demand is more at lower prices and less at high prices.

If marginal utility is measured in monetary units, then the demand curve for the commodity is identical to the positive segment of the marginal utility curve.

Sample questions

a) Distinguish between **price** and **marginal utility.** (02 marks)

b) What is the relationship between marginal utility and price? (02 marks)

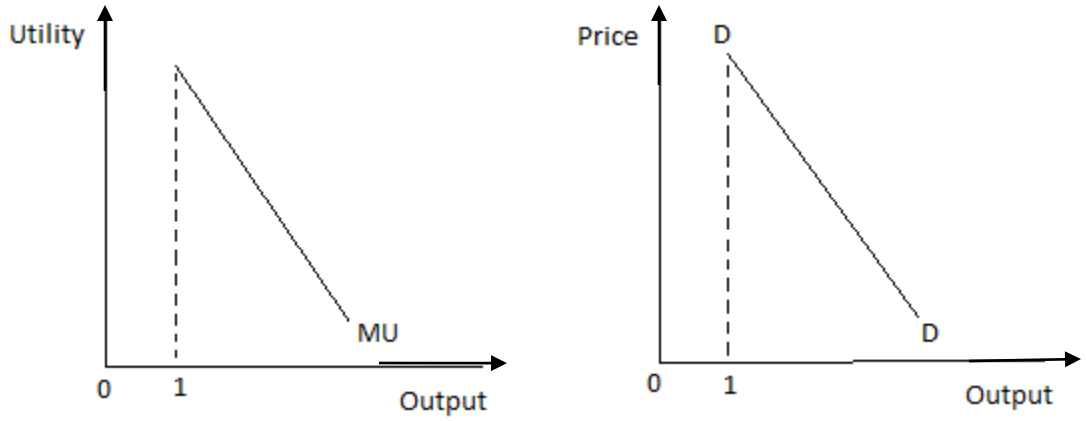
c) With the help of illustrations, show the relationship between marginal utility and demand.

Solution

a) Refer to your notes

b) As marginal utility declines, the consumer is willing to pay less for the commodity. The consumer can buy more if the price is reduced since marginal utility is low.

c) Both are high for the first unit of output consumed and they tend to fall as more and more of a product is consumed.
Both are illustrated by a downward sloping curve. **(2 marks)**



@1 mark

APPLICABILITY OF THE LAW OF DIMINISHING MARGINAL UTILITY

1. It helps to explain the law of demand.
2. It is applied under the principle of progressive taxation.
3. The law is used to explain the water – diamond paradox.
4. It explains why discounts are offered on extra units purchased.
5. Guides consumers when making consumption decisions.
6. It guides in pricing of goods and services.

LIMITATIONS/ CRICISIMS/ DEFECTS OF THE LAW OF DIMINISHING MARGINAL UTILITY

1. It assumes that consumers are rational which is not always the case. Many consumers do not attach cardinal values on commodities being consumed.
2. It assumes that the units of the commodity consumed are homogeneous which is unrealistic. Units of the same commodity may be different e.g. when consuming a sugarcane.
3. It assumes constant tastes and preferences yet for the same individual; tastes and preferences keep on changing from time to time depending on the environment, age, fashion, etc.
4. Consumption is not always continuous i.e. the consumers take breaks when consuming commodities.
5. It assumes that commodities are divisible into standard sizes but this does not apply to all commodities e.g. furniture, vehicles, etc.

6. The law is not applicable to money because the more money one gets, the more marginal utility he/she gets.
7. It is not applicable under habitual consumption where marginal utility increases as the consumer consumes more of the commodity.
8. It is not applicable in situations where the commodity prices keep on changing due to inflation.
9. The assumption that the consumer's income is fixed is unrealistic.
10. Utility cannot be measured as the law assumes i.e. there is no instrument which can be used to measure utility.
11. The law is not applicable in situations of joint demand where two commodities are consumed at the same time. This is because it assumes consumption of only one commodity at a time.
12. In most cases, the consumers are ignorant about the market prices of commodities. This violates the assumption of perfect knowledge of the consumer about the market price.

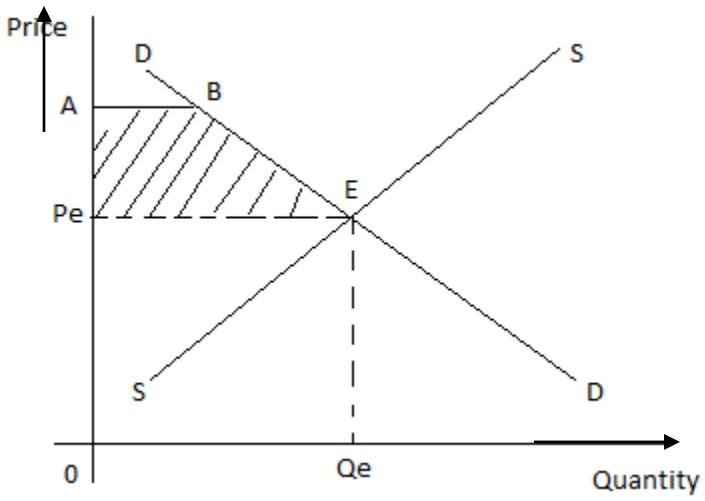
CONSUMER'S SURPLUS

This is the difference in monetary units between what the consumer is willing to pay for a commodity and what he actually pays.

OR

It is the additional utility which the consumer enjoys without paying for it.

Illustration



Consumer's surplus is represented by the shaded region (Area under the demand curve but above the equilibrium price) i.e. Area PeABE.

It can be computed using the formula;

$$Consumer's\ surplus = Planned\ expenditure - Actual\ expenditure$$

Example

Study the table below showing the price and quantity purchased of commodity X and answer the questions that follow.

Price consumers are willing to pay (shs)	Units purchased
300	1
250	2
200	3
150	4
100	5
50	6

Calculate the consumer's surplus if 4 units of the commodity were purchased at shs 150.

Solution

$$Consumer's\ surplus = Planned\ expenditure - Actual\ expenditure$$
$$= shs((300 + 250 + 200 + 150) - (150 \times 4))$$
$$= shs(900 - 600)$$
$$= shs\ 300$$

ALT

$$Consumer's\ surplus = Planned\ expenditure - Actual\ expenditure$$
$$300 - 150 = 150$$
$$250 - 150 = 100$$
$$200 - 150 = 50$$
$$150 - 150 = 0$$
$$= shs\ 300$$

Exercise

a) What is consumer's surplus? (01 mark)

b) Given the table below;

Price consumers are willing to pay (shs)	Units purchased
9,000	1
8,000	2
7,000	3
6,000	4
5,000	5
4,000	6
3,000	7
2,000	8

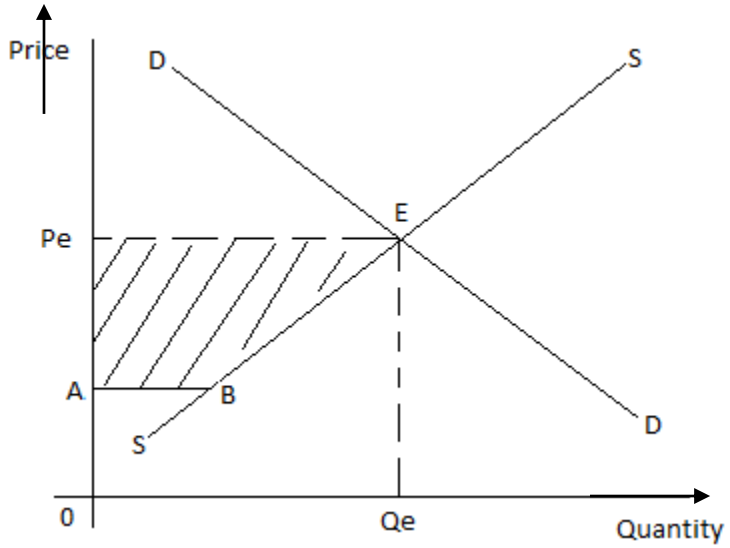
Calculate the consumer's surplus for the first five units of the commodity purchased.

(03 marks)

PRODUCER'S SURPLUS

This is the difference between the actual revenue a seller gets and the revenue he expected.

Illustration



The producer's surplus is represented by the shaded area (Area above the supply curve but below the equilibrium price) i.e. Area. APeEB.

It can be computed using the formula;

$$Producer's surplus = Actual\ revenue - Expected\ revenue$$

Example

Given the supply schedule below;

Price(shs)	50	60	80	100	140	200
Quantity supplied	1	2	3	4	5	6

Taking 100 to be the equilibrium price, calculate the producer's surplus.

Solution

$$Producer's surplus = Actual\ revenue - Expected\ revenue$$
$$= shs((100 \times 4) - (50 + 60 + 80 + 100)$$
$$= shs(400 - 290)$$
$$= shs\ 110$$

Exercise

a) Distinguish between producer's surplus and consumer's surplus. (02 marks)

b) Given that the market price of the commodity is Uganda shs 65,000; calculate the producer's surplus in the table below.

Price (Ugx)	30,000	35,000	40,000	45,000	50,000	55,000	60,000	65,000
Supply	1	2	3	4	5	6	7	8

(02 marks)

SUPPLY THEORY

Supply is the amount of a good or service that a firm is willing and able to offer for sale at a given price per period of time.

Market supply refers to the quantity of a good that all firms are willing to make available for sale at different prices in a given market during a given time.

TYPES OF SUPPLY

1. **Complementary (Joint) supply.**

   Joint supply refers to the supply of two or more commodities from the same process of production/ same source/ same resources such that an increase in the supply of one commodity leads to increase in the supply of the other.

   Examples of joint supply include;

   - Supply of meat and skin from slaughtered animals/ beef and hides from slaughtered animals
   - Supply of petrol, diesel and paraffin from crude oil (through factional distillation)
   - Supply of mutton and wool
   - Supply of maize flour and maize bran

2. **Competitive supply**

   This refers to the supply of two or more commodities that use the same resources for their production such that an increase in the supply of one product leads to decline in the supply/ production of the other.

   Examples of competitive supply include;

   - Supply of eggs and meat from chicken
   - Supply of milk and meat from cows
   - Crop and animal production from a piece of land.
   - Supply of jerry cans and basins from plastics.

THE LAW OF SUPPLY

The law of supply states that the higher the price, the higher the quantity supplied and the lower the price, the lower the quantity supplied ceteris paribus.

THE SUPPLY SCHEDULE

This is a table showing the number of units of a commodity sellers are willing to offer at alternative prices during a given period of time all other things being equal.

ILLUSTRATION

Price in shillings	Quantity supplied in kg
500	10
1000	20
1500	30
2000	40
2500	50

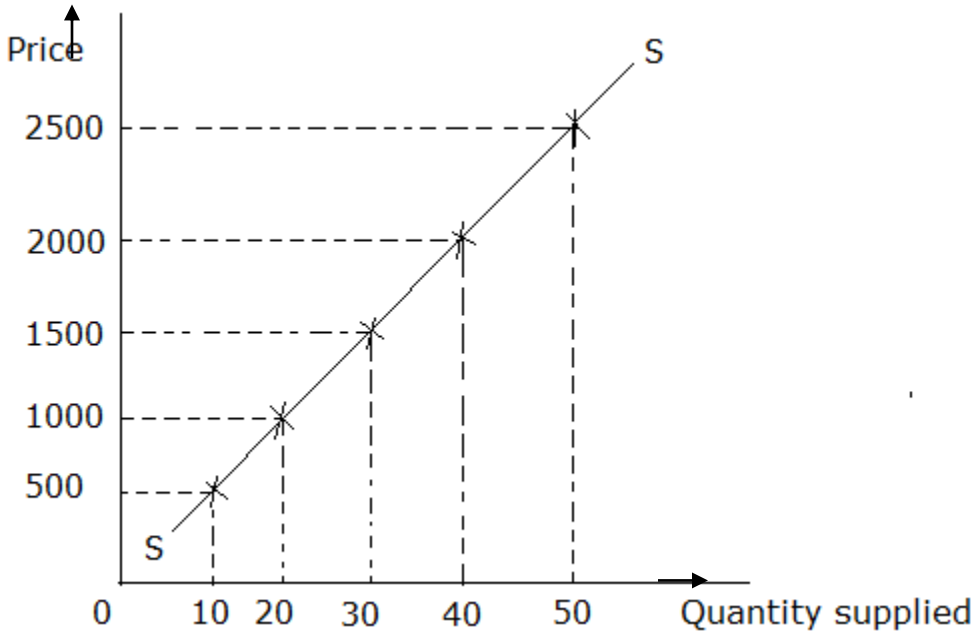
From the table above, it can be seen that as the price increases, quantity supplied also increases.

THE SUPPLY CURVE

The supply curve is the graphical representation of the supply schedule.

The supply curve is a locus of points showing the quantities supplied of a commodity at various prices in a given period of time.

From the above table, we derive the supply curve by plotting price against quantity supplied as shown below.



A normal supply curve is upward sloping from left to right, that is it has a positive slope meaning that there is a direct relationship between price and quantity supplied. (As price increases, quantity supplied increases and vice versa).

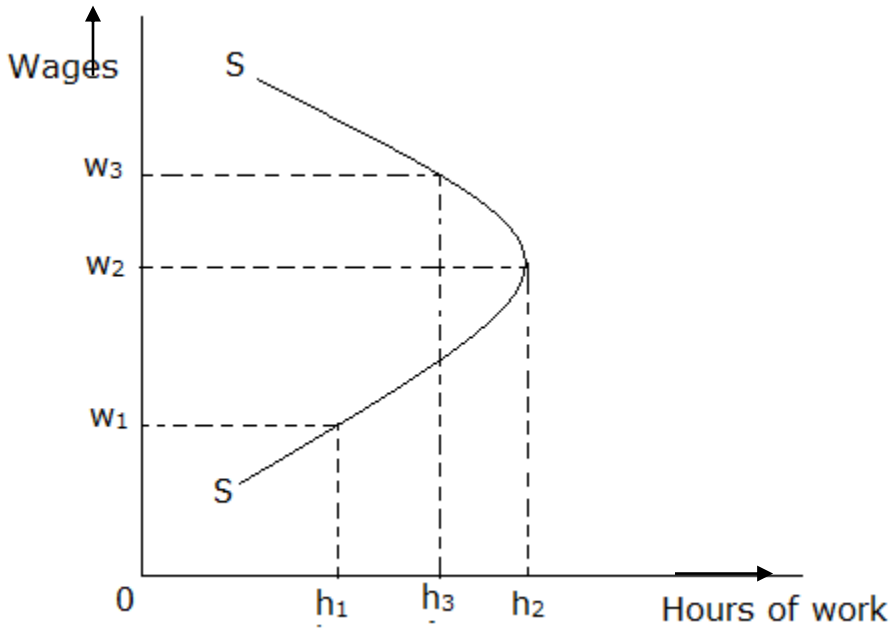
ABNORMAL/ REGRESSIVE/ EXCEPTIONAL SUPPLY CURVES

These are curves which do not obey the law of supply which states that the higher the price, the higher quantity supplied and the lower the price, the lower the quantity supplied ceteris paribus.

The following are the factors that violet the law of supply.

1. **Supply of labour.**

   The supply curve for labour is as shown below.

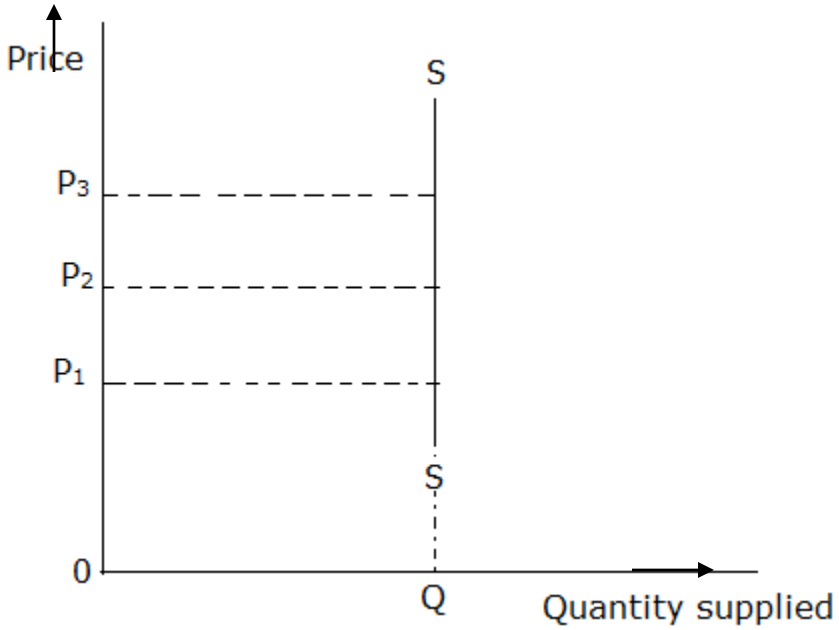


From the curve, when the wage increases from $OW_1$to OW_2, labour supply increases from Oh_1 to Oh_2. Further increase in wages from $OW_2$to OW_3leads to a reduction in labour supply from $Oh_2$to Oh_3. This is due to the following factors;

- Presence of target workers
- Preference of leisure to work
- Existence of a progressive tax system/ increased rate of taxation
- Cultural and political factors which influence reduction in labour supply (Discrimination in the employment sector)
- Declining working conditions
- Effect of old age
- Decline in the real wage of workers due to high levels of inflation

2. **Supply rigidities.**

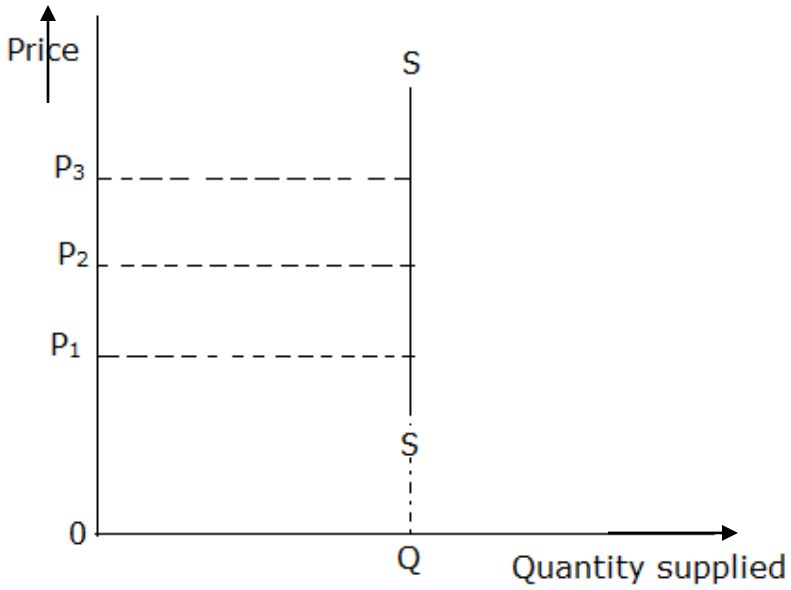
   At times the producers may not supply more even if the price of the commodity increases due to supply rigidities such as drought, political instabilities, etc. this causes a fixed supply.



From the diagram above, same quantity is supplied at different prices until when the supply rigidities are removed.

3. **Supply of land.**

   The supply of land cannot be increased. It is a fixed resource.



From the diagram, supply remains constant in spite of price changes.

4. **Expectation of future price changes (speculation)**

   If producers expect the prices to increase in future, they put less on the market even if prices are slightly increasing. This is because they expect to get a lot of profits in future by selling at high prices. On the other hand, if the prices are expected to fall in the future, producers supply more even if the prices are slightly decreasing. This causes an abnormal supply curve.

5. **Supply of perishable goods**

   For perishable goods, more is supplied immediately after harvest whether prices are high or low hence violating the law of supply.

6. **Exhaustion of raw materials.**

   In this case, even if there is an increase in price, quantity supplied may not increase because the producers have no requirements to produce final goods.

7. **Existence of commodities supplied by the government.**

   The government may decide to supply certain essential commodities to consumers at lower prices to improve peoples' standards of living. This creates a regressive supply curve.

FACTORS THAT INFLUENCE SUPPLY

1. **Price of the commodity.**

A high price for the commodity in question leads to high supply because it attracts many producers to produce and maximise profits. However, a low price leads to low amount supplied because it discourages some producers from engaging in production.

2. **The price of a jointly supplied commodity.**

   A high price for the jointly supplied product leads to high supply of the commodity in question because it becomes profitable to produce both goods while low price for a jointly supplied product leads to low supply of the commodity in question because it becomes unprofitable to supply both goods.

3. **The price of a competitively supplied product.**

   A high price for competitively supplied good leads to low supply of the commodity in question because producers divert resources to production of other goods while a low price for competitively supplied good leads to high supply of the commodity in question because production of the commodity becomes profitable.

4. **The cost of production.**

   At a high cost, the supply is low because the producer is only able to mobilise few factors of production or few raw materials. However at a low cost of production, supply is high because the producer is able to acquire many factors of production.

5. **The level of demand for the commodity/ market size.**

   High demand for a product leads to high supply because it encourages production and therefore leads to high output produced. However, low demand leads to low supply of the commodity because it discourages production and therefore leads to low output produced.

6. **Level of technology used in the production of the commodity.**

   The use of efficient and modern technology leads to high supply since such technology improves the speed at which goods and services are produced. However, poor methods of production lead to low supply since the production process is made slow.

7. **Length of gestation period.**

   The longer the gestation period, the longer it takes the producer to make a good hence leading to low supply. However, a short gestation period creates high supply because the producer is able to produce a lot of output in a limited period of time.

8. **The objective of the firm.**

A producer whose main objective is to maximize sales produces high output so as to lower the average cost leading to high supply. However, a producer whose main objective is to maximise profits limits output in order to charge a high price hence leading to low supply.

9. **The level of supply of factor inputs/ availability of factors of production.**

   Availability of factors of production encourages production leading to high output and high supply. However, scarcity of factors of production discourages production leading to low output and low supply.

10. **Political climate in the area.**

    Political stability encourages production of goods and services due to assured security of life and property hence leading to high supply while political instability scares away producers due to fear of loss of their lives and property hence resulting into low supply.

11. **Natural factors/ climatic conditions.**

    This is especially with respect to agricultural products. Favourable climatic conditions like reliable rainfall lead to high agricultural production leading to high supply. However, unfavourable climatic conditions like long droughts lead to low agricultural production leading to low supply.

12. **Level of development of infrastructure.**

    Availability of adequate and well developed means of transport and communication facilities makes it possible to move commodities from one place to another hence high supply. However, under developed infrastructures lead to low supply because they make transportation of raw materials to production centres and finished goods to market centres difficult.

13. **Degree of freedom of entry of firms into the industry/ Number of producers**

    Free entry of new firms into the industry leads to high supply because it is possible for many firms to join in the production of a good. However, restricted entry of new firms into the industry leads to low supply because there are few firms that produce the product.

14. **Government policy of taxation and subsidisation.**

    A favourable government policy of giving producers subsidies leads to low production costs hence encouraging production leading to high supply while unfavourable government policy of imposing

high indirect taxes results into high production costs thereby discouraging production hence leading to low supply.

15. **Working conditions.**

    Favourable working conditions encourage hard work among the workers which leads to high output produced and high supply. However, poor working conditions make the workers' morale to be low hence limiting output levels thus leading to low supply.

16. **Future price expectations.**

    If the producers expect the prices to increase in future, current supply is low because they store the goods so as to sell them in the future at high prices and make a lot of profits. However, if the producers expect a fall in prices, current supply is high because they want dispose of the commodities before prices fall to avoid making losses.

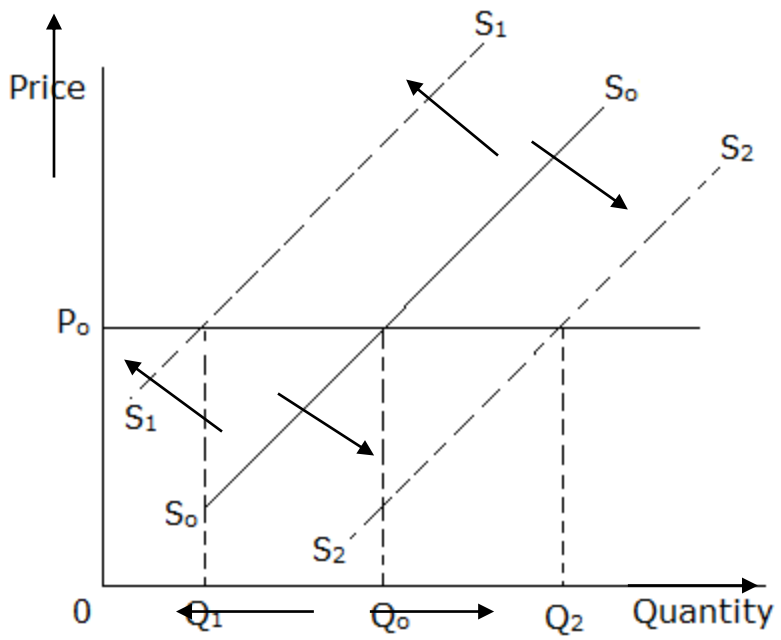
CHANGE IN SUPPLY AND CHANGE IN QUANTITY SUPPLIED

CHANGE IN SUPPLY

A change in supply is where more or less units of a commodity are supplied due to changes in other factors that determine supply keeping price of the commodity constant.

It is illustrated by the total shift of the supply curve either inwards to the left of outwards to the right at a constant price.

Illustration



From the diagram above, SoSo is the original supply curve.

S_1S_1shows a shift of the supply curve inwards from SoSo representing a decrease in supply

S_2S_2shows a shift of the supply curve outwards from SoSo representing an increase in supply.

FACTORS THAT CAUSE A CHANGE IN SUPPLY OF A COMMODITY

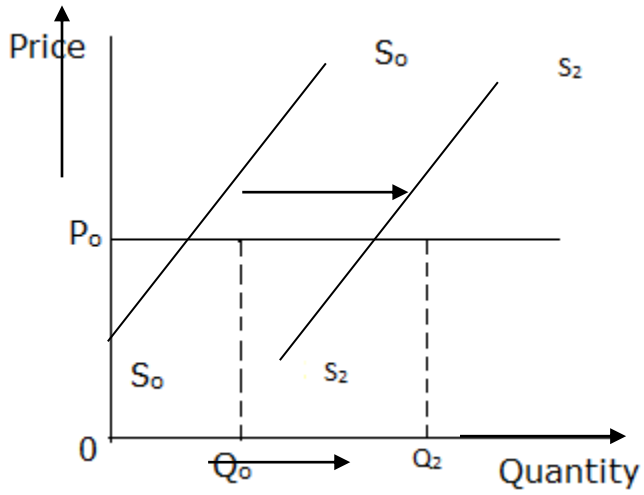
1. Change in the cost of production.
2. Change in the number of firms in the industry.
3. Change in the level of demand for the commodity/ market size.
4. Change in the level of technology used in the production of the commodity.
5. Change in the objective of the firm.
6. Change in the gestation period of the commodity
7. Change in the level of supply of factor inputs/ availability of factors of production.
8. Change in the price of a jointly supplied commodity.
9. Change in the price of a competitively supplied product.
10. Change in the political climate in the area.
11. Change in natural factors/ climatic conditions.
12. Change in the level of development of infrastructures.
13. Change in the degree of freedom of entry of firms into the industry.
14. Change in government policy of taxation and subsidization.

15. Change in working conditions.
16. Expectation of future price changes.

INCREASE IN SUPPLY

This is an economic situation where more units of a commodity are supplied at a constant price due to other factors affecting supply of that particular commodity becoming (more) favourable.

Illustration



CAUSES OF AN INCREASE IN SUPPLY

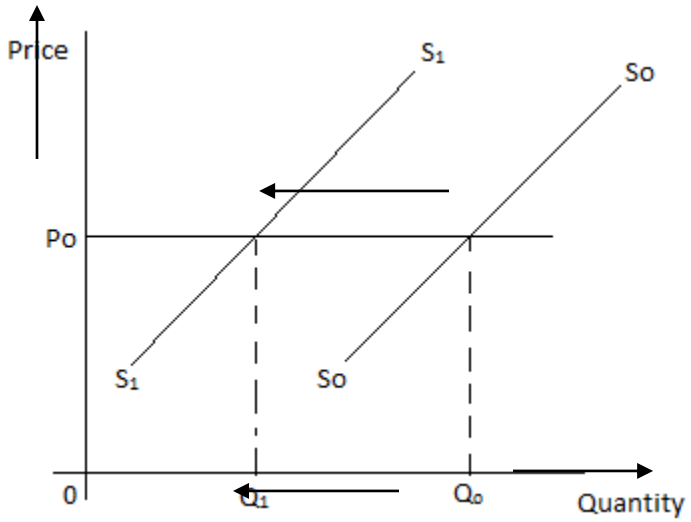
1. Decrease in the cost of production.
2. Increase in the number of firms in the industry.
3. Increase in the level of demand for the commodity/ market size.
4. Improvement in technology used in the production of the commodity/ shift from inferior/ poor/ labour intensive technology to capital intensive/ superior technology.
5. Change in the objective of the firm from profit maximization to sales maximization
6. Reduction in the gestation period of the commodity
7. Increase in the level of supply of factor inputs/ availability of factors of production.
8. A fall in the price of a jointly supplied commodity.
9. Increase in the price of a competitively supplied product.
10. Political climate in the area becoming favourable
11. Natural factors/ climatic conditions becoming favourable
12. An improvement in infrastructures.

13. Increased freedom of entry of firms into the industry.
14. Government policy on production of a commodity becoming favourable.
15. Working conditions becoming favourable.
16. Expectation of future price fall

DECREASE IN SUPPLY

This is an economic situation where less units of a commodity are supplied at a constant price due to other factors affecting supply of that particular commodity becoming unfavourable.

Illustration



ASSIGNMENT

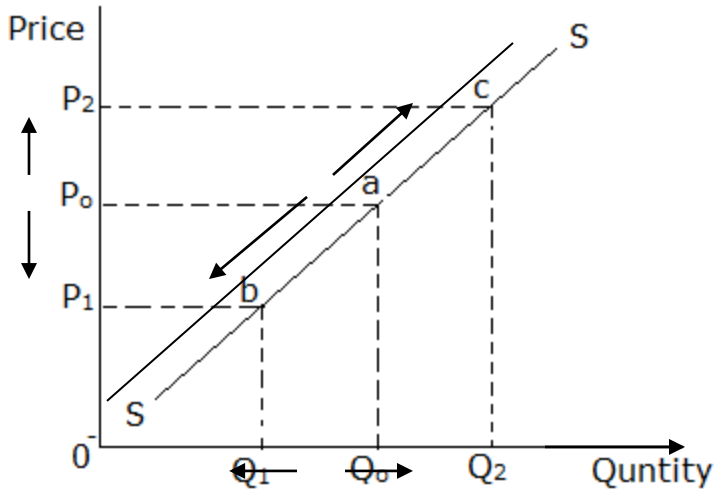
Account for a decrease in commodity supply in an economy (20 marks)

CHANGE IN QUANITY SUPPLIED

This is an economic situation where more or less units of a commodity are supplied due to changes in the price of the commodity keeping other factors determining supply constant.

it is illustrated by movement along the supply curve either upward due to price increase or downward due to price fall.

Illustration



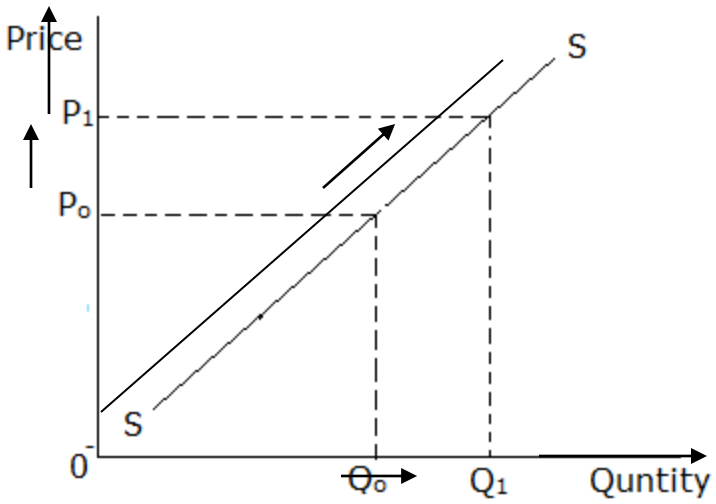
A fall in the price from OPo to OP_1leads to a decrease in the quantity supplied from OQo to OQ_1as illustrated by the movement along the supply curve from point a to b and this is known as a contraction in supply.

A rise in the price from OPo to OP_2leads to an increase in quantity supplied from OQo to OQ_2as illustrated by the movement along the supply curve from point a to c and this is known as an expansion in supply.

INCREASE IN QUANTITY SUPPLIED

This is an economic situation where more units of a commodity are supplied due to an increase in its price when other factors that affect supply of that particular commodity have not changed.

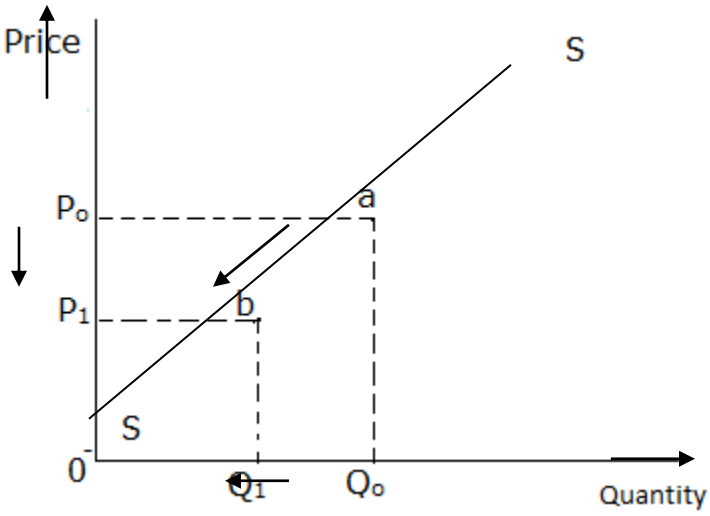
Illustration



DECREASE IN QUANTITY SUPPLIED

This is an economic situation where less units of a commodity are supplied due to a decrease in its price when other factors that affect supply of that particular commodity have not changed.

Illustration



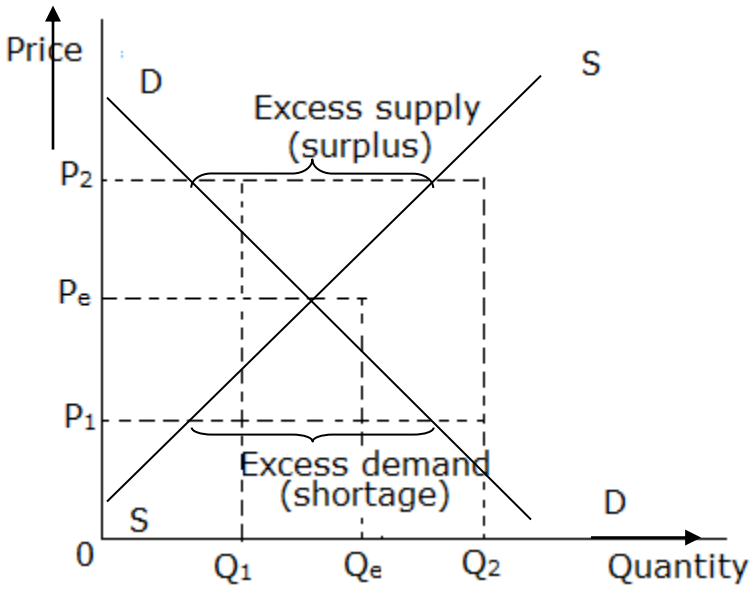
RELATIONSHIP BETWEEEN DEMAND AND SUPPLY

Demand and supply also looked at separately in the previous chapters do not operate in isolation. Forces of demand and supply are constantly operating in every market and in so doing affecting the level of prices. As forces of demand and supply operate, there comes a price at which the quantity that is demanded is equal to the quantity that is supplied. This gives rise to the **equilibrium concept**

The term equilibrium here is used to imply a state of balance where what is put on the market by the sellers is all bought off by the buyers without creating any shortages or surpluses.

ILLUSTRATION OF THE EQUILIBRIUM CONCEPT

(THE MARKET EQUILIBRIUM)



Where E = equilibrium point

Pe = Equilibrium price

Qe = Equilibrium quantity

An increase in price to OP2 leads to a fall in quantity demanded to OQ1 and an increase in Quantity supplied to OQ2. This creates a surplus of Q1Q2 on the market. As a result, producers are forced to reduce the price to OPe so as to dispose of the surplus.

A fall in price to OP1 leads to an increase in quantity demanded to OQ2 and a fall in quantity supplied to OQ1. This creates a shortage of Q1Q2 on the market. As a result, buyers are forced to offer a higher price of OPe so as to encourage producers to supply more and remove the shortage.

In case such a situation happens in the market, then OPe would be referred to as the **normal price.**

NOTE

1. Stable equilibrium is a situation whereby divergence from the equilibrium point can be restored through the interaction of market forces of demand and supply.
2. Unstable equilibrium is a situation whereby divergence form the equilibrium point can never be restored through the interaction of market forces of demand and supply.

THE CONCEPT OF ELASTICITY

Elasticity refers to the degree of responsiveness of the dependent variable to a change in the independent variable.

The dependent variable may be quantity demanded or quantity supplied while the independent variables are the factors which influence the above dependent variables.

Elasticity is broadly categorized into two;

1. Elasticity of demand
2. Elasticity of supply.

ELASTICITY OF DEMAND

This is the measure of the degree of responsiveness of quantity demanded of a commodity to changes in the factors that influence demand.

There are as many types of elasticity of demand as the determinants of demand.

However, we shall look at only the three most important ones i.e.

1. Price elasticity of demand (P.E.D)
2. Income elasticity of demand (Y.E.D)
3. Cross elasticity of demand (C.E.D)

PRICE ELASTICITY OF DEMAND

This is the measure of the degree of responsiveness of quantity demanded of a commodity to changes in its price.

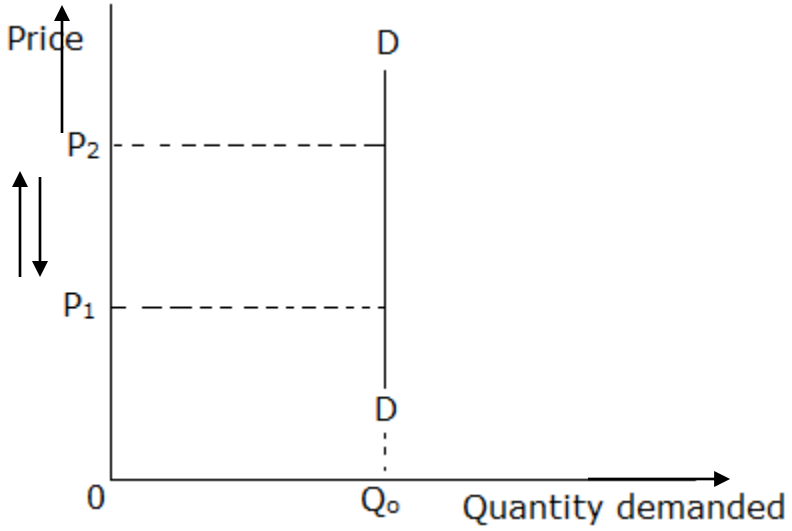
TYPES OF PRICE ELASTICITY OF DEMAND

Price elasticity of demand ranges from zero to infinity ($0 \leq P.E.D \leq \infty$)

1. **Perfectly inelastic demand (P.E.D = 0)**

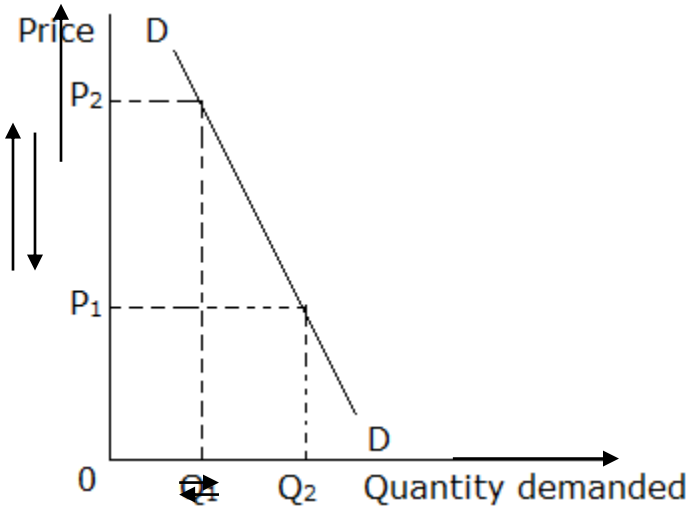
   This is where a change in price does not affect the quantity demanded of the commodity. It is common with necessities. The demand curve is vertical.

Illustration



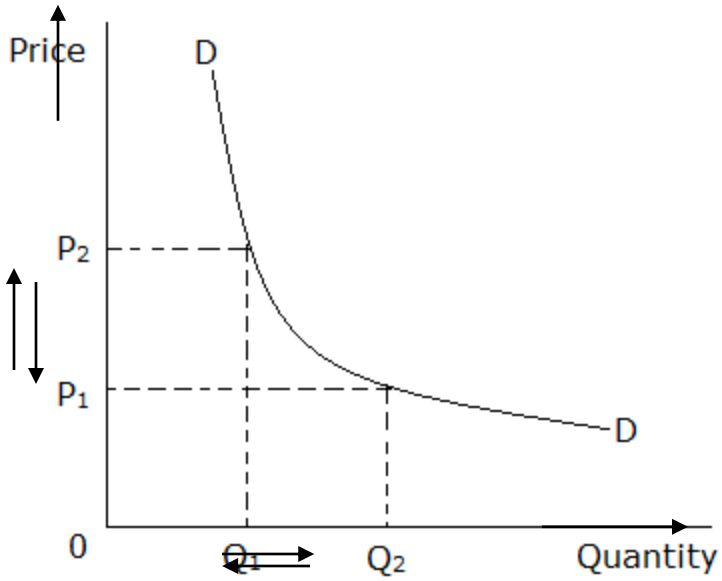
2. **Inelastic demand (Low price elasticity of demand) (0 < P.E.D < 1)**

   This is where a big change in price results into a small change in quantity demanded. The slope of the demand curve is very steep.



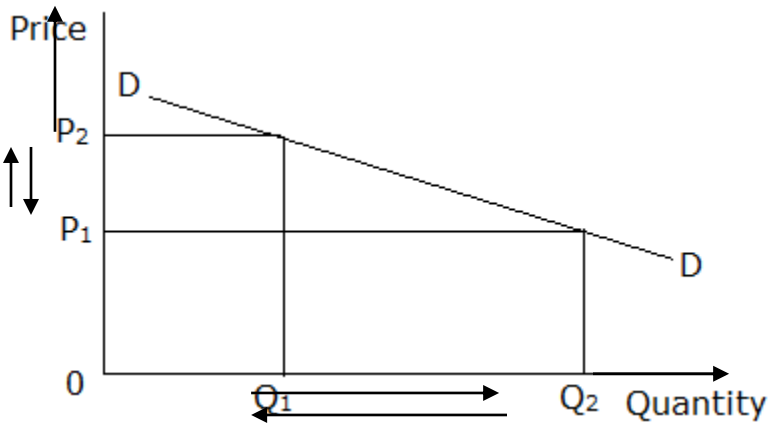
3. **Unit/ unitary elasticity of demand (P.E.D = 1)**

   This is where a change in price results into an equal change in quantity demanded. The percentage change in price is equal to the percentage change in quantity demanded. It is illustrated by a rectangular hyperbola.



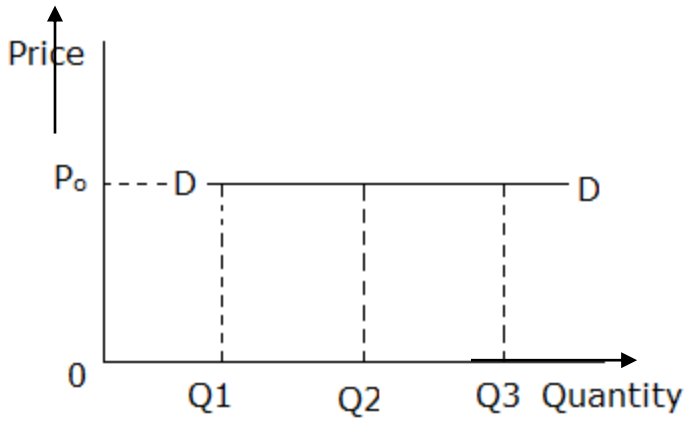
4. **<u>Elastic demand(High elasticity of demand)</u> (1 < P.E.D < ∞)**

   This is where a small change in price results into a big change in quantity demanded. The demand curve is gently sloped.



5. **<u>Perfectly elastic demand</u>(P.E.D = ∞)**

   This is where different quantities of a commodity are demanded at a constant price. This means that the commodity has got perfect substitutes and therefore a seller cannot increase the price. The demand curve is horizontal.



METHODS OF MEASURING PRICE ELASTICITY OF DEMAND

There are three methods of measuring price elasticity of demand. They are;

a) The percentage method

b) The point method

c) The arc method (Midpoint method)

THE PERCENTAGE METHOD

Price elasticity of demand can also be defined as the percentage (proportionate) change in the quantity demanded of a commodity due to a percentage (proportionate) change in the price of the commodity.

We use the formula;

$$Price\ elasticity\ of\ demand = (-)\frac{Percentage\ change\ in\ quantity\ demanded}{Percentage\ change\ in\ price}$$

NB

Due to the inverse relationship between price and quantity demanded, all calculations for price elasticity of demand for normal goods yield negative results. As a rule, we multiply the formula with a negative to make the price elasticity of demand a positive number so as to have a correct interpretation of the responsiveness.

Please note that this rule should only be applied for price elasticity of demand.

Worked examples

1. If the price of oil increases by 10% over a period of several years and the quantity demanded falls by 5%, what is the long run elasticity of demand for oil?
2. The price of a given commodity decreased from Shs 10,000 to Shs 9000 and as a result, quantity demanded increased by 25%. Calculate the elasticity of demand and interpret your answer.

3. Given that the price of the commodity decreased from Shs 500 to Shs 400 and as a result, the quantity demanded increased from 10kg to 20kg. Calculate the elasticity of demand and interpret your your answer.

   Trial question

   1. A change in price of a commodity from15/= to 5/= led to an increase in quantity demanded from 2kgs to 5kgs. Calculate the price elasticity of demand and interpret your answer.
   2. Assuming that the price of the commodity rises from Shs 1500 to Shs 2000 per kg and as a result the quantity demanded falls from 20kg to 15kg. Calculate the elasticity of demand and interpret your answer.

FACTORS THAT PRICE ELASTICITY OF DEMAND

1. **Availability of substitutes/ degree of substitutability of the commodity.**

   Demand for a commodity that has close substitutes is price elastic because consumers have alternatives to choose from depending on which one is cheaper. However, demand for a commodity that has no close substitutes is price inelastic because consumers have no alternative goods to turn to or from in case of a change in price.

2. **Availability of complements.**

   Demand for a commodity which is a strong complement to what consumers have is price inelastic because consumers continue to buy despite price changes so as to derive satisfaction from the commodity it complements. However, demand for a commodity which is not a strong complement to what consumers have is price elastic because the consumers have a choice whether to buy or not in case of price changes.

3. **Proportion of the consumer's income spent on the commodity.**

   Demand for a commodity which takes a very small proportion of the consumers' income is price inelastic since people do not feel the impact of the price changes so much. However, demand for a commodity which takes a big percentage of the consumers' income is price elastic because consumers are sensitive to price changes and a rise in price would prompt them to cut or abandon consumption while a fall in price encourages higher consumption levels.

4. **Level of consumer's income.**

   Demand for a commodity is price inelastic among high income earners because they have the ability to continue consuming around the same quantities despite the rise in prices and a fall in prices may

not excite them into consuming higher quantities. However, demand is price elastic among low income earners because they are very sensitive to price changes and they considerably vary the quantities they buy when prices change because to them, every shilling means a lot and must therefore be put to the best use.

5. **Degree of necessity of the commodity.**

   Demand for a necessity like food is price inelastic because consumers cannot easily do without it and hence even if the price rises, consumers find themselves continuing to buy relatively the same quantities. However, demand for a luxury is price elastic because people can easily do without it if the price rises or reduce the amount consumed.

6. **Level of addiction in the use of the commodity.**

   Demand for an addictive commodity like cigarette is price inelastic because such a commodity forms a habit in the consumer and he buys almost the same units regardless of the changes in price. However, demand for a non – addictive commodity is price elastic because the consumer easily reduces the amount demanded when prices increase.

7. **Level of durability of the commodity/ level of perishability of the commodity/ nature of the commodity i.e. perishable or durable commodity.**

   Demand for a durable good like a television set is price inelastic because people do not have to purchase it frequently implying that a fall in price of such a good does not necessarily call for more of it to be bought by those who have it. On the other hand, demand for a perishable good is price elastic because the frequency of purchasing is high making consumers sensitive to price changes hence buying more when the price falls and less when the price increases.

8. **Number of uses of the commodity.**

   Demand for a good that has several uses like electricity is price elastic because an increase in the price of the commodity makes consumers to use less of it for only vital purposes and a fall in the price makes consumers to increase its demand for even unimportant purposes. On other hand, demand for a good having a single use is price inelastic because a change in price affects demand for the commodity only in that use.

9. **Time period of consumption i.e. short run or long run.**

   In the short run, the demand for a commodity tends to be price inelastic because it is difficult for consumers to find substitutes while in the long run, the demand for the commodity is price elastic because consumers are able to learn the market conditions and look for substitutes.

10. Possibility of deferring consumption of the commodity.

The demand for a commodity whose use can be postponed to a future date is price elastic because an increase in price makes consumers to abandon the purchase of the commodity until the price reduces. On the other hand the demand for a commodity whose use cannot be postponed is price inelastic because an increase in price has little effect on quantity demanded.

11. Speculation about price changes

Expectation of a fall in the price of the commodity in near future by consumers makes the current demand to be price elastic because consumers easily reduce the amount demanded when the price slightly increases with hope of buying in the future at lower prices. On the other hand expectation of a future price increase by consumers makes the current demand for the commodity tends to be price inelastic because consumers continue buying even if prices are rising due to fear of purchasing at very high prices in the future.

12. Level of advertisement.

Demand for a highly advertised good is price inelastic because the persuasive adverts convince the buyers to continue buying the commodity regardless of the changes in price. However, demand for a less advertised commodity is price elastic because of the limited awareness of the public about the commodity.

13. Degree/ extent of convenience in acquiring/ accessing the commodity.

Demand for a commodity that is conveniently accessible is price inelastic because consumers find no need to look for substitutes in case of price increment while demand for a commodity that is difficult to access is price elastic because an increase in price forces consumers to look for substitutes.

CAUSES OF PRICE INELASTIC DEMAND

1. The commodity not being substitutable/ the commodity having no substitutes.
2. The commodity being a complement
3. Proportion of the consumer's income spent on the commodity being high
4. The commodity being a necessity
5. The consumer's income being high
6. The commodity being habit forming/ addictive
7. The commodity being durable
8. The commodity having one or few uses

9. Short run situation
10. The consumption of a commodity not being deferrable.
11. Consumers speculating a future price increase
12. The commodity being highly advertised.
13. The commodity being conveniently accessible.

ASSIGNMENT

Explain the causes of high price elasticity of demand in your country.

USES OF PRICE ELASTICITY OF DEMAND IN AN ECONOMY

The concept of price elasticity of demand is of great importance to producers and government when making decisions especially those that may affect price.

1. Producer (PPPAW)

a) Used in price determination.

Price elasticity of demand helps the producer to fix prices for the commodity so as to maximize revenue. For commodities with elastic demand, the producer profits more by charging a low price and for commodities with inelastic demand, the producer profits more by charging a high price.

NOTES

In case the price elasticity of demand for a commodity is unitary, the producer does not need to change his prices.

b) **Used in price discrimination**

For price discrimination to succeed there should be geographical separation of the market into submarkets and the price elasticity of demand for the commodity should be different in different submarkets. The seller charges a high price in the submarket with inelastic demand and a low price in the submarket with elastic demand.

c) **Used to determine prices of joint products**

The concept of price elasticity of demand is of much use in the pricing of joint products like wool and mutton, wheat and straw, cotton and cotton seed, meat and hides, etc. In such cases, separate costs of production of each commodity are not known and therefore the price of each is fixed on the basis of its elasticity of demand. That is why products like wool, wheat, meat and cotton having an

inelastic demand are priced very highly as compared to their byproducts mutton, straw, hides and cotton seeds with an elastic demand.

d) Used to determine the intensity of advertisement.

The concept of price elasticity of demand provides a guideline to a producer about the amount of money to spend on advertisement. For commodities with elastic demand, the producer needs to spend large sums of money on advertisement in order to increase the sales since increasing prices reduces the revenue. On the other hand, little or no advertisement is required for commodities with inelastic demand since the producer can increase revenue by raising prices.

e) **Used to determine the wage rate.**

The concept of price elasticity of demand is important in the determination of wages of a particular type of labour. Labour producing a commodity with inelastic demand is paid a high wage because the producer can recover the cost of labour by increasing the price of the commodity. However labour producing a commodity with elastic demand is a paid a low wage because passing on the cost to consumers in form of increased prices reduces demand significantly hence causing a fall in revenue.

2. **Government**

a) Used to determine goods to be provided as public utilities.

Government's decision to declare certain industries as public utilities depends on elasticity of demand for their products. The state usually takes over production of products whose demand is inelastic and are essential to the public. This is because if production of such products is left in the hands of private individuals, they tend to overcharge the consumers because their main goal of production is profit maximisation.

b) Used to determine the incidence of a tax.

When government imposes an indirect tax, it is either paid by the producer or the consumer or a combination of the two depending on the price elasticity of demand. For inelastic demand, the consumer pays more tax than the producer. For elastic demand, the producer pays more tax than the consumer. For unitary elasticity of demand, the tax is shared equally between the producer and the consumer. The producer pays the tax alone if demand is perfectly elastic and the consumer pays the tax alone if the demand is perfectly inelastic.

c) Used to determine the tax rate.

Government imposes indirect taxes so as to raise revenue. Government raises more revenue by taxing highly commodities with inelastic demand because such commodities are demanded irrespective of the price changes. However, low taxes are imposed on commodities with elastic demand to avoid causing a drastic fall in their demand and the tax revenue received from them.

d) Used while granting protection.

Usually, a subsidy or protection is given to only those industries whose products have elastic demand. This is because they are unable to face foreign competition unless their prices are reduced through a subsidy or by imposing heavy duties on imported goods so as to increase their prices hence making them unaffordable to the consumers.

e) It is a basis for the devaluation policy.

The main objective of devaluation is to improve the country's balance of payments position. Devaluation makes imports expensive thereby reducing their importation and exports cheaper thereby encouraging and increasing their volume. The policy can only be successful if the price elasticity of demand for both imports and exports is elastic.

3. **Consumers.**

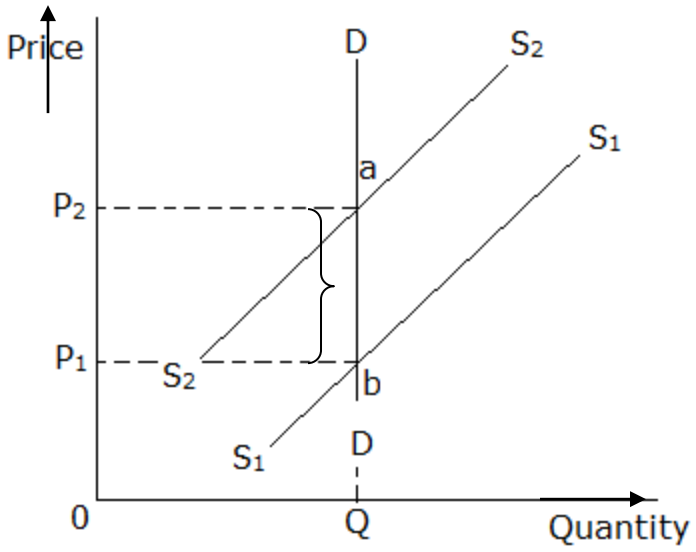
a) Helps a consumer to plan for his/her expenditure.

Consumers plan to spend more on commodities whose demand is price inelastic and less on commodities whose demand is price elastic.

ELASTICITY AND INCIDENCE OF A TAX

Incidence of a tax refers to the final resting place of a tax and it falls on either the producer or the consumer or a combination of the two depending on the price elasticity of demand.

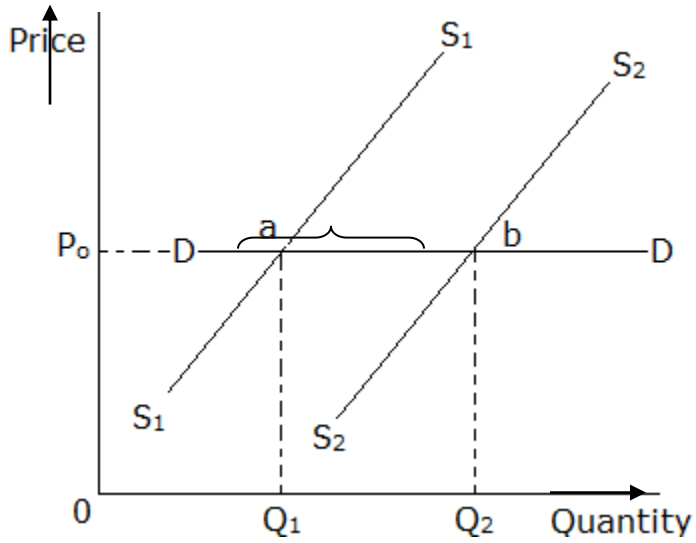
Case 1: Taxation and perfectly inelastic demand



ab = total tax paid by the consumer.

When demand is perfectly inelastic, the total tax is paid by the consumer.

Case 2: <u>Taxation and perfectly elastic demand.</u>

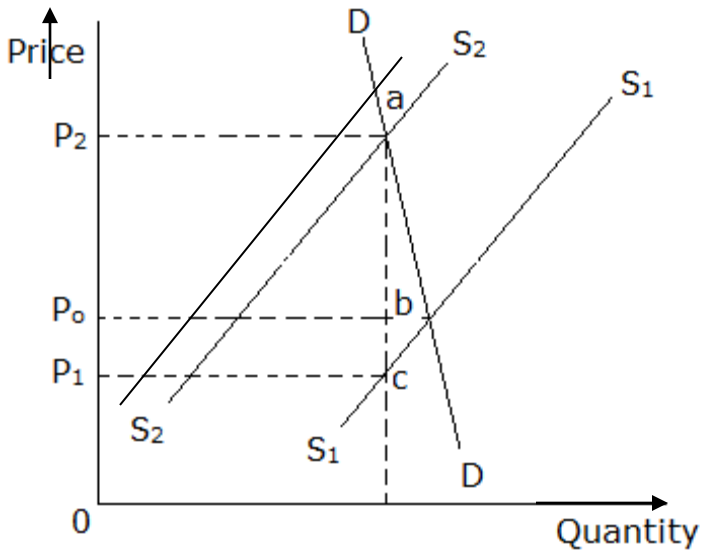


ab = total tax paid by the producer.

When demand is perfectly elastic, the total tax is paid by the producer.

Case 3: <u>Taxation and inelastic demand</u>

When demand is inelastic, the consumer pays more tax than the producer as illustrated below.



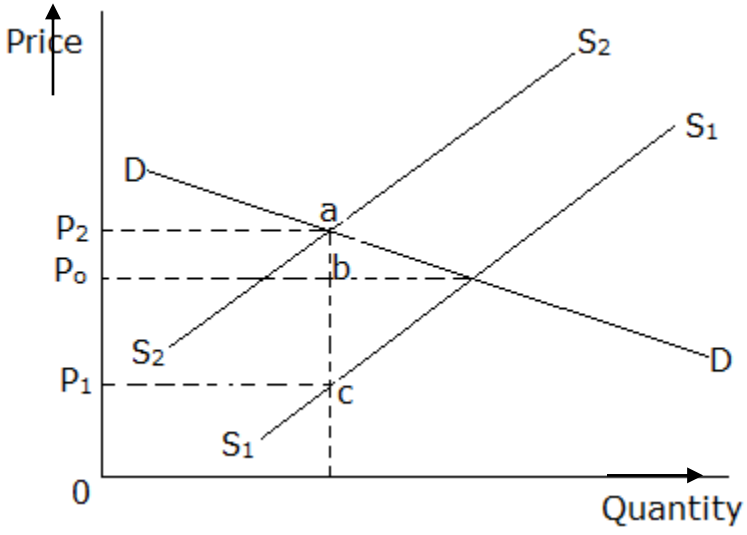
abc = total tax

ab = tax paid by the consumer

bc = tax paid by the producer

Case 4: <u>Taxation and elastic demand</u>

When demand is elastic, the producer pays more tax than the consumer.



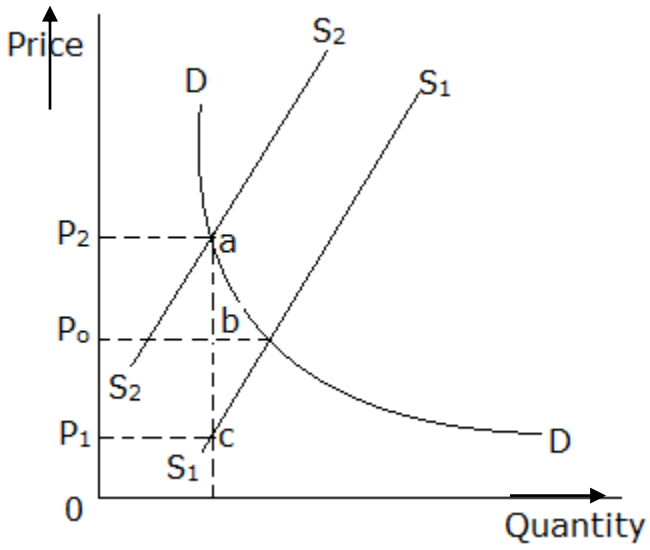
abc = total tax.

ab = tax paid by the consumer

bc = tax paid by the producer

Case 5: <u>Taxation and unitary demand</u>

When demand is unitary, the tax is shared equally between the consumer and the producer.



abc = total tax

ab = tax paid by the consumer

bc = tax paid by the producer

INCOME ELASTICITY OF DEMAND

This is the measure of the degree of responsiveness of quantity demanded of a commodity to a change in consumer's income.

<u>OR</u>

It is the percentage change in the quantity demanded of a commodity due to a percentage change in the consumer's income.

$$\text{Income elasticity of demand} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

$$Y.E.D = \frac{\Delta Q}{\Delta Y} \bullet \frac{Y_o}{Q_o}$$

Where ΔQ = change in quantity demanded

ΔY = change in consumer's income

Q_o= original quantity demanded

Y_o= original income.

INTERPRETATION OF INCOME ELASTICITY OF DEMAND

If Y.E.D is positive, the commodity is a normal good.

If Y.E.D is negative, the commodity is an inferior good.

If Y.E.D is zero, the commodity is a necessity.

Worked examples

1. Use the table below to answer the questions that follow;

Period	Income	Quantity
2007	150,000	50
2008	200,000	80

a) Calculate the income elasticity of demand.

b) State the type of the commodity in question.

Solution

a) Given that;

Yo = 150,000

Y_1 = 200,000

Qo = 50

Q_1 = 80

$$Y.E.D = \frac{\Delta Q}{\Delta Y} \times \frac{Y_O}{Q_O}$$

$$= \frac{80 - 50}{200{,}000 - 150{,}000} \times \frac{150{,}000}{50}$$

$$= 1.8$$

b) The commodity is a normal good.

2. Use the table below to answer the questions that follow.

Period	Income	Quantity
2007	150,000	50
2008	200,000	50

a) Calculate the income elasticity of demand.

b) State the type of the commodity in question.

Solution

a) Given that;

Yo = 150,000

Y_1 = 200,000

Qo = 50

Q_1 = 50

$$Y.E.D = \frac{\Delta Q}{\Delta Y} \times \frac{Y_O}{Q_O}$$

$$= \frac{50 - 50}{200{,}000 - 150{,}000} \times \frac{150{,}000}{50}$$

$$= 0$$

b) The commodity is a necessity.

Trial questions

1. Given that an individual's income increased from shs 50,000 to shs 80,000 per month and this led to an increase in the demand for the commodity by 10%. Calculate the income elasticity of demand and comment on the type of the good.
2. Study the table below showing income and quantity demanded of commodity X and answer the questions that follow.

Income (Ug. Shs)	Quantity demanded of X (kg)
10,000	50
30,000	20

a) Calculate the income elasticity of demand for commodity X.

b) What type of commodity is X? Give a reason for your answer.

IMPORTANCE OF INCOME ELASTICITY OF DEMAND

1. A consumer is able to tell or predict the amount of a commodity which would be bought depending on the on the nature of the commodity. If it is an inferior good, less of it will be demanded following an increase in the consumers' income. If it is a normal good, more of it will be demanded as ones

income increases and if it is a necessity, quantity demanded remains constant irrespective of changes in the consumer's income.

2. It helps in determining the type of a commodity i.e. inferior, necessity or normal good.
3. Helps the government in distribution of social utilities.
4. It helps importers in determining what to import.
5. Helps the government in policy making for example taxation.
6. Helps a seller / producer to predict future demand as income changes.

CROSS ELASTICITY OF DEMAND

This is the measure of the degree of responsiveness of quantity demanded of one commodity (X) due to a change in the price of another commodity (Y).

OR

This is the percentage (proportionate) change in quantity demanded of one commodity due a percentage change in the price of another/ related commodity.

Cross elasticity of demand = $\frac{\text{Proportionate change in quantity demanded of commodity X}}{\text{Proportionate change in the price of commodity Y}}$

$$C.E.D = \frac{\Delta Q_x}{\Delta P_y} \bullet \frac{P_y}{Q_x}$$

Where ΔQ_x= change in quantity demanded of commodity X

ΔP_y= change in the price of commodity Y

P_y= original price of commodity Y

Q_x= original quantity of commodity X

INTERPRETATION OF CROSS ELASTICITY OF DEMAND

Here we give the relationship between the two commodities.

If C.E.D is positive, the two commodities are substitutes.

If C.E.D is negative, the two commodities are complements.

If C.E.D is zero, the two commodities are unrelated/ there is no relationship between the two commodities.

Worked example

Given that the price of commodity X increased from Shs 50,000 to Shs 80,000 and this led to increase in quantity demanded for commodity Y by 10%. Calculate the cross elasticity of demand for the two commodities and state the relationship between them.

Solution

Given that;

Po = shs 5,000/=

P_1 = shs 80,000/=

Quantity demanded for commodity Y changed by 10%

$$C.E.D = \frac{\%age\ \Delta\ in\ qnty\ demanded\ for\ commodity\ Y}{\%age\ \Delta\ in\ the\ price\ of\ commodity\ X}$$

$$\%age\ \Delta\ in\ price\ of\ commodity\ X = \frac{P_1 - P_O}{P_O} \times 100$$

$$= \frac{80{,}000 - 50{,}000}{50{,}000} \times 100$$

$$= \frac{30{,}000}{50{,}000} \times 100$$

$$= 60\%$$

$$C.E.D = \frac{10\%}{60\%} = \frac{1}{6} = 0.167$$

X and Y are substitutes.

Trial questions

1. Given that an increase in the price of commodity X form Shs 1500 to Shs 1800 resulted into a change in quantity demanded for commodity Y from 600 units to 570 units;
   a) Calculate the cross elasticity of demand
   b) State the relationship between commodities X and Y.
2. If the price of commodity X falls from Ug. Shs 2,000,000 to Ug. Shs 1,600,000 per unit and the quantity demanded of commodity Y increases from 40,000 to 60,000 units,
   a) Calculate the cross elasticity of demand.

b) State the relationship between commodities X and Y.

ELASTICITY OF SUPPLY

This is the measure of the degree of responsiveness of quantity supplied of a commodity to changes in factors which influence supply.

Under elasticity of supply, we shall only look at price elasticity of supply and cross elasticity of supply.

PRICE ELASTICITY OF SUPPLY

This is the measure of the degree of responsiveness of quantity supplied of a commodity to a change in its price.

OR

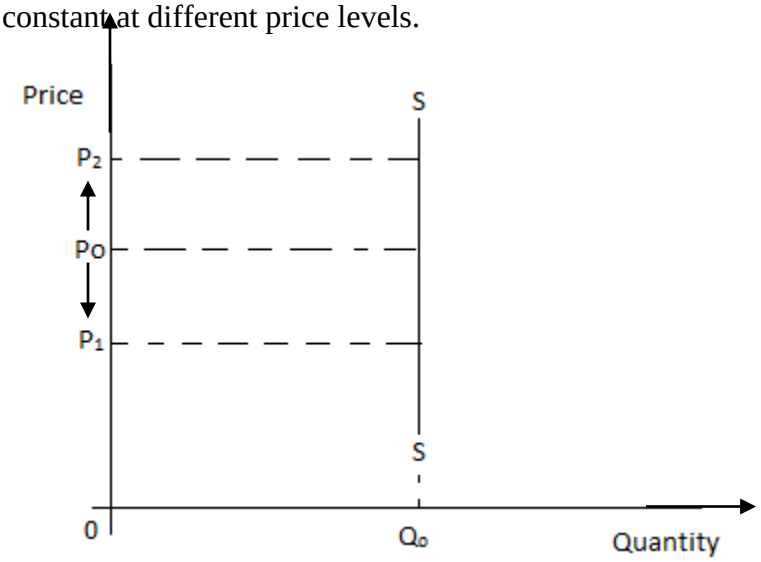
This is the percentage change in the quantity supplied of a commodity due to a percentage change in the price of the commodity.

$$Price\ elastcity\ of\ supply = \frac{Percentage\ change\ in\ quantity\ supplied}{Percentage\ change\ in\ the\ price\ of\ the\ commodity}$$

INTERPRETATION OF PRICE ELASTICITY OF SUPPLY

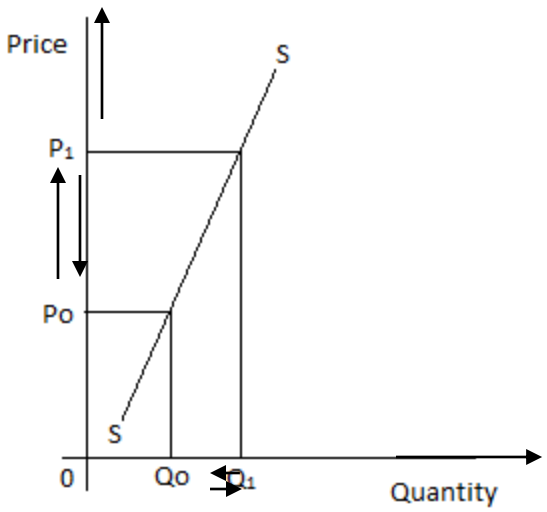
1. **Perfectly inelastic supply (P.E.S = 0)**

   This is where price changes do not affect the quantity supplied i.e. quantity supplied remains constant at different price levels.



2. **Inelastic supply (0<P.E.S<1)**

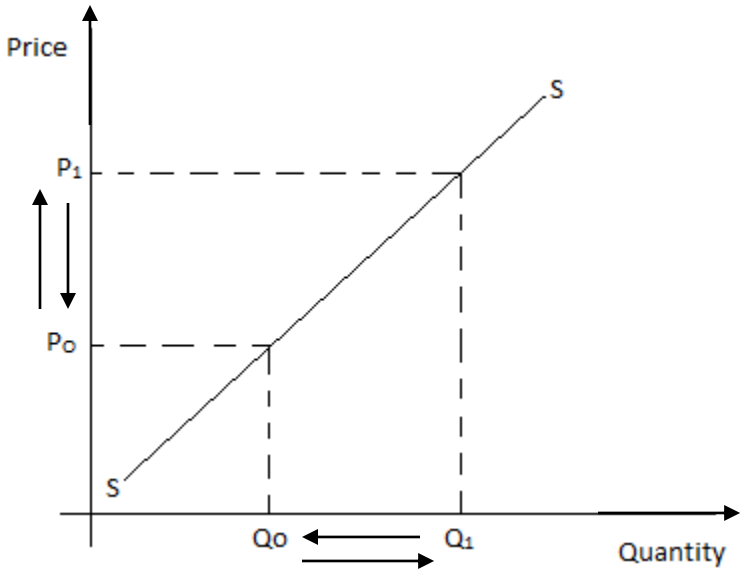
   This is where a big change in price results in into a small change in the quantity supplied. This is common with agricultural products that take long to be produced.



3. **<u>Unitary supply</u> (P.E.S = 1)**

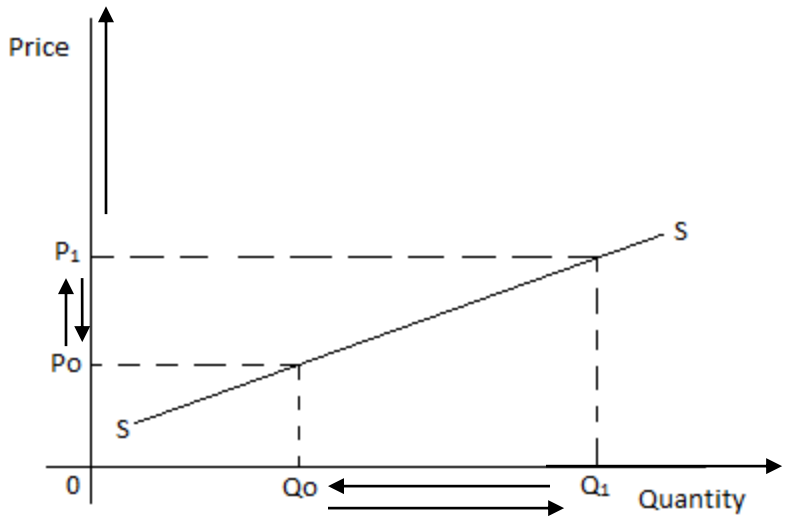
   This is where a change in price results into an equal change in the quantity supplied.

   This is an ideal situation which does not occur in reality.



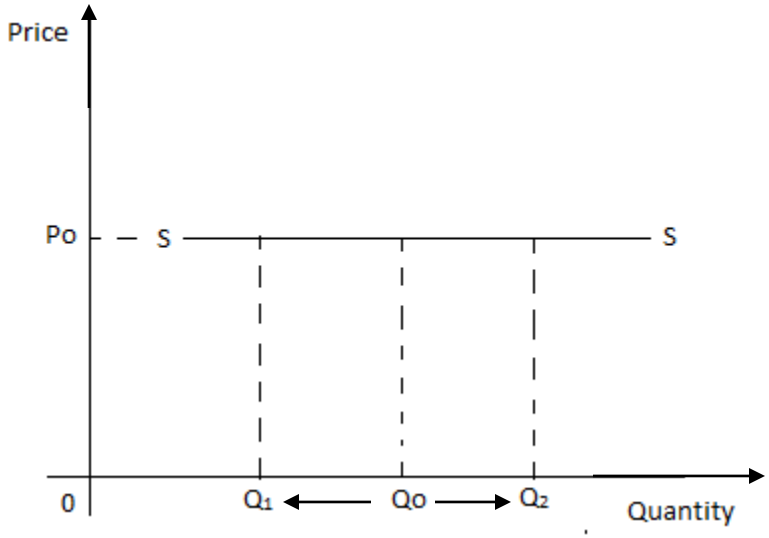
4. **<u>Elastic supply</u> (0<P.E.S<∞)**

   This is where a small change in price results into a big change in quantity supplied.



5. **Perfectly elastic supply**

   In this case, price of a commodity is constant at all levels of the quantity supplied. This situation does not exist in the real world.



Worked examples

1. The price of a commodity increased from shs 800 to shs 1200 per kg and the quantity supplied in the market increased from 2000kgs to 5000kgs. Calculate the price elasticity of supply.

Exercise

1. An increase in price from 60,000 to 90,000 led to an increase in quantity supplied of commodity by 50%. Calculate the price elasticity of supply.
2. An increase in price from shs 40/= to 400/= led to an increase in the quantity supplied of a commodity from 30kgs to Xkgs. If the price elasticity of supply is 2, find the value of X.

FACTORS THAT INFLUENCE PRICE ELASTICITY OF SUPPLY

1. **Existence of stocks.**

   Availability of stocks held by producers and distributors makes supply elastic since as prices rise supply can be increased by drawing from the existing stocks. On the hand, absence of stocks makes supply inelastic because it is not possible to increase supply by drawing from the available stocks.

2. **Nature of the commodity i.e. durable or perishable.**

   Durable commodities have elastic supply because they can be stored and as prices rise, supply can be increased by drawing from the existing stocks and a fall in price makes producers to store much of their products. However, perishable commodities have inelastic supply because as prices rise, quantity supplied cannot easily be increased since nothing was stored in periods of peak production and a fall in price does not reduce quantity supplied significantly since the goods cannot be stored for long.

3. **Gestation period/ Length of the production process.**

   Goods that have a short gestation period have elastic supply because it is possible to adjust production in a short time while goods that have a long gestation period have inelastic supply because producers are unable to raise or reduce their output easily when prices rise or fall respectively.

4. **Time period in production.**

   In the short run, supply is inelastic because some factors of production are fixed and output levels can be changed by only changing the variable factors of production like labour. However in the long run, supply is elastic because all factors of production are variable and hence firms are in position to either expand their production capacities or contract them to respond to price changes by varying the amount of each factor of production employed.

5. **Degree of freedom of entry of new firms in the industry.**

   Free entry of new firms in the industry makes supply to be price elastic because an increase in price attracts other firms to join and increase production of the commodity and when prices and profits fall, they exit. However, restricted or blocked entry of new firms in the industry makes supply to be inelastic because when price increases, other firms cannot join the industry to increase output levels.

6. **Objective of the firm.**

   Supply is inelastic for goods whose producers' main objective is profit maximisation since they limit production and supply to force the prices upwards. However supply is elastic for goods whose producers' aim at sales maximisation since more output is put on the market whenever prices increase so as to maximize sales.

7. **The level of technology used in production.**

   High level of technology makes it possible to easily adjust output levels to match price changes and hence supply is elastic. However backward technology limits output levels thereby making supply to be inelastic since even if prices rise, output is not likely to follow suit.

8. **Complexity of the production process**

   The more complex the production of a good, the more inelastic supply becomes due to the fact that a complex production process limits the ability of producers to especially increase output levels. Therefore for goods that are produced through a complex process like automobiles, supply is inelastic while for those which have a simple production process like textiles, supply is elastic.

9. **Availability of factors of production/ level of supply of factor inputs.**

   High supply of factor inputs makes supply to be price elastic because it is easy to adjust factor combinations to alter quantity supplied in the market. However scarcity of factor inputs makes supply to be price inelastic because it is hard to adjust the factor combinations to respond to price changes.

10. **Production capacity of the firms.**

    Operation of firms at excess capacity makes supply to be price elastic because it is possible for such firms to employ the redundant resources to increase output when prices rise. However operation of firms at full capacity makes supply to be price inelastic because there are no redundant resources that firms can exploit to increase output levels in response to a rise in price.

11. **The cost of production.**

    High production costs make supply to be price inelastic because they act as barriers to expand output levels and despite higher prices in the market, firms find it hard to increase supply since it would require considerably higher amount of money. However low production costs make supply to be price elastic because firms can easily adjust their output levels as prices change in the market

12. **Government policy of taxation and subsidisation.**

Favourable government policy in form low taxes, high subsidies and other incentives makes supply price elastic because of the reduction in the average costs of production that enables the producers to increase output in response to a price increase. However, unfavourable government policy in form of high taxation and limited subsidies makes supply price inelastic because of the increase in the costs of production that makes it difficult for producers to increase output even if there is a rise in price.

13. **Natural factors.**

    Favourable climatic conditions like reliable rainfall make supply of agricultural products to be elastic because more output can be put on the market in response to a rise in price. However unfavourable climatic conditions like prolonged droughts make supply of agricultural products to be inelastic because output levels cannot be increased even if there is a price increase.

14. **Political climate.**

    Favourable political climate in an economy makes supply price elastic because production of a commodity is encouraged due to the confidence among producers in regard to national security. However, unfavourable political climate in an economy makes supply price inelastic since production is discouraged as the producers have fear for loss of their life and property.

15. **Level of development of infrastructure.**

    Well-developed infrastructure like good roads make supply to be price elastic because producers can easily increase supply in response to a price increase due to increased access to the market. However, poor infrastructure like bad roads make supply price inelastic because products are not available on time in response to price increments due to limited access to the market.

16. **Degree of factor mobility**

    Mobility of factors of production makes supply price elastic because producers can easily switch resources to production of the commodity whose price has increased. However, immobility of factors of production makes supply price inelastic because producers cannot easily switch resources to production of the commodity whose price has increased.

17. **Future price expectations.**

    Expectation of a future price fall relative to the current prices makes current supply of the commodity to be price elastic because producers sell more now to avoid making losses in the future when the prices have fallen. However, Expectation of a future price increase relative to the current prices makes current supply to be inelastic because producers supply less even if prices increase because they are waiting to sell at high prices in the future and make a lot of profits.

18. Price of a jointly supplied product.

A low price of a jointly supplied product makes supply of the commodity in question to be price inelastic because it discourages production of the commodity in question even if the price is increasing. For example a low price of maize flour makes supply of maize bran to be inelastic. However a high price of a jointly supplied product makes supply of the commodity in question to be price elastic because it encourages production of the commodity in question.

19. Price of a competitively supplied product.

A high price of a competitively supplied product makes the supply of the product in question to be price inelastic because it makes production of the commodity in question unprofitable. However, a low price of a competitively supplied product makes supply of the commodity in question to be price elastic because it makes it makes production of the commodity in question profitable.

Factors that lead to high price elasticity of supply in an economy

- Availability of stocks
- Durability of a commodity/ commodity being durable.
- Short gestation period/ commodity having a short gestation period
- Long run period in production.
- Freedom of entry of new firms into the industry.
- Objective of the firm being sales maximisation.
- Use of advanced/ efficient technology/ high level of technology
- Production process being simple
- High supply of factors of production/ factor inputs.
- A firm operating at excess capacity
- Low costs of production
- Government policy on production/ supply being favourable/ favourable government policy on investment/ provision of government incentives/ low taxation levels.
- Presence of favourable natural factors
- Political stability/ favourable political climate/atmosphere/ political climate in a country being favourable.
- Well developed infrastructure/ high level of infrastructural development.
- Expectation of future decrease in price of the commodity.
- High price of jointly supplied product in relation to the commodity in question.
- Low price of competitively supplied commodity in relation to the commodity in question.

Causes of price inelastic supply of agricultural products in Uganda

- Long gestation period of agricultural products.
- Bulkiness of agricultural products.

- Perishability of agricultural products.
- Unfavourable natural factors.
- High costs of production
- Poor surplus disposal system/ machinery.

Assignment

When may price elasticity of supply for a commodity be low in an economy?

CROSS ELASTICITY OF SUPPLY

This is the measure of the degree of responsiveness of quantity supplied of one commodity (X) to a change in the price of a related commodity (Y)

$$Cross\ elasticity\ of\ supply = \frac{Percentage\ change\ in\ quantity\ supplied\ of\ X}{Percentage\ change\ in\ price\ of\ commodity\ Y}$$

Example

Given that the supply of a commodity **P** has increased from 400 units to 600 units per week due to a decrease in price for commodity **Z** from Shs 100 to Shs 80 per unit.

a) Calculate the elasticity of supply of commodity **P**.
b) Give two possible examples of **P** and **Z**.

PRICE MECHANISM (PROFIT – PRICE MECHANISM/ THE INVISIBLE HAND) AND RESOURCE ALLOCATION

Price mechanism is a system in free enterprise economy where prices in the market are determined by market forces of demand and supply with limited or no government intervention.

Price mechanism is a system where prices act as **automatic signals** in the allocation of resources.

To understand better the concept of price mechanism, we need to note the following.

1. Demand dictates what is to be supplied by the producers.
2. Consumers' expenditure is equal to seller' revenue. It means that one's expenditure on a commodity is what a seller gets as his or her income.

3. Consumers are regarded as voters. It follows that whenever consumers buy a product, they are casting votes in favour of production and supply of the commodity.
4. Consumers take an upper hand in deciding what is to be producedi.e. there is consumer sovereignty where a consumer takes a leading role in determining allocation of resources.

ASSUMPTIONS OF PRICE MECHANISM

1. It assumes existence of a free enterprise economy where resource allocation is determined by the interaction of market forces of demand and supply.
2. There is no government intervention/ interference as far as pricing and output policies of the producers are concerned.
3. There are many buyers and sellers, hence no monopoly to influence market conditions.
4. Producers aim at profit maximization and they produce commodities whose price is high.
5. Consumers aim at utility maximization and thus they buy from the cheapest source.
6. There is free entry and exit in the market i.e. when super normal profits are earned, firms are free to join the industry and when profits are exhausted, inefficient (high cost) firms leave the industry.
7. There is consumer sovereignty in the market i.e. consumers have an upper hand in deciding what is to be produced by "casting votes" to commodities as they buy.
8. It assumes no wastage of resources because producers only supply what consumers want at a particular time.
9. There is perfect mobility of factors of production, so resources go where the price is high.
10. There is perfect knowledge about market conditions by both sellers and buyers for instance consumers know the price and qualities of the products on the market.

Price mechanism responds to the basic economic questions by providing appropriate answers to these questions. These questions are;

- What to produce?
- How to produce?
- When to produce?
- Where to produce?
- How much to produce?
- For whom to produce?

THE ROLE OF PRICE MECHANISM IN THE ALLOCATION OF RESOURCES

NB

We consider the **functional role** of price mechanism in the allocation of resources i.e. we focus on **what price mechanism does** in the process of allocating resources in an economy.

1. **It guides on what to produce.**

   The producers are induced to produce and supply a commodity at a high price in order to make profits.

2. **It determines where to produce/ it determines the location of the production unit.**

   Producers always locate their production units in areas where demand for the goods is high and consumers are ready to buy at a price that enables them to make a profit.

   OR

   Producers decide to locate their business firms in areas with the lowest costs of production. The aim is to maximise profits through minimising costs.

3. **It determines when to produce.**

   Producers always produce more of a good at that time when demand for it is high so as to make profits.

4. **It determines how much to produce.**

   Demand dictates the quantity of goods that producers supply on the market. This checks the danger of over production and wastage is avoided.

5. **It determines for whom to produce/ it determines the distribution of goods and services.**

   Producers supply goods to those consumers who are able to buy at the prevailing market price.

   OR

   Producers supply goods to those consumers who have effective demand.

6. **It determines how to produce/ it determines the type of technology to be used in production.**

   Producers employ cheap but efficient techniques of production. The aim is to maximise profits through minimising costs.

7. **It guides consumers when making choice of which goods to buy.**

   Holding other factors constant, consumers buy more units of a commodity whose price is low and fewer units of a commodity whose price is high.

8. **It ensures efficient allocation of resources.**

   Resources are allocated to producing those goods with the highest prices. Producers get the incentive to supply goods at high prices in order to get high profits.

9. **It determines income distribution.**

   Income is distributed among producers depending on the price at which they supply and sell their goods. Therefore, producers who supply goods at high prices earn more incomes than those who supply goods at low prices.

10. **It provides an incentive for economic growth.**

    This arises where high prices encourage high production of goods and services. As more goods and services are produced, economic growth is attained.

11. **It ensures production of better quality products because of competition among producers.**

    Producers compete for the available market in order to supply their goods. Due to this competition, better quality goods have to be produced so that producers maintain and increase the level of demand for their goods.

IMPLICATIONS OF PRICE MECHANISM

POSITIVE IMPLICATIONS (MERITS)

NB:

Here we focus on the positive outcomes/ desirable outcomes (good things) which arise from price mechanism.

1. **It promotes consumer sovereignty.**

   Individual households make their own decisions since the consumers influence what is to be produced. The goods and services which consumers demand for are the ones produced and supplied. The consumer becomes a **king** in influencing productive activities.

2. **It ensures efficiency of firms.**

   Firms strive for efficient operations so as to survive competition and sell at high prices since high prices lead to high profits. This enables producers to expand their scale of production and become more efficient

3. **It encourages competition which leads to production of better quality goods and services.**

   Consumers are more willing to pay a high price for high quality goods. Therefore producers strive to get the high prices by improving the quality of commodities.

4. **The profit motive encourages innovations and inventions (research).**

   Due to the profit motive, producers develop new and better techniques of production. The improved methods of production result into increased output of better quality which is sold at high prices. This enables producers to get more profits.

5. **It avails a wide variety of goods and services to consumers.**

   Price mechanism generates competition among producers. This gives rise to a greater variety of goods and services in an economy. Consumers are able to exercise choice and their standard of living is improved.

6. **It leads to efficient allocation and utilization of resources.**

   Price mechanism enables producers to allocate the scarce resources in the production of those goods needed by the consumers. Producers allocate more resources to those goods whose demand is high and fewer resources are allocated to those goods whose demand is low.

7. **It leads to increased employment opportunities.**

   As prices of goods rise (increase), producers supply more of those goods. Producers expand their scale of production and more people get employed in production units.

8. **It promotes incentive for hard work among producers leading to increased production.**High prices of goods motivate or encourage producers to work hard and supply more goods to consumers. This promotes economic growth in the country.

9. **It reduces the costs of administration due to limited or no government intervention.**

   The forces of demand and supply guide the allocation of resources without government interference using price controls. The government does not incur costs of enforcing minimum and maximum prices.

10. **It helps to reward the various factors of production in the factor market.**

    Factors which enable production of goods with high demand and prices are paid higher rewards. However, those factors whose output has low demand and low prices are paid low rewards.

11. **It encourages flexibility in production.**

    Producer use the price and profit signals to change from less profitable to more profitable economic activities. For example a coffee farmer may change from the growing of coffee to the growing of vanilla should the price of vanilla become higher than that of coffee.

12. **It encourages arbitrage which benefits producers.**

Producers transfer goods from areas with low prices to sell them in areas with high prices. This benefits producers because they earn more revenue from sales and subsequently make higher profits.

NB:

Arbitrage is the practice of transferring goods from areas with low prices to areas with high prices in order to gain from the difference in prices. For example if a bag of in Jinja costs shs 120,000 and it costs shs 150,000 in Kampala, a trader may transfer bags of sugar from Jinja and sells them in Kampala so that he gains from that difference in price.

NEGATIVE IMPLICATIONS / DEMERITS/ DEFECTS/ WEAKNESSES/ SHORTCOMINGS/ DISADVANTAGES OF PRICE MECHANISM

NB:

Here we focus on those **undesirable outcomes or bad things** associated with price mechanism.

1. **It leads to consumer exploitation by producers due to ignorance or market imperfections.**

   Price mechanism assumes that a consumer has perfect knowledge about the market conditions. However, many consumers are not aware of price changes and new goods on the market and thus they are exploited by profit – hungry producers.

2. **It leads to emergence of monopoly and its negative consequences.**

   Price mechanism creates private monopoly because of excessive competition which forces inefficient firms out of production and efficient firms take over the market. The monopoly firms restrict output in order to charge high prices. They also supply low quality goods due to absence of competition in the market. This leads to exploitation of consumers.

3. **It promotes income inequality.**

   Efficient producers whose goods are highly demanded receive higher incomes than the inefficient producers. Therefore the efficient producers get access to most of the resources in the economy. This creates income disparity with its associated disadvantages of exploitation of the poor by the rich.

4. **It encourages divergence between social costs and private benefits.**

   Price mechanism does not consider the negative effects inflicted on the society as producers exploit the natural resources. Private investors benefit through profit maximization without taking into account social costs. For example when forest trees are cut down to get timber, there is a danger of deforestation and its negative impact on the environment, pollution created by private enterprises,

over exploitation of resources. Unfortunately, these social costs are not considered under price mechanism.

5. **It leads to unemployment.**

   This is due to automation (use of capital intensive techniques of production) and out competition of inefficient firms making people who were employed in those firms to lose jobs. The unemployed people experience low standards of living.

6. **It leads to economic instabilities like inflation, price fluctuations and balance of payments problems**.

   This is due to absence of government intervention.

7. **It leads to underutilization of resources.**

   Price mechanism creates excess capacity in certain cases. Producers abandon production of those goods which are not highly demanded. This leaves some resources to be idle or underutilized.

8. **It leads to wastage of resources due to wasteful competition.**

   Price mechanism brings about stiff or cut-throat competition among private investors. Excessive competition among producers leads to resource wastage.

9. **It fails to allocate resources in priority sectors i.e. it does not provide public and merit goods/ it ignores socially profitable ventures.**

   Price mechanism is not used to provide public goods such as public hospitals, roads and schools. The provision of such socially desirable goods is done by the government.

10. **It does not respond quickly or adjust quickly to structural changes in an economy.**

    Price mechanism does not respond to circumstances requiring rapid structural changes such as privatization, modernization of agriculture, liberalization of trade, alleviating effects of natural disasters, etc. Such rapid structural changes call for government intervention.

11. **It leads to distortion of consumer choices through persuasive advertising.**

    As private investors try to capture market for their goods, they undertake persuasive advertisements. As a result, many consumers end up buying goods which they would not have bought and thus their choices are distorted.

12. Foreign dominance of an economy is prominent most especially if the economy is open.
13. It leads to disappearance of cheap goods from the market because private individuals only venture in activities that enable them maximize profits.
14. It makes government planning difficult since it is associated with a number of uncertainties.

METHODS/ WAYS OF INTERFERING WITH PRICE MECHANISM

1. **Use of taxation policies.**

   For instance adoption of Progressive taxation policy helps in redistributing income in an economy because the tax rate increases with increase in the tax payer's income i.e. it takes a higher proportion of income of the rich than the poor hence narrowing the gap between the rich and the poor. Taxation can also be used to influence resource allocation whereby for sectors government wants to promote, no taxes are levied on their activities while for sectors and activities that government finds less desirable, high taxes are levied on them.

2. **Provision of public goods by the government.**

   For example the provision of better transport network in form of roads helps in the movement of goods from areas where they are in plenty to those areas where goods are scarce. Hence shortages of goods created through the market forces of demand and supply are solved or checked.

3. **Encouragingthe setting up of consumer protection associations.**

   These help in sensitizing the consumers about the ways in which they can be exploited by profit – hungry traders. The consumers are educated on how they can safeguard themselves against buying expired goods and adulterated goods as well as other forms of exploitation by traders.

4. **Anti-monopoly legislation**

   Government enacts laws aimed at checking monopoly powers of private producers or investors. This is aimed at reducing consumer exploitation associated with monopoly firms.

5. **Setting up regulatory bodies to minimize social costs.**

   Such bodies set laws which govern exploitation of resources, laws that protect wetlands, laws that enforce proper disposal of industrial wastes, etc. A case in Uganda is The National Environment and Management Authority (NEMA) that was set up to protect the environment.

6. **Setting up and strengthening bureau of standards.**

   A bureau of standards is in charge of inspecting goods being produced to ensure that certain quality specifications are fulfilled before goods are put on the market. A certification mark is given for goods that fulfill the required quality standards and this protects the health of consumers.

7. **Licensing.**

   The government puts certain restrictions on the licensing of traders such that licenses are given to only those traders or enterprises approved by the licensing department. This checks the carrying out of illegal or illicit trade.

8. **Planning for the economy.**

   Economic development plans are drawn up by the government to guide the allocation of resources in both the private public sector. The aim is to avoid misallocation of resources associated with price mechanism.

9. **Subsidization of firms especially those providing essential and merit goods.**

   The government offers subsidies to firms to produce essential goods and services so that the consumers are able to get such goods and services at lower prices.

10. **Adoption of price legislation policy/ control.**

    Price controls are taken to even out fluctuations in prices. The government can either set a maximum price to protect consumers or a minimum price to protect producers depending on the economic situations at that time.

11. **Setting up government owned firms to compete with private monopolies.**

    Government can set up non-profit making enterprises which are vital to the society. Such enterprises can compete with the private producers thus reducing on consumer exploitation.

12. **Carrying out nationalization of private enterprises.**

    This is done to ensure that all essential goods and services are produced and supplied by nationalized enterprises at fair prices.

    NB:

    Nationalization is…

13. **Rationing of scarce commodities.**

    It involves direct action by the government to distribute the scarce commodities to the public at fixed prices in limited quantities. This is done in periods when goods are scarce in order to reduce consumer exploitation by the traders. For example in 1986 – 1987, the government of Uganda used this policy by rationing the supply of essential goods like sugar, salt, soap to consumers through local councils.

14. **Controlling/ fighting inflation.**

    The government through the central bank uses a restrictive monetary policy to reduce the amount of money in circulation. This reduces the purchasing power of households/ public. Consequently, aggregate demand falls and prices become stable.

15. Use of buffer stocks.

A buffer stock is a system or scheme which buys and stores stock in times of plenty and releases the stocks in times of scarcity. The buffer stock is managed by the government and it helps in stabilizing prices of goods on the market.

REASONS FOR GOVERNMENT INTERFERENCE IN PRICE MECHANISM

Due to the weaknesses or defects of price mechanism, government interferes in the allocation of resources through the forces of demand and supply for the reasons below;

1. **To reduce consumer exploitation by the profit – hungry business community.**

   This arises due to consumer ignorance/ market imperfections. The profit – hungry traders exploit consumers through over charging, sale of fake products, product adulteration, sale of expired goods etc. Such trade malpractices call for government intervention through setting up and strengthening the bureau of standards.

2. **To control monopoly power in an economy where consumer preference is ignored.**

   The government intervenes by imposing heavy taxes on the profits of monopolists. The aim is to fight the dangers associated with private monopolies such as overcharging of consumers and production of poor quality goods.

3. **To reduce income inequality.**

   The government intervenes through progressive taxation so as to reallocate resources and attain equity in income distribution.

4. **To minimise social costs that arise as private investors pursue their private gains.**

   Such costs include over exploitation of resources, pollution of the environment, deforestation among others. The government intervenes by setting up regulatory bodies that enact laws geared to protecting the environment by regulating the actions of firms during resource exploitation.

5. **To reduce unemployment which arises as inefficient firms are outcompeted.**

   The government intervenes by subsidising the inefficient firms to enable them lower their production costs and survive the stiff competition. This guards against unemployment.

6. **To reduce economic instabilities like inflation i.e. to stabilize the economy.**

   The government intervenes through price controls to ensure stability in prices of goods and incomes of producers.

7. **To cater for the provision of public goods.**

   Goods such as public roads and national security cannot be provided through the market forces of demand and supply hence a need for government interference.

8. **To encourage production and consumption of merit goods.**

   These include education, medical care and safe water. A case in Uganda is the funding of the Universal Primary and Secondary Education by the government.

9. **In order to plan for rapid structural changes in the economy that cannot be handled by price mechanism.**

   Structural changes such as rehabilitation of basic infrastructure after periods of war, privatization and modernization of agriculture call for government interference.

10. **For purposes of avoiding duplication of activities.**

    The government intervenes by setting up one public enterprise to run an activity. This avoids wastage of resources.

11. **To control distortion of consumer choices.** The government intervenes by legislating prices of commodities so as to avoid consumer exploitation by the producers in form of persuasive advertising.

12. To encourage investment in areas that may appear risky.

13. **To provide goods needed by the poor.**

    In some cases, government subsidises such goods so that they become affordable to the poor people in the economy. The aim is to improve the quality of life of the poor people.

LIMITATIONS OF PRICE MECHANISM

In this case, we focus on those factors that slow down or distort the effective allocation of resources through the price mechanism. A student needs to be well versed with the assumptions of price mechanism.

1. **Government intervention/ interference.**

   In most economies, government interferes with the inter-play of market forces through price controls and taxation policies. This discourages some producers and they reduce the amount of goods supplied on the market. In this case, supply does not match with the consumers' demand and price mechanism is distorted.

2. **Ignorance of the producers and consumers.**

   Generally, producers and consumers do not have perfect knowledge of the market conditions. Some producers tend to supply goods without judging the condition in the market. Consumers too are not always aware of the availability of certain products and their prices. This creates slow response between demand and supply hence limiting price mechanism.

3. **Existence of monopolies**

   There are many monopolies who tend to be price makers. They always restrict output in order to charge high prices and exploit consumers. They do not supply goods according to the demand by the consumers and this distorts the use of price mechanism in the allocation of resources.

4. **Limited entrepreneurial skills.**

   Poor organization of factors of production and failure to take risks limits producers from responding to consumers demands. Producers fail to supply those goods needed by consumers and this slows down the operation of price mechanism.

5. **Under developed infrastructure.**

   A poor road network limits the supply of goods to areas where they are needed. Consumers may desire to buy goods but are not accessible due to poor transport and distribution network.

6. **Inability to forecast future trends.**

   Failure of producers to anticipate increased demand in future gives rise to low output and this leads to scarcity of goods. Alternatively, over production can occur where producers anticipate increased demand yet actual demand is low. This creates a gap between demand and supply hence price mechanism is distorted.

7. **Limited capital.**

   Inadequate supply of real and money capital leads to low output. This makes producers to supply less than what is required by consumers. As a result, shortages of goods arise on the market hence limiting the operation of price mechanism.

8. **Limited skilled labour.**

   The existence of few people with the necessary and relevant skills makes supply not to respond to the demand of consumers because of fewer volumes of goods being suppliedhence limiting the effective operation of price mechanism.

9. **Immobility of factors of production.**

   Some factors of production do not move with ease from one place of work to another or from one geographical area to another. Therefore producers may fail to increase output hence supply does not respond to demand thus limiting the operation of price mechanism.

10. **Irrationality of producers and consumers.**

    Price mechanism assumes that producers and consumers are rational which is not always true. Many producers and consumers are not guided by a calculating mind.

11. **Reliance on imported goods.**

    This makes local consumers to have little influence on prices, quality, designs, etc of such imported goods.

12. **Band wagon effect.**

    Many people consume certain commodities because they have seen others consuming them. Therefore price mechanism may not operate since such consumers are not rational.

PRICE LEGISLATION/ PRICE CONTROL

Price control is where the government fixes prices of commodities that is either maximum price to protect consumers or minimum price to protect producers.

OR

Price legislation is the deliberate government act of fixing price either above or below the equilibrium and it becomes illegal to sell below or above respectively.

Price control or legislation takes two major forms namely;

1. Maximum price legislation.
2. Minimum price legislation.

MAXIMUM PRICE LEGISLATION

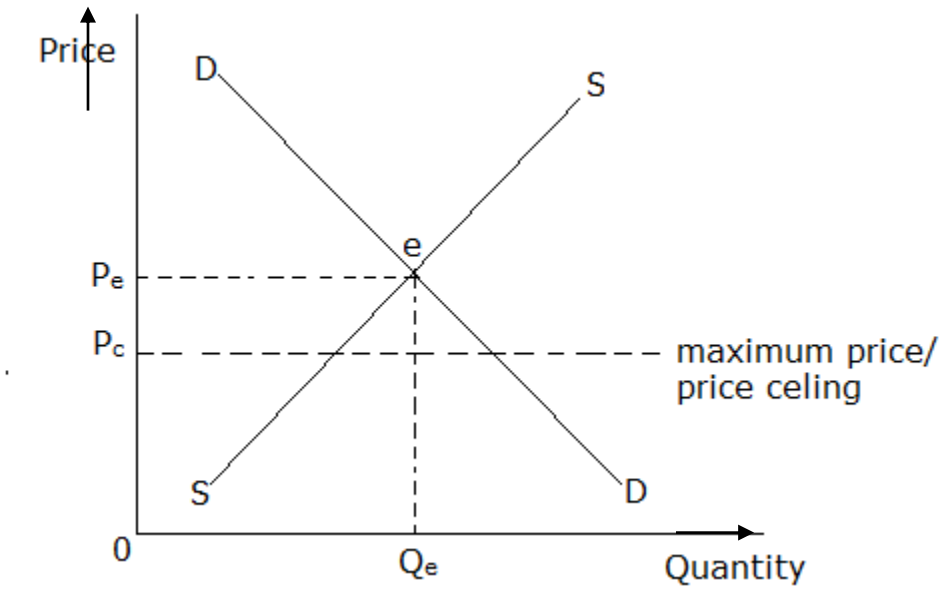
This is the setting/ fixing of prices of commodities by the government below the equilibrium price above which it becomes illegal to sell or buy a commodity. It protects consumers.

The result of maximum price legislation is a maximum price/ price ceiling.

Maximum price/ price ceiling

Refers to the price set by the government below the equilibrium price above which it becomes illegal to sell or buy a commodity. It protects consumers.

Illustration



OPe = equilibrium price

OQe = equilibrium quantity demanded or supplied

OPc = maximum price/ price ceiling

It should be noted that no seller is allowed to sell above OPc which is the maximum price.

MERITS OF MAXIMUM PRICE LEGISLATION

1. Protects consumers from exploitation by producers through over charging.
2. Controls monopoly power since monopoly to a greater extent is a price maker.
3. Avails commodities to all groups of people in the economy. A maximum price makes the commodity affordable to all people and therefore more units are bought.
4. Reduces income inequality because it reduces the profits of producers and expenditures of consumers.
5. Controls inflation because the price is set below the equilibrium price and it is illegal to sell or buy above it.
6. Widens consumers' choice thereby improving on peoples' standards of living.
7. Helps to increase on aggregate demand thus stimulating investment and economic growth.
8. Discourages production of harmful products such as alcohol, cigarettes, marijuana, etc and this benefits the entire society.
9. Discourages importation of expensive commodities and encourages exports. This increases the foreign exchange earnings of the country.

DEMERITS

1. Discourages entrepreneurship development since it reduces the profit margins of producers.
2. Results into shortages of commodities since the legislated prices tend to be less attractive to producers.
3. Leads to trade malpractices such as black marketing, hoarding of commodities, smuggling hence reducing the supply of goods and services in the market.
4. Results into production at excess capacity as a number of resources are not put into use.
5. It leads to rationing. This is because it creates scarcity of goods and as a result, the government is forced to restrict the consumption of scarce commodities on the basis of first come first serve hence leading to problems like long queues and nepotism.
6. It leads to increased government expenditure due to high administrative costs incurred by the government to employ the scouts and enforcement officials to visit all parts of the country so as to ensure that goods are sold at the legislated prices.
7. It leads to unemployment due to reduced levels of investment
8. Deflation may arise and this if not checked may lead to economic depression.

NB:

Rationing is the government act of selling scarce commodities to households in fixed quantities at fixed prices on the basis of first come first serve.

ASSIGNMENT

Outline the objectives of maximum price legislation.

MINIMUM PRICE LEGISLATION

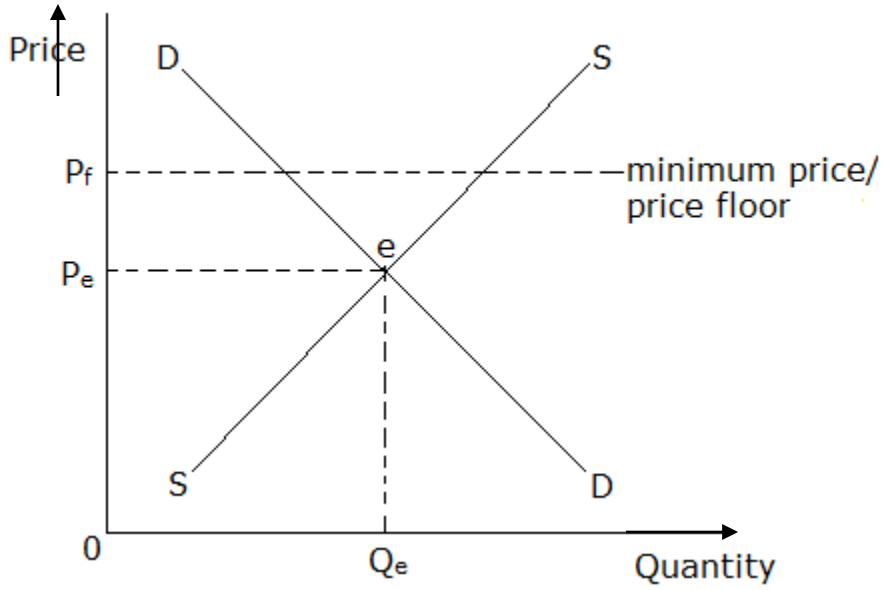
Is the fixing/ setting of pricesof commodities by the government above the equilibrium price below which it becomes illegal to sell or buy a commodity. It protects producers.

The result of minimum price legislation is a minimum price/ price floor.

MINIMUM PRICE/ PRICE FLOOR

Refers to the price set by the government above the equilibrium price below which it becomes illegal to sell or buy a commodity. It protects producers.

Illustration



OPe = equilibrium price

OQe = equilibrium quantity demanded or supplied

OPc = minimum price/ price floor

MERITS OF MINIMUM PRICE LEGISLATION

1. Protects producers from exploitation by consumers through under charging. This basically applies to producers of agricultural goods. The buyers are not allowed to get produce from farmers at a price below the legislated price.
2. Increases output levels because it encourages more production in an economy hence economic growth and development.
3. Enables producers to realize stable incomes since it minimizes price fluctuations.
4. Minimizes consumption of harmful products such as alcohol, cigarettes, marijuana, etc. This is because the price is set above the equilibrium price hence making the products unaffordable by consumers.
5. Increases government revenue because the government is in position to charge reasonable taxes on profits received by producers.
6. May help an economy to offset economic depression or recession since it tends to activate investments/ production in the economy.
7. Minimizes smuggling of goods to other countries since producers are satisfied with home prices.

8. Increases employment opportunities as a result of increased production of commodities and trade in the economy.
9. Promotes research due to the high profits received by the producers which leads to production of better quality products hence better standards of living.

DEMERITS

1. Causes surplus output because of excess production hence wastage of resources.
2. Leads to increased costs of production since it is a high price and mainly set for primary products which form a major part of raw materials especially for agro – based industries.
3. A minimum price in form of minimum wage makes labour expensive forcing producers to opt for alternative methods of production instead of hiring expensive labour e.g. some producers start using more machines compared to men. This results into technological unemployment.
4. Leads to storage problems due to unmanageable surplus.
5. Leads to reduction in social welfare because of high costs of living.
6. Leads to over exploitation of resources which leads to exhaustion of some non-renewable resources like minerals.
7. Leads to smuggling of goods into the country making government to lose a lot of revenue required to meet its expenditure needs.
8. It is inflationary since there is no maximum. A minimum price makes it only illegal to set a lower price but sellers can set any price above it.
9. Widens income disparities between producers and consumers since it increases the profits of producers and expenditure of consumers.
10. It encourages dumping of commodities to other countries. Dumping has negative effects on the recipient country such as closure of local firms due to their out competition, under utilization of local resources among others.
11. Farmers are discouraged in the long run in case the government fails to buy the surplus output.

NB:

1. ***Dumping** refers to the selling of a commodity in the external market at a lower price than the one charged in the local market.*
2. ***Price support** is where the government buys the surplus output on the market arising from the fixing of the minimum price.*

ASSIGNMENT

1. Outline the objectives of maximum price legislation?
2. Under what circumstances may government employ a price control policy?
3. Examine the effects of price control in an economy.
4. Why may the use of price controls be avoided in an economy?

CIRCUMSTANCES UNDER WHICH GOVERNMENT MAY EMPLOY A PRICE CONTROL POLICY

A price control policy may be employed under the following circumstances.

1. When consumers are being exploited. In this case, the government fixes a maximum price.
2. When there is existence of monopoly and its consequences → maximum price.
3. When essentials of life are unaffordable to consumers → maximum price
4. When there is need to reduce income inequality → maximum price
5. When producers are being exploited → minimum price
6. When there is desire to attain higher levels of output (economic growth) → minimum price
7. When there is need to maintain industrial peace → minimum price
8. When there is need to stabilize producers' incomes → minimum price
9. When there is need to offset an economic depression/ recession → minimum price
10. When government wants to discourage production and consumption of harmful products → both
11. When there are price instabilities → both.
12.

EFFECTS OF PRICE CONTROLS

POSITIVE EFFECTS

1. Maximum price protects consumers from exploitation by producers through over charging.
2. Maximum price controls monopoly power.
3. Maximum price avails commodities to all groups of people in the economy.
4. Maximum price reduces income inequalities.
5. Maximum price widens consumers' choice
6. Maximum price helps to increase on aggregate demand
7. Maximum price discourages importation of expensive commodities and encourages exports. This increases the foreign exchange earning of the country.

8. Minimum price protects producers from exploitation by consumers through under payment.
9. Minimum price increases output levels.
10. Minimum price enables producers to realize stable incomes.
11. Minimum price increases government revenue.
12. Minimum price may help an economy offset an economic depression or recession.
13. Minimum price increases employment opportunities.
14. Minimum price promotes research.
15. Price control maintains price stability
16. Price control checks on the production and consumption of harmful products.
17. Price control eliminates trade malpractices such as black marketing, smuggling of goods, etc.

NEGATIVE EFFECTS

1. Maximum price discourages entrepreneurship development.
2. Maximum price results into shortages.
3. Maximum price results into production at excess capacity.
4. Maximum price leads to unemployment due to reduced level of investments.
5. Minimum price causes surplus output hence wastage of resources.
6. Minimum price leads to increased costs of production.
7. Minimum price leads to storage problems due to unmanageable surplus.
8. Minimum price leads to reduction in social welfare because of high costs of living.
9. Minimum price leads to over exploitation of resources.
10. Minimum price causes inflation since there is no maximum.
11. Minimum price widens income disparities between producers and consumers.
12. Price controls encourage trade malpractices such as black marketing, smuggling, etc.
13. Price controls call for establishment of marketing boards which leads to exploitation of consumers.
14. Price controls lead to misallocation of resources due to distortion of price mechanism.
15. It is expensive for the government to enforce price controls.

REASONS FOR AVOIDANCE OF PRICE CONTROLS

1. Fear of causing trade malpractices such as smuggling, black marketing, etc. Maximum price legislation leads to smuggling of goods to other countries while minimum price legislation leads to smuggling of goods into the country.

2. Fear of raising costs of production which arise out of high costs of raw materials resulting from minimum price legislation.
3. Fear of causing unemployment resulting from maximum price legislation which forces firms to close down as they cannot cover their average costs.
4. To avoid unmanageable surpluses and storage problems in case of a minimum price.
5. To avoid discouraging entrepreneurs through tampering with their profit margins in case of a maximum price.
6. To avoid high administrative costs on these price controls e.g. price support.
7. To avoid unnecessary distortion of the price mechanism which may lead to misallocation of resources.
8. Fear of reducing social welfare of the people due to high cost of living caused by minimum price legislation.
9. To avoid underutilization of resources in case of a maximum price.
10. Fear of causing shortages of goods and services resulting from maximum price legislation which discourages production.

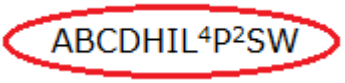
AGRICULTURE IN RELATION TO DEMAND AND SUPPLY

The nature of demand and supply in the agricultural sector tends to be unstable and this in turn tends to make prices of agricultural products fluctuate more often compared to the prices of industrial products or manufactured goods.

AGRICULTURAL PRICE FLUCTUATIONS

Agricultural price fluctuations refer to instabilities or changes in prices of agricultural products over a given period of time.

CAUSES OF AGRICULTURAL PRICE FLUCTUATIONS



1. **Divergence between planned output and actual output.**

   When the actual output of farmers is greater than the planned output, over production arises leading to a fall in prices for the planned output. However where actual output is less than the planned output, there is shortage on the market hence causing the prices to increase.
2. **Long gestation period of agricultural products.**

The long gestation period of some crops makes supply to be inelastic. Before harvesting season, there is a shortage of agricultural products in the market and this leads to an increase in prices. However after harvesting, supply of agricultural products is increased on the market and this leads to a fall in prices being offered to producers.

NB:

Gestation period is the time it takes before new supplies of goods reaches the market for example maize takes 3-4 months while mushrooms take 1 month.

3. **Low income elasticity of demand for agricultural commodities.**

   The demand for agricultural products is not influenced by changes in income i.e. changes in income have minimal impact on the demand for agricultural products. During seasons of high supply, surplus is created on the market and this leads to a fall in prices. However, a fall in supply leads to an increase in prices.

4. **Low price elasticity of demand (inelastic demand) for agricultural commodities.**

   The demand for agricultural products is inelastic such that even if prices change, consumers demand almost the same quantities. This implies that change in supply is not followed by change in demand hence leading to continuous change in price levels i.e. surplus output pushes the prices downwards and shortages push the prices upwards.

5. **Changes in the costs of production.**

   Farmers incur costs of production in form of buying seeds, fertilizers, farm equipment, hiring tractor services etc. When they incur high costs of production, they increase the prices for their products and when they incur lower costs of production, they reduce the prices hence price fluctuations.

6. **Perishability of agricultural products hence difficult to store.**

   Most of the agricultural products are perishable and thus cannot be stored for future use. This causes prices to fall during harvesting periods because farmers tend to sell all their produce. On the other hand during non-harvesting periods, there is severe shortage because little or nothing was stored during the harvesting period and consequently prices go up.

7. **Bulkiness of agricultural products hence difficult to transport.**

   Agricultural products are bulky and this makes them difficult to transport from production areas to market centres. This leads to a fall in prices at the production centres and a rise in prices at the market centres.

8. **Lack of co-operation among producers of agricultural products.**

   Presence of many farmers competing amongst themselves makes it hard to regulate output in order to stabilize prices. When producers enjoy high prices of products in one season, many farmers are attracted to grow the same crop in the coming season. This results into massive output leading to a fall in prices. When producers make losses, many farmers are discouraged and stop growing the crop. This results into shortages in the next season forcing prices to rise.

9. **Heavy dependence on nature/ effects of changes in natural factors like weather, soils, etc which affect output levels.**

   Unfavourable climatic factors like prolonged droughts, floods, pests and diseases in some seasons result into low output leading to an increase in the price of agricultural products. On the other hand, favourable climatic conditions lead to greater output by the farmers resulting into declining prices of agricultural products.

10. **Substitution of agricultural raw materials with artificially made raw materials by developed countries/ high competition from synthetic/ artificial fibres.**

    Some agricultural products like cotton face stiff competition from synthetic fibres like nylon, silk, polyester, etc. Where buyers prefer synthetic fibres to natural fibres, the price of natural fibres falls. However, when the demand for synthetic fibres declines, buyers resort to natural fibres and their prices increases.

11. **Introduction of raw material saving techniques by developed countries (major buyers).**

    Raw material saving innovations have tended to interfere with planning output in the agricultural sector thereby causing instabilities in supplies and hence instabilities in prices of agricultural products.

12. **Weak bargaining position of LDCs on the world market/ external determination of prices**

    The major buyers (MDCs) dictate the prices of agricultural products like coffee, cotton, tea etc. As a result, LDCs cannot secure stable prices for their products because the major buyers increase and decrease the prices since they are more or less price makers in the foreign markets hence price fluctuation.

13. **Agricultural products are only minor inputs in the manufacturing sector.**

    The agricultural products used as inputs in the production of industrial products form a small part. E.g. in the manufacturing of cars, agricultural products are only used in the making of tyres making their demand inelastic.

14. **Poor surplus disposal system/ machinery.**

Developing countries are faced with a problem of poor infrastructure such as underdeveloped transport facilities making it difficult to transport the surplus to areas of scarcity. This leads to a fall in prices in the areas where there is surplus output and a rise in prices in areas of scarcity.

EFFECTS OF AGRICULTURAL PRICE FLUCTUATIONS ON AN ECONOMY

1. **Price fluctuations lead to fluctuations in farmers' incomes.**

   Incomes of farmers increase when prices increase and they decrease when the prices decrease.

2. **Price fluctuations result into fluctuations in government revenue.**

   This is because government receives most of the revenue from taxing income and/ or property. Therefore fluctuation in income means fluctuation in tax revenue.

3. **Fluctuations in prices of major export crops lead to instability in export earnings.**

   In seasons when export prices increase, export revenue for the government increases. However in seasons when export prices fall, export revenue also declines. This causes unstable export earnings from one season to another.

4. **Government planning based on expected earnings from the agricultural sector becomes difficult.**

   When prices are fluctuating, it is not easy to predict what is to be earned from selling agricultural products. This complicates planning by the government in case the plans are to be financed by incomes from the agricultural sector/ agricultural exports.

5. **Farmers get discouraged/ frustrated.**

   This leads to subsistence production hence a decline in economic growth and development.

6. **Price fluctuations lead to rural urban migration with its negative consequences.**

   As incomes from agriculture become unreliable, the frustrated farmers (especially the young and energetic) migrate to urban areas looking for better employment avenues/ opportunities. Unfortunately, this migration is associated with many problems like open urban unemployment, high crime rate, development of slums, gambling, etc.

7. **Price fluctuations lead to instability in exchange rates.**

   As export prices of agricultural products increase, a country's foreign exchange earnings are improved. This results into greater foreign exchange inflow. This increased inflow of foreign currency results into a fall in exchange rates in the country. However, a fall in export prices of

agricultural products creates a shortage of foreign currency in the country. This results into an increase in exchange rates.

8. **Price fluctuations lead to instabilities in balance of payments.**

   An increase in export prices of agricultural products in a given season results into an improvement in the balance of payments position. On the hand, a fall in export prices of agricultural products in a given season results into worsening of the balance of payments position.

9. **Price fluctuations result into unstable/fluctuating terms of trade.**

   When prices of agricultural exports increase, the terms of trade improve (become better). However when export prices decline, the terms trade deteriorate (become worse).

10. **Investment in agriculture becomes uncertain**.

    This causes speculation as farmers regard investment in agriculture as a gamble and thus irrational use of land.

11. **Price fluctuations lead to seasonal unemployment in the sector.**

    Some farmers may decide not to produce in a particular season because of the miserable prices obtained in the past season. Such farmers become seasonally unemployed.

12. **Price fluctuations worsen income inequalities.**

    A decline in prices of agricultural products in some seasons makes farmers to earn less income than individuals employed in other sectors like the industrial sector, service sector, etc.

ASSIGNMENT

Why is there need to stabilize agricultural products?

POSSIBLE WAYS OF STABILISING AGRICULTURAL PRICES

1. **Through operation of the buffer stock policy.**

   A buffer stock policy is one whereby the government through the market boards buys the surplus output from farmers, stores it and sells it during periods of scarcity. This helps to iron out fluctuations in supply, prices and incomes.

2. **By use of the stabilization fund policy.**

   A stabilization fund policy is the deliberate attempt by the government of paying the producers less than the market price when prices and incomes are high and putting the realized difference into a fund and later using the fund to pay the producers higher prices than the market price when prices

and incomes are low to avoid fluctuations in prices and incomes as would be dictated by the market forces.

3. **Improving on storage facilities/ system**

   For example use of fridges to ensure proper storage of highly perishable products like milk, fish, tomatoes etc. This stabilizes supply and hence prices and incomes of agricultural producers.

4. **Improving on transport system.**

   This involves construction of feeder and main roads linking production centres and market centres. A better transport system evens out surpluses by easing transportation of goods from production centres (areas of plenty) to market centres (areas of scarcity) thereby stabilizing prices of agricultural products.

5. **Modernizing agriculture/ improvement in technology and carrying out extensive research.**

   This not only improves on the quality of agricultural products but also leads to a reduction in their gestation period. For example use of hybrid seeds with a short gestation period, taming nature through irrigation, etc. All these stabilize supply leading to stable prices over time.

6. **Setting up agro-based industries.**

   Agro-based industries add value onto agricultural products. This helps to improve on the quality and prices of agricultural products.

7. **Joining international commodity agreements.**

   International commodity agreements like international coffee agreement help to fix prices and quotas for the buyers and sellers of commodities to avoid fluctuations of prices on the world market resulting from excess supply.

8. **Diversifying agriculture.**

   It is important to note that many developing countries depend on only one or two crops for export. As a result, fluctuations in the output or prices of the crop(s) may cause considerable instability in exports and incomes of those countries. To reduce the effects of dependence on one or a few crops, there is need to produce a variety of crops so that failure of one can be compensated for by the successful harvest of the other(s).

9. **Development of forward (future) markets/ contract trade**

   This involves producers and buyers signing agreements specifying the amount, quality and price of a given commodity to be supplied in the future. In this way, changes in supply do not affect the price

agreed upon hence stability in prices of agricultural products. Future trade can be arranged for both local and foreign trade.

10. **Through price legislations.**

    The government of the concerned economy can carry out price controls by fixing prices of selected commodities.

11. **Formation of co-operatives to control supply.**

    Co-operatives help to educate the farmers about the use of better farming methods, looking for market for the farmers' output, regulating supply through a quota system, improving the bargaining abilities of farmers with buyers, etc. All these actions help to stabilize the prices of agricultural products.

12. **Strengthening regional economic integration.**

    This improves the bargaining power of member states for their agricultural exports on the world market.

13. **Diversifying and expanding the markets for agricultural products.**

    This involves extending and widening markets for agricultural products. It is done by searching for new buyers from other developing countries in Asia and in other parts of Africa.

14. **Re-sale price maintenance system.**

    It is important to note that greater fluctuations are at times caused by middlemen and if prices at which consumers are to buy are set in advance by the primary producers, instability in prices may be minimized.

15. **Subsidising farmers/ providing tax incentives to farmers/ stabilising costs of production.**

    This involves reducing taxes on farm inputs or provision of subsidies to farmers on farm inputs. This helps to stabilise costs of production and ensure stable supply and prices.

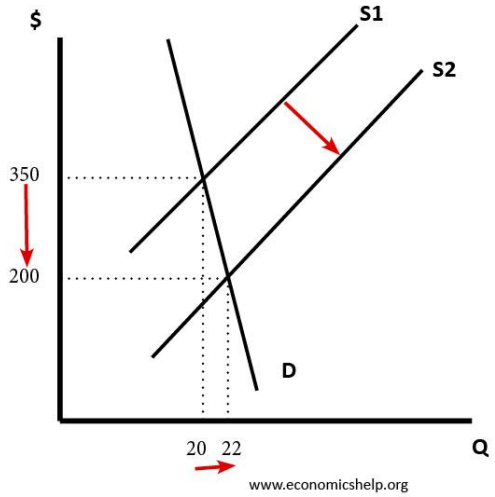
16. **Providing affordable credit to farmers to buy necessary inputs.**

    This involves providing low interest loans to farmers through the local SACCOs and commercial banks to enable purchase of farm inputs. This leads to stable supply of agricultural products and thus stable prices.

EFFECT OF A CHANGE IN SUPPLY UNDER CONDITIONS OF INELASTIC DEMAND

With inelastic demand, small change in supply can have a large impact on changing price.

Illustration



From the diagram above, it can be observed that a small increase in supply (represented by a shift of the supply curve to the right from S_1S_1 to S_2S_2) leads to a big fall in price from P_2 to P_1. Note that a fall in supply has a similar but opposite effect.

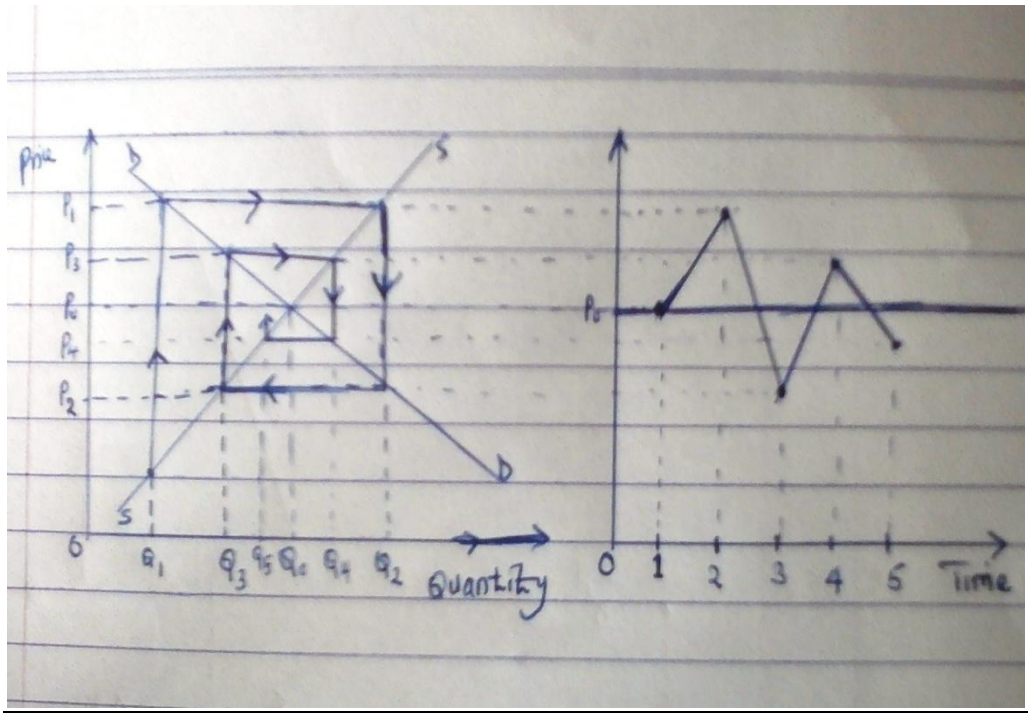
THE COBWEB THEORY

The cobweb theory is an economic model that attempts to explain the occurrence of price fluctuations in certain types of markets.

The cobweb theory is based on a time lag between supply and demand decisions. Since agricultural market share characterised by a time lag between planting and harvesting, the cobweb model can be applied to explain the occurrences of agricultural price fluctuations.

Because of this time lag, the output produced in a particular season is determined by the prices of the previous season.

Illustration of the cobweb model (Convergent cobweb)



From the above illustration, initially the equilibrium quantity supplied is OQoand the equilibrium price is OPo.

Assuming there is a shock in an economy for instance an unexpectedly bad weather, this will result in a fall in the amount of the commodity supplied on the market from OQo to OQ1 (A shortage is created). This results into an increase in the price of the commodity from OPo to OP1. This increase in the price above equilibrium attracts new farmers to plant the same crop and also makes the old farmers to plant more. Because of the time lag between planting and harvesting, much will be supplied in the next season i.e. output increases from OQ1 to Q2 (There is surplus output). This forces the farmers to reduce the prices of their products from OP1 to OP2. This fall in price discourages some farmers and they stop growing the crop and even those who remain in production end up planting less. This results into less output put on the market the next season (Quantity OQ3 is supplied which is less than demand) again forcing prices to rise from OP2 to OP3. This process will go on until equilibrium is reached after a number of oscillations.

From the illustration, it can be observed that the fluctuations spiral inwardly meaning that the forces of demand and supply work out to restore the equilibrium conditions. This is a case where demand is more elastic than supply (The supply curve is steeper than the demand curve)

PRODUCTION THEORY AND MARKET STRUCTURES

Production is any activity aimed at bringing about a physical change in a good to make it satisfy human wants.

OR

It is the process of transforming inputs or raw materials into more useful final products to satisfy human wants.

OR

It is the creating of utility in goods to satisfy human wants.

The production process is not complete until the commodity has reached the final consumer.

STAGES/LEVELS/CATEGORIES OF PRODUCTION

There are three stages of production namely:

1. Primary production
2. Secondary production
3. Tertiary production

PRIMARY PRODUCTION

This is a stage where **raw materials are extracted from their natural** state e.g. farming, fishing, mining, lumbering, bee-keeping, oil drilling, etc. The products at this stage are called primary products e.g. agricultural products, fish, timber, etc.

SECONDARY PRODUCTION

This is a stage where raw materials extracted at the primary stage**, are processed and turned into finished goods** for example turning cotton into clothes, timber into furniture.

Secondary production involves manufacturing which involves turning raw materials into finished goods and construction like bridges, road making, house building etc.

TERTIARY PRODUCTION

Tertiary production is the provision of services or intangible commodities.

The output of the primary and secondary stages have to be transported, stored, advertised, and insured. Such services form the bridging stage.

There are two main types of services provided,

(a) **Personal/Direct services:**

These are services provided in person. The service provider and the service consumer must be in direct contact or communication for effective delivery e.g. hair dressing services, Medical care services, teaching services etc.

(b) **Commercial services:**
These are services provided indirectly in large amounts to improve business operation or production. Such services include transport services, banking services, insurance services etc.

TYPES OF PRODUCTION

There are two types of production namely;

1. Direct production
2. Indirect production

DIRECT /SUBSISTENCE PRODUCTION

It refers to the production of goods and services for one's **own/self**-use or consumption. For example a carpenter making his own chair, a Tailor making his own shirt or a farmer growing food crops for his own consumption etc.

Characteristics of subsistence production

- Producers mainly use poor/backward/primitive technology
- There is limited specialisation and trade
- Mainly produce poor quality output
- Mainly use unskilled labour
- Mainly barter system of exchange is used.
- Mainly family labour is used
- Mainly produce low output
- There are limited innovations and inventions due to lack of competition.

Advantages of subsistence production

- There is limited wastage of resources since whatever is produced is consumed by the producer.
- It is cheap because it uses cheap and abundant (unskilled) family labour.
- It uses simple tools that are easy to get by the low income groups e.g. hand hoes, knives etc
- It is easy to manage because it is organised on small scale and thus it require limited managerial and supervision skills.
- It is the main source of food.
- There are no transport costs involved since the producer is the consumer.
- It is highly flexible. Subsistence productions easily change from one activity to another.

Disadvantages/ demerits/ shortcomings of subsistence production

- It leads to low tax revenue because people in this sector do not pay taxes.
- Leads to limited innovations and inventions in the sector due to lack of competition. This discourages technological development in an economy.
- It leads to slow economic growth rate due to low quantity of output produced
- It leads to production of poor quality output due to use of poor technology and lack of competition.
- It leads to high levels of under- employment and seasonal unemployment because producers rely on family labour.

- It leads to underutilisation/under exploitation of natural resources because production is on a very small scale.
- It leads to limited specialisation and trade which hinders commercialisation of an economy since the goods produced are not for exchange.

Reasons why subsistence production/ sector is dominant in developing countries:

- Many people are poor and therefore lack capital to carry out commercialized production.
- There is existence of low levels of education and thus producers are not able to carry out commercialised production but rather concentrate on subsistence production.
- Use of poor technology. This makes it hard to produce high quality products in case the producer has to sell.
- Conservatism by the people and therefore resist change from subsistence production to commercial production.
- Poor infrastructure. This makes it very difficult to take the products to markets especially agricultural products.
- Existence of a small market which cannot sustain commercialised production**.**

INDIRECT/ COMMERCIAL/ MARKET PRODUCTION:

Indirect production is the production of goods and services for **sale** or for **the market** in order to make profits. E.g. a carpenter making chairs for **sale**, a farmer growing crops for sale, tailor making clothes for sale etc.

Features/ characteristics of market production

- Producers are mainly profit oriented/motivated
- There is specialisation because the producers sell their output in order to get what they do not produce.
- They mainly produce high quality products due to competition that exists in the market.
- They mainly employ skilled labour.
- They mainly use improved techniques of production.
- Production is mainly on large scale
- The exchange of output is basically done using money
- Production mainly involves research into better means of production and adding value.

Merits of commercial production

- It contributes to government revenue because commercial production activities are taxed by government.
- It leads to improvement in quality of goods due to competition and use of skilled labour and modern technology.
- It facilitates economic growth because of increased output due to production on large scale.
- It encourages technological development because producers carry out innovation and invention into better technique of production
- Economies of scale are enjoyed in the fields of transport, marketing, technical development and management which reduces the cost of production.
- Specialisation in production is possible because of large size of the production plants and hence the advantages of specialization such as improved quality and increased output.
- Commercial production facilitates the development of infrastructure since there is constant need for transporting final output to the market or need for producers to transport inputs to the production unit.

- It generates more employment opportunities due to large scale production that involves many activities like actual production, processing, transporting, warehousing, marketing etc.
- Leads to increased export earnings because some output from commercial production is exported to other countries. This eventually leads to improvement in the country's balance of payment position.
- It leads to increased utilisation of a country's resources due to large scale production which necessitates the utilisation of the would be idle resources such as land.

Demerits of commercial production

- It is expensive because it involves high costs of production like high cost of hiring skilled labour, buying modern machinery, paying high indirect taxes etc. This reduces the profit margin of the producers.
- It leads to resource wastage resulting from over production where producers remain with unsold output.
- In case of change in demand or change in tastes of consumers against a product, the producers suffer great losses leading to wastage of resources.
- There is danger of technological unemployment as a result of mechanisation in production where human beings are replaced by machines at work.
- It leads to rise in the cost of inputs such as raw materials and other intermediate products due to the increased competition for such inputs by many commercial producers.
- It leads to quick depletion of resources due to their over exploitation as a result of large scale production.
- It leads to diseconomies of scale in the long run. This is because large scale production results into management problems, transport problems supervision problems etc. All these result into increased cost of production.

Limitations of market/commercial production

- Small market
- Limited capital
- Poor infrastructure
- Conservatism
- Limited Labour skills
- Limited entrepreneurial skills
- Political instability
- Poor technology
- Poor land tenure system
-

FACTORS OF PRODUCTION/AGENTS OF PRODUCTION

Factors of production also known as agents of production refer to resources used in the production process to produce goods and services in order to satisfy human wants.

Production cannot take place if one of the factors of production is missing. This implies that the factors of production are interdependent. Some of the factors of production are financial (financial resources) such as capital, some are natural (natural resources) such as Land and others are human such as labour and entrepreneurship.

There are four factors of production namely;

- Land

- Labour
- Capital
- Entrepreneurship.

Each of them is rewarded for its contribution in the process of production and such a reward is called a **factor Price.**

NB

A factor price refers to a monetary reward/ payment given to a factor of production for its contribution in the process of production.

The factor prices are;

- Wages and salaries for labour
- Interest for capital
- Profit for entrepreneurship
- Rent for land

LAND

This refers to all natural resources i.e. free gifts of nature that are used in the process of production.

It includes all kinds of natural resources such as agricultural land, minerals, plants, water bodies etc.

Characteristics of land

- It is a free gift of nature
- Land is fixed in nature
- Productivity of land varies
- Land is subjected to the law of diminishing returns
- Land is mobile occupationally and immobile geographically

Uses of land

- Provides space for the construction of manufacturing plants.
- Provides space for agriculture/farming
- Provides raw materials/minerals
- Provides forces that run machines like wind
- Used for settlement/ residential purposes
- Land is used for recreation and tourism

RENT

This is the monetary reward to land as a factor of production for its contribution in the production process.

However all rent for Land is economic rent because of the following:

- Land is a free gift of nature with no supply price.
- The supply of land is fixed(perfectly inelastic)

Transfer earnings and economic rent

Each factor of production has a minimum reward required to keep it in its present employment without inducement to change to alternative employment. Such a reward is called transfer earnings / supply price.

For example if a worker who is willing and comfortable to work for Shs. 200,000, this is his transfer earnings because for as long as he is earning that, he is not willing to change the job but any earnings below that value will induce the person to change to another employment/job.

However, it should be noted that it's possible for the person to earn in excess of the transfer earnings e.g. if that worker is paid Shs. 300,000, it means that he is earning shs.100, 000 in excess of the transfer earnings. Shs.100.000 is what we refer to as **Economic rent**.

Definitions

Transfer earnings refer to the **minimum** /lowest payment to a factor of production to keep it keep it in its current/present employment/ use and prevent it from shifting/ transferring to the next best/ alternative use.

Economic rent refers to the extra earnings given to the factor of production which is over and above the transfer earnings/ supply price.

An illustration of Economic rent:

Calculations involving economic rent

Economic rent = Market price- Supply price/Transfer earnings

OR; =Actual payment- Supply price/Transfer earnings

Example 1

Given that the supply price of a factor is Shs. 350,000 but it is receiving a market price of Shs.560, 000, calculate the economic rent.

Solution

Economic rent = Market price- Supply Price

Shs. (560,000 -350,000)

Shs. 210,000/=

Example 2

Given that a piece of land is valued at Shs. 50,000,000/= by market agents, determine its economic rent.

Solution

Economic rent = Market price- Supply price

But the Supply price of land = Shs 0

Therefore Economic rent = Shs (50,000,000- 0)

Shs. 50,000,000/=

Exercise

Given that the Supply price of a factor is a half times its market price and the market price is recorded at Shs. 840,000, calculate the

(i) The factor's transfer earnings
(ii) The economic rent

TYPES OF RENT

1. **Quasi rent:** This is the extra earnings for the factor of production that is over and above the transfer earnings/ Supply price that has inelastic supply in the short run but elastic supply in the long run e.g. the supply of doctors in the short run.
2. **Commercial rent;** This is the payment made for the use of a durable asset e.g. houses, tractors, generators, music systems, etc.
3. **Scarcity rent:** It is payment to the factor of production especially land due to its relative scarcity e.g. Land for construction in urban areas is relatively scarce due to its increased demand for it.
4. **Differential Rent**: It is a reward/payment to a factor of production due to its uniqueness. Normally factors of production are not homogeneous (not similar) e.g. Land which is more fertile will earn higher rent than one which is infertile.
5. **Site / Location rent:** It is the type of rent which is paid to the factors of production especially land due to its location e.g. urban land earns a higher rent than the rural land because of its location in the urban areas.

FACTORS THAT DETERMINE/ INFLUENCE/ AFFECT ECONOMIC RENT

1. **The level of Supply of a factor of production.**
   A factor of production with high supply earns a low economic rent and the one with low supply earns a high economic rent.
2. **The level of demand for the factors of production**
   A high demand for the factor of production implies a high economic rent and the lower the demand for the factor of production the lower its economic rent e.g. urban land which has high demand earns a higher economic rent than the land in rural areas,
3. **The Elasticity of supply of factors of production.**
   The more elastic the supply, the less the economic rent and where supply is perfectly inelastic, economic rent is high, and economic rent is zero where supply is perfectly elastic.
4. **The elasticity of demand for a factor of production.**

A factor of production with inelastic demand earns a high economic rent and the one with elastic demand earns a low economic rent.

5. **Degree of Specificity of a factor of production**.
   A highly specific factor of production earns a high economic rent and a less specific factor of production earns less economic rent.
6. **The degree of substitutability of a factor of production.**
   A factor with a high degree of substitutability earns a low economic rent and the one with a low degree of substitutability earns a high economic rent.

LABOUR

This refers to the human effort both **mental** and **physical** that is used in the production process.

Labour is vital in the process of production and without it production cannot take place.

The quality of labour can be improved through training so as to equip the unskilled labour with the appropriate skills.

Features/characteristics of labour

- Its human and cannot be separated from the owner.
- Labour effort cannot be stored.
- It is a very mobile factor of production i.e. labour is both geographically and occupationally mobile.
- Supply of labour depends on different factors like population, level of education, training facilities and social conditions.
- It earns a wage or salary.
- Labour is scarce but its supply can be increased.
- The productivity of labour is variable i.e. sometimes labour is very productive due to favourable employment opportunities.
- The demand for labour is derived demand i.e. it is not demand for its own sake but for the sake of goods it helps to produce.

TYPES OF LABOUR

1. **Skilled labour**
   This is a type of labour which has acquired special or specific skills through education and training. People acquire skills through training which may be formal or informal.
   Acquiring skills through formal training involves going through school and being trained using a properly designed curriculum.
   On the other hand informal training involves acquiring skills while on the job.
2. **Semi-skilled labour:**
   This is the type of labour which has acquired elementary training, therefore not adequately trained.

3. **Unskilled labour**
   This refers to that type of labour which has not acquired any specific or special skills through education and training i.e. it is not equipped with the appropriate skills.

4. **Productive labour**
   It refers to that labour which is engaged in the production of goods and services with a market value. Such labour is rewarded with a wage or a salary.

5. **Unproductive labour**
   This refers to labour which doesn't produce any goods and services.

NB

Co-operant factors of labour are the complementing factors that labour works with to produce goods and services. They are the other factors of production such as capital, land and entrepreneurship.

OTHER CONCEPTS USED IN RELATION TO LABOUR

1. **Productivity of labour/ labour productivity.**

   This is the measure of the quantity of output that a unit of labour can produce **in a given period of time.**

2. **Efficiency of labour/Labour efficiency.**
   This is the measure of the quantity and quality of output that a unit of labour can produce in a given period of time.

FACTORS THAT AFFECT/DETERMINE/INFLUENCE LABOUR EFFICIENCY AND LABOUR PRODUCTIVITY

1. **Level of wages.**
   A high level of wage motivates workers and makes them more efficient and productive because they are contented with the wage paid to them whereas poorly paid workers are de-motivated and therefore are less efficient at work hence producing less output.

2. **The level of education and training /skills.**
   Highly skilled workers are very efficient when doing work because they are well conversant with the work being done, while labour efficiency is low for those workers without appropriate skills because they are not conversant with what they are doing.

3. **Level of technology.**
   Labour efficiency is high when workers are using modern technology because it makes work faster while poor and outdated technology leads to low labour efficiency because the production is slow.

4. **The quality of management**.
   Good management in the business leads to high labour productivity and efficiency because it effectively supervises the workers hence producing more output. On the other hand, poor management in the business leads to low labour efficiency and productivity because of poor supervision of the workers.

5. **The working conditions.**
   Good working conditions like safety precautions, hours of work, accommodation, transport facilities and medical facilities etc motivate workers and make them produce more output while poor working conditions lead to low labour efficiency because workers are dissatisfied with the working conditions.

6. **Mental abilities and physical strength.**
   A mentally sound and /or physically strong labourer is more productive and efficient at work because such a worker has a sound mind which enables him/her to effectively perform the required tasks thus leading to high output while mental disabilities lead to inefficiency because the workers do not have sound mind to effectively perform tasks thus low output produced.

7. **The attitude of a worker towards work.**
   Labour efficiency is higher for workers with positive attitude towards work because they are committed to their tasks thus leading to higher output. On the other hand, workers with negative attitude towards work are less efficient because they are not committed at work thus leading to low output.

8. **Level of specialisation of a worker.**
   Labour efficiency is high for labour that is highly specialised because it enables labour to engage in a particular task in which it is good at hence becoming more efficient. On the other hand labour efficiency is low for workers that are not specialised because they do not concentrate on a particular task hence less efficient.

9. **Political atmosphere.**
   Political stability leads to high labour productivity and efficiency because it allows people to settle and concentrate on their work while political instability leads to low labour efficiency and productivity because workers live under fear and thus do not concentrate at work thus less efficient at work.

10. **Availability and efficiency of co-operant factors of production.**
    The presence of co-operant factors of production that are efficient leads to high efficiency of labour since labour work hand in hand with those other factors of production which leads to high output. On the other hand absence of efficient co-operant factors of production limits labour efficiency because of poor co-ordination between labour and other factors of production hence low output produced.

11. **Natural abilities/ Talents.**
    High level of natural abilities leads to high level of efficiency because of the high level of creativity and innovation of such workers. On the other hand people with limited natural ability are less efficient in production because they are less creative and innovative.

12. **Degree of experience/ Expertise.**
    High degree of experience of labour leads to high level of efficiency because experienced workers are knowledgeable about their work and therefore perform the tasks with ease. On the other hand low degree of experience leads to low labour efficiency, this is so because workers are less knowledgeable about their work, hence take a lot of work performing their tasks.

Factors that lead to high labour efficiency:

- High level of wages
- High level of skills
- Presence modern/ advanced technology
- Presence of good management in business

- Presence of good working conditions
- Presence of mentally sound and physically strong labour
- Positive attitude towards work
- High level of specilalisation of labour
- Presence of political stability
- Presence of efficient co-operant factors of production
- High level of natural ability/ talents
- High degree of experience/ expertise

Factors that lead to low efficiency of labour:

- Low level of wages
- Low level of skills
- Poor/Primitive/Outdated technology
- Poor management in business
- Poor working conditions
- Presence of mentally Unsound and physically weak labour
- Negative attitude towards work
- Low level of specialisation
- Political instability
- Absence of co-operant factors of production
- Low natural ability/Limited natural talents
- Low degree of experience

FACTOR MOBILITY/MOBILITY OF FACTORS OF PRODUCTION

Factor mobility refers to the ability/ **ease/ degree** with which a factor of production either moves from one job to another or from one geographical area to another.

Factor mobility is both occupational and geographical.

Geographical mobility of a factor of production is the ease with which a factor of production moves from one area to another.

Occupational mobility of a factor of production is the ease with which a factor of production moves from one job to another.

The inability of the factors of production to move from one job to another or from one geographical region to another is termed as immobility of factors of production.

LABOUR MOBILITY:

This refers to the **ease/ ability**/ **degree** with which labour moves either from one job to another or from one area /region to another.

The movement is both occupational and geographical.

Geographical mobility of labour: This is the **ability** /**ease/ degree** with which labour moves from one geographical area/region to another.

Causes of geographical mobility of labour:

- **Insecurity:** labour moves from one area to another due to insecurity in the current area
- **Geographical wage differentials**: Labour may move geographically especially from rural areas to urban areas in search of higher wages.
- **The search for jobs**. Some people move from one region to another in search for employment opportunities.
- **Natural calamities** such as drought and floods can make a worker to move from one place to another.

Occupation mobility of labour: This is the **ability/ease/degree** with which labour moves from one occupation to another.

Causes of occupational mobility of labour:

- The desire for higher wages which are found in other occupations.
- Poor working conditions at the current job.
- Poor administration and lack of prospects for any promotion at the current job makes workers to leave certain occupations and go for other jobs.
- Discrimination in the labour market based on religion, tribe, gender etc.

Types of occupational mobility of labour:

Vertical mobility of labour:

This is where a worker moves from a job of a lower rank/grade to that of a higher rank or grade e.g. from the classroom teacher to Head teacher or from an accountant to senior accountant.

Horizontal mobility of labour:

This is where a worker moves from one job to another job but still of the same grade e.g. a classroom teacher moving from one school to another but still remains a classroom teacher.

Advantages of mobility of labour:

- It leads to high levels of employment; this is because labour can move to other areas where there is employment.
- It enables labour to get high wages since it move from low paying jobs to high paying jobs or from low paying regions to high paying regions.

- It leads to high labour productivity i.e. labour tends to move away from where it is not fully utilized to areas or jobs where it is fully utilized.
- Geographical mobility of enables labour to create a sense of international mobility since labour from all parts of the world can come to work together.

Factors that influence / affect/ determinants of labour mobility:

- **Degree of specialization:** Highly specialized labour is immobile because such labour finds it difficult to change from one occupation to another while labour which is not highly specialized is mobile because it finds it very easy to change from one job to another.
- **The payment to labour in the current job:** Labour that is well paid in the current job is reluctant to change his/her job hence immobility because such labour is contented with the payments, while labour that is poorly paid in the current job is eager to change to a better paying job hence promoting mobility.
- **The cost of training for another occupation**: A high cost of training makes labour immobile because it is not easy to meet those cost so as to take on a new job. On the other hand a low cost of training for another job makes it easy to train and enable labour to take on an alternative job thus promoting mobility.
- **Conditions of work in the current job:** Good conditions of work in the current job makes labour immobile because it is reluctant to move since it is contented with conditions of work at the current job while poor conditions of work in the current job makes labour mobile because workers are keen to change to a new job where conditions are better.
- **The information about existence of other job opportunities:** Labour is mobile when it is informed about the existence of other job opportunities, while ignorance of the existence of other jobs makes labour immobile.
- **Political climate:** Political instabilities in the areas of alternative jobs causes immobility of labour because people fear to go those areas of alternative jobs for fear of losing their lives while political stability in the area of the alternative job makes labour mobile because people don't fear to go those areas of alternative jobs since their lives are not in danger.
- **The strengths of trade unions and professional bodies:** Strong trade unions and professional bodies cause immobility of labour because they restrict the recruitment of workers in their occupations, while weak trade unions and professional bodies encourage mobility of labour because they do not have the ability to restrict recruitment of workers in their occupations.
- **Health of the worker:** Workers with good health conditions are mobile because they can work in any part of the country while those with poor health conditions are immobile because they are not able to move and work in some areas.
- **Age of the workers:** Elderly people are very reluctant to change occupation and this makes labour immobile because such people are not willing to take on new challenges, while young people who are very vibrant, are still adventurous and therefore eager to change the job and this makes labour mobile.
- **Availability of jobs specifications:** Labour becomes mobile if the worker has or meets the specifications required by the employers, in the alternative job. On the other hand labour that lacks appropriate job specifications is immobile because the employers in the alternative occupations are not willing to take on such people.
- **Cultural factor:** Labour is immobile if it has strong cultural ties because it is not ready to go to other areas with alternative jobs. On the other hand labour without strong cultural ties is mobile because there is nothing it to a particular area.
- **Fear of the unknown:** This causes immobility of labour because people fear to risk whereas labour that is daring is mobile because it doesn't fear risks.

LABOUR IMMOBILITY:

This refers to the inability of Labour to either change from one job another or from one geographical area to another.

There are two types of labour immobility;

Occupational immobility of labour: This refers to inability of labour to move from one job to another.

Causes of occupational immobility of labour:

- **Limited natural ability.** Some people do not have certain natural abilities necessary for certain occupations and therefore they cannot take on such occupations.
- **Long training period for other jobs.** Some occupations/professions that take long period of training brings about occupational immobility e.g. Medical Doctors who take seven years to qualify and start working.
- **High cost of training for another job.** Some people do not have adequate funds necessary to train for the alternative jobs.
- **Old age.** Individuals who are advanced in age cannot easily change to other jobs because they are approaching retirement age.
- **High degree of specialisation of labour/Limited skills for the alternative job.** Workers who are highly specialised in one occupation find it difficult to move to other jobs since they have qualifications for one occupation.
- **High prospects of promotion in the current job.** A high prospect of promotion in the current job discourages labour to join other jobs for fear of missing such promotions.
- **High social status /High self-esteem of the current job**. Individuals are reluctant to leave the current job because of the high self-esteem associated with the current jobs.
- **Barriers by trade unions and professional bodies.** These limit entry of other people without the necessary qualifications hence limiting occupational mobility of labour.
- **Stringent requirement for alternative occupations.** This limits the occupational mobility of labour due to high bureaucratic tendencies involved in getting the alternative jobs.
- **Limited information about alternative job.** Some people are not aware about the presence alternative jobs hence failing to change from the current job to the alternative jobs.
- **Better wages in the current jobs.** Employees remain in the current jobs because they are satisfied with the wages paid at the current jobs.
- **Better working conditions in the current job.** Employees are reluctant to leave their current jobs because of the good working conditions which are satisfactory.
- **Social ties/Restrict ions.** Employees are reluctant to leave the current jobs because of the social attachment they have at the current jobs e.g. religious attachment, being a relative to the employer etc.
- **High discrimination in the labour market.** Employees are unable to join the alternative jobs because the employers in the new jobs are not ready to offer them those jobs for some reason e.g. not belonging to the right tribe, race or religion of the employers' preference

Geographical immobility: This refers to the inability of labour to move from one geographical area to another.

Factor that cause geographical immobility of labour

- Limited information about existence of jobs in other areas
- Political instability in some areas of the economy
- Poor infrastructure in some parts of the country
- Strict immigration laws
- Low wages in some parts of the country
- Poor working conditions in some parts of the country
- High transport costs to move to some parts of country
- Socio-cultural ties

Solutions for labour immobility:

- Advertise employment opportunities so as to make people aware of the existing jobs.
- Encourage the people to retrain or go for refresher courses so as to be occupationally mobile.
- Improve the political atmosphere so as o make all areas accessible to the workers
- The government should regulate the powers of the trade unions and professional bodies.
- Infrastructure should be developed to encourage the movement of labour from one place to another.
- The government should relax immigration laws so as to encourage the people to go for employment outside the country.
- Increase wages in areas with low wages.
- Improve working conditions in other areas/alternative jobs.
- Fight social prejudices.
- Subsidize transport for workers.

Factors that promote/ encourage labour mobility in an economy:

- Low level of discrimination in the labour market
- Limited social ties/limited restrictions
- Better working conditions in the alternative jobs
- Better wages in the alternative job/occupation
- Presence of information about the existence of alternative jobs
- Presence of requirements for the alternative job
- Absence of barriers by trade unions and professional bodies
- High social status/high self-esteem of the alternative occupation
- Low prospects of promotion in the current job
- Low degree of specialization of labour/ presence of the required skills for the alternative occupation
- Youthful labour
- Low cost of training for the alternative job
- Short period of training for the alternative occupation
- Presence of natural abilities for the alternative occupation

DIVISION OF LABOUR AND SPECIALISATION:

Division of Labour refers to the act of allocating different tasks among different individuals during the production of a particular commodity e.g. in shoe manufacturing, some people can design the soles, others cut the upper leather, others fix the laces, etc. in order to complete the production of a shoe.

Specialization:

This refers to the concentration of an individual or a country on producing one or a few goods or doing a particular type of work or producing a particular commodity which/ that individual or country is good at.

Types/ Forms of Specialization

- **Specialization by skill/profession:** This is where an individual or a worker concentrates on a particular skill or work or profession one is good at. e.g. one specalises as a teacher, doctor, an engineer, etc
- **Specialisation by commodity:** In this case an individual concentrates on the production of a particular commodity that he/she can do better than others.
- **Specialisation by Process:** This is where a worker or a group of workers concentrate on performing a particular activity in the production process.
- **Specialisation by area or region/Regional Specialisation:** This is where a particular region or area concentrates on carrying out a particular activity or producing a particular commodity that they can do better than others.eg tea growing in an area.
- **International specialisation:** this is where a country concentrates on a particular commodity or field of production in which it has a comparative advantage over others. For example Brazil for Coffee.

Merits /advantages of Specialisation:

- It improves the quality of output since skilled workers / experts using machines are employed
- It improves the skills of the workers because the workers do the same activity repeatedly.
- It increases production / output i.e. it encourages mass production since every worker becomes an expert in his work and produces greater output within a short time.
- It saves time that would otherwise be wasted moving from or job to another and learning a new task as a worker concentrates on only one activity
- It increases resource utilization because of improved efficiency in the use of machines.
- It promotes commercialisation in the economy because it brings the need for exchange in order to get what you don't have or what you cannot produce.
- It encourages the use of machines in the production process which leads to increased output
- It reduces fatigue by making the work more enjoyable and less tiresome
- It provides employment to specialist workers e.g. engineers, accountants etc
- It provides a variety of products because different people engage in producing different products

Demerits of specialisation and division of labour

- It creates a lot of interdependence which causes delay or a standstill in production in case one worker is not there.
- High risks of unemployment where the more specialised one is, the lower the occupational mobility. This is so in the event of change in demand or fashion as specialist workers who are laid off cannot easily shift to other tasks or jobs
- International Specialisation encourages economic resource dependence i.e. where countries rely on resources from other countries for their development and survival.
- Leads to decline in craftsmanship with employment of machinery in a production processes, the workman cease to be innovative /creative /inventive and becomes mere attendant of the machines
- Specialisation may also lead to reduction in the quality of final goods. This is because no single worker is to blame for bad results.
- Creates monotony and boredom by doing the same task repeatedly. Boredom at work increases the risk of accidents and absenteeism both of which lead to decline in production.
- Breakdown of machinery at one stage brings the entire production process to a standstill
- It leads to overproduction hence wastage due to limited market
- Leads to quick depletion of resources due to over-exploitation of natural resources.

Specificity of factors of production

The degree of specificity of factors of production refers to the extent to which a factor of production can be transferred from one purpose to another.

Some factors of production are specific or specialised while others are not. A factor is said to be specific if it is of a specialised kind and therefore cannot easily be used for any other purpose other than the one it was originally intended for**.** Such factors include: very highly skilled and trained labour and some capital assets like flat iron, sewing machines, fridge etc.

While nonspecific factors of production are those that can easily be transferred from one use to another e.g. unskilled labour (casual labour), agricultural land etc.

Relationship between mobility and the degree of specificity of factors of production

The degree of specificity of factors of production affects its mobility in that factors of production which are highly specialised are occupationally immobile whereas factors of production with a low degree of specialisation are occupationally mobile.

CAPITAL:

Capital refers to all man made goods that are used in the process of production to produce other goods e.g. machinery, buildings, cash, vehicles, etc.

Capital is rewarded with interest.

Types /Forms of capital:

- **Real Capital:** This is the capital in form of physical assets e.g. the fixed assets like machinery, buildings, vehicles, etc.
- **Liquid/money capital:** This is capital in form of cash which includes both currency notes and coins.
- **Private or Individual capital:** This is capital owned exclusively by an individual or a group of individuals and it's accumulated by them. Examples include investment in business, shares of companies and bank deposits which bring income to an individual.
- **Public /Social Capital:** This is capital owned by the state and used collectively by the society e.g. Public hospitals, public schools, public parks etc.
- **Fixed Capital:** This is capital in form of durable assets.
- **Floating Capital**: This is capital whose use is not fixed and can be used for many purposes e.g. money (cash), buildings, etc.
- **Sunk Capital:** This is fixed capital that cannot be used for any other purpose apart from one it has been made for e.g. Railway line, ice cream plant etc.
- **Circulating or working capital**: This is the capital in form of cash which is used to meet the day today expenditures of the business e.g. paying wages, purchasing raw materials, meeting transport costs .Circulating capital is also referred to as Working capital or Variable capital
- **Human capital.** This is the skill which is instilled in Labour or human persons through education or training.

Features of capital as a factor of production:

- Capital is man made
- Capital depreciates in value due to wear and tear
- Capital accumulates with time
- Its reward is interest

Sources of capital to an individual:

- From personal savings
- Inherited wealth or incomes
- From retained profits
- Acquisition of loans from financial institutions
- Loans from prosperity for all.
- Gifts and transfer incomes

Sources of capital to the government:

- Revenue realized from taxes
- Proceeds from public enterprises
- Donations and grants from other countries
- Loans from donors
- Raising money through the sale of treasury bills.

Role of Capital in the Production process

- It increases efficiency and productivity of other factors of production especially Labour. A person who is equipped with capital goods such as machines is in a better position to increase his/her output levels and the quality of output also improves.
- It facilitates optimum use of resources /Facilitates optimum employment of resources. Capital in form of machinery enables an economy to utilize the available resources and therefore reduce resource wastage.
- It facilitates research in an economy. Capital in form of machinery and money enables research to be introduced in various sectors and this therefore results into technological development, innovations and inventions which help in rapid development of the sectors of the economy.
- It promotes specialisation in the production process since machines are used and they make specialisation very easy. Capital in form machinery enables an individual to concentrate in production of a particular commodity. This results into an increase in volume of goods and services hence promoting trade in an economy.
- Capital is an engine of economic reforms. Capital makes it possible to transform a primitive economy to a more sophisticated economy i.e. capital is a means of technological transformation where a backward society can easily be changed to a modern one.
- It facilitates exchange and trade and therefore encouraging commercial production.
- It facilitates the development of infrastructure, because money is used to construct good infrastructure.
- It leads to increased output of goods and services because it simplifies and quickens the production process. Capital in form machinery simplifies hard tasks which cannot easily be done by Labour and therefore more output can be realised in the production.
- It facilitates further capital accumulation by using real capital assets as collateral security, i.e. real capital enables industries or firms to get loans from financial institutions which increase the level of investment in the country.
- It facilitates industrialisation process because the money is used to build or construct industries that produce goods and services, capital in form machinery enables an economy to establish large industrial base which helps in transforming the raw materials into finished goods.
- It improves the quality of final goods because the use of machines ensures standardisation of goods.
- It improves labour skills. As labour uses machines in the production process, it acquires different skills of operating, maintaining such machines.
- Creates employment opportunities. Liquid capital facilitates investment in the country thus helping in the creation of employment opportunities.
- It promotes technological development and technological transfer. Money capital is used to carry out research into better methods of production, at the same time it is used to buy new machines/technology from other countries. The new technology acquired improves the ability of a country to utilise its natural resources.
- It reduces economic dependence. Capital enables the country to develop the different sectors of the economy such as agriculture, industry, tourism etc, this helps to reduce sectoral dependence.

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Negative role of Capital in an economy:

- It leads to over exploitation of resources. The machines irrationally exploits the natural resources in the country thus cause their quick depletion.
- Creates social costs like pollution. Most machines pollute the environment by releasing dangerous gases into the atmosphere; this reduces the quality of peoples' lives in the affected areas.
- Creates technological unemployment. Some machines replace human labour at places of work and this cause unemployment e.g. the introduction of the Automated teller machines (ATM) in the banking industry have reduced job opportunities for labour in the sector.
- Capital leads to overproduction, this is because machines work at a very high speed and produce goods in excess of demand, which leads to wastage of resources.
- Capital in form of machines is associated with accidents, these lead to loss of life, property and goods being produced.

Capital Accumulation/ Capital Formation

Capital accumulation or formation: This refers to the **process** of creating a country's stock of capital goods mainly through Investment:

OR: The **process** of increasing a country's existing stock of producer goods or capital goods.

Important concepts to note:

- **Capital appreciation.** This refers to the **increase /gain** in the value of capital goods /assets.
- **Capital depreciation/ Capital consumption:** This refers to the reduction in value of the capital assets/ capital goods having been used overtime.
  OR: This refers to the wear and tear of machines of machines during the production process.

- **Capital consumption allowance:** This is the money or fund put aside by the business owners so as to replace the worn out capital assets by making repairs, by buying spare parts.

Factors affect/influence/determinants of Capital Accumulation/Formation:

- **The level of income:** High levels of income earned by individual's increases the amount of money saved by them or the nation .Increased savings therefore promotes capital accumulation due to increased investment. On the other hand low levels of income earned by individuals or a nation leads to low levels of savings hindering capital accumulation due to low levels of investment.
- **Level of savings:** High levels of savings accelerates the level of investment in the country due to presence of investment funds, this promotes the process of capital formation in the country, while low levels of savings leads to low levels of investment due to limited investment fund, this limits the process of capital accumulation in the country.
- **Political atmosphere**: Political instability in an economy discourages the process of investment, this is because it scares away the potential investors due fear of losing their property and lives. On the other

hand political stability promotes the levels of investment in the country, this is because the investors are not scared of losing their lives and property, and this promotes the capital formation process.

- **Population growth rate:** High population growth rate leads to high dependency burden which results into low levels of savings limiting investment in the country thus leading to capital accumulation. On the other hand low population growth rate leads to low dependency burden which promotes investment in the country thus leading to high levels of capital accumulation.
- **Level of development of infrastructure:** A high level of development of financial institutions encourages people to save and also enables individuals to borrow funds for investment; this promotes capital accumulation in the country. On the hand low level of development of financial institution limits mobiliastion of savings and also makes it difficult for potential investors to acquire loans, limiting investment and thus low lows of capital accumulation.
- **Level of entrepreneurship:** High level of entrepreneurial skills in an economy leads to high levels of investment because there are many people who are ready to initiate businesses and sustain them; this promotes capital accumulation in the country. On the other hand low levels of entrepreneurial ability leads to low levels of investment because there are few people who are ready to initiate businesses and sustain them, this limits the process of capital accumulation in the country.
- **The rate of inflation.** High rate of inflation in an economy discourages savings thus limiting investment funds thus leading to low investment in the country thus low levels of capital accumulation. On the other hand low rate of inflation encourages savings which leads to high investment funds, this promotes investment thus leading to high levels of capital accumulation.
- **Size of the Market:** A large market size encourages investment in the country due to high levels of profitability of doing business, this promotes capital accumulation in the country On the hand a small market discourages investment due to low level of profitability, and this limits capital accumulation in the country.
- **Availability of investment incentives:** Presence of investment incentives such as provision of subsidies, tax holidays etc., encourages investment in the country due low cost of doing business, this promotes capital accumulation in the county. On the hand limited investment incentives such high levels of taxation, low levels of subsidies etc. discourages investment in the country due to low levels of profitability of doing business, thus limiting capital accumulation.
- **The degree of accountability.** High levels of accountability encourages investment in the country because potential investors are not asked for bribes, this promotes capital accumulation in the country. On the other hand low levels of accountability discourages investment because potential investors are asked for bribes, this limits the process of capital formation in the country.
- **The level of Capital inflow and Capital outflow:** High levels of capital inflows in the country leads to high level of investment because of presence of the necessary capital, this promotes the capital accumulation process in the country. On the other hand high level of capital outflows limits investments funds in the country due lows levels of the necessary capital; this limits the capital accumulation process in the country.
- **Existing stock capital:** High levels of capital stock encourage investment in the country this promotes capital accumulation. On the other hand low levels of existing capital stock limits investment levels in the country, thus low levels of capital accumulation.
- **The time preference/ Consumption habits:** This is the desire by individuals to spend their income now or later. Where there is positive time preference, it limits savings thus discouraging investment hence hindering capital accumulation. On the hand a negative time preference implies low levels of present

consumption which leads to high levels of savings thus promoting investment; this encourages capital accumulation in the country.

- **Demonstration effects in consumption:** A high levels of demonstration effects leads to high levels of consumption, this limits savings thus low lows of investment leading to low levels of capital accumulation, on the other hand low levels of demonstration effects leads to low levels of consumption, this encourages savings thus promoting investment and hence promoting capital accumulation.
- **Cultural factors/Degree of conservatism.** High degree of conservatism limits the level of investments in the country because conservative people are less adventurous thus leading to low levels of capital accumulation due to low levels of investment. On the other hand low degree of conservatism encourages investment in the country because people are more adventurous and willing to take risks thus promoting capital accumulation.
- **Level of interest rate on loans or savings:** High interest rate on loans discourages investment because of high cost of doing business which limits profitability thus limiting capital accumulation. On the other hand low interest rate on loans encourages investment due to low cost of doing business which leads to high profitability thus promoting capital accumulation.

- **The level of monetisation of the economy/The size of the subsistence sector:** High level of monetisation of the economy encourages commercial production which leads to high levels of incomes among the people; this promotes savings leading to high level of investment thus high levels of capital accumulation. On the other hand low levels of monetisation of the economy discourages commercial production leading to low incomes among the people, this limits savings leading to low level of investment and thus low levels of capital formation.
- **The land tenure system**: Favourable land tenure system increase accessibility to land by potential investors which leads to high levels of investment hence promoting capital accumulation. On the other hand unfavourable land tenure system denies potential investors to land which limits investments in the country hence low levels of capital accumulation.
- **The state of technology**: Advanced techniques of production encourages investment in the country, this promotes capital accumulation. On the other poor state of technology discourages investment in the country, this limits capital formation in the country.

Factors promoting Capital formation

- High levels of income
- High levels of savings
- Low rate of inflation
- Presence of well-developed infrastructure
- Presence of investment incentives
- High levels of entrepreneurship
- Presence of large market size
- High levels of existing capital stock
- High degree of accountability
- High levels of capital inflow
- High levels of technological development
- Low population growth rate
- Low degree of conservatism
- Low interest rate on loans / high interest rate on savings

- High levels of political stability
- Favourable land tenure system
- High level of monetisation of the economy.
- Negative time preference
- Low level of demonstration effect.

Factors limiting/hindering capital accumulation

- Low levels of income
- Low levels of savings
- High rate of inflation
- Low level of development of (financial) infrastructure
- Limited investment incentives
- Low level of entrepreneurial ability
- Low degree of accountability /high rate of corruption and embezzlement of public funds
- Low level of existing capital stock
- High rate of capital outflow
- Political instability
- Low levels of technology
- High population growth rate
- High degree of conservatism /cultural rigidities
- High interest rate on loans/ low interest rate on savings
- Small market size/limited market
- Poor land tenure system
- Low level of monetisation of the economy
- Positive time preference
- High level of demonstration effect

Measures of increasing/promoting Capital accumulation/Formation

- Controlling population growth rate so as to encourage people to save and invest because of reduced dependence burden.
- Maintaining political stability to encourage both local and foreign investors due to certainty of doing business
- Improving on the infrastructure especially the financial institutions so as to enable them mobilize savings from people for investment.
- Extending credit facilities to investors to enable them carry out investment
- Improving on the land tenure system so as to enable investors get access to land so as to carry out investment
- Controlling inflation to encourage savings that avails funds for investment
- Provide investment incentives such as subsidies, tax holidays that encourages investment due to low cost of doing business
- Expanding the market size e.g. through joining regional economic integration which motivates people to carry out investment due to widened market and thus
- increased profitability

- Fighting corruption/ensure high levels of accountability
- Improving entrepreneurial skills/ability
- Encouraging capital inflow
- Providing affordable loans/credit facilities or increase interest on savings.

Factors limiting mobility of capital include:

- High degree of specificity of capital
- Impossibility of relocating/Fixed nature of some capital e.g. a building is not movable
- Excessive weight of some capital goods e.g. heavy machines are not easily moved from one place to another.
- High cost involved in changing the use.
- Low payment in alternative use
- Inappropriate conditions in alternative location/use
- High cost of transporting some capital from one place to another.
- Unfavourable government policy towards movement of certain capital
- Poor land tenure system which leads to land fragmentation which does not enable the use of heavy tractors.
- Limited skilled personnel to manage capital in other locations.

ENTREPRENEURSHIP:

This is a factor of production that initiates business, controls, coordinates, organises and takes all the risks i.e. he/she brings together all the other three factors of production. Entrepreneurship is done by an entrepreneur who is a person or group of people who initiates the business. The entrepreneur is the highest decision maker in any business. An Entrepreneur earns profits for his/her contribution in the production process.

Types of Entrepreneurs

- Directors
- Sole traders
- Share holders
- State

The Functions of an entrepreneur:

- Initiating business activities. The entrepreneur is the inventor who thinks about what to produce, contributes the capital and start production.
- Moblising, organising, and coordinating other factors of production
- Making all the production decisions on behalf of the firm since he/she owns the business.
- Coordinating business activities, he/she is responsible for monitoring supervising and all business undertakings.
- Bearing the all the risks of the business. He/she risks his capital and other resources against uncertainties in business.
- Managing the profits and losses of the firm
- Inventing and innovating better methods of production so as to increase the output and also improve the quality of output sold.

Factors affect/influence/ determine the supply of the entrepreneurs:

- **Size of the market:** Where the size of the market is big, many people are stimulated to risk their capital in the business due to high level of profitability thereby increasing the supply of entrepreneurs. On the other hand a narrow market discourages potential entrepreneurs due to low profitability leading to low supply of entrepreneurs.
- **Level of education and training:** The high levels of education leads to high supply of entrepreneurs because such people gain the necessary skills to enable them undertake risks. On the other hand low level of education limits supply of entrepreneurs because such people fear to take risks since they have not acquired the necessary skills.
- **Availability of investment incentives: presence of investment incentives such as subsidies, tax ho**lidays etc lead to increased supply of entrepreneurs due to low cost of doing business. On the other hand limited investment incentives such as high level of taxation, limited subsidies lead to low supply of entrepreneurs due to high cost of doing business.
- **Level of economic development: high** level of economic development lead to high supply of entrepreneurs due to high effective demand. On the other hand low level of economic development limits the supply of entrepreneurs due to low effective demand.
- **Availability of capital and other economic resources:** presence of capital and other factors of production lead to high supply of entrepreneurs because there are co-operant factors of production which attracts people to initiate/start businesses. On the other hand, limited supply of capital and other factors of production lead to low supply of entrepreneurs because there are few co-operant factors of production which hinders initiation/starting up of businesses.
- **Level of development of infrastructures:** Well developed infrastructure like financial institutions extend loans to potential investors thereby leading to high supply of entrepreneurs. On the other hand, low level of development of financial infrastructure limits of provision of loans to potential investors, thereby leading to low supply of entrepreneurs.
- **The political climate:** Political stability gives confidence to potential to risk their capital and other resources in businesses thereby leading to high supply of entrepreneurs. On the other hand political instability discourages potential entrepreneurs to risk their capital and other resources in businesses thereby limiting the supply of entrepreneurs in the country.

Factors which limit development of entrepreneurship in developing countries:

- **Inadequate training facilities:** This has hindered the training of entrepreneurs and modern managers and administrators.
- **Poor infrastructures:** In many developing countries the state of physical, financial, social and commercial infrastructure is very poor this limits investment in the country thus discouraging the development of entrepreneurs
- **Poor state of technology** In developing countries there is use of backward techniques of production; this leads to low output, low revenue, and low profits which discourages entrepreneurship**:**
- **Limited credit facilities:** Most people in developing countries do not have enough capital for investment, even the institutions to provide loans are very limited and unwilling to lend hence hindering development of entrepreneurs

- **Political instabilities:** Political instability discourages investment because entrepreneurs fear to risk their capital hence limited supply of entrepreneurs.
- **Limited investment incentives.** This leads to high cost of production which discourages investment thus discouraging the development of entrepreneurs.

POLICY MEASURES TO PROMOTE ENTREPRENEURSHIP IN DEVELOPING COUNTRIES:

- Maintenance of stable political climate so as to stimulate local and foreign entrepreneurs.
- Encourage formation of associations to stimulate private entrepreneurship e.g. Uganda Manufacturers Association (UMA).Uganda small scale industries, Uganda private sector foundation, etc. to create dialogue between entrepreneurs and government.
- Use of fiscal and monetary policies to avail capital to entrepreneurs, like through lending at low interest rates.
- Set up training institutions to train entrepreneurs through popularizing entrepreneurship education in all schools.
- Undertake infrastructural development. The government should embark on developing infrastructures such so as, commercial banks, insurance companies in order to encourage entrepreneurs to undertake risks in investment.
- Market expansion policy-the government should come up with policies to enlarge the market through joining economic integration and encouraging trade fairs.

FORMS OF BUSINESS ORGANISATIONS:

There are different forms of business organizations and these include;

1. **Sole proprietorship**: This is a business started, owned and run by one person who contributes the capital, shares all profits and incurs losses.

   Advantages of sole proprietorship:

   - She/he enjoys all the profits alone
   - She/he enjoys top secrecy
   - She/he is able to establish a direct contact with the customers and employees.
   - It is easy to start and manage
   - It is a source of employment to his/her family members
   - There is close supervision of the business activities.

   Disadvantages to sole proprietorship:

   - There is limited capital to expand the business.
   - There is unlimited liability i.e. in case the sole proprietor fails to clear the debts using business resources, his personal property is taken to pay the business debts
   - There is lack of continuity in case the owner falls sick or if he dies.
   - There is limited management ability since all activities are performed by one person.

2. **Partnership business**: A partnership refers to a business unit formed with a minimum of **two** members and a maximum of **twenty members or fifty** in case of professional who pool their resources together with a view making a business in order to make profits.

Advantages of a partnership:

- Raises for more capital than sole proprietorship since there are more than two members.
- The burden of losses is distributed to all partners or members unlike in sole proprietorship
- Gives room for specialisation i.e. work is divided among the partners which increases the load for each unlike under sole proprietorship where all work is done by one person.
- Formation is fairly is simple since there are no legal requirements needed except registration of the business name, unlike in a joint stock company which involves many formalities.
- Gives room for the continuity i.e. the business may not easily collapse in case of absence of a hardworking partner unlike under the sole proprietorship where the business ends with the demise of the owner.
- Better decisions are made because of consultation amongst the partners unlike under sole proprietorship where all decisions made by one person.
- Partnerships give room for flexibility unlike joint stock companies.

3. **Joint stock companies.** These are companies made up of a number of people who are called shareholders who come together and contribute capital through buying shares.

There are two types of joint stock companies namely;

- Private limited Liability company
- Public limited Liability company

Private limited Liability Company: This refers to joint stock Company which is formed with a minimum of **two** members and a maximum of **fifty (50)** members who pool their capital and management resources together with the aim of making profits.

NB: These are not allowed to advertise the shares to the public.

Advantages of private limited liability companies:

- A private company is free from legal restrictions which apply to the public limited liability companies.
- It can attract capital easily from the selected investing members because limited liability unlike sole proprietorship and partnerships.
- Economies of scale are easily reaped as a result of large scale operation and lump sum capital stock
- Specialisation is possible since duties can be allocated according to the ability of each member.
- The promoters of a private company usually keep control of their business by holding majority of the shares, unlike in the case of the public company where directors are the ones to take decisions and run the business activities.

Disadvantages of private limited liability companies:

- It cannot appeal to the general public to buy shares as in the case of public companies.
- Shares of private companies are not easily transferable and this may be a disincentive to speculative investors.
- Total membership is restricted in number hence the expected capital structure is limited.
- The principle benefits of large scale activities are limited compared to public limited liability companies.

Public limited Liability Company: This is a joint stock company that is formed with a minimum of **seven** members but with **no maximum number** of shareholders who have pool their resources together to run a business with a view of making profits.

NB: The Company is allowed to advertise its shares calling upon the public to buy the shares.

For a Public limited Liability company to be allowed to start a business it must register with a registrar of companies after fulfilling all the requirements e.g. presenting;

- Memorandum of association
- Lists of directors
- Articles of association
- Prospectus, this advertises a public limited company.

Members in a company contribute shares towards the capital of the business. Whoever buys a share become a **shareholder** and therefore one of the owners of the company. The shareholder is entitled to share the profits at the end of a trading period and this profit is called **dividends**.

NOTE; A share is a unit of capital contributed by the shareholders.

Stock exchange is a market where already issued shares and stocks are bought and sold.

ADVANTAGES OF PUBLIC LIMITED LIABILITY COMPANIES

- There is limited liability. The financial collapse of the company does not affect the financial status of its shareholders
- Bigger capital is raised through selling shares to the public.
- Shares are freely transferable
- Employees are allowed to buy shares in the company; this motivates them to work hard.
- Companies are able to hire relevant qualified staff using the large capital at their disposal
- Risks and losses are spread over a bigger number of shareholders than a partnership and sole proprietorship.
- Companies have continued existence since they are not affected by the death of any shareholder.

DISADVANTAGES OF PUBLIC LIMITED LIABILITY COMPANIES:

- There is lack of direct control by the shareholders in the day today activities of the business.
- Only a few shareholders take up the executive posts to run the business on behalf of the others.
- Formation of the company has a long and expensive procedure.
- Since all the decisions are taken up by the directors, decision making may be slow and sometimes expensive.
- Profits are shared among many shareholders which reduces the amount received by each member.

- The Directors may sometimes have their interests that conflict with the interests of the company.

Sub-Topic 2: THE THEORY OF A FIRM:

A FIRM: This production unit under unified control and management which employs the factors of production to produce goods and services with the purpose of making profits.

AN INDUSTRY: This is a collection or group of firms producing similar or related goods.

Major decisions of a Firm:

The decision is always concerned with the level of output that is in both the short run and long run. It is also concerned with the decision to enter or exit the industry.

The major decisions include;

- The choice of products to produce (what to produce)
- Quantities of output to produce (how much to produce) as determined by the market.
- Choice of techniques to use (how to produce) i.e. labour, or capital intensive
- The mix of productive inputs to use i.e. (how much of each input or factors of production to employ). This will be determined by the choice of techniques or level of output selected.
- The price to charge for products. Since the output consumers are willing to buy depends on the price of the products or services.
- The selection of industry/nature of the industry.

GOALS OR OBJECTIVES OF A FIRM

An objective of a firm is the reason why a firm exists or is why a firm is established.

The following are some of the objectives the firm may have.

- **To maximize profits**; i.e. to get as much profit as possible. Such a firm restricts output in order to charge high prices.
- **To maximize sales**; such a firm focus on increasing the turn over or to sell goods as much as they can without focusing so much on profit per unit sold.
- **To maximize social welfare**; i.e. this is common with publically owned firms that aim at social welfare maximisation by promoting national interests like creation of employment opportunities, balanced regional development, national security all these cannot be pursued by a profit maximising firm.
- **To have the biggest market share**, i.e. some firms aim at dominating others in the market through intensive advertising, modest pricing to outcompete rival firms.
- **To limit entry of other firms**; Some firms may be interested in preventing entry of new firms into the industry. This can be done through "limit pricing", i.e. setting deliberately low prices in order to drive rival firms out of production.
- **For prestige purposes/ maintaining good image**. Some firms aim at promoting a good public image and prestige of the owners. Such firms are maintained regardless of whether they are making profits or not.

- **To maximise output**. Some firms may be aiming at enjoying economies of scale especially in the long run by expanding the scale of production.

FACTORS THAT INFLUENCE THE LONG TERM DECISION OF A FIRM:

- **The internal organisation of the firm:** Good internal organisation leads to quicker decision making regarding the firm's operations. On the other hand poor internal organisation delays decision making which negatively affects the long-term plans of the firms.
- **The external environment in which the firm operates:** Favourable external environment such as presence of land for expansion, expanding market, creates an opportunity for the firm to decide to expand in the long run. On the other hand unfavourable external environment such as limited land for expansion, inadequate market discourages the firm's decision to expand in the long run.
- **The prevailing price levels for the firm's products:** Lucrative prices for the firm's products motivates the firm to decide to expand the scale of production in the long run due to the prospects of earning high profits. On the other hand declining prices for the firm's products discourages the firm to decide to expand the scale of production in the long run due to the prospects of low profits.
- **The size of the market:** An expanding market motivates the firm to decide to expand the scale of production in the long run due to prospects of maximising sales and thus earning more profits. On the other hand declining market discourages the firm's decision to expand the scale of production; this is due to reducing profitability of doing business.
- **Government investment policies:** Favourable government investment policies such as provision of subsidies, tax rebates, tax holiday, improving infrastructure motivates the firm to decide to continue in production and also expand the scale of production in the long run due to the reducing cost of doing business. On the other hand unfavourable government policies concerning investment such as high corporation taxes, increasing taxes on the firm's products, declining state of infrastructure discourages the firm to decide to remain in business or to expand the scale of production due to the high cost of production.
- **Degree of freedom of entry of new firms into the industry**. High degree of freedom of entry into the industry discourages the firm's decision to decide to expand the scale of production; this is so because the market is shared with other competitors since there is a possibility of remaining with unsold output thus wastage. On the other hand restricted entry into the industry motivates the firm to decide to remain in business and also to expand the scale of production due to the readily available market.
- **Level of profits:** An increasing profit level for the firm's products motivates such a firm to decide to remain in business and also to expand the scale of production in the long run. On the other hand declining profit level for the firm's products discourages such a firm to decide to remain in business and also to expand the scale of production.

THE SIZE OF THE FIRM:

These variables are also the factors determining the size of the firm. These include:

- **The quantity of inputs**. I.e. the amount of raw material used, the labour force employed, capital and technology, etc. the greater the quantity of inputs, the larger the size of the firm and the smaller the quantity of inputs the smaller the size of the firm.
- **Level of profits**; it can also be described in terms of yearly profits made by the firm. Profits are important because they help the firm to expand and grow into a large one while low profits make it hard for a firm to expand hence remaining small.

- **Size of the market**. The firm's size is also determined by the extent of the market for its products and ability to which it can exert control over that market. A firm which has command over a large market is considered to be large and a firm with a small market is considered a small one.
- **Type of management**. Large firms are able to hire specialized labour for the purpose of ensuring efficient management unlike for small firms which cannot afford to hire specialized labour.
- **Financial position.** With respect to size of capital and access to financial institutions i.e. large firms stand an opportunity of getting financial assistance from banks for expansion. So, the stronger the financial position the bigger the size of the firm and the weaker the financial position the smaller the size of the firm.
- **Possibility of research**. Small firms have inadequate funds to carry out research for the purpose of improving their methods of production and the quality of the products, i.e. inventions and innovations unlike large firms which are in position to carry out research.
- **Economies of scale**. The economies of scale enjoyed by the firm are among the major determinants of the size of the firm because, these are advantages that accrue to the firms as a result of operating on a large scale which advantages cannot be enjoyed by a small firm.
- **Government influence**. Large firms are known to identify themselves with government. The government cooperates and encourages such firms by giving them assistance unlike small firms which do not get assistance from the government.
- **Possibility of merging**. Where two or more firms can come together (merging) they can form a large firm but in situations where firms remain in is

PRODUCTION FUNCTION (INPUT-OUTPUT RELATIONSHIP):

A production function represents a functional relationship between quantities of various inputs used and the maximum output that may be produced.

It can be a graph, table or an equation.

It is a schedule showing the amount of output that can be produced from specific combinations of factor inputs given the state of technology.

It is expressed mathematically as:

$$Q = f(L, K, N, E)$$

Where Q stands for the output of goods and services per unit of time and L, K, N, E stands for the various inputs used in the production process i.e. land, capital, labour and entrepreneur respectively.

An illustration of a production function:

NB: A simple production function is written as $Q = f(L, K)$ where L stands for Labour inputs which represent all variable inputs and K stands for capital inputs which represents all fixed inputs of production e.g. land, buildings, machinery.

The production function is affected by the following factors which would lead to shifts in the production function either inwards or outwards.

- State of technology
- The quantity of factor inputs used.
- The size of the firm.
- The nature of the firm organisation.
- The relative prices of the factor inputs.

THE PRODUCTION PERIODS OF A FIRM:

- **Short run**: This is a time period which is so short that a firm cannot increase its production capacity by varying it's fixed factors e.g. building. They can only increase the output by varying the quantities of variable factors e.g. labour, raw materials etc.

- **Long run**: This is a time period which is long enough for the firm to increase its production capacity by varying all factors of production i.e. all fixed and variable factors. In this production period all factors of production are variable except the level of technology which remains constant.

- **The very long run:** This is a time period long enough for the firm to change its level of technology i.e. a firm will be in position to conduct research on technology improvement which would lead to better techniques of production and better quality products.

THE PRODUCT CONCEPT: A product refers to a good or service produced for the purpose of consumption and it is useful in the analysis of the production function.

CONCEPTS USED IN CONNECTION TO THE PRODUCTION FUNCTION:

1. THE TOTAL PRODUCT (TP): This refers to the total output obtained from employing a given number of units of the variable factor of production

An illustration of the total product curve:

In the illustration above, point **R** is the point of maximum technical efficiency of a variable factor with a fixed factor.

3. **AVERAGE PRODUCT (AP):** This refers to the output per unit of the variable factor /input employed. It is obtained by dividing the total output by the units of the variable factors employed.

$$\therefore AP = \frac{TP}{Units\ of\ the\ variable\ factors\ employed}$$

OR= $\frac{TP}{\text{Number of workers}}$

It shows on average how much output each worker produces.

AP rises as labour is expanded to a particular level then diminishes with more labour employed.

An illustration of the Average Product Curve:

3. MARGINAL PRODUCT (MP): This refers to the additional product or output resulting from employing an extra unit of a variable factor. e.g. Labour.

$$MP = \frac{\Delta TP}{\Delta L \text{ (Units of the variable factor)}}$$

An illustration of the Marginal product Curve:

Units of fixed factor	Units of variable factor	Total product TP(tonnes)	Average product (AP)	Marginal Product (MP)
100	0	0	___	_____
100	1	5	5	5
100	2	12	6	7
100	3	21	7	9
100	4	32	8	11
100	5	40	8	8
100	6	45	7.5	5
100	7	49	7	4
100	8	52	6.5	3
100	9	52	5.7	0
100	10	48	4.8	-4

An illustration of relationship between TP, AP and MP

Observations:

- When total product is at maximum, MP is equal to zero, when TP starts declining the MP becomes negative.

- when AP is increasing the MP is greater than the AP and when AP is decreasing the MP is less than AP and AP is equal to the MP when AP is at its maximum.

THE LAW OF DIMINISHING RETURNS /THE LAW OF VARIABLE PROPORTIONS:

The law of variable factor proportions states that ' As more and more units of a variable factor are applied to a given quantity of a fixed factor, the marginal product or output first rises, reaches a maximum point and then diminishes'.

Assumption of law:

The law is based on the following assumptions:-

- It assumes existence of a fixed factor e.g. land.
- It assumes existence of a variable factor e.g. labour
- The technology is constant
- All units of the variable factor are homogenous/ equally divisible into smaller units/equally efficient.
- It assumes constant factor prices e.g. constant wages, constant rent etc.
- It assumes a short run period.

Note: As the variable factor is increased, the following stages are observed as illustrated below.

The explanation of the stages illustrated in the above graph is as follows:

Stage I. **The stage of increasing returns.**

At this stage, the TP, AP and MP are all increasing i.e. the application of an additional unit of a variable factor leads to more than proportionate increase in output. This is an indication of increasing efficiency of the factor combination (the fixed factor is in excess of the variable factor).

Stage II. **Stage of diminishing returns.**

At this stage TP is increasing at a decreasing rate, MP is falling, but is positive, the application of extra units of a variable factor leads to a less than proportionate increase in output (AP reaches maximum and starts declining). TP continues increasing and reaches a maximum at point where MP = O.

At this stage both variable and fixed factors are now effectively utilised, the fixed factor is no longer in excess hence more and more units of the variable factor are employed to get a larger output, this is the most profitable stage for the firm to operate in.

Stage III. **Stage of negative returns**.

At this stage TP starts declining and MP becomes negative. This is because the fixed factor is over utilised while the variable factor is under utilised, so profitable production cannot take place at this stage. The point at which AP is at maximum is the Optimum level of production.

WHY DOES THE LAW ARISE:

- **Due to the varying proportions in which the factor inputs are combined i.e. fixed factor decreases in proportion to the variable factor.**

- **The scarcity of factors of production i.e. factors of production are limited in supply.**

- **Imperfect substitution of factors of production**. Factors are not perfect substitutes, if they were, then it would be possible to transform labour into land when land becomes limited and therefore overcome the law.

NB: The diminishing returns can be overcome by combining the factors of production in the right proportions.

IMPORTANCE OF THE LAW OF VARIABLE PROPORTIONS:

- It makes producers aware of the existence of the optimum level of production in production i.e. the point where maximum output is obtained by combining certain quantity of variable factor inputs with the quantity of the fixed factor.
- It is an indication to producers that infinity quantities of output should not be expected simply by increasing the units of the variable factor.
- The law is of practical relevancy to developing countries like Uganda which is relying excessively on Agriculture i.e. increasing population pressure on land a fixed factor) would lead to a decline in the productivity of land and the marginal productivity of labour.
- The law forms the basis of the Malthusian theory of population which assists in analysing the controversies of the theory i.e. the inability of man to match food production with the population growth is due to the operation of the law of diminishing returns in Agriculture.

THE LAW OF RETURNS TO SCALE: This law states that, 'When there are proportionate changes in the amount of input, the amount of output also changes.

RETURNS TO SCALE : This refers to rate at which output changes when factor inputs are changed.

There are three categories of returns to scale namely;

Increasing returns to scale. This is one where output increases but by a greater margin compared to the increase in factor input. E.g. if workers are increased by 10% and the producer's output increases by 50%.

Constant return to scale. This is one where the change in the factor combination brings about an equal change in output produced. E.g. if workers are increased by 10% and the output also increases by 10%.

Decreasing returns to scale. This is one where output increases but by a lower margin compared to the increase in the factor inputs .e.g. if labour is increased by 50% and the output increases by only 10%.

LOCATION AND LOCALISATION OF INDUSTRIES:

Location of a firm refers to a place or a site where a firm is situated/ established/set up.

FACTORS LEADING TO LOCATION OF A FIRM(S):

- **Presence of Market.** Most firms which produce products that gain weight after production and those which are perishable are located close to market to minimize costs of transportation

- **Presence of raw materials.** Firms that use bulky raw materials which are costly to transport are located near the source of raw materials e.g. Tororo and Hima cement factory.
- **Closeness to the source of power.** Entrepreneurs tend to locate their industries near the source of reliable power supply.

- **Presence of means of transport.** Locating an industry near a source of transport is important because it makes it easy to transport raw materials and finished goods**.**

- **Presence of cheap labour with relevant skills**. This reduces the labour costs and therefore most industries locate near the cheap labour supply.

- **Presence of clean water supply.** This is necessary for heavy industries, which require a lot of water for industrial processes and water for damping wastes.

- **Presence of a stable political atmosphere.** A stable political climate attracts many entrepreneur hence location of firms.

- **Presence of auxiliary services.** Firms tend to be attracted near or in areas where services like banking, insurance, warehousing, advertising media are well developed, these facilitate the production process.
- **Industrial inertia:** New firms tend to be attracted to areas where there is only high concentration of other firms, this because of the established infrastructure, existence of a pool of skilled labour and presence of other significant location factors.
- **Favourable government policy on location of firms.** Favourable government policy in term of incentives such as provision of subsidies, developed infrastructure in a given area attract firms to be located there due to low production costs.
  Reasons for influencing the location of an industry by the government:

    - To encourage the exploitation of some resources.
    - To create more employment opportunities
    - To facilitate fair distribution of incomes
    - To minimise the adverse effects of localisation
    - To ensure balanced regional development
    - To control monopoly tendencies
    - To avoid unnecessary duplication and wastes
    - To fulfill political obligations.
    - For strategic reasons.

TERMS RELATED TO LOCATION OF INDUSTRIES:

- **Foot loose industry:** This is an Industry that can be located anywhere regardless of the factors that affect its location such as presence of raw materials, presence of market etc.

- **Rooted Industry:** This is an industry located in a particular area because of a given pool or location factors. E.g. located near the source of raw materials or near the source of market e.g. cement firms are established near the source of raw material which is limestone. Whereas furniture workshops are established in urban areas which are the source of the market for the furniture made.
- **Industrial Inertia:** This is the tendency of an industry to locate or continue surviving in an area where other industries exist even when factors that led to location of industries there no longer apply.

LOCALISATION OF AN INDUSTRY: This is the **concentration** of firms producing related products in order to reap or enjoy external economies of scale/advantages of the location.

ADVANTAGES OF LOCALISATION:

- Facilitates infrastructural development in the area, this is so because there are many firms in one area which compels the government to develop infrastructures such as roads, railway lines, communication network etc in the area in order to ease the production process by the investors.
- Leads to creation of more employment opportunities in the area. This is because of the large number of firms in such an area which creates more jobs. This enables the employed people to earn incomes thus improving their standards of living.
- Leads to cooperation of the industries in solving common problems. This is done by pooling resources to solve problems like insecurity in the area.
- Leads to development of a pool of skilled labour. People in such an area are willing and interested in learning the skills needed in the localised industry. Over time they become specialised and employable in the industry.
- Leads to development of organised markets/expansion of markets for products. This is so because firms are in one area which attracts potential buyers for their products making marketing easy.
- Leads to a wide variety of goods produced in the area. This is so because there many firms producing different products hence widening the consumer's choice.
- Encourages forwards forward and backward linkages. Some firms are attracted in the area to either supply raw materials or to provide market to the already existing firms.
- Promotes development of auxiliary services such as insurance, banking, warehousing in the area. These attracted to facilitate the production and marketing services.
- Leads to increased utilisation of the would be idle resources. This is because of the many firms in the area that make use of the available resources.
- Promotes specialisation and its advantages. There is specialisation by commodity and by process in the localised industries. This leads to production of a variety of products, increased output, better quality products etc.
- Leads to low prices of final products. This is due to the reduced costs in terms of acquisition of raw materials, marketing, by the different firms.
- Leads to increased government revenue through taxation. This is through the taxes imposed on the products produced by the different firms, the incomes of the employees and the profits made by the localised firms.
- Leads to increased reputation/popularity of the area. The place where the industry is localised gains popularity as so are the products manufactured in that area. More investors are attracted to set up firms leading to production of more goods and services in that area.
- Leads to increased quality of output due to competition. This is because of the many firms in the area which strive to produce to produce better quality goods so as to secure market.

- Leads to increased output. This because of the many firms in the localised area which lead to production of high volume of goods thus accelerating the economic growth rate.
- Leads to increased security of the area (National interest). The government is awakened to take care of people's lives and their property in the localised area by ensuring security.

Demerits of localisation:

- Leads to regional imbalance in development. Localisation of industries concentrates production in one area or a particular part of the country, this result into some areas developing more than others.
- Results into rural urban migration and its negative consequences. The localised areas attract many people from other areas with hope of acquiring employment opportunities, unfortunately majority of such people fail to secure the jobs, this results into congestion in towns, urban unemployment.
- Overstrains infrastructures in the area. Social facilities like health centers, housing, communication, power and water supply are overstrained due to the rising population in that localised area. This increases government expenditure as she strives to increase provision of such services.
- Leads to the problem of income inequality. People who are employed in the localised industries earn more incomes than their counterparts in other areas.
- Leads to quick depletion of resources in an area. There is over exploitation of the resources in the localised areas by the many firms this leads to their quick depletion.
- Leads to increased cost of land /High rent rates. This is due to the stiff competition for land by the many firms, this leads high rent rates thus high cost of production.
- Leads to environmental degration/pollution in the area. Localisation of industries causes excessive pollution of air and water due to industrial wastes and emissions from the manufacturing plants. This puts people's lives and the environment in danger.
- The economy becomes dependent on a particular area which is risky. This leads to heavy losses to the economy in the event of a catastrophe in the area.
- Displacement of people making many landless. Many industrial investors are forced to encroach on land meant for settlement purposes in order to expand their industrial activities.
- Leads to increased cost of labour. This is due to the stiff competition for the skilled labour force by the many firms, this leads to high cost of production.
- Leads to rising cost of living in the area. This is because of the increased demand for goods and services by the many people which leads to their increased prices.

DELOCALISATION: This is a deliberate act by government of distributing industries evenly throughout the country to avoid concentration of industrial establishments in one area.

Advantages of delocalisation:

- Creation of even employment opportunities.
- It reduces the problem of rural urban migration and it associated evils.
- It leads to even development of all regions of a country.
- Facilitates the development of infrastructure more evenly throughout the country.

THE SURVIVAL OF SMALL SCALE FIRMS ALONG SIDE LARGE SCALE FIRMS:

Despite the advantages enjoyed by large-scale firms, some firms continue to operate on small scale basis reasons being:

- **They are beginner/new firm**. Some of the small-scale firms are still at their stage of infancy with limited experience; hence prefer to remain small despite the advantages enjoyed by large-scale firms.
- **Fear of increased taxes** .Small-scale firms fear increased taxation associated with large-scale production; hence continue to remain small despite the advantages enjoyed by large-scale firms.
- **Limited capital for expansion/ they are cheap to start.** They have limited capital for expansion and thus continue to remain small despite the advantages enjoyed by large-scale firms.
- **They are experimental/ pilot projects**. Some of the firms are experimental units or pilot projects used for research purposes, and the aim is not profit maximization.

Limited managerial skills required i.e. small-scale firms are easy to manage and control, unlike large scale firms.

- **Limited supply of raw materials.** Limited supply or sources of raw material which do not promote production on large-scale.
- **Fear of diseconomies of scale/fear of high risks associated with large scale firms.** Some firms fear diseconomies of scale that are associated with large-scale firms for example, managerial and financial diseconomies of scale.
- **Production according to special order**. Production of firm's output being on special order thus not necessitating large-scale operation.
- **Market requiring personal touch/personal service. .** Some firms provide services based on keen interest and personal attention to their customers e.g. beauty salons, clinics, law firms etc. such firms will remain small in order to meet the different needs of the customers.

- **They are flexible/ Allows for flexibility**. Small-scale firms allow easy flexibility in production compared to large-scale production.
- **Poor infrastructure,** for example poor road network, limited power supply etc which do not promote production on large-scale.
- **Poor techniques of production**. The use of poor techniques of production limit on large scale by such firms thus making it hard for them to expand the scale of production

- Government policy of encouraging small-scale firms through tax incentives, subsidies etc.
- **The small size of the market/ Limited market size.** Firm which have got a narrow market for their products would not find it worthwhile to expand their size therefore they remain small despite the advantages of their large scale production
    - **Limited labour skills.** Small firms cannot afford to hire skilled labour which is needed to expand the scale of production.

- **Limited entrepreneurial ability.** Hinders small firms from expanding because of inadequate skills hence the existence of small firms despite the advantages of large scale production
- **Fear to lose independence.** Some firms remain small because of fear to lose independence as the firm expands.

- **Poor land tenure.** The poor distribution and unfair ownership of land limit the expansion of scale of production; this is because of the difficulty in accessing land.
- **Objective/ choice of the entrepreneur.** Some entrepreneur keep their firm small because it is their objective.

Fear to lose independence. Some firms remain small because of fear to lose independence as the firm expands

THE GROWTH OF A FIRM

The growth of a firm means the expansion of the production capacity of the firm.

Most firms begin as small scale firms and others as infant firms and the infant firms expand and mature with time.

NB:

An Infant Firm is a newly established firm or it's a firm that has **just** been established.

A firm can grow in two ways.

1. Natural / Internal Growth.

This is when the firm expands in size when the internal factors become favorable e.g. when the capital of the firm increases, when the sales increase, when profits increase.

2. Amalgamation/ Combination/ Merging

This is when two or more firms come together to form a bigger firm and thereby enjoy better or greater economies of scale.

Firms may combine in different forms or ways and the common ones include.

a) **Complete Amalgamation/ Consolidation**; this involves dissolution of all companies intending to amalgamate and then there is creation of a new company to take over their businesses.
b) **Absorption**; this form of combination takes place when one company takes over the business of another company or companies. Here one company retains its entity.
c) **Holding Company**; under this arrangement, the various companies entering into combination retain their entities while one of them acquires controlling shares i.e. 51% or more. The companies controlling the other companies would then be called the holding company while the others would be called subsidiary companies.
d) **Mergers**; firms or industries are said to merge if and when they pool their assets and operate jointly as one production unit. This is where two or more firms come together to form one big firm.

FACTORS THAT DETERMINE THE GROWTH OF A FIRM

Some firms are bigger than others or some firms grow faster than others because of the factors affecting the growth of the firm and such factors include the following:

1) **The size of the market**. A firm with a big size of the market grows at a faster rate than the firm with a small size of the market since it sells out very little output.
2) **Availability of finance (funds)**. A firm grows faster when it has adequate finances to purchase inputs whereas inadequate finances limit the growth of the firm.
3) **Level of technology used**. Firms that use good and efficient technology grow faster because of the increased output, whereas poor technology makes it difficult for the firm to grow.
4) **Availability of land for expansion**. Firms with adequate land for expansion grow faster because they have the room for expansion whereas firms with limited land for expansion find it difficult to expand and grow.
5) **Supply of raw materials**. Constant supply of raw materials enhances the growth of a firm because it makes production constant whereas inadequate supply of raw materials limit the growth of the firm since production is not continuous.
6) **Level of taxation and subsidization**. High taxes limit the growth of the firm because they increase the cost of production which reduces profits of the firm. Whereas subsidisation of the firms enhances the growth of the firms because they reduce the cost of production which increases their profits.
7) **Availability of skilled labour**. Presence of skilled labour in the firm increases the chances of growth because of the increased labour productivity whereas employing unskilled workers makes it very difficult for the firms to grow because of low labour productivity.
8) **Entrepreneurial ability**. High entrepreneurial ability leads to the growth of the firm of the increased inventions and innovations by the entrepreneur. Whereas limited entrepreneurial ability limits the growth of the firm because of low levels of inventions and innovations.
9) **The state of infrastructure**. A well-developed infrastructure such as good roads, presence of power facilities lead to the growth of the firm because they facilitate the production of more goods and services. Whereas poor state of infrastructure limits the production of more goods and services thus limiting the growth of the firms.
10) **Political atmosphere**. Firms grow faster when there is political stability because of increased production since producers are not scared of losing their lives and property. Whereas political instability limits the growth of firms since producers are scared of losing their lives and property.
11) **Possibility of merging**. Where there is possibility of merging of firms, it enables to expand because they are joined with other firms. However where there is no possibility of merging of firms its limits its expansion because the limited resources.

TYPES OF MERGING:

1. **HORIZONTAL MERGING**; this is the union or combination of two or more firms in the same industry/producing similar or related goods at the same stage/ level of production. E.g. Airtel joining with Warid telecom
2. **VERTICAL MERGING**; this is where two or more firms at different stages of production but producing related or similar goods come together to form one big firm. E.g. when a tea growing firm combines with a tea processing firm. When the merging is towards the source of raw materials, it is called BACKWARD VERTICAL MERGER. But when the combination is towards the market outlet then it is known as FORWARD VERTICAL MERGER.
3. **CONGLOMERATE MERGING**; this is when two or more firms dealing/ producing completely unrelated commodities come together for the purpose of achieving diversification of activities. e.g. a shoe making firm joining with a bread making firm to form one big firm.

4. **LATERAL MERGING**; this is the bringing together assets of two or more firms producing related commodities but not competing and can be conveniently market together e.g. shoes and shoe polish making firms.

CONDITIONS NECESSARY FOR THE SUCCESS OF LATERAL INTEGRATION OF FIRMS

- The firms have to be of almost of equal size
- Production of related/complementary goods
- Firms should have the same capital base
- Firms should have related objectives.

REASONS WHY FIRMS MERGE:

- To reduce the cost of production because merging reduces advertising costs due to reduced competition.
- To encourage efficiency/Improve the quality of output
- To attain monopoly power/ To control the market
- To effectively exploit the available resources
- To minimise unnecessary duplication and wastage.
- To enjoy economies of scale e.g. increase output.

ADVANTAGES OF MERGING:

- It reduces the cost of advertising.
- It leads to increased resource utilization because the firm uses more resources because of increased output.
- It reduces competition for the market/ Widens the market
- It eliminates duplication of products.
- It leads to increased accessibility to skilled labour.
- It increases the firms' accessibility to capital /loans because the big firms find it easy to borrow from financial institutions.
- It improves the management of the firm because the big firm is able to employ specialised managers to manage the different departments (the firm enjoys managerial economies of scale)
- It leads to access to technology since the firm is in position to finance the research into better methods of production.
- It enables the firm the firm to spread risks because a big firm is able to buy insurance policies in order to guard against risks.
- It improves the efficiency of the firm or it enables the firm to make more profits because improved technology and better management of the firm
- It leads to output/profits/sales.

- Reduces stiff competition for the raw materials.

DISADVANTAGES OF MERGING OF FIRMS:

- It leads to monopoly power since after merging a firm remains alone in the market and such a firm charges high prices.
- It leads to unemployment because when firms merge, some workers are laid off.
- Management problems arise because the firm is now big and complex which makes the coordination of managers difficult.
- There is loss of independence/identity of small firms because they surrender their power to the bigger firms in the merger.
- May lead to over production and this leads to resource wastage.
- High taxes are imposed on bigger firms which come up as a result of integration.
- Leads to over utilisation/ over exploitation of resources leading to their quick depletion.

LIMITATIONS TO MERGING OF FIRMS:

- Fear of losing jobs because some mergers displace some workers.
- Fear to lose contacts with customers
- Fear of managerial problems which are associated with big firms.
- In some cases the government discourages merging through anti-monopoly laws so as to discourage development of monopoly powers.
- Fear of losing independence, therefore firms would rather remain small but when they are independent.
- Fear of paying high taxes because the government imposes high taxes on big firms.
- Some firms fear heavy losses in case a misfortune befalls a firm.

Sub-Topic 3: THE THEORY OF COSTS:

Costs are expenses of the firm that are incurred to produce a given amount of output.

They are total payments for the factor inputs or what the firm incurs in the production process.

Classification of costs:

- **Money costs.** These are the monetary costs incurred in the production process e.g. wages, salaries, cost of raw materials, capital equipment.

- **Real/Social costs.** These are the **sacrifices** that have to be met by any society in the course of production process. In other wards they are non- monetary costs.
- **Explicit.** These are the expenses incurred by the firm on factors of production which are hired and are included in the calculation of profits and losses of a firm. e.g. cost on hired premises, transport, cost of raw materials etc.
- **Implicit costs.** These are costs on self-owned factors of production and such costs are not included in the calculation of profits and losses of a firm. E.g. a businessman using his own premises.

- **Total Fixed costs :(TFC)** These are costs incurred by a firm which **do not vary with the level of output** i.e. it is even incurred at zero output. E.g. interest on capital, rent for buildings, insurance costs. Fixed costs are also known as overhead costs, unavoidable costs, indirect costs, supplementary costs, sunk costs, indispensable costs.
  TFC= TC - TVC

- **Total Variable costs.(TVC)** These are costs that **vary with the level of output** i.e. the larger the output the higher the level of variable costs. E.g. wages, expenses on raw materials, power, maintenance etc. they are also known as prime costs, direct costs, operating, running costs. Unlike the fixed costs it's quite possible to decrease or increase variable costs even in the short run.
  TVC= TC -TFC

- **Total cost.(TC)** This refers to the sum of a firm's fixed and variable costs in the production of a particular level of output.
  TC = TVC + TFC.

An illustration of the Fixed cost, Variable cost and the Total cost curves.

From the diagram above total cost is a summation of TFC and TVC.

TC does not begin at zero because the total costs include the TFC even at zero output.

VARIATIONS OF COSTS IN THE SHORT RUN (SR):

The cost function is described in terms of per unit cost curves i.e. it explains the cost output analysis and they include.

- Average fixed cost curve **(AFC**)
- Average variable cost curve (**AVC)**
- The average cost curve (**AC**)
- The marginal cost curve **(MC)**

1. AVERAGE FIXED COST (AFC). This refers to the total fixed cost incurred by the firm per unit of output produced.

AFC = TFC

Q

An illustration of The Average Fixed cost Curve:

The AFC is downward slopping and is never zero. This implies that the curve never touches any axis.

2. AVERAGE VARIABLE COST (AVC): This refers to the total variable costs incurred by the firm per unit of output produced.

AVC = TVC

Q

An illustration of the Average Variable Cost Curve

The AVC curve us U-shaped. At low levels of output the AVC is high but it decreases as output increases from zero up optimum capacity because of internal economies of scale and when the firm starts to produce beyond the minimum point of the AVC, the diseconomies of scale sets in.

3. AVERAGE TOTAL COST/ AVERAGE COST(ATC/AC). This is the total cost per unit of output produced.

$$AC = \frac{TC}{Q}$$

$$AC = \frac{TC}{Q} = \frac{TFC + TVC}{Q} = AFC + AVC$$

An illustration of the Average Total Cost Curve/Average Cost Curve

At low level of output AC is high due to high AFC and AVC, however as output increases average cost falls because of the fall in AFC and AVC until it reaches the minimum point. Beyond this point the increase in Average variable cost raises the Average cost/ Average Total cost.

If the firm is producing output that is less than optimum it is said to be operating at **excess capacity i.e.** resources are under utilised implying that the firm can increase the level of its output at a decreasing cost and if the firm is producing beyond its optimum it is said to be operating above the optimum capacity i.e. it can increase its level of output at an increasing cost

MARGINAL COST (MC). This refers to the Additional costs incurred in the production of an extra unit of output.

An illustration of the Marginal Cost Curve.

The MC curve is U shaped, therefore can never be zero or negative.

A TABLE SHOWING THE RELATIONSHIP BETWEEN ATC, AVC, AFC AND MC IN SR

OUT PUT	TFC	TVC	TC	AFC	AVC	AC	MC
0	180	0	180	-	-	-	-
1	180	152	332	180	152	332	152
2	180	284	464	90	142	232	132
3	180	408	588	60	136	193	124
4	180	504	684	45	126	171	96
5	180	600	780	36	120	156	96
6	180	700	880	30	166	147	112
7	180	812	992	25.7	117	142	112
8	180	948	1128	22.5	118.5	141	136
9	180	1124	1304	20	144.4	145	176
10	180	1344	1524	18	152.4	152	220

An illustration of the relationship between AFC, AVC, AC and MC:

- The first relationship between the three per unit costs is that AC is equal to MC when AC is at minimum and MC is also equal to AVC when AVC is at its minimum. beyond the minimum points of each curve the MC rises faster than each curve

- Secondly MC, AC and AVC curves are all U-shaped
- Lastly before the minimum point of AC, MC is less than AC but after the minimum point of AC the increase in MC is greater than AC.
- AFC falls continuously with increase in output, as it continues to fall; it more than offsets the rise in AVC so that the AC continues to fall. As output continues to increase AVC is not offset by the fall in AFC so which leads to further increase in AC.

THE LONGRUN AVERAGE COST CURVE

The long run has been defined as a time period over which all inputs of the firm can be varied i.e. a period which is long enough for the firm to vary its scale of production. In this period there is a possibility of changing those inputs which were fixed in the short run.

If the firm has failed to remain competitive in an industry, the long run is a period for such a firm to liquidate its plant and leave the industry.

The long run cost curve is described as an envelope curve .i.e. It is a series of short run average cost curves, whereby the short run average cost curves represent an infinite number of plant sizes of different capacities over time (various plant possibilities from which the producer can chose the best.)

An illustration of the long run Average cost Curve.

The long run Average cost curve (LAC) helps to explain the changing cost structures of a firm as it changes its scale of production. Firms are assumed to choose that plant size that minimizes the cost of producing any level of output, therefore a firm will make use of various plants to increase its output. On the LAC, the minimum point of each firm is the one where SAC is tangent to the LAC.

- During period(i) the firms short run optimum output is O Q_1 being produced at costs O C_1 as it expands its capacity in period 2, the cost per unit of output falls to O C_2.
- Average cost continues to reduce until it reaches the long run optimum level OQ_3 beyond these point diseconomies of scale set in causing the average cost to rise.
- The firm produces output OQ_4 using cost of production Oc4 hence a u-shaped LAC curve of the firm.

N.B LAC curve is flatter than the short run average cost curve because in the long run most costs are variable and less are fixed. The firm can adjust and alter its plant and size to utilise the variable resources more effectively therefore both the AFC and AVC will be lower in the long run than the short run.

THE ECONOMIES OF SCALE: This refers to the advantages enjoyed by the firm due to expansion in size or due to large scale production.

Economies of scale are broadly categorized as.

1. Internal economies of scale

2. External economies of scale.

INTERNAL ECONOMIES OF SCALE: These are advantages enjoyed by a firm as it expands due to favourable conditions within the firm.

The major internal economies of scale include.

1. **Technical economies.** These are advantages that are enjoyed by a firm producing on large scale as it is in position to employ improved methods of production since it has the finances to purchase the technology thus reducing the average cost.

2. **Financial economies of scale.** These are advantages that are enjoyed by a firm producing on large scale as it in position to acquire loans from financial institutions at a lower interest rate and at the same time it is able to be given a sizeable amount of the loan since it has the capacity to pay back.

3. **Marketing economies of scale.** These are advantages enjoyed by a firm producing on large scale since it is position to buy and sell in bulk, this reduces the average cost of marketing the product.

4. Transport and storage economies of scale. These are advantages enjoyed by a firm producing on large scale since it is able to transport its goods, raw materials and store them at a lower cost

5. Managerial economies of scale. These are advantages enjoyed by a firm producing on large scale since it is in position to employ specialised managers to manage different departments and improve the efficiency of the firm.

6. Social and welfare economies. These are advantages enjoyed by a firm producing on large scale since it has the capacity and means to offer improved welfare to the workers, such as goods housing facilities, medical care which improves their moral and efficiency in production

7. Research economies of scale These are advantages enjoyed by a firm producing on large scale since it has the capacity to undertake research into new products and new production techniques since it has the finances. Research results into increased output and improved quality of products thereby reducing the costs of production**.**

8. Risk bearing economies of scale These are advantages enjoyed by a firm producing on large scale since it has the capacity to spread the risks by carrying out different activities and selling to different markets.

EXTERNAL ECONOMIES OF SCALE: These are advantages enjoyed by a firm due to the expansion of the industry or due to favourable conditions created for the firm by the industry.

Such advantages include;

1. Sharing the high skilled and specialised labour. It becomes cheaper for them to share that labour with rare skills instead of each firm employing its own.

2. Carrying out joint research. The firms contribute to finance research and share the research findings at low costs.

3. Sharing infrastructure. The firms contribute to finance the construction of good infrastructure which benefit them all e.g. roads.

4. The firms share advertising costs. This helps to the costs of advertising by each individual firm.

5. Welfare economies of scale. The firms are able to improve the welfare of the workers by paying workers competitive wages hence improving the standard of living of the workers.

6. Economies of specialisation. As the industry expands, firms are able to specialise in different aspects and industry as a whole e.g. cotton textile firms can specialise in dyeing, weaving threads etc. This increases efficiency in production.

Other forms of Classification of Economies of scale:

1) Pecuniary (Financial economies of scale). These are advantages of a monetary nature to a large scale firm when it pays a lower cost for a particular level of output.

2) Real economies. These advantages enjoyed by a firm operating on large scale when it uses less factor inputs to produce a particular level of output.

DISECONOMIES OF SCALE: These are disadvantages of large scale production that a firm may experience in form of rising per unit cost of production as output increases either due to internal factors or behaviour of other firms.

Internal diseconomies of scale include the following:

1. Managerial diseconomies of scale. As the firm expands the management of the firm becomes difficult because of bureaucracy since managers of different departments have to make consultations before a decision is made.

3. Technical diseconomies of scale. As a firm expands it becomes very expensive for it to maintain its machines which sometimes lead to a breakdown.

3. Marketing diseconomies of scale. As the firm expands it finds it difficult to acquire adequate market for the products due to over production.

4. **Risk bearing diseconomies of Scale.** As the firm expands, there is multiplication of risks such as accidents, burglary, fire etc. These increase the average cost of production through increased insurance premium.

An illustration of Economies and Diseconomies of Scale:

Point A is called the optimum point.

Economies of scale reduces the average cost of production while diseconomies of scale increase the average cost of production as illustrated above. The average cost of production continues to fall as the firm expands up to point A.

Point A is referred to as optimum point and a firm producing at point A is called the optimum firm and produces at the lowest cost.

When the firm produces beyond point A the average cost raises hence diseconomies of scale.

EXTERNAL DISECONOMIES: These are disadvantages that accrue to a firm because of activities of other firms in the same industry or activities of other production units in the same locality.

External diseconomies include the following.

1. **Human and traffic congestion.** Since the area is very busy, it has many people and vehicles this makes delays in the delivery of goods to markets and raw materials to the factories

2. **Increases social costs.** Such as pollution because the machines emit dangerous gases which causes ill health to the workers and the people around.

3. It leads to increased costs of inputs because their demand is very high since there are many firms.

4. It leads to increases cost of land as firms compete to acquire more land for expansion.

5.It leads increased cost of labour as the firms compete for the available skilled labour force.

Sub- Topic 4: THE THEORY OF REVENUE:

Revenue refers to the amount of money that the firm receives from the sale of its output at various prices.

TYPES OF REVENUE:

The different types of revenue include the following:

1. **Total Revenue (TR**). This refers to the total receipts of a firm from the sales of its output at a given price.

$TR = P\ X\ Q$ (Output/quantity).

Or $TR = unit\ price\ X\ quantity$.

3. **Average Revenue (AR).** This is the total revenue per unit of output sold by the firm

$$AR = \frac{Total\ Revenue}{Quantity\ sold}$$

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

Average revenue is the price of the commodity at each level of output

$$i.e \quad AR = \frac{TR}{Q}$$

$$inse\ TR = P\ X\ Q$$

$$AR = \frac{P\cancel{Q}}{\cancel{Q}}$$

$$\therefore AR = P$$

But since the demand curve relates price to output and given that price and average revenue are the same, the AR curve therefore is also the demand curve of a firm (AR = DD)

3. Marginal Revenue (MR). This is the additional revenue resulting from the sale of an additional unit of output produced.

$$MR = \frac{\Delta TR}{\Delta Q} \quad \Delta\ TR = change\ in\ total\ revenue$$

$$\Delta\ Q = change\ in\ output$$

RELATIONSHIP BETWEEN AR AND MR :

The shape and relationship between AR and MR depends on the market structure.

1. Under perfect competition (AR = MR) since there are many firms and no individual seller is in position to influence the price of a commodity. The firm can sell whatever amount of output it produces at the same price therefore both AR and MR remain constant for all levels of output. The AR curve is perfectly elastic.

An illustration of the Average Revenue(AR) Curve

2. Under imperfect competition (Monopolistic competition, Oligopoly and Monopoly), the AR curve is downward sloping and above the MR, this is because the firm can only sell more of a commodity by lowering the price, this lowers the MR which falls faster than the AR.

An illustration of the AR curve and the MR curve under imperfect markets.

THE CONCEPT OF PROFIT

Profit is a monetary reward to the entrepreneur for his contribution in the production process.

OR: It refers to the earnings of the firm in excess of total cost or total expenditure.

It is the difference between the sales of a business and its costs of sale.

Profits =total revenue (TR)-total cost (TC)

OR: TR-TC (TC)

TYPES OF PROFITS:

- **Supernormal/Abnormal profits/ Pure profits.** This refers to the excess earnings to a firm/ entrepreneur over and above the normal profits/ total costs /breakeven point that induces new firms to join the industry.

  OR: These are earnings where total revenue is greater than total costs and is sufficient enough to attract other firms into the industry.

- **Normal profits/Zero profits.** These are earnings/ rewards to an entrepreneur(s) or a firm/ firms that just sufficient/ enough to cover total costs or keep him/ it in production without inducing other firms to join the industry.
  OR: These are profits earned where average revenue is equal to average cost and they do not induce other firms to join the industry.

- **ECONOMIC PROFITS**: These are earnings measured or derived by getting the difference between revenue and the opportunity cost of factors of production used in production of output sold by the firm.
  OR: The difference between revenue got by a firm and what it would have got in the second best alternative use/employment.

- **SUBNORMAL PROFITS/LOSSES**. This is where the average cost of a firm is greater than the average revenue.
  OR. It is the profit whose persistent over time makes the entrepreneur to quit the industry.

DETERMINANTS OF THE LEVEL OF PROFITS:

- **Size of the market/demand for the product**. A large market size leads to high profit levels,this is due to high level of sales, on the hand a small market size leads to low profit levels this is so because of low level of sales..
- **Cost of production/cost of sales/ Efficiency of firms.** Low cost of production lead to hig**h** level of profits, this is so because it motivates producers to increase output levels which results into high level of sales, on the other hand high cost of production de-motivates producer producers leading to low output level and thus low sales leading to low profit levels.

- **Price levels/the rate of inflation**. High price levels lead to low effective demand due to high cost of living, this results into low sales and thus low profits, on the other hand low price levels lead to high effective demand due to low cost of living, this results into high sales and thus high profit levels.
- **The Goal/Objective of the producer(s**).Where the goal of the producer is profit maximisation, it leads to high profit levels, this is so because such producers sell their output at very high prices, on the other hand where the goal of the producer is sales maximisation, it leads to low profit levels because such producers sell their output at low prices.
- **Level of Entrepreneurial skills/ organizational ability**. High level of organizational skills leads increased efficiency in production thus minimizing production costs hence high profit levels, on the other hand low level of organizational skills leads to inefficiency in production leading to high production costs and thus low profit levels.
- **Degree of risks of investments**. High degree of risks leads to high profit levels in the economy, this is because high risks discourage many potential investors limiting competition for the market, thus high sales for the few investors who adventure in business, on the other hand low degree of risks lead to low profit levels because there are many potential investors which leads to stiff competition for the market leading to low sales.
- **Level of output/ supply/turn over/Size of the firm.** High level of output leads to high level of sales thus high profit levels. On the other hand low levels of output leads to low level of sales which results into low levels of profits.
- **Ease of entry of new firms into an industry/ Number of firms in the industry/Level of competition in the market.** Large number of firms in an industry reduces the market share for each firm, this leads to low sales thus low profit levels. On the other hand limited number of firms in an industry increases the market share for each firm which leads to increased sales, leading to high level of profits.

THE ROLE OF PROFITS IN ECONOMICS:

- Profits are a reward to an entrepreneur for risks and uncertainties endured in the production process.
- It's a guide in resource allocation since entrepreneurs channel resources to profitable ventures.
- Profits stimulate effort for innovation and invention in the production process; this is done through research into new products and methods of production.
- Profits promote investment through ploughing back the unshared profits.
- Profits are used to reward other factors of production such as Labour through paying wages.
- Profits are a source of revenue to the government since the government levies corporate tax on these profits.
- Abnormal profits induce people to the risks of uncertainty.
- Profits measure the degree of risks, usually the higher the level of risks, the higher the profits or the higher the profit the higher the level of risk.

Profit differs from other rewards in the following ways:

- Profits cannot be determined in advance unlike other rewards such as wages, interest, and rent that are determined in advance.
- In case of loss, profits become negative but other factor prices remain positive.
- Other factor rewards are stable and certain but profits fluctuate and are uncertain.
- Profits can be used to reward other factors like Labour, but other factors of production cannot be used to reward an entrepreneur.

- Profits unlike other factors payments are residual payment which accrues to risk takers after all other factors have received their earnings.

Sub- Topic:5 THE CONCEPT OF MARKET STRUCTURES:

Note:

(i)MARKET: This is an arrangement that brings together buyers and sellers to transact business at a particular period of time. It is the total number of buyers and sellers involved in the exchange of a given product at a particular period of time.

(ii) Market *structure*: This refers to the behaviour of consumers and sellers in the market. It also considers the market conditions such as level of profits, price levels, the level of output, the number of firms etc.

There market structures include the following:

- Perfect competition
- Monopoly
- Monopolistic competition
- Oligopoly

CLASSIFICATION OF MARKET STRUCTURES:

Market structures can be classified into those mentioned above according to:

1. Number of participants or firms.

Where there are many firms the market, it is either Perfect Competition or Monopolistic Competition, while where participants are few it is an Oligopoly firm and where there exists only one firm the market it is Monopoly.

2. Freedom of entry and exit.

Free entry and exit is a feature of perfect competition and monopolistic competition under Oligopoly entry is limited/ restricted and for Monopoly entry of new firms in the industry is totally blocked.

3. Degree of product differentiation.

Perfect competition and Perfect Oligopoly produce/sell homogeneous/ similar products. Meanwhile product differentiation is a feature of Monopolistic Competition and Imperfect Oligopoly.

4. Level of profits in the long run.

Normal profits are realized by Perfect Competition and Monopolistic Competition while Monopoly and Oligopoly firms continue to enjoy supernormal profits in the long run.

5. Objective of the firm

All firms in the different market structures aim at profit maximisation. They all maximise their profits at the equilibrium level of output i.e. at a point where MC = MR when AR > AC.(AR is greater than AC).

Sub-Topic 6: PERFECT COMPETITION MARKET STRUCTURE:

This refers to the market in which there are many buyers and sellers dealing in homogeneous commodities/products. In reality this type of market does not exist because the conditions under which it operates are quite ideal. We simply learn it as a guide to other market structures.

Assumptions/characteristics/features/conditions of perfect competition:

Perfect competition is based on the following assumptions:

1**. There are many buyers and many sellers**:

Under perfect competition it assumed that there are many sellers that none of them is in position to influence the price of the commodity. The firm therefore is a price taker and the price is determined by the industry through the forces of demand and supply and the firm is faced with a perfectly elastic demand curve.

An illustration of a perfectly elastic demand curve under perfect competition:

From the illustration above at a constant price OP_1 the firm can sell different output in the market e.g. OQ1, OQ2, OQ3 etc.

N.B While there are many sellers in the market there are also many buyers that none of them is in position to influence market price and for this reason, there is no possibility of securing a discount by any single buyer.

2. Homogeneous products:

Firms deal in homogeneous products to the extent that no buyer has preference for the product of any one individual firm over the other. This implies that firms under perfect competition charge same prices.

3. Freedom of entry and exist

Firms have a freedom to enter into and move out of the industry. This implies that firms with capital are free to join production and firms with an inadequate capital can leave the industry without any barriers.

4. No government interference.

Government does not interfere in price – output determination. Price – output combinations are determined by the market forces of demand and supply.

5**. Profit maximisation**:

The goal of the firm under perfect competition is profit maximisation where Marginal Cost is equal to Marginal Revenue (MC = MR).

An illustration of the point of profit maximisation under perfect competition.

From the diagram output OQ_1 is the profit maximising output at price $OP_{1 \text{ at point A.}}$

6. No transport costs.

This means that the raw materials, the firms and the consumers are all located in the same area. This condition also implies that firms under perfect competition must charge the same price.

7. No advertising.

Under perfect competition firms do not advertise and this therefore reduces the cost of production. There is no advertising in the market because of product homogeneity.

8. Perfect mobility of factors of production

Under perfect competition there is perfect mobility of factors of production most especially labour and capital. Factors move from lower paid economic activities to higher paid economic activities. This condition implies that increase of labour, skills are easily acquired.

9. There is no collusion. There is no collusion between buyers or sellers of goods. In a perfectly competitive market, buyers do not group together with other buyers nor do sellers group together to determine, influence or manipulate price at which the good is sold.

10. Perfect knowledge of the market.

It is further assumed that consumers and sellers have complete knowledge about the prices at which goods are being sold and bought. In addition it is assumed that they have perfect knowledge of the places where transactions take place. This condition implies that firms under perfect competition must charge the same price so that if one firm tries to charge a higher price then it will not sell anything.

NOTE: There is however a small distinction between **pure competition** and **perfect competition**. The difference between the two is that Pure Competition has no perfect mobility and perfect knowledge of market conditions as it is in Perfect Competition.

THE RELATIONSHIP BETWEEN MR AND AR UNDER PERFECT COMPETITION:

Since the firm is too small to influence the price, it's bound to sell whatever quantities it produces at the price established by the Market forces of demand and supply. i.e. The firm is a price taker and the demand curve is perfectly elastic. Any additional output can be sold at that price therefore;

AR = P = DD under perfect competition e.g. if the firm decides to sell 100 units of the product at Shs 10 each

TR = P x Q

TR = 10 x 100

TR = Shs. 1000

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

= $\frac{1000}{100}$

AR = Shs 10

$\therefore$ AR = P

The MR curve is also equal to the AR curve e.g. if the firm sells 10units at Shs. 100 each then TR = Shs.1000.

Calculate the value of MR

$$MR = \frac{\Delta TR}{\Delta Q}$$

$$= \frac{100}{10}$$

MR = Shs. 10

EQUILIBRIUM POSITIONS OF THE FIRM UNDER PERFECT COMPETITION:

It is determined where MC = MR. it should be noted that under perfect competition equilibrium is achieved where price is equal to MR = AR = DD = MC.

The following conditions must be satisfied for the equilibrium to achieved

i) MC = MR (Necessary condition)

ii) MC curve must cut the MR curve from below and this is explained in the diagram below.

An illustration of the equilibrium position of the firm under perfect competition:

From the illustration above output OQ_1 is not the equilibrium level of output because if the firm was to produce an extra unit of output it would fetch more revenue than the costs incurred in its production, therefore it pays the firm to increase its output in order to earn more profits. Output OQ_2 is the equilibrium level of output under perfect competition.

This is because if the firm was to produce an extra unit of output it would fetch less revenue than the costs incurred in its production. Therefore it pays to stop at output OQ_2 and not to produce an extra unit of output; **the sufficient output level of profit maximisation is therefore OQ_2**

- **Necessary condition** is where MC = MR (point X) but output is low and therefore profits are not maximised.

- **Sufficient condition** is where MC = MR (point M) at the highest level of output.(OQ2).

Short run equilibrium of the firm under perfect competition.

In the short run a firm can either make abnormal profits or incur losses.

In short run profits are maximised where MC = MR but under perfect competition it is that point where MC cuts MR from below.

An illustration of the short run equilibrium position of the firm under perfect

Profits are maximised where Marginal Cost is equal to Marginal Revenue(MC = MR) as shown below.

From the diagram above, Price is determined where the output line meets the AR/Demand curve at point A.

- Out is determined at point A where MC = MR i.e. OQ_e. Output 0Qe is produced at a cost OC1, at point B.

The firm earns abnormal/supernormal profits represented by a rectangle Pe ABC_1 where Average Revenue (AR) is greater than Average cost (AC).

LOSSES IN THE SHORTRUN UNDER PERFECT COMPETITION

It should be noted that a firm under perfect competition can also incur losses in the short run. This is because the period is too short to enable firms vary all factors of production i.e. to vary fixed factors in order to increase supply.

An Illustration of losses in the short run under perfect competition

From the above illustration, the firm is in equilibrium at point A where MC = MR.

The equilibrium output produced is OQe determined where MC =MR.(OQe line/link).

The price is determined where the output line meets the demand curve/AR curve at point A.

The cost of producing output OQ_e is OC1 determined at point B. therefore at equilibrium AC is greater than AR implying that the firm is making losses indicated by ABC1Pe as shown by the shaded area.

LONG RUN PRICE, OUTPUT AND PRICE DETERMINATION UNDER PERFECT COMPETITION:

In the long run the firm under perfect competition is in equilibrium when AR = MC = MR = AC. In the long run all firms in the industry under perfect competition earn normal/zero profits. This is because of entry of new firms into the industry as they are attracted by the abnormal profits of the short run.

When new firms join the industry, output increases as well as the average cost of production. This is so because of increased supply of output and increased demand for factors of production. Price level reduces and also profit level eventually reduces and thus all firms earn normal/zero profits as illustrated below.

An illustration of long run price, output and profit determination under perfect competition

From the above diagram in the long run, the firm under perfect competition is in equilibrium at point E where MC = MR = AR = DD = AC.

Equilibrium output OQe is determined where MC= MR i.e. OQe line/link.

Equilibrium price OPe is automatically determined by the forces of demand and supply at point E i.e. OPe line/link.

At the equilibrium point AC = AR implying that the firm is neither making abnormal profits nor incurring losses thus such a firm is earning zero/ normal profits.

THE SUPPLY CURVE UNDER PERFECT COMPETITION

The supply curve of the firm shows various quantities of commodities available for sale at various prices. The supply curve is therefore derived from point of intersection of marginal cost curve with successive demand curves.

An illustration of the supply curve under perfect competition:

From the diagram above, if the price is OP_5 the quantity supplied is OQ5 where MC = MR_5. When the price is reduced to OP_4 the quantity supplied reduces to $0Q_4$ where MC = MR_4.when the price reduces further to OP_3 the quantity supplied also reduces further to OQ_3 where MC = MR_3.

With output OQ_5 the firm makes economics profits while with output OQ_4 the firm makes zero or normal profits. Without OQ3 the firm incurs losses. It should be noted however that output OQ_3 will be produced despite the losses incurred. This is because the firm is still in position to cover the average variable cost.

In the short run, therefore the supply curve of a perfectly competitive firm is exactly the same as MC curve for all levels of output equal to or greater than that level of output which corresponds to the minimum point of AVC curve(Point B).

SHUT DOWN AND BREAK-EVEN POINTS OF A FIRM UNDER PERFECT COMPETITION:

1. **BREAK EVEN POINT of a firm.** This is where a firm neither makes Supernormal profits nor incurs losses. I.e. where a firm earns normal/zero profits.(AR = AC).

2. **SHUT DOWN POINT of a firm**. This is a point below which firm cannot cover its Average variable Costs. (AR = AVC)

OR It is a point where the firm covers only its Average Variable Costs

An illustration of the Break-even and the Shutdown points of the Firm under Perfect Competition:

From the illustration point **B** represents the **Break-even point,** where the firm neither makes profits nor incurs losses.

While point **S** represents the **Shut-down point of the firm** which corresponds to the to the lowest point of **AVC curve**. This point shows that the firm just covers only the Average variable costs i.e. it is a point **where AVC = AR**. Below this point the firm will be making a lot of losses and it is worth closing down.

REASONS WHY A FIRM CONTINUES PRODUCING WHEN IT IS MAKING ZERO/ NORMAL PROFITS OR WHY FIRMS CONTINUE PRODUCING EVEN WHEN THEY HAVE FAILED TO COVER THEIR AVERAGE VARIABLE COSTS.

- The firm will continue operating in the short run as long as it covers the variable/vital operating costs like wages, salaries, and raw materials with the hope to cover its fixed costs in the long run.
- High costs may be of a seasonal nature. The firm may be sustained by the hope that the business climate may improve in the near future and therefore the business may grow hence enabling firm to make profits.
- The need to maintain a grip over the market. A firm may fear to lose its market and goodwill because getting a new market may be expensive usually involving expensive advertising.
- Fear of high costs of depreciation/ re-opening. The firm may be avoiding high costs of depreciation of machinery whereby re-starting may involve repairing or renovating machines.
- Fear to lose skilled manpower/labour. The firm may have built up a pool of specialised skilled manpower which it may fear to lose, hence continues operating. This is because labour is expensive to train.
- Hope to change management. The firm may review its management and administration where there is inefficiency leading to high costs arising from poor management.
- The fear of losing the source/ supplies of raw materials especially and getting new sources may be very expensive.

- The firm may adopt new technique a production which is aimed at reducing costs hence it will continue producing even if it is making losses.

- Hope to get a loan/ Aid. A firm may decide to get a loan from the financial institution, so the firm may decide to remain producing even when making losses.

- It may be a branch of an industry, and therefore the losses in one firm may covered by profits in other firms of the same industry.

- It may be a state owned firm offering essential services hence continue in production.

- It may be a beginner firm; this is where the firm is still in infant stage hoping to reap profits in the long run.
- It may be a research unit where the objects are short lived, and after attaining them, it closes.
- Fear losing contracts. As the firm closes it loses contracts which may lead to heavy punishment for breaching the contract, i.e. will be pay heavily financially.
- It may be hoping to merge with another profit making firm(s).

ADVANTAGES/MERITS OF PERFECT COMPETITION:

- There is efficient allocation of resources in the long run and short run using market forces.

- It provides an efficient standard or convenient measuring rod for comparison of price determination in other markets.

- It ensures fair and stable prices in the market since the commodities sold are homogeneous.

- It ensures equitable distribution of income because of the many firms and free entry and exit i.e. in terms of employment.

- It ensures increases output because of large number of firms/ Producers in the market.

- No wastage of resources/funds in advertising that would increase the cost of production hence increase in prices of goods and services.

DISADVANTAGES/DEMERITS OF PERFECT COMPETITION:

- It assumes certain ideal market situations that do not exist in real life. e.g. awareness of market situations by buyers and no transport cost.

- It cannot eliminate natural monopolies and business ownership of capital.

- The firm earns Normal/ Zero profit levels in the long run. This limits research and innovations in the production process.

- There is lack of economies of scale which limits the expansion of the firms.

- There is a limited variety of goods and services, which limits the consumer's choices due production of homogeneous products.

- It may lead to unemployment in the long run since inefficient firms are pushed out of production/ are outcompeted in production

- It leads to duplication of goods and services, therefore leading to wastage of resources.

Sub-Topic 7: MONOPOLY

This is a market situation where there is **only one producer / seller** but many buyers of a commodity that has limited or no close substitutes.

A simple or an imperfect monopoly is an ordinary monopoly whereby the product produced has limited close substitutes.

Examples in Uganda include Uganda Electricity Distribution Company Ltd UEDC Ltd as sole distributor of hydroelectric power, Uganda Railways Corporation.

Forms of monopoly include:

Pure/perfect/absolute Monopoly.

This is a market situation where there is one producer but many buyers of a commodity that has **no substitutes at all.** The cross elasticity of demand of a product of such a firm is zero. However given that in the real This is a market situation where there is one producer but many buyers of a commodity that has **no substitutes at all**

- **Bilateral Monopoly.** This is a market consisting of one seller (monopolist) and a single buyer of a single commodity e.g. a single firm producing all the copper and another single firm uses the copper. In real situation bilateral relationship between trade union and employers association is a best example of bilateral monopoly.
- **Monopsony.** This is a market situation where there exist many producers but a single consumer or buyer of a product. A commodity statutory marketing board that buys a particular crop from all the farmers in the country is a good example of a monopsony.
- **Statutory monopoly**. Statutory monopoly is one formed by the Act of parliament. It has the sole right to deal in specified economic activities for example, in the provision of public utilities such as water, electricity, gas.
- **Natural monopoly.** This is a monopoly situation that arises from the ownership of specific/strategic natural resources or unique talent by a producer making it hard for other firms to join the industry.
- **Spatial monopoly**. Spatial monopoly is one which arises from longer distance between producers of a commodity.
- **Collective monopoly**. Collective monopoly is one which comes into existence due to merging of firms.
- **Discriminative monopoly**. Discriminative monopoly is one where a firm sells the same commodity to different customers at different prices irrespective of costs of production.

FACTORS THAT GIVE RISE TO MONOPOLY:

- **Existence of patent rights to inventors and copyrights to authors or special talents**. Such patent rights are granted by the government to a firm to produce a commodity of specified quality or to use a specified technique of production for a given period of time.
- **Large initial capital requirements**. Where large initial capital is required in the production of a given commodity, few firms can afford hence giving rise to monopoly.
- **Where the market is too small for many firms to operate**. Firms enjoy monopoly powers where the market can only allow one optimum firm to operate at its minimum level of efficiency.
- **Natural monopolies due to ownership or of control of a strategic source of raw materials**. Firms become monopolists by obtaining control over certain inputs that are essential for the production a commodity.
- **Spatial monopolies due to long distance between firms**. One may become a monopolist so long it does not become worthwhile for the consumers to incur transport costs to bring in commodities of other producers.
- **Mergers and takeover of firms.** Some Monopolies come into existence due to integration/amalgamation of several firms in the same line of production.
- **Long period of apprenticeship i.e. long periods of training** leading to professional Monopolies such as Architects, Chartered Accountants etc. People are restricted from entry into such professions, through extension of training period.

- **Statutory monopolies arising from government through Statutes and Acts of parliament**. Some monopolies come into existence by the Act of parliament and they exist as public utilities, and can be removed only when the law is removed.
- **Protectionism in international trade leading to Sheltered Monopolies**. Monopoly comes into existence when government imposes restrictions on foreign goods through tax and non-tax barriers. This makes the local producers become monopolists e.g. soda firms, sugar firms in Uganda.
- **Exclusive knowledge about production of a commodity**. Firms especially in the manufacturing sector design processes that are secretly kept and this makes them have monopoly power over production of certain commodities.
- **Limit-pricing policies/ Aggressive price wars.** This is the setting of a lower or unattractive price for a given commodity in order to prevent entry of new firms in the industry. Limit- pricing gives monopoly power to those firms which adopt it.
- **Cartels and common marketing policies e.**g. Organisation of petroleum exporting countries (OPEC). Countries producing a similar commodity such as petroleum may decide to restrict supply on the market and also charge the same price for their product.

THE RELATIONSHIP BETWEEN MARGINAL REVEVUE AND AVERAGE REVENUE UNDER MONOPLY:

Marginal Revenue is not the same as Average Revenue under all imperfect markets, e.g. Monopoly, Monopolistic Competition and Oligopoly.

Under Monopoly Marginal Revenue lies below the Average Revenue curve and this is because a monopolist is able to obtain more revenue by lowering his price and thus making the Marginal Revenue curve fall faster than the Average Revenue curve.

A Monopolist faces a demand curve which is inelastic and this because he deals in a commodity which has no or limited close substitutes.

An illustration of the demand curve under Monopoly:

In the illustration the demand is inelastic while the Marginal Revenue is below the Average Revenue Curve.

SHORT-RUN SITUATION OF A FIRM UNDER MONOPOLY

A firm under monopoly aims at profit maximisation and profits are maximised at a point where Marginal cost is equal to Marginal revenue (MC =MR) and this is the equilibrium position.

In the short run the firm can either earn Economic/Supernormal profits or incur losses.

An illustration of price, output and profit determination under monopoly in the short run

In the illustration above;

>The level of output that maximises profits is determined at point E where MC = MR, and firms' output is OQe

>The price OPe is determined at point A on the demand curve, where the output line meets the average revenue curve.

>The cost OCo is determined at point B, where the output line meets the average cost curve.

>In the short-run, firms under monopoly earn Supernormal profits because average revenue is greater than average cost (AR > AC) at equilibrium level of output. Supernormal profits are represented by the shaded area **PeABCo**.

An illustration of losses under Monopoly in the short run:

In the short run the firm can also incur losses as illustrated below.

In case of losses, the AC exceeds the AR at equilibrium level of output where MC =MR as shown above.
From the illustration above, the firm earns revenue equivalent to OPeTQe but incurs high costs OCoSQe.

Given that the exit of firms the is blocked under monopoly a firm which is incurring losses does not leave the industry but it takes some measures to get rid of the losses e.g. laying off some workers in case of a high wage bill, reshuffling management in case management was inefficient, improving the techniques of production etc.

LONG-RUN SITUATION OF FIRMS UNDER MONOPOLY
In the long-run, monopoly firms continue to produce at equilibrium where **LMC = LMR** and this is where higher Supernormal profits are maximised.

An illustration of abnormal profits in the long run under monopoly:

In the illustration above;
>The level of output that maximises profits is determined at point E where LMC =LMR, and firm's output is OQe i.e. OQe line/link.
>The price OPe is determined at point M on the demand curve; where the output line meets the long-run Average Revenue curve i.e. OPe line/link.
>The cost OCo is determined at point N, where the output line meets the long-run Average cost curve.
>In the long-run, a firm under monopoly earns higher Supernormal profits because the Average revenue is greater than average cost (LAR > LAC) at equilibrium level of output.(OQe). The higher Supernormal profits are represented by the shaded area PeMNCo

MERITS OF MONOPOLY:

- There is limited duplication and resource wastage. This helps to save society's scarce resources for example in utilities industries of water and electricity.
- Internal economies of scale are enjoyed in case of natural monopoly, where the market demand is only sufficient for one firm to operate at its minimum level of efficiency.
- Price discrimination is practiced and this benefits the low income earners who would go without some commodities.
- Research and innovations are encouraged through patent rights, because of presence of supernormal profits both in the short-run and long-run.
- Monopoly facilitates the growth and therefore development of infant industries because of patent rights accorded to them.
- Monopoly firms are sources of revenue to government through taxation on abnormal profits.
- Monopoly firms have ability to create and widen employment opportunities especially state/statutory monopolies.
- Monopoly firms experience low operational costs; this is mainly so due limited advertising of commodities. This means that there is a possibility of monopoly firms to charge low prices.
- Public utilities such as water and electricity are in most cases provided at reasonable prices which improve consumer's welfare.
- Abnormal profits are enjoyed, this helps to expand the size of the firm through re-investing/ploughing back such profits in business.

DEMERITS OF MONOPOY

- Monopoly leads to consumer exploitation by way of charging high prices, since consumers have no alternative sources of commodities.
- Leads to limited variety of goods and services on the market. This limits the consumer's choice, leading to low standard of living.
- Monopoly promotes income inequality because incomes are redistributed in favour of monopolists in form of abnormal profits while the rest of society becomes poorer.
- Monopoly firms produce low quality output on the market due to lack of competition.
- Monopoly leads to underemployment and unemployment of labour due to operation at excess capacity.
- Monopoly firms cause shortages of commodities on the market especially in times of break down.
- Monopoly firms exert pressure on government especially in decision making which compromises its performance e.g. decisions to do with taxation; a case in point is BAT (U).
- Monopoly firms exploit workers by way of underpaying them.
- Monopoly firms produce at excess capacity in some industries which leads to underutilization of resources, limited output and high prices of commodities.

THE CONCEPT OF EXCESS CAPACITY

Excess capacity is a situation where a firm or an industry is producing at less than installed capacity (optimum capacity). It is characterized by underutilization of available resources by a firm or an industry in a country.

An illustration of excess Capacity under monopoly

The firm produces at equilibrium as represented by point **E** instead of producing at optimum capacity represented by output OQ1. The difference between equilibrium output and optimum output is the excess capacity.

Causes of excess capacity in production

- Too much desire for higher profits by entrepreneurs, where they restrict output so as to charge high prices.
- Limited domestic and foreign markets which do not justify production of commodities at full capacity.
- Poor state of technology that does not encourage production at full capacity.
- Poor infrastructures for example poor roads, which do not encourage production at full capacity.
- Limited co-operant factors of production such as capital and labour.
- High production costs as a result of high taxation by government, high transport costs.
- Political instabilities which increase uncertainties in production.
- Limited entrepreneurial abilities to encourage innovations and inventions to produce at full capacity.
- Limited raw materials which do not encourage production at full capacity.

THE CONCEPT OF PRICE DISCRIMINATION.

Price discrimination is the act by a monopolist to charge different prices for the same product/similar product to different consumers/ markets.

Examples of price discrimination include:

- Different prices charged for seats in cinema halls or theatres.
- Different prices charged for seats in aircraft or train.
- Different prices charged for seats in national stadiums.
- Different prices charged in discotheques such as Ange Noir.
- Different prices charged in provision of medical services by medical doctors.

Forms/ basis of price discrimination:

- **Discrimination based on the level of income of consumers**. The rich customers pay a high price whereas the low income earners pay a lower price for the same commodity. For example, medical doctors charge high fees on rich patients than the poor patients.

- **Discrimination based on nature of a commodity**. Branded products are sold at high prices than the unbranded ones. For example in aero planes and trains, different charges exist for first class and other classes.
- **Discrimination based on time of service**. This is common in cinema houses and telephone services, customers are charged higher rates during peak hours as compared to the rates off -peak hours.
- **Discrimination based on gender and age**. For example, lower entry fee for ladies in discotheques at night, lower price for children's haircuts.
- **Discrimination based on geographical area**. In a market where the elasticity of demand for a product is inelastic a high price is charged and where the elasticity of demand is elastic a low price is charged.
- **Discrimination based on the use of the product**. This is when different prices are charged according to the uses to which the commodity is put. E.g. electricity is usually sold cheaply for industrial uses than for domestic purposes.

Conditions necessary for the success of price discrimination:

- The market should be divided into sub-markets based on age, level of income, gender and geographical separation.
- There should be different price elasticities elastic and inelastic demand in the different markets.
- The marginal revenue in different markets should be the same.
- The producer or seller must be a monopolist selling a commodity with no close substitutes.
- The cost of transferring a commodity by a consumer from one market to another should be high (no arbitrage).
- The cost of separating markets by the monopolist should be low so as to gain from price differences.
- The consumer must be ignorant about the existence of other cheaper markets so that one who buys at high price does not know that the commodity can be acquired at a lower price.
- There should be no government interference in the market in form of price controls.
- Where goods are sold on special order or contracts because consumers cannot know what is being paid by other customers.
- In case of personal services which cannot be transferred from one person to another for example medical services.
- There should be low cost of separating the markets by the producer.
- The producer must be a monopolist/ there must be one producer of the commodity and the commodity must not have a close substitute.

Merits of price discrimination:

- Poor consumers buy essential goods and services at relatively low prices.
- It increases total revenue of the monopolist as a result of selling a lot of output.
- It is the only way through which the rich can subsidise the poor people.
- It helps the monopolist to dispose -off surplus output through selling in a market where demand is elastic.

Demerits of price discrimination:

- It leads to uneven distribution of income because the monopolist earns more by selling to both the rich and poor customers.
- It leads to dumping which discourages production in countries where such commodities are sold at cheaper prices than the price charged in the domestic country.
- It eliminates consumer's surplus since the commodity is sold by the monopolist.
- Poor quality commodities are sold at very low prices due to existence of monopoly power.

MEASURES TO CONTROL MONOPOLY POWER IN A COUNTRY:

- Adoption of price control in form of maximum price on monopolised commodities, such that it becomes illegal to trade above the set price by the government.
- Adoption of taxation in form of lump sum and specific taxes to reduce the supernormal profits enjoyed by monopolists.
- Removal of foreign trade restrictions on foreign goods to allow fair competition and promote efficiency of domestic firms.
- Encourage new firms by government to join industry through provision of subsidies.
- Improvement of economic infrastructures such as roads, railways, electricity to reduce on costs of production and attract new firms to join industry.
- Adoption of nationalisation where government takes over privately owned enterprises to promote efficiency and increase output of goods and services.
- Adoption of anti-merger laws i.e. enacting laws against monopoly practices such as merging of firms.
- Relaxing patent rights granted to inventors and copy rights to authors such that competition in production is open to many entrants.
- Publicising all abuses of monopoly such as political and economic corruption, unfair business practices etc.
- Formation of purchasers' associations aimed at increasing bargaining strength of consumers of a commodity and creating awareness among the consumers.
- Establishment of bureau of standards, such institutions in setting set standards that producers must follow if they are to continue with their businesses.
- Undertake privatisation, this is intended to control or remove statutory monopolies.

~~Sub-Topic 8: MONOPOLISTIC COMPETITION~~

~~Monopolistic competition is a market structure in which there are many buyers and firms producing differentiated products that are close but not perfect substitutes.~~

~~The market structure has elements of competition and monopoly. Examples of firms operating under conditions of monopolistic competition are Bakery industry, taxi industry, Soap and det ergents industry, saloon services, tea industry, estate agents, funeral directors, insurance brokers etc.~~

Characteristics of monopolistic competition

1. There are many buyers and sellers in the market (industry) who have limited market powers and none of the firms can control a very big portion of the market.
2. There is freedom of entry and exit of firms. This means that there are no barriers to entry of new firms and obstacle to firms leaving the industry.

3. The products produced are highly differentiated by branding, packing, Colour, taste, design and trademarks but have close substitutes.
4. There is widespread persuasive advertising and sales promotion campaigns, all of which aim at making the demand for commodities inelastic.
5. Firms can be price makers to a certain extent because of monopoly elements. This means that each firm has monopoly power over its brand.
6. Firms under monopolistic competition aim at profit maximization both in the short-run and in long-run, and profits are maximized at a point where marginal cost is equal to marginal revenue.
7. Firms under monopolistic competition earn supernormal profits in the short-run and normal profits in the long-run.
8. The demand curve of firms under monopolistic competition is highly elastic sloping from left to right. This is because commodities produced have close (many) substitutes.
9. Firms under monopolistic competition produce commodities at excess capacity hence underutilizing available resources.
10. There is brand loyalty (commitment) by consumers, where they can easily identify a commodity of a particular producer considered superior to other brands.
11. Firms under monopolistic competition incur different costs for example transport and production costs therefore have different profit levels.

SHORT-RUN SITUATION OF A FIRM UNDER MONOPOLISTIC COMPETITION

1. In the short-run, efficient firms under monopolistic competition earn supernormal profits and they produce at a point where MC = MR.

Diagram

>The level of output that maximizes profits of a firm is determined at point E, where MC = MR.
>The price OP is determined at a point where the output line meets the demand curve at point A.
>The cost OC is determined at point B where the output line meets the average cost curve.
>The firm earns abnormal profits because average revenue is greater than average cost at equilibrium level of output, as represented by the shaded area PACB.

LONG-RUN SITUATION OF A FIRM UNDER MONOPOLISTIC COMPETITION

In the long-run, firms continue to aim at equilibrium where LMC = LMR, and this is where output is determined. Because of freedom of entry in the market, the short-run supernormal profits attract new firms, which lead to increase in the average costs of production hence the upward shift of the average cost curve.

Diagram

>The level of output that maximizes profits is determined at point E where LMC = LMR (output OQ)
>The price OP is determined at point A where the output line meets the LAR curve, and the LAR curve is tangent to LAC curve.
>The cost OC is determined at point A where the output line meets the LAC curve.
>All firms earn normal profits because LAR is tangent to LAC (LAC = LAR) at the equilibrium level of output.

Merits of monopolistic competition

1. Consumers enjoy commodities at relatively low prices due to competition among firms.
2. It leads to production of a wide variety of commodities due to product differentiation, which improves consumer's choice and preference.
3. It leads to production of better quality products due to competition among firms.
4. It leads to high output of products due to existence of many firms in the industry.
5. Monopolistic firms provide employment opportunities, which improve on peoples' welfare.
6. Monopolistic firms contribute revenue to the government through taxation on abnormal profits.
7. Monopolistic competition promotes inventions and innovations through product development.
8. Abnormal profits earned by firms in the short-run can be used for expansion.
9. Persuasive advertisement enables firms to expand markets for their products

Demerits of monopolistic competition

1. It leads to wastage of resources due to duplication of economic activities or services.
2. It leads to underutilization of resources by firms due to production at excess capacity.
3. Firms experience high costs of production due to existence of competitive advertisement and product differentiation.
4. It leads to limited market share because of the many firms in monopolistic competition.
5. It leads to distortion of consumer choices due to competitive persuasive advertisement.
6. Limited research is done by firms in due to absence of abnormal profits in the long-run.
7. It leads to unemployment due to collapse and exit of inefficient firms in the long-run.

8. It leads to consumer exploitation due to high prices charged under monopolistic competition.

Sub- Topic 9: OLIGOPOLY:

Oligopoly is market structure in which there are a few firms either producing homogeneous products of differentiated products.

Oligopoly can be categorized as:

1. Perfect / Pure oligopoly.

Pure oligopoly is a market situation in which there are a few firms producing homogeneous products. For example, raw materials in form of petroleum, steel, Aluminum and oil. There is close interdependence such that, price-output move of one firm affects price-output move of all other firms in the industry.

2. Imperfect / Differentiated oligopoly.

Imperfect oligopoly is a market situation in which there are a few firms producing **differentiated products**. Commodities are close but not perfect substitutes.

Examples of oligopoly firms in Uganda include:

a. Soft drinks industry composed of crown beverages limited and century bottling company ltd
b. Cement industry composed of Hima cement, Kampala cement and Tororo cement factories.
c. Petro industry composed of Shell, Total,
d. Beer industry composed of Nile Breweries, East African Breweries and Parambot Breweries.
e. Mattress industry composed of Vita foam, Royal foam, Euroflex, Comfoam, Megha foam, Crest foam
f. Telecommunications industry composed of MTN, AIRTEL, Africell, etc.

CHARACTERISTICS OF OLIGOPOLY.

1. There are few firms and many buyers participating in the market, and each of these firms controls a substantial share of the market.
2. There is close interdependence among firms. This means that price and output decisions of one firm affect others.
3. There is use of intensive sales promotional activities/ Non- price competition such as persuasive advertising, provision of after sales.
4. Different sizes of firms. There is lack of uniformity; this means that firms are of different sizes whereby some are small firms, medium firms and large scale firms.
5. There is no unique pattern of pricing as compared to other market structures but prices are determined by cartels/collusive pricing, independent pricing or price leadership.
6. Firms in the market are faced with a kinked demand curve. This is because of the uncertainties in the market.
7. There is price rigidity which is due to uncertainty that exists in the industry and none of the participants would like to interfere with price because it may spark- off price wars.
8. There is limited entry of firms in the industry since mature firms use unfair competitive methods which limit entry of new firms in the industry.
9. Profit maximisation is the main motive of production. Firms under oligopoly aim at making profits.E.g. Firms earn supernormal profits due blocked entry of new firms in the industry.
10. There is product differentiation under imperfect oligopoly and product homogeneity under perfect oligopoly.
11. There is high degree of uncertainty. The Oligopolist is always uncertain of price- output moves of other firms in the market.

NON – PRICE COMPETITION.

Non – price competition is a situation where firms in the same industry use other means of competition rather than changing prices of a product.

Forms of non – price competition.

1. Use of widespread persuasive advertisement over radios and television.
2. Provision of after sale services for example free repairs, free transport services, cleaning windscreens at petrol stations.
3. Offering gifts to customers such as soap, scholastic materials, T-shirts, key holders.
4. Opening up branches or distribution points and improving quality of shopping outlets.
5. Sponsoring sports events and this is common with MTN, Airtel, Crown bottlers etc.
6. Use of appealing brands, trademarks and slogans to attract many customers, e.g. MTN Everywhere You go, Nomi loves clothes and clothes loves Nomi.
7. Distributing free samples of commodities to customers so as to attract them.
8. Quality improvement of products produced by firms for example unleaded petrol by Shell.
10. Special packaging of commodities by using different designs to attract more customers.
11. Provision of credit facilities or installment selling.
12. Organising ruffle draws and consumer games where winners are rewarded highly.
13. Organising trade fairs and exhibition to make customers aware of the product.
14. Differentiated packaging, designing, packing in attractive materials

THE DEMAND CURVE OF A FIRM UNDER OLIGOPOLY

The demand curve of firm under oligopoly is of a kinked nature. A kinked demand curve is one which is elastic at high prices and inelastic at lower prices.

An illustration of a demand curve under oligopoly:

>From the diagram price OPo is the administered price and this is at point where the demand curve is kinked at point F such that if one firm increases the price above OPo, other firms will not follow. However if a firm reduces price below OPo other firms will also follow by lowering their prices so as to protect their market i.e. so as not to lose their customers. Therefore the demand curve is elastic from point F to point E and inelastic from point F to point G.

Assumptions of a kinked demand curve

1. There is an established market price for the product at which all firms are satisfied.
2. A decision by one firm to increase price, does attract other firms to follow because they fear to lose the largest portion of the market.
3. A decision by one firm to reduce price attracts other firms to follow because this is the only way to capture largest portion of the market.
4. Firms under oligopoly are mature firms in business or production.

PRICE DETERMINATION UNDER OLIGOPOLY

Under oligopoly there is no unique pattern of pricing as compared to other market structures, therefore prices are determined in the following ways:

1. Independent pricing. Independent pricing is where firms act independently and set prices on their own. In this case there is no collusion and the method is likely to cause price war.
2. Price leadership or Imperfect collusion. Price leadership is where the leading firm in business determines the price at which other firms are supposed to sell the product. The price leader can be low cost firm, dominant or the largest firm in the industry.
3. Perfect collusion. Perfect collusion is a situation where oligopoly firms enter into a cartel of independent producers to determine output and price collectively.

NOTE: A cartel is an organisation of independent firms operating in the same industry. The cartel aims at: reducing competition among firms, controlling output and stabilizing prices in the market.

PRICE RIGIDITY OR STABILTY UNDER OLIGOPOLY

Prices tend to be stable under oligopoly despite the changes in costs of production and this is due to:
1. Individual firms may have learnt from past experience, the effects of price wars.
2. Firms being content with current level of prices, output and profits and therefore no need of changing prices
3. Firm's preference to use non – price competition such as advertising, provision of after sale services.
4. Price changes being unprofitable, because high prices discourage consumers while lower prices do not cover costs of production.
5. Firms preference to stick to present price level to prevent new firms from joining the industry.
6. Fixing a stable price through agreement (collusion) and no single firm would like to interfere with it for fear of unleashing a price war.

SHORT-RUN SITUATION OF FIRMS UNDER OLIGOPOLY

Firms under oligopoly aim at profit maximization and profits are maximized at a point where Marginal cost is equal to marginal revenue, and this is the equilibrium position.

An illustration showing price, output and profit determination of a firm under Oligopoly in the short-run

>The level of output that maximizes profits is determined at a point where MC = MR, and MC cuts the MR curve in its discontinuous portion (D – E)
>The price OPe is determined at point A on the demand curve through agreement, where the output line meets the average revenue curve.
>The cost OC is determined at point B, where the output line meets the average cost curve.
>In the short-run, firms under oligopoly earn supernormal profits because average revenue is greater than average cost (AR > AC) at equilibrium level of output (OQe). Supernormal profits are represented by the shaded area PeABC.

LONG-RUN SITUATION OF FIRMS UNDER OLIGOPOLY

In the long-run, oligopoly firms continue to produce at equilibrium where LMC = LMR and this is where higher supernormal profits are maximized. Profits increase due to a fall in average costs of production, formation of cartels, mature market sharing and reduced degree of uncertainty.
The long run demand curve is fairly elastic and has a minimum kink. The marginal revenue curve has a small break unlike in the short run because of reduced degree of uncertainty in the mature oligopoly industry.

An illustration showing price, output and profit determination of a firm under Oligopoly in the long-run.

>The level of output that maximizes profits is determined at a point where LMC = LMR, and LMC cuts the LMR curve in its discontinuous portion (a – b). The LMR curve has a small break unlike in the short run because of reduced degree of uncertainty in the industry.
>The price OP is determined at point A on the demand curve through agreement, where the output line meets the long run average revenue curve.
>The cost OC is determined at point B, where the output line meets the long run average cost curve.

>In the long-run, firms under oligopoly earn supernormal profits because long run average revenue is greater than long run average cost (LAR > LAC) at equilibrium level of output. Supernormal profits are represented by the shaded area PACB.

MERITS OF OLIGOPOLY

1. Low prices are charged to customers and this leads to increased demand for goods and services.
2. It makes consumers budgeting easy due to price stability in the industry
3. It widens consumer choices due to production of a variety of goods and services.
4. It leads to production of quality goods and services due stiff competition among firms.
5. Oligopoly firms provide employment opportunities which improve on people's welfare.
6. Oligopoly firms contribute to economic growth by increasing the level of output of goods and services.
7. Oligopoly firms contribute revenue to the government through taxation on supernormal profits of the Oligopoly firms.
8. Oligopoly market situation leads to increased innovation due to stiff competition among firms and the need to maximize profits.
9. It enables firms to enjoy abnormal profits both in the short-run and long-run.
10. Leads to development of infrastructures. The establishment of Oligopoly firms facilitates the setting up of infrastructures such as roads, financial institutions etc.
11. Consumers benefit from non- price competition such as free gifts, after-sales services etc.
12. Leads to increased resource utilisation. This is because of the supernormal profits enjoyed which enable the firms to exploit the would-be idle resources.

DEMERITS OF OLIGOPOLY

1. It distorts consumer choices due to widespread persuasive advertising for the products.
2. It leads to exploitation of consumers through overcharging due to collusion of firms.
3. It leads high costs of production due to intensive sales promotional activities/ High prices of the final products due to high costs of competition.
4. It leads to duplication due to production of similar products hence resource wastage.
5. It worsens the problem of income inequality in an economy due to supernormal profits enjoyed by oligopoly firms.
6. It leads to collapse of small firms due stiff competition among firms.
7. There is limited employment creation due to existence of a few firms, and limited entry of new firms in the industry.
8. It leads to limited entrepreneurial development / limited investment due to limited entry for new firms in the market.
9. Industries with large firms exert pressure on government hence become a tool of political agitation.
10. It leads to underutilization of available resources due to operation at excess capacity.
11. It leads to production of limited variety of goods in case of perfect oligopoly markets.