

PRODUCTION

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:

- Primary production
- Secondary production
- Tertiary production

1. 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.

2. 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.

3. 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, insured etc, 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;

- a) Direct production
- b) Indirect production

(a) DIRECT PRODUCTION /SUBSISTENCE PRODUCTION:

It refers to the production of goods and services for ones **own/self** use or consumption. eg. a carpenter making his own chair, a Tailor making his own shirt or a farmer growing food crops for his own consumption etc.

NB: Subsistence output- This is the output produced for ones **own** consumption.

CHARACTERISTICS OF SUBSISTENCE PRODUCTION:

- **There is mainly use of family labour** i.e. family members provide the major work force in production.
- **Mainly labour intensive means of production** are used.
- **Mainly barter system of exchange** is used to trade the incidental surplus.
- Mainly produces poor quality output mainly due to use of poor methods of production.
- **Basically low output is produced / there is low productivity** since producers aim at meeting own needs.
- **There is mainly use of primitive/ simple techniques of production** such as the use of hand hoe, pangs etc.
- **There is basically limited innovations and inventions in production process.**
This is mainly due to persistence use of primitive methods of production.
- **There is basically limited specialization in production** since the producer produces for his own consumption. Therefore the advantages for specialization are not realized.

- **There is mainly a lot of conservatism/traditional ways of life.** That is why producers cannot easily change from traditional to better ways of production.
- **Production is mainly aimed at satisfying the immediate needs of the producer who is the consumer/** production is mainly for survival other than development purposes/ profit motive
- **Marketing of the output is accidental.** Production of some basic cash crops is for meeting major cash needs such as clothing, payment of fees, purchase of domestic requirement such as salt, etc.
- **Production is mainly at excess capacity** i.e. producers produce below the optimum capacity hence there is underutilization of the resources.
- **Production is greatly influenced by social attitudes and beliefs** i.e. producers mainly produce their staple food.
- **There is low standard of living** due to consumption of poor quality products.
- There is limited or no competition amongst producers due to the absence of the profit motive.
- **It is largely found in the agriculture sector.**

Advantages of subsistence production

- There is limited wastage of resources since whatever is produced is consumed by the producer.
- It is cheap; this is 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 this is because it is organised on small scale; therefore 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 the economy.
- It leads to low economic growth rate due to low quantity of output produced
- It leads to the production of poor quality output because they use poor technology and also due to lack of competition.
- It leads to high levels of under- employment and seasonal unemployment because producers rely on family labour.
- It leads to underutilization/under exploitation of natural resources because production is on a very small scale.
- It leads to limited specialisation and trade which hinders commercialisation of the economy since the goods produced are not for exchange.
- There is limited capital accumulation of capital in the country. This is due to low output which leads to low incomes hence low savings, low investment thus low capital accumulation.

WHY IS THERE A NEED TO REDUCE SUBSISTENCE SECTOR IN UGANDA

- ★ To increase productivity hence promoting economic growth.
- ★ To widen the tax base hence increasing govt revenue through taxation.
- ★ To increase the incomes of the people in rural areas due to increased production.
- ★ To increase more employment opportunities.
- ★ To fight income inequality between the modern sector and the subsistence sector.
- ★ To expand the market for industrial output hence encouraging both backward and forward linkages.
- ★ To encourage innovations and inventions in production.
- ★ To promote rural transformation hence achieving a modern sector.
- ★ To improve on the quality of final products through competition and specialization
- ★ To increase foreign exchange earnings through increased exports.

Reasons why there is persistence of subsistence agriculture (Uganda)

- **Limited market for agricultural output.** The market/demand for agricultural products is limited both internally due to poverty and internationally due to protectionist policies of MDCs
- **Poor land tenure system.** Land ownership and distribution is poor in the sense that it leads to land fragmentation and small scale holdings which limits large scale production/ farming for commercial production but rather encourages small scale farming for subsistence.
- **Limited/insufficient capital.** There is limited capital to undertake expensive and intensive farming to produce output for sale. Hence the output is for subsistence survival by the peasant farmers.
- **Socio-cultural barriers/ conservatism.** There are strong socio-cultural beliefs where farmers regard subsistence farming as a cultural norm making it difficult to change to modern methods of farming or commercial farming hence continued subsistence production
- **High population growth rate.** This leads to shortage of land with small plots which do not enable people to carry out/ practice commercial farming hence persistence of subsistence farming.
- **Poor technology used in agriculture.** Use of rudimentary tools and traditional methods of farming results into production of low output and poor quality products that can mainly be consumed by its producers since it is not easy to market.
- **High rates of rural urban migration.** This leads to shortage of labour in the agriculture sector which is mainly rural based, hence there is production of little output for the producers own consumption thus persistence of subsistence farming.
- **Limited skills/low education levels.** There is limited skilled labour which hinders agriculture modernization which results into production of low and poor quality output that is mainly consumed by its producers at home since the output does not match the international standards.
- **Low prices/price fluctuations.** This situation discourages commercial farming and hence many producers opt/prefer to produce for their own consumption thus leading to persistence of subsistence farming.
- **Poor/infertile soils in some parts of the country.** Such soils do not favour production of high output and therefore whatever is produced is consumed by the producers leading to persistence of subsistence farming.

MEASURES BEING TAKEN TO REDUCE SUBSISTENCE PRODUCTION

- ★ Carrying out land reforms through land consolidation such that there is enough land for commercial production.
- ★ Training of labour to acquire skills necessary in modernization of agric. So as to increase the quality and quantity of output.
- ★ Improving the infrastructure in order to facilitate transportation of products to market centres.
- ★ Reducing of taxes and subsidization by govt to firms so as to reduce the cost of production hence increasing production.
- ★ Joining regional integration so as to widen the market for the produced goods.
- ★ Promoting technological devt so as to increase production.
- ★ Improving on pricing policies thus strengthening Commodity Agreements so as to stabilize prices.
- ★ Carrying out sectoral diversification by introducing a variety of activities in different sectors of the economy.
- ★ Extending of loans as a way of acquiring adequate capital.
- ★ Encouraging of agriculture modernization so as to increase more output.
- ★ Providing of extension services to farmers/community mobilization and training e .g NAADS workshop trainings.
- ★ Promoting of agro-processing industries.
- ★ Reviving and developing co-operative societies.
Supporting research centers so as to develop new farming methods and crop varieties

(b) INDIRECT PRODUCTION/ 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 specialization because the producers sell their output in order to get what they do not produce.
- They mainly produce high quality products because of the need to compete 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

1. It contributes to government revenue; this is because the commercial production activities are taxed by government.
2. It leads to improvement in quality of goods; this is because commercial production involves competition use of skilled labour, modern technology.
3. It facilitates economic growth because of increased output due to production on large scale.
4. It encourages technological development because producers carry out innovation and invention into better technique of production
5. Economies of scale are enjoyed in the fields of transport, marketing, technical development and management which reduces the cost of production.
6. Specialization 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.
7. 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.
8. It generates more employment opportunities, this is production is organised on large scale and involves many activities like actual production, processing, transporting, warehousing, marketing etc.
9. Leads to increased export earnings, this is so because some output from commercial production is exported to other countries, this eventually leads to improvement in the countrys balance of payment position.
10. It leads to increased utilisation of the countrys resources, this is because of production on large scale which necessitates the utilisation of the would be idle resources such as land.

DEMERITS OF COMMERCIAL PRODUCTION

1. It is expensive; this is because it involves high costs of production like high cost of hiring skilled labour, buying modern machinery, paying high indirect taxes etc, these reduce the profit margin of the producers.
2. It leads to resource wastage; this arises in case of over production where producers remain with unsold output.
3. 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.
4. There is danger of technological unemployment as a result of mechanisation in production where human beings are replaced by machines at work.
5. It leads to rise in the cost of inputs such as raw materials and other intermediate products; this is due to the increased competition for such inputs by many commercial producers.
6. It leads to quick depletion of resource; this is due to over exploitation of resources as a result of large scale production.
7. 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 and Entrepreneurship.

Each of them is rewarded for its contribution in the process of production and such a reward is called **Factor Price**.

Note: Factor price refers to a monetary reward given to a factor of production for its contribution in the process of production.

Such rewards include;

- ★ Wages and salaries for Labour
- ★ Interest for Capital
- ★ Profit for Entrepreneurship
- ★ Rent for Land

Study Questions

- 1(a) What is meant by factor prices.
- (b) Mention any three factor prices in your country.

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 as a factor of production:

- It is a free gift of nature i.e man doesn't contribute to its existence.
 - Land is fixed in nature.
 - Productivity of land varies i.e it is not homogeneous.
 - Land subjected to the law of diminishing returns
 - Land is mobile occupationally and immobile geographically
 - The value of land depends on its location i.e land is expensive in urban areas than in rural areas.
- Land has no opportunity cost because man doesn't contribute to its existence.
- **Land is less specific.** This is because it can be used for many economic activities unlike other factors like labour which can be specialized for the production of a given commodity.
- **Land is the premise of all other factors of production** i.e. other factors of production and other activities take place on land.

NB: The monetary reward or payment for land is Rent.

THE USES OF LAND:

- Provides space for the construction of manufacturing plants.
- Provides space for agriculture/farming
- Provides raw materials/minerals

- Provides forces run machines like wind
- Used for settlement/ residential purposes
- Land is used for recreation and tourism

THE PAYMENT TO LAND:

Land is rewarded with **rent** for its contribution in the production process.

NB: 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)

However each factor of production has a minimum reward to keep it in its present employment without inducement to change to alternative employment. Such a reward is called transfer earnings / supply price.

TRANSFER EARNINGS AND ECONOMIC RENT TO A FACTOR OF PRODUCTION

Transfer earnings: These refer to the **minimum** 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.

OR Transfer earnings/Supply price. Refers to the opportunity cost of keeping a factor of production in its present use/employment.

E.g. a worker who is willing to work for Shs. 200,000 and this makes him comfortable. The shs.200,000 is his transfer earnings because for as long as he is earning it, he is not willing to change the job, but any earning below the transfer earnings will induce the person to change to another employment/job.

However its possible for the person to earn in excess of the transfer earnings e.g. a worker is paid Shs. 300,000 which gives shs.100,000 in excess of the transfer earnings therefore the shs.100.000 is the economic rent.

ECONOMIC RENT: refers to the extra earnings given to the factor of production which is over and above the transfer earnings/ supply price.

OR It refers to the payment of the factors of production which is over and above its transfer earnings or supply price.

THE COMPUTATION OF ECONOMIC RENT:

Economic rent = Market price- Supply price/Transfer earnings
OR; =Actual Earnings- Supply price/Transfer earnings

OR: Actual Earnings(AE) = Economic rent(ER) + transfer earnings(TE).
i.e. $AE = ER + TE$

Thus, Economic rent = Actual Earnings – Transfer Earnings

Example1: Given that the supply price of a factor is Shs. 350,000 but it is receiving a market price of Shs.560, 000, the calculate the economic rent.

Solution:

Economic rent = Market price- Supply Price
Shs. (560,000 -350,000)
Shs. 210,000/=

Example2: 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 = 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 factors transfer earnings
- (ii) The economic rent

2. Given that a factors supply price is shs.130000/= and its economic rent is **a half** of its transfer earnings. Calculate the factors actual earnings.

Study Questions

1: Given that the factors supply price is shs 150,000. But the employer increases the salary to shs 200,000 which is over and above the supply price. Calculate the economic rent/ factors economic rent.

$$\begin{aligned} \text{Economic rent} &= \text{Actual Earnings} - \text{Transfer Earnings} \\ &= \text{shs}(200,000 - 150,000) = \text{shs } 50,000 \end{aligned}$$

2: Given that production input has transfer earnings of shs 130,000 and its economic rent is one and a half times the transfer earnings. Determine the factors actual earnings.

$$\begin{aligned} \text{Actual Earnings} &= \text{Transfer earnings} + \text{economic rent} \\ &= \text{shs}130,000 + \left(1\frac{1}{2} \times 130,000\right) \\ &= \text{shs}(130,000 + 195,000) \\ &= \text{shs } 325,000 \end{aligned}$$

3: A factor of production has transfer earnings of shs 200,000 and its economic rent is twice its transfer earnings. Calculate the factors actual earnings.

$$\begin{aligned} \text{Actual earnings} &= \text{Economic rent} + \text{Transfer earnings} \\ &= 2(200,000) + \text{shs } 200,000 \\ &= \text{shs } 600,000. \end{aligned}$$

4: Given that the supply price of a factor is a half times its market price and the market price is given as shs 900,000. Calculate:

- the factors transfer earnings.
- the economic rent.

$$(i) \text{Supply price} = \frac{1}{2} \times \text{shs } 900,000$$

$$\text{Therefore transfer earnings} = \text{shs } 450,000$$

$$\begin{aligned} (ii) \text{The economic rent} &= \text{shs } (900,000 - 450,000) \\ &= \text{shs } 450,000 \end{aligned}$$

5: Differentiate between transfer earnings and economic rent in relation to land as a factor of production.

TYPES OF RENT:

- **Quasi rent:** This is the extra earnings for the factor of production that is over and above the transfer earnings/ Supply price that is **inelastic** in the short run but **elastic** in the long run e.g. the supply of Doctors in the short run.
- **Commercial rent;** This is the payment made for the use of a durable asset e.g. houses, tractors, generators, music systems, etc.
- **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.

- **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.

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.

NOTE. Economic rent depends on the elasticity of supply in the following ways:

(a) When the supply curve is perfectly elastic

In this case all the payments/remunerations of the factor consist of transfer earnings with no economic rent. i.e. the factor does not receive economic rent.

(b) When the supply curve is perfectly inelastic.

Here all payments are economic rent. The supply curve is perfectly inelastic.

Economic rent is the difference between the price paid and the price received.

NB: The payment to land is economic rent because:

- The supply of land is fixed/perfectly inelastic.
- It is a free gift of nature with no supply price.
- Supply price of land is zero.
- It is geographically immobile but occupationally mobile.

Pure/ true economic rent

This refers to one which is paid to a F.O.P whose supply is perfectly inelastic.

(c) Factors whose supply is inelastic earn high economic rent.

(d) Factors whose supply is elastic earn low economic rent.

FACTORS THAT DETERMINE/ INFLUENCE/ AFFECT ECONOMIC RENT:

1-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.

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. **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.

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. **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.

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 AS A FACTOR OF PRODUCTION (A HUMAN RESOURCE)

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;

1. Its human and cannot be separated from the owner.
2. Labour effort cannot be stored.
3. It is a very mobile factor of production i.e. labour is both geographically and occupationally mobile.

4. Supply of labour depends on different factors like population, level of education, training facilities and social conditions.
5. It earns a wage or salary.
6. Labour is scarce but its supply can be increased.
7. The productivity of labour is variable i.e. sometimes labour is very productive due to favourable employment opportunities.
8. 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.

NOTE: CO-OPERANT FACTORS OF LABOUR: These 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. **Efficiency of labour/Labour efficiency:** This is the measure of the quality and quantity output that a unit of labour can produce in a given period of time.
2. **Productivity of labour/ labour productivity-**refers to the quantity of output that a unit of labour can produce **in a given period of time.**

Factors affect/determine/influence labour efficiency and labour productivity:

- **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.
- **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.
- **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 it makes work slow hence production is slow.
- **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. Whereas poor management in the business leads to low labour efficiency and productivity because of poor supervision of the workers thus low output produced.

- **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 leads to low labour efficiency because workers are dissatisfied and not motivated with the working conditions.
- **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.
- **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. Whereas workers with negative attitude towards work are less efficient because they are not committed at work thus leading to low output.
- **Level of specialisation of a worker:** Labour efficiency is high for labour that is highly specialised because it enables labour 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.
- **Political atmosphere:** Political stability leads to high labour productivity and efficiency because it allows people to settle and concentrate on their work due to less fear for loss of lives and property. Whereas political instability leads to high labour efficiency and productivity because workers live under fear for loss of lives and property and thus do not concentrate at work thus less efficient at work.
- **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.
- **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.
- **Degree of experience/ Expertise:** High degree of experience of labour leads to high level of efficiency, this is so because they 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 specialisation 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

Factors that may lead to high efficiency of labour:

- An increase in the level of wages
- An improvement in the level of skills
- An improvement in the level of technology
- An improvement in the management of the business
- An improvement in the working conditions/Working conditions becoming favourable.
- An improvement in the mental sound and physical ability of the worker.
- Attitude towards work becoming positive
- An increase in the specialisation of labour
- Favourable change in the political atmosphere.
- An improvement in the efficiency of co-operant factors of production
- An increase in the level of natural ability/ talents
- An improvement in the degree of experience/ expertise

3. Marginal productivity of labour: This refers to the additional output resulting from employment of an extra unit of labour.

4. DEMAND FOR LABOUR:

This refers to the number of workers, employers are willing to offer jobs and are able to retain in employment at the ruling wage rate in a given period of time.

The demand for labour is derived demand because it is required not for its own sake but for what it is used to produce.

FACTORS THAT INFLUENCE/ AFFECT/DETERMINE DEMAND FOR LABOUR:

- **Level of wages:** The demand for labour is high at low wages, because it is cheaper for the employer to hire and retain more workers. While higher wages lead to low demand for labour because it is expensive for the employer to hire and retain labourers.
- **The level of labour productivity;** Demand for labour is high when its productivity is high because such labour produces more output. On the other hand demand for labour is low when its productivity is low this is so because it produces less output.
- **The degree of substitutability of labour.** The demand for labour is high when it is difficult to substitute it with other factors of production and the demand is low when it is easy to substitute labour with other factors of production.
- **The demand for the products produced by labour;** A high demand for the products produced by labour leads to high demand for it, this is so because the entrepreneur can easily raise the money for paying the workers by charging high prices for the products. On the other hand low demand for the products produced by labour leads to low demand for it, this is so because it is hard for the

entrepreneur to raise the money for paying the workers since it is hard to charge high prices for the products they produce.

- **The level of education and training/skills;** Demand is high for skilled labour because it is more active at work since they know how to do the work. On the other hand, the demand for unskilled labour is low since they are not conversant with what to do.
- **The proportion of total cost of labour to the overall cost of the firm.** A high total cost of labour compared to the total cost of the firm leads to low demand for labour since it leads to low profit margin of the firm. On the other hand low total cost of labour compared to the overall cost of the firm leads to high demand for labour because of the high profit margin enjoyed by the firm.
- **Availability of co-operant factors of production which complement labour.** Presence of other factors that complement labour such as land, capital etc leads to high demand for labour since they necessitate more units of labour to produce more output, while limited co-operant factors of production leads to low demand for labour since they are limited in supply to complement labour in the production process.

5. LABOUR SUPPLY:

This refers to the number of hours labourers are willing to offer for employment at the ruling wage rate in a given period of time.

OR: The number of people who are willing and are ready to work at the on-going wage rate in a given period of time.

FACTORS THAT AFFECT/INFLUENCE/DETERMINE LABOUR SUPPLY:

- **The wage rate;** people are willing to supply more labour when the wage rate is high because the workers are contented with what they are earning. On the other hand labour supply is low when the wage rate is low because the workers are not satisfied with the payments.
- **The working conditions:** more labour is supplied when the conditions of work are favourable because such conditions like good accommodation facilities, medical facilities motivate workers to offer more hours of work, while poor conditions of work leads to low supply of labour because the workers are de-motivated by the harsh working conditions hence supplying less hours of work.
- **The length of training period;** Labour supply is high when the training period for labour is short because people join the labour force in a short period of time, while a long period of training for labour leads to low labour supply since it takes a long period of time to complete their studies so as to join the labour force.
- **The level of education and training/Skills.** The supply of labour is high when labour is skilled since they have necessary qualifications required in the labour market, while lack of appropriate skills leads to low supply of labour because most people do not have the necessary requirements in the labour market.
- **The health condition of workers:** Good health of the workers leads to high labour supply because the workers perform their tasks without any interruptions. On the other hand poor health conditions leads to low labour supply this is because the workers do not concentrate at their tasks due to ill-health.
- **Retirement age:** where the retirement age is low the labour supply is low because people are stopped from work at an early age and where the retirement age high labour supply is high because workers are stopped from work at a higher advanced age.
- **Laws governing the employment of women and children:** In countries where employment of women and children is allowed, labour supply is high because different categories of people are

allowed to work while in those countries where the law prohibits the employment of children and women labour supply is low since few categories of people are allowed to work.

- **Attitude towards work:** Where people have got a positive attitude towards work more labour is supplied because people are interested in what they are doing. However negative attitude towards work leads low labour supply because people are not interested in doing the work.
- **The level of labour mobility both occupationally and geographically:** Where labour is free to change from one job to another or from one region to another the supply of labour is high, this is because there is a high number of people ready to work .On the other hand labour supply is low when there are high levels of immobility of labour because there is less number of people ready to work in some occupations or regions.
- **The size of the population.** A bigger population size leads to high labour supply since there are more people to engage in productive activities. On the other hand a smaller population size leads to low supply of labour since there are few people to participate in the production process.
- **The nature of the job/ the degree of risks involved in the job:** The risky jobs become more dangerous when one works for many hours, therefore workers offer few hours of work in such jobs leading to low labour supply. On the other hand jobs that are risky attract many workers who are even ready to work for many hours and this leads to high labour supply.
- **The political climate:** Peace and stability contributes to the workers comfort and willingness to work for many hours, this leads to high labour supply. On the other hand political instability scares away some workers and even those at work offer few hours of work leading to low labour supply.
- **The influence of trade unions.** Some trade unions put very strong restrictions on the number of people joining their fields, therefore many people who are willing to work are left out and this leads to low labour supply. On the other weak trade unions are not able to limit the number of people joining their fields and this leads to high labour supply.
- **The sex composition of the population:** Having more females to males in a country lead to low labour supply, this is because of the cultural restrictions in some societies and during maternity leave. On other hand having more men compared to women in country leads to high labour supply, this is because men have less social restrictions and therefore work for many hours
- **The rate of migration of labour (immigrations and emigrations).** High rate of immigration leads to low labour supply, this is so because many potential workers leave the country. On the other hand high rate of emigration leads to high labour supply. This is so because many potential workers enter the country.
- **Discrimination in the labour market:** Absence of discrimination in the labour market leads to high labour supply, this is so because majority of the people have the opportunity to take on the available/existing jobs. On the other hand discrimination in the labour market leads to low labour supply; this is so because many people are denied the opportunity to take on the existing/available jobs.

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.

NOTE: 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**.

FACTORS WHICH INFLUENCE FACTOR MOBILITY:

- **Job specifications/ skills.** Factor mobility tends to be low when highly specialized skills are required because such skills are scarce to obtain. Factor mobility is high when the required skills are not highly specialized because such skills cannot easily secure jobs when needed.
- **Influence of trade unions and professional bodies.** Factor mobility tends to be low where trade unions restrict entry into certain industry/ professions and it tends to be high where entry is free since there are many chances of obtaining jobs.
- **Costs and periods of training.** Professions which require high costs and length periods of training tend to limit factor mobility because they create scarcity whereas those professions that require low costs and less times of training encourage labour mobility as there is a big number seeking jobs.
- **Degree of specificity.** When a factor is highly specific, its mobility tends to be low because it is restricted to perform a particular function. On the other hand, a factor that is not highly specific can easily be transferred to another purpose/ use hence its mobility tends to be high.
- **Level of advertizing in the labour market.** High level of advertising leads to high mobility since people are aware of the availability of job opportunities. Low level of advertising leads to low mobility because of reduced awareness of job opportunities.
- **Political climate.** Political stability encourages labour mobility as people look for employment opportunities. On the other hand political instability reduces mobility since there is reduced production and investment.
- **Age of workers.** Old people tend to settle on their jobs and in areas of work hence limited mobility of labour. While young people like changing jobs and areas of work hence high mobility of labour because they are energetic.

Importance/ significance of factor mobility

- Reduces labour shortage in certain regions or occupations.
- It reduces population pressure in an area.
- International mobility promotes economic growth.
- It leads to structural changes which solves as growth of structural unemployment.
- It ensures full employment of production.
- Perfect mobility of labour eliminates technological unemployment.

Limitations or barriers to factor mobility

(Immobility of factors of production)

This is the inability of a factor of production to move from one area or job/occupation to another.

Therefore there is also occupational and geographical immobility of F.O.P.

- High degree of specificity of a factor of production. If a certain occupation requires highly skills, its mobility is limited since such skills are limited.
- Low payments in alternative job/ use.
- High cost of training or transfer to another occupation or location/area.
- Impossibility to move because of fixed nature of the factor e.g land, buildings, etc.
- Worse or inappropriate conditions in alternative location or occupation/ better working conditions at current job or occupation.
- Ignorance of other suitable employment opportunities.
- Political insecurity in areas of alternative job/ employments.
- Barriers set by trade unions and professional bodies.
- Old age of people.
- Lack of appropriate job specifications e.g skills, the age, religion etc.
- Social status in case of labour.
- Social ties.
- Fear of the unknown.

Question

- (i) What is meant by “factor mobility” ?
- (ii) State any three barriers to factor mobility.

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 mobility and geographical mobility.

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

- **Loss of jobs/ search for a job.** This makes labour to look for another job elsewhere in another area.
- **High cost of living in the current location.** When prices for the basic needs are high labour may be forced to move from areas with high cost of living to areas with a low cost of living.
- **Political instabilities in the area of work.** Labour may be forced to seek refuge to other areas where there is peace and security when there is political instability in an area of current employment.
- **Presence of better social amenities in the alternative location.** Labour is always attracted to areas with better amenities such as recreational centers, health centers, and educational centers etc which are not evenly distributed.
- **Decline/break down of an industry in an area of current job.** This forces labour to move to another location/area in search of new jobs.
- **High payments in another location/ area.** Labour likes to move from areas where the payment is low (e.g rural areas) to areas where they pay highly(e.g urban areas)
- **Job security in the alternative location.** Labour is always interested in working in organizations where the job security is assured and this makes labour to move from one area to another.
- **Fear of social rituals and conflicts in area of work.** Labour fears to stay in an area full of witch craft, cannibalism etc and these force labour to move from areas where these practices are common to other areas where they may be limited.
- **Natural disasters/ calamities in the current place of work or location e.g** landslides, earthquakes, floods etc. These force labour to move from those areas affected by such disasters to other areas that are free and safe for life.
- **Religious obligations or compulsions.** Some religious practices force labour to move from one area to another, even some cultural practices e.g circumcision, dressing code emphasized by some religions.
- **Presence of school leavers.** These tend to move from one area to another looking for employment opportunities especially after school.
- **Inter-personal conflicts/ disputes between individuals at the current place of work.** This forces labour to move to other areas/places to avoid such incidences.

OCCUPATIONAL MOBILITY OF LABOUR: This is the **ability/ease/degree** with which labour moves from one occupation to another.

CAUSES OF OCCUPATIONAL MOBILITY OF LABOUR:

- **Better payment/rewards in the alternative job.** Labour moves from low paying jobs to highly paying jobs with prospects of living a happier life.
- **Occupational hazards in the current job.** Labour moves to look for safety of life and property.
- **Low status/ prestige in the current jobs.** Some jobs are more prestigious than others therefore inferior jobs make labour to desire for a better thus mobility of labour.
- **Better/ convenient working conditions in the alternative job** i.e. less hours of work, leisure time, etc. Thus labour moves to enjoy better working conditions
- **High fringe benefits offered in the alternative jobs.** These are non-monetary benefits such as free housing, transport, medical care etc.
- **High prospects for further training in the alternative job.** People prefer jobs with high chances of going for further studies or training than those which have limited chances.
- **Absence of licenses for practicing a certain occupation.** Some jobs require professional licenses to join them e.g ACCA certificate for accountancy. Therefore, absence of licenses in some occupations attracts people to join them.
 - 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 occupational mobility of labour

- Degree of specialization in the current job.
- Level of wages in the current job.
- Degree of information about alternative job opportunities.
- Financial requirements involved in changing to another job.
- Prospects of promotion in the current job.
- Social status of the alternative job.
- Social factors.
- Time period involved in training for alternative job.
- Conditions and formalities involved in acquiring a new job.

FACTORS THAT AFFECT/INFLUENCE/DETERMINE LABOUR 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.
- **The information about existence of other job opportunities:** Labour is mobile when it is informed about the existence of other job opportunities elsewhere. While ignorance of the existence of other jobs makes labour immobile since it doesnot have knowledge about jobs elsewhere.
- **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 dont fear to go to 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.

Degree of Aparthy/Fear of the unknown in the alternative place of work: High degree of fear of the unknown (such as superstition, witch craft, etc) causes immobility of labour because people fear to risk their lives. Whereas labour that is daring is mobile because it doesnt fear risks.

- **Degree of specificity/specialisation of labour.** Labour that is highly specific tends to be immobile because it is specialized to perform a particular function and cant be easily transferred to another use. While labour that is not specific for a particular job becomes highly mobile since it is flexible and can be put to a number of uses/any other works.
- **Level of wages/ payments to labour in the current job.** High level of wages paid to labour in the current job tends to attract labour to stay in those jobs that pay highly hence immobility of labour. Low wages paid to labour in the current job demoralizes labour to seek for jobs where they pay high wages hence mobility of labour.
- **Health conditions of labour.** Labour that is sick and unhealthy usually finds it difficult to search for jobs because of inability to move from one job or area to another. Whereas labour that is healthy and physically strong find it easy to move in search of better job opportunities elsewhere because they are energetic.
- **Geographical location of the jobs.** Jobs which are located in far places/areas from the current location tend not to attract labour because of long distance hence labour becomes immobile. While jobs that are located in the near current location tend to attract labour because of convenience involved hence high mobility of labour.
- **Working conditions in the present job.** Favourable working conditions in the present job leads to immobility of labour due to high motivation and job satisfaction. While poor or unfavourable conditions at the present job such as low payments, harassment etc lead to high mobility as labour looks for better alternatives elsewhere due to dissatisfaction in the current job.

- **Job specifications and requirements.** Jobs that require high specifications (e.g high education levels) limit labour mobility since such requirements are limited. While jobs that require less specifications tend to attract labour since they can easily be obtained.
- **Social ties and cultures.** Labour that has social ties such as family obligations like being a bread winner tends to be immobile because his absence in the family leads to suffering. But labour with no social ties tends to be mobile because of limited obligations in the family.
- **Level of discrimination in the labour market.** High level of discrimination against labour basing on tribe, sex, religion etc tends to limit mobility of labour because of limited chances of securing a job. Whereas low level or absence of discrimination encourage labour mobility as there are more chances of securing a job.
- **The age of labour.** Old age usually restricts movement of labour because of inability/vulnerability to take up new challenges. While the youth easily move from one area or job to another because they are strong and energetic and can take up new challenges.
- **Prospects of promotion in the current job.** High prospects of promotion in the current job lenders labour immobile since there are high chances of better position.
While absence of prospects of promotion in the current job encourages labour to move and look for better alternatives.

LABOUR IMMOBILITY:

This refers to the **inability/ unease** of Labour to either change from one job to another or from one geographical area to another.

There are two types of labour immobility;

OCCUPATIONAL IMMOBILITY OF LABOUR: This refers to **inability/unease** of labour to move from one job to another.

CAUSES OF OCCUPATIONAL IMMOBILITY OF LABOUR (limitations to occupational mobility)

- **Limited skills required in the alternative job.** Labour may be limited to move by the skills required in certain occupations hence limiting its mobility.
 - **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.** 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/bureaucracy involved.** 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/Restrictions.** 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 OF LABOUR: This refers to the **inability/unease** of labour to move from one geographical area to another.

LIMITATIONS/ BARRIERS TO GEOGRAPHICAL MOBILITY OF LABOUR (CAUSES OF GEOGRAPHICAL IMMOBILITY OF LABOUR)

- **High transport costs involved in traveling to the alternative place of work.** High expenses involved in moving families and possibility of breakages of property force workers to remain in an area of work without attempting to move to alternative places of work.
- **High cost of accommodation/housing in the alternative location.** Labour may decide to remain in a place of current job where there are low costs of accommodation other than moving to other places where costs are high although jobs are available in those areas. i.e high house rent.
- **Political instability in an alternative area of job.** This creates fear and tension among workers and hence they prefer to remain in their current areas of work other than going to those areas with political instability that may lead to lose of their lives and properties.
- **Social- cultural ties/ norms in the current place of work.** Sometimes it is difficult for workers to leave their relatives, families, tribes, old time friends and cultures and hence become reluctant to new areas of work.
- **Apathy (shear dislike).** Some workers have hatred for some places/ areas without genuine reasons and hence prefer remaining in their current areas of work hence leading to geographical immobility.
- **Limited information about the existing jobs elsewhere.** Sometimes workers fail to move from one area to another due to ignorance of the existence of a given job in a certain area/place and thus remain in their current places of work.
- **High cost of living in the alternative place of work.** High cost of living implies reduced real wage and therefore workers fear moving to areas with high cost of living even if there are better job opportunities and hence prefer remain in current places of work with low cost of living.
- **Unfavourable climatic conditions in the intended area.** It is always difficult for workers to move from a favourable climate to a hostile one like extreme hot/dry area or very cold area and hence prefer to remain working in current places of work.
- **High payments in the present job / work place.** This discourages and kills willingness of workers to move to other areas where the wage is not attractive.
- **Language barrier in the new area.** Labour may fear to move to other places of work because it cannot understand or speak the language in that area.
- **Harsh international and national immigration laws.** These limit movements of people to other countries since it may involve expensive requirements e.g expensive visas, work permits, etc.
- **Old age.** Old people weak and vulnerable and therefore difficult for them to move from one place to another in search of jobs.

POLICY MEASURES OF INCREASING GEOGRAPHICAL MOBILITY OF LABOUR

- **Advertizing the available jobs/ employment opportunities.** This increases awareness about the availability of jobs in other places hence encouraging workers to move to new places for work. This can be through mass media like news papers, Television sets, radios etc.
- **Developing Infrastructure.** Transport infrastructure is being improved to increase accessibility to alternative places of work elsewhere hence facilitating geographical mobility.
- **Improving political climate.** This ensures security for workers lives and property hence encouraging them to take up jobs in alternative areas/places of work.
- **Increasing wages in areas with low wages.** This increases willingness of labour to accept to take up jobs in alternative areas of work or any part of the country.
- **Improving working conditions in other areas of alternative employments.** There should be an attempt to improve and maintain good working conditions in terms of feeding, accommodation, cleanliness, etc in all the areas/places of work which encourages workers to move geographically.

- **Subsidizing transport fares/costs for workers.** This reduces costs of shifting/ transferring from one place of work to another for work hence promoting geographical mobility.
- **Discouraging discrimination on basis of tribes, sex/gender, etc.** This enables workers to get jobs in other areas of work with different social set up without bias hence promoting geographical mobility.
- **Ensuring job promotion for workers to alternative areas of work.** Workers who are being transferred to new places of work are being promoted to higher ranks which can make them willing to accept job transfer to other areas/ places of work.
- **Fighting social prejudices.** This is being done to reduce fear of the unknown by the workers in alternative places of work.

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

SPECIALISATION AND DIVISION OF LABOUR:

Division of Labour: This 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 of labour:

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.

Forms/ Types 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 specialises 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.

Advantages of specialization and division of labour

- **Leads to increased output and improvement in production efficiency.** Constant practice and performance of the same work/task increases efficiency of labour.(i.e. practice makes perfect).This enable the firm to enjoy economies of scale.

- **It saves scarce time and energy.** This is because there is not time wasted in moving from one process or task to another or changing tools thus saving time and energy.
- **It reduces fatigue and strain of workers.** This is because of concentration on a given task and use of machines which make the worker less fatigue and less tiresome.
- **It increases skills and experience of workers in a particular field.** This is because of performing a given task over and over again which helps the worker to adopt skills and experience hence increased efficiency of labour.
- **Facilitates full exploitation of individual talents and special quantities.** Concentrating on a given job or task enables the worker to exploit his natural talents by adopting the profession of personal liking that gives him satisfaction.
- **Duplication of tools or machinery and tasks is avoided.** There is no need to establish the same machinery or the same task because different individuals have different areas of work.
- **It encourages the use of machines in the production process.** Specialization encourages and makes possible the use of machines at different stages of production leading to production of uniform/standardized goods and increased efficiency of labour.
- **Less time and resources are spent in training workers or** It quickens the training of labour with little resources because labour is trained to perform a specific task and not a variety of tasks.
- **Leads to production of high quality goods.** This is because specialists/ experts are employed with machines at different stages of production making them perfect and efficient hence leading to production of better quality goods and increased production.
- **Promotes team work / mutual understanding among workers.** This increases cooperation among the workers since they are all liable to contribute to the production of the final product.
- **Facilitates trade and its associated benefits.** This is because each country or region concentrates on the production of a particular commodity and exchanges it with other countries or regions which produce different goods hence promoting foreign trade.
- **Promotes inventions and innovations.** Through use of machines, specialization encourages innovations and inventions leading to employment of better methods of production and efficiency.
- **Enables countries to exploit their resources fully.** Countries have to exploit their resources to increase production of goods and services so as to exchange with those goods they cannot produce.
- **Leads to increased employment opportunities.** By dividing economic activities/ work into different tasks, many occupations are created hence more employment opportunities and increased incomes.

Disadvantages of specialization and division of labour

- **It leads to monotony and boredom.** This is because of repeating/ performing one activity over and over again. This results into job dissatisfaction and reduction in the efficiency of workers as well as increased absenteeism leading to low productivity.
- **It leads to loss/ decline in craftsmanship.** Relying on use of machines reduces workers creativity and innovations by using natural skills. Thus, ones skills in making a complete commodity are lost since the job is divided in a series of operations/tasks by different workers.
- **It leads to unemployment problems.** This is especially when there is a change in fashion or demand for a product such that the specialist workers who are laid off cant easily change to other jobs elsewhere due to specialization.
- **It leads to excessive interdependence among workers.** Absence of one skilled worker at one stage of production leads to a standstill in the whole production process because of high degree of interdependence among workers.
- **It leads to loss of responsibility among the workers since each worker is on his/her own.** Therefore, there is no any worker who is blamed for the poor outcome/ quality as all the workers contribute to the production of the product.
- **It leads to over dependence on other countries and discourages diversification of activities necessary for development.** Therefore, in case of a fall in demand or price of a commodity, the country suffers heavily.
- **It leads to over exploitation of resources.** This is because specialization is associated with bulk production leading to over exploitation of non-renewable resources.
- **It encourages the use of machines which are specific.** Machines do not serve more than one purpose other than that it was designed to do in case there is a change in production.
- **When workers specialize, there is a tendency of accelerating strikes/ social unrests.** This reduces the rate of production and hence reduced profits to the firm. This is especially when workers demand for an increase in wages.
- **It leads to over production leading to wastage of resources.**
Questions:
 - (a) Distinguish between specialization and division of labour.
 - (b) Explain the merits and demerits of specialization.

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 non-specific 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 where as factors of production with a low degree of specialisation are occupationally mobile.

Mobility of Capital

This is the ease with which capital can be moved from one employment or geographical area to another.

Limitations to capital mobility

- Excessive weight of machines/capital. Some machines are very heavy and not easy to move from one place to another.
- Inability to be moved. Some capital cannot move because of its fixed nature e.g roads, railways, buildings etc.
- High cost of transporting capital from one place to another.
- Low payments in the alternative use or location.
- Inappropriateness of capital in alternative use or location.
- High level of depreciation of capital. This makes it less useful elsewhere.

Questions:

- 1 (i) What is meant by specificity of a factor?
(ii) How does a degree of specificity of a factor of production affect its mobility?
- 2 (i) What is meant by factor mobility?
(ii) State any 3 limitations of factor mobility.
- 3 (i) What is meant by occupational mobility?
(ii) State any 3 barriers to occupational mobility in our country.
- 4 (i) What is meant by the term labour mobility?
(ii) Suggest any 3 ways of increasing geographical mobility of labour in our country.

CAPITAL AS A FACTOR OF PRODUCTION (Financial Resource)

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 in monetary terms 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 its 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 they enable an individual to concentrate in production of a particular commodity and 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 of a backward society into a modern one.
- 1. **It facilitates exchange and trade.** This is due to capital in form of cash that acts a medium of exchange thus encouraging commercial production.
- **It facilitates the development of infrastructure.** This is because of capital in form of money is used to construct good infrastructure.

- **It encourages increased output of goods and services.** This is because machines simplify and quickens the production process which cannot easily be done by Labour and therefore more output can be realised in the production.
- **It facilitates further capital accumulation.** This is 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.** This is because the money is used to build or construct industries that produce goods and services, and this 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.** This is 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 and this 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.

Negative role of Capital in an economy:

- **It promotes over exploitation of resources.** The machines irrationally exploit 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 countrys stock of capital goods mainly through Investment:

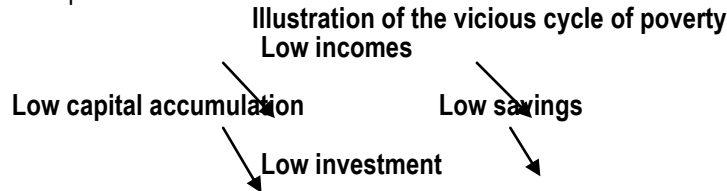
OR: The **process** of increasing a countrys existing stock of producer goods or capital goods.

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.

The concept of capital accumulation can be explained with the help of the concept of vicious cycle of poverty.

NB: Vicious circle of poverty is the persistent poverty due to low incomes which lead to low savings, low investment, low capital accumulation then low incomes etc.



FACTORS THAT AFFECT/ INFLUENCE/ DETERMINE CAPITAL ACCUMULATION/ FORMATION:

- **The level of income:** High levels of income earned by individuals increases the amount of money saved by them or the nation which increases 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. While 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 dependence burden which results into low levels of savings limiting investment in the country thus leading to capital accumulation. While low population growth rate leads to low dependence burden which promotes investment in the country thus leading to high levels of capital accumulation.
- **Level of development of financial institutions:** 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. While low level of development of financial institution limits mobilisation of savings and also makes it difficult for potential investors to acquire loans, limiting investment and thus low levels 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 and undertake risks in businesses and sustain them; this promotes capital accumulation in the country. While low levels of entrepreneurial ability leads to low levels of investment because there are few people who are ready to initiate and risk their capital in 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 increases the cost of raw materials thus leading to low investment in the country thus low levels of capital accumulation. While low rate of inflation reduces the cost of raw materials which leads to high 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.

While a small market discourages investment due to low level of profitability, and this limits capital accumulation in the country.

- **Availability of investment incentives/ Govt policy of taxation and subsidisation:** 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 high costs of production which leads 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. While 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 to buy capital inputs this promotes the capital accumulation process in the country. While high level of capital outflows limits investments funds in the country to buy capital inputs and this limits the capital accumulation process in the country.
- **Existing stock capital:** High levels of capital stock encourage investment in the country due to the ability to acquire more capital goods this promotes capital accumulation. While low levels of existing capital stock limits investment levels in the country due to inability to acquire capital goods 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 encourage efficiency in production investment in the country, this promotes capital accumulation. While poor state of technology leads to inefficiency in production and this 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. This is done so as to encourage people to save and invest because of reduced dependence burden thus promoting capital formation.

- Maintaining political stability. This is done so as to reduce fear for loss of lives and property which encourages both local and foreign investors to invest thus promoting capital formation.
- Improving on the infrastructure. This is done so as to reduce on the cost of production so as to encourage people for investment thus promoting capital formation.
- Extending credit facilities to investors. This is being done so as to enable them carry out investment thus promoting capital formation.
- Improving on the land tenure system. This is done so as to enable investors get access to land so as to carry out investment thus promoting capital formation.
- Controlling inflation. This is being done so as to reduce the cost of buying raw materials which encourages investment hence promoting capital formation.
- Provide investment incentives such as subsidies, tax holidays. This is done so as to reduce the cost of production which encourages investment thus encouraging capital formation.
- Expanding the market size. This is done so as to increase the purchasing power for goods which increases the profit margins which motivates people to carry out investment thus promoting capital formation.
- Fighting corruption/ensure high levels of accountability. This is being done so as to reduce diversion of public funds by public officials thus encouraging investment hence promoting capital formation.
- Improving entrepreneurial skills/ability. This is being done so as to encourage risk taking in businesses thus promoting investment hence promoting capital formation.
- Encouraging capital inflow. This is being done so as to avail more capital for investment thus promoting capital accumulation.
- Encouraging the saving culture among the people. This is being done so as to accumulate more funds through saving for investment thus promoting capital formation.
- Adopting appropriate technology. This is being done so as to increase efficiency in production which encourages investment thus promoting capital accumulation.

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.

Marginal Efficiency of capital (MEC)

This refers to the anticipated monetary returns on an additional unit of capital employed. **OR**
This refers to the expected monetary returns from employment of an extra-unit of capital. **OR**
The ratio of prospective monetary returns to the supply price of an additional unit of capital employed.

$$\text{Therefore MEC} = \frac{\text{Annual yield of a capital asset}}{\text{supply price of capital asset}}$$

Determinants of MEC

- Expected level of output
- Availability of excess capacity (i.e. producing less than installed capacity)
- Level of taxation
- The rate of capital consumption (i.e. depreciation of capital)
- The level of prices
- The size of the market
- Rate of interest on capital borrowed
- Level of technology
- Quality of other factor inputs
- Business expectations
- Political climate

Sample Questions:

- 1 (a) What is meant by capital accumulation?
(b) Explain the factors that have led to low level of capital accumulation in your country.
- 2 (a) Distinguish between capital formation and capital appreciation.
(b) Explain the factors that influence the level of capital formation in your country.
- 3 (a) Why is capital important in the development process of an economy?
(b) Explain the factors that influence capital formation in an economy.
- 4 (a) Examine the role of capital in the development of your country.
(b) Explain the factors that limit capital accumulation in your country.
- 5 (i) Distinguish between capital accumulation and capital consumption.
(ii) Mention any two factors that limit capital accumulation in an economy.
- 6 (i) What is meant by Marginal efficiency of capital?
(ii) Give any two determinants of Marginal efficiency of capital.

ENTREPRENEURSHIP:

This is a factor of production that initiates business, controls, co-ordinates, 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 with the aim of making profits. The entrepreneur is the highest decision maker in any business.

NOTE: The monetary reward for an Entrepreneur is 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.
- Mobilising, 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 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 the 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 holidays 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 financial institutions:** Well developed financial institutions extend loans to potential investors thereby leading to high supply of entrepreneurs. On the other hand, low level of development of financial institutions 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.
- **Level of development of infrastructure.**

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 inefficiency in production thus leading 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

1. **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 is a 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.

Categories of a Firm

- a. **Optimum firms:** These are most efficient firms that produce and sell similar or closely related set of goods at a point where average costs are low.
- b. **Marginal firms.** These are inefficient firms that are first to leave the industry and fast to join the expanding industry.

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 be in business.

- **To maximize profits;** i.e. to get as much profits as possible. Such a firm restricts output in order to charge high prices.
- **To maximize sales;** This is achieved by focusing 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 increase 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 public 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.
- **To maximize chances of survival especially in the long run.** Some firms aim at remaining in business for as long as they try to be aggressive with profit maximization to have chances of survival.

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 firms 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 firms decision to expand in the long run.
- **The prevailing price levels for the firms products:** Lucrative prices for the firms 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 firms 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 firms decision to expand the scale of production; this is due to reducing profitability of doing business.
- **Government investment policies:** Favourable government investment 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 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 firms decision to decide to expand the scale of production 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 firms 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 firms products discourages such a firm to decide to remain in business and also to expand the scale of production.

THE SIZE OF THE FIRM:

Firms are of varying sizes in that some are large and others are small. The size of the firms is measured by certain variable which characterize the firm as small or large.

These are also the factors determining the size of the firm. These include:

- **Level of profits;** High 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.
 - **Possibility of carrying out 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 hence remain small. While large firms which are in position to carry out research are able to expand in size.
 - **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 operates and encourages large firms by giving them assistance such as incentives which reduces the cost of production unlike small firms which do not get assistance from the government.
- **The market size of the firms output/ price of the product.** A bigger market size encourages producers to increase production in order to increase sales and satisfy the large existing market hence increasing the size of the firm. While a small market size discourages production because of limited sales and demands for products hence the small size of the firm.
 - **The level of technology used by the firm.** Use of advanced technology like capital intensive leads to production of high output because it is more efficient hence increase in the size of the firm. While the use of poor technology like labour intensive leads to production of low output because of limited efficiency hence the small size of the firm.
 - **Availability of funds/ finance/capital.** A firm with many funds stands an opportunity to increase its production because it can purchase all factor inputs thereby expand in size. While a firm with limited funds tends to remain small as it becomes hard to expand its production and increase in size.
 - **The level of efficiency /managerial efficiency of the firm/ entrepreneurial ability.** High level of entrepreneurship leads to creativity and quick decision making which leads to increased production hence expansion of the firm. On the other hand, low level of entrepreneurship leads to inefficiency in production which leads to low output hence the small size of the firm.
 - **Availability of land for expansion.** A firm that has access to more land easily increases investment leading to increased production thereby increasing its size. Limited access to land limits the ability of the firm to expand its investment and production hence the small size of the firm.
 - **Level of supply of raw materials.** A firm that has adequate supply of raw materials produces high output hence increase in its size. A firm with limited supply of raw materials has limited ability to increase its scale of production and increases in size hence the small size of the firm.
 - **Level of taxation.** High taxes on a firm increase costs of production which discourages investment and production thereby limiting the size of the firm. While low taxes reduce costs of production which encourages firms to increase investment and production thereby increasing the size of the firm.
 - **Objectives of the owner of the firm.** A firm that aims at maximizing sales tends to expand in size so as to produce more output and increase sales. A firm that aims Profit maximization produces low output so as to sale at a higher price and maximizes profit hence small size of the firm.
 - **Possibility of merging of firms.** High possibility of merging of firms leads to expansion of firms hence increase in the size of the firm. Limited prospects or possibility of merging of firms makes the size of the firm remain small.
 - **Availability of skilled labour.** Presence of highly skilled labour leads to production of high output because it is more efficient and creative hence increases in size of the firm. Absence of highly skilled labour leads to low production because it is less efficient hence small size of the firm.
 - **Political climate/ atmosphere.** Political stability encourages firms to increases investment and production hence leading to increases in the size of the firm. Political instability increases risks and uncertainties which discourage investment and production thus reducing chances of the firm to expand.
 - **Nature of goods and services produced.** Firms that produce capital/durable goods produce high level of output because they can be stored for a long time which increases the size of the firm. Firms that produce perishable goods mainly produce low output because they cannot be stored for a long time before they are spoiled hence small size of the firm.

- **Possibility of production of new goods and services.** High possibility of producing new products leads to expansion of the firm so as to increase production of the needed goods and services. When there is no possibility of producing new products the size of the firm tends to be small since there is no demand for goods and services.
- **The nature of the business.** Some businesses by their nature necessitate small or large scale operation. e.g watch repair, shoe shinning etc are usually small businesses.
- **State of /Level of infrastructural development.** Presence of developed infrastructure encourages firms to expand in size due to reduced cost of production. While poor developed infrastructure discourages the expansion of firms due to high costs of doing business.

Question

- (a) Explain the factors which determine the growth of a firm in an economy.
- (b) Why may a firm continue to produce even when its Average variable costs (AVCs) are greater than its Average Revenue (AR)?

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 its a firm that has **just** been established.

Ways in which a firm grows.

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.

LEVELS OF AMALGAMATION/INTEGRATION OF FIRMS

- a) **Complete Amalgamation/ Consolidation;** This is where two or more firms join and create a new firm that is different from those that have united. 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/Take-overs;** this form of combination takes place when one company takes over the business of another company or companies. Here the firm whose assets and liabilities have been taken over loses its identity completely. E.g Total fuel company took over Caltex fuel company.
- c) **Holding Company;** This is the coming together of two more firms but with each firm retaining its identity and one firm acquiring of the shares in that big firm 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;** This is where two or more firms come together to form one big firm. Firms are said to merge if and when they pool their assets and operate jointly as one production unit.

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 to form one big firm. E.g. Airtel joining with Warid telecom.

Reasons (advantages) for horizontal merging

- To reduce competition for raw materials.
- To reduce duplication of goods and services.
- To reduce competition for the market/ to attain monopoly power.
- To promote efficiency in management of the production unit.
- To increase specialization in production hence increased output.
- To enable firms enjoy internal economies of scale and reduced costs.
- To promote full capacity utilization of machines. When a firm has been operating at excess capacity, with merging the underutilized machines can be utilized maximally.

Disadvantages of horizontal merging

- Leads to monopoly by reducing competition which leads to inefficiency hence production of poor quality goods.
- Leads to reduction in employment opportunities for some labour force.

2. **VERTICAL MERGING**; This is where two or more firms at **different stages** of production but in the **same industry**/producing related or similar goods come together to form one big firm. E.g.

- A firm producing sugar merging with a sweet or biscuit making firm.
 - Spinning and weaving firms in textile industry.
 - A tea growing firm linking up with a tea processing and a tea distribution firm.
i.e Raw material firms and processing/manufacturing firms.
- Vertical merging takes two forms.

(a) **Backward vertical merging/integration**. This is coming together of two or more firms at different stages of production where one at a higher stage takes up another at a lower/proceeding stage. The major aim of this integration is to move towards raw materials e.g sugar factory taking up sugar cane plantation.

Advantages (reasons)

- It ensures control of quality and quantity of supplies.
- Ensures reliable source of raw materials.
- Leads to monopoly of the source of raw materials with the aim of reducing competition

(b) **Forward vertical merging/ integration**. This is when two or more firms at different stages/ level of production come together where one at a lower stage of production takes another at a higher stage of production. This merging aims at moving towards the market e.g oil company securing the control of filling/petrol station.

Advantages (reasons) of vertical merging

- Enables the firm to enjoy economies of scale.
- Increases the firms control over the market.
- Promotes quality and quantity control of the products.
- Increases profits of the firm.
- It reduces competition for raw materials.

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, a bookshop firm joining with a restaurant firm. This usually happens when a firm realizes that the market for its products is about fall and therefore decides to diversify into other activities

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.
- To diversify production activities

ADVANTAGES OF MERGING:

- It reduces the cost of advertising. This is due to limited competition among firms thus leading to low costs of production.
- It leads to increased resource utilization. This is because the firm uses more resources because of increased output.
- It reduces competition for the market/ Widens the market. This widens market for goods and services hence more profits are enjoyed.
- It eliminates duplication of products. This is due to reduced competition among firms after merging.
- It leads to increased accessibility to skilled labour. This leads to efficiency in production of goods and services and the management of the firm.
- It increases the firms accessibility to capital /loans. This is because the big firms find it easy to borrow from financial institutions due to having large collateral security.
- It improves the management of the firm. This is 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. This is because the firm is in position to finance the research into better methods of production.
- It enables the firm the firm to spread risks. This is 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. This is because improved technology and better management of the firm.
- It leads to increased output/profits/sales. This is due to large scale production which ensures full utilization of resources and this increases the profits of the firm.
- Reduces stiff competition for the raw materials. This reduces the cost of production thus leading to high profits.

DISADVANTAGES OF MERGING OF FIRMS:

- It leads to monopoly power. This is because after merging a firm remains alone in the market and such a firm charges high prices.
- It leads to unemployment. This is because when firms merge, some workers are laid off.
- Management problems arise. This is because the firm is now big and complex which makes the coordination of managers difficult.
- There is loss of independence/identity of small firms. This is because they surrender their power to the bigger firms in the merger.
- It leads to over production and this leads to resource wastage.
- High taxes are imposed on bigger firms which come up as a result of integration. This increases the cost of production thus discouraging production.
- Leads to over utilisation/ over exploitation of resources leading to their quick depletion.

FACTORS THAT HINDER/LIMIT THE INTEGRATION OF FIRMS

Merging of firms may be difficult due to the following reasons;

- **Fear of diseconomies of large scale operation/ production.** As output increases, it becomes difficult to get enough market for commodities leading to high distributing and advertizing costs. Also factor inputs become scarce and their costs increases hence leading to high costs of production.
- **Fear of losing close touch with clients of the firm.** Some firms provide personal services rather than commodities and therefore personal contact/ attention is paramount and thus firms prefer to remain single.
- **Fear of complexity in management** e.g bureaucracy. As the firm expands, it becomes difficult to supervise and control business as it requires more managers and therefore decision making takes long because of bureaucracy.
- **Fear of government policies against merging.** Governments tend to introduce tight legislations or anti merger laws so as to discourage and restrict monopoly with its evils like charging high prices and production of poor quality products.

- **Fear of high taxes imposed on a single large firm.** Taxes increase with increase in size of the firm. This may lead to increase in costs of production thereby reducing profits of the firm.
- **Fear of unemployment for members of management.** Merging results into the restructuring and retrenchment of the labour force hence leading to unemployment.
- **Fear of the need for highly skilled managers associated with large scale firms.** Merging may require highly skilled labour which is scarce leading to high costs of production hence reduced profits to the firm.
- **Fear of undertaking high risks associated with large firms.** Risks may be expensive to control leading to high costs of production.
- **Fear of huge losses by large scale firm which have to be shared among share holders.** This reduces the amount of profits to be shared by a single firm.
- **Firms may be dealing in unrelated fields/ products requiring different areas of specialization.** Integration becomes difficult when firms are dealing in production of unrelated goods or requiring different areas of specialization which may create a number of problems such as funding, management, etc.
- **Merging is difficult in case of limited/ narrow market for the product.** When the market is small, integration may not be beneficial because no significant economies of scale are realized when firms merge.
- **Fear of losing independence enjoyed by a smaller firm.** This is when especially larger firm dominates a smaller firm.

Questions

- 1: (a) Distinguish between horizontal integration and vertical integration of firms in an industry.
(b) Explain the merits and demerits of integration of firms in an economy.
- 2: (a) Distinguish between lateral integration and conglomerate integration of firms.
(b) Give any two conditions necessary for the success of lateral integration of firms.
- 3: Mention any 4 reasons of merging of firms.
- 4: (a) Distinguish between forward vertical integration and backward vertical integration of firms.
(b) Explain the factors that limit integration of firms in an economy.

Linkages of firms

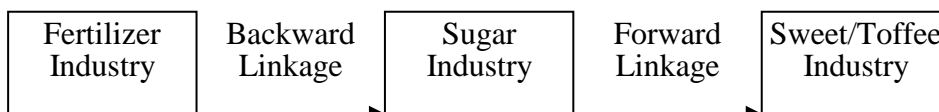
A linkage is a situation where an industry has an effect on the other.

Forward linkage

This is a situation where setting/ establishment of an industry results into creation of other industry(s) with the newly established industry or plant forming a market for products (and by products) of the already existing industry e.g sugar industry results into creation of a sweet industry. Therefore it is where an industry's output goes.

Backward linkage

This is whereby establishment of an industry results into creation or setting up a new industry to supply the original/ existing industry with inputs e.g sugar cane out growers to sugar industry e.g food producers to industrial sector, print park to bread and cigarette industries, sugar cane out growers to sugar industry, etc. Therefore it is a source of the industry's inputs.



Question:

- (i) Distinguish between forward and backward linkages.
- (ii) Give any two examples of forward linkages in your county.

Small scale industries

These are production units engaged in processing, manufacturing, assembling and servicing activities using less manpower and capital to produce.

In **agriculture** they include: bakery, grain milling (except maize), spices and condiments, jiggery mills, cattle and poultry feeds, fiber brushes etc.

In **chemical** industry they include: Painting and duplicating ink, stamp pad, laundry soap, wax candles, tiles etc.

In **metal** industry they include: Nail, bolts, nuts and rivets, barbed wire, pins and clips, domestic utensils etc.

Characteristics/ features of small scale industries

- They require little capital/ savings and therefore cheap to set up.
- They require less imported raw materials; mostly use local cheap resources.
- They tend to be labour intensive.

- They require fewer skills.
- They mainly produce for the local market.
- They can be established anywhere i.e. they are foot loose industries.
- Low output is realized because of low technology, limited inputs etc.
- They tend to be quick yielding
- There is little or no specialization.

Advantages of small scale industries

- **They are easy to manage and control.** Therefore they are easily affordable since they do not require highly skilled labour.
- **They require little capital to setup.** Therefore they are less costly in terms of capital.
- **They encourage use of local resources.** This helps to reduce expenditure on imported raw materials thus saving scarce foreign exchange which improves balance of payment position.
- **They promote entrepreneurial and manpower development.** These industries provide cheap training ground for local entrepreneurs and manpower that are trained on the job and in the long run these can be employed in large scale industries.
- **They are flexible and thus less wastage.** These industries can easily be located anywhere and production can easily be changed or diversified.
- **They promote fair income distribution i.e. reduce income inequality.** These industries can be set up in large numbers as they are mainly labour intensive and many people can be employed which increases their incomes.
- **They provide relatively cheap/ affordable goods which** improves peoples welfare.
- **They promote innovations and creativity.** These industries operate as a ground for technological development which results into innovations and creativity.
- **They are appropriate for the small markets.** Small markets in terms of purchasing power can only support small scale industries so as to minimize wastage of resources.
- **Personal services are easily offered due to personal contacts.** This promotes good relationship between customers/clients and entrepreneurs.
- **They create employment opportunities** since they are labour intensive and can also be set up in large numbers hence reducing the problem of mass unemployment.
- **They lead to economic growth/GDP in the long run.** These industries increase production of goods since they are quick yielded.
- **Source of government revenue.** To some extent, these industries contribute to some government revenue through taxation e.g licenses.
- **They promote use of local technology** which is readily available reducing foreign exchange expenditure on imported technology.
- **Losses are limited compared to large scale industries** hence they can easily be managed.

Role/impact/contribution/effect/implication of small scale firms to the development of a country

Positive roles

- A variety of goods are produced for local market.
- Source of government revenue by paying taxes, fees etc.
- Promotion of self sufficiency/sustenance.
- Acquisition of skills.
- Production of affordable goods for the people.
- Ground for technological development.
- Reduced income inequality/disparities.
- Act as training ground for entrepreneurs.
- Utilization of would be idle resources.
- Improved B.O.P position.
- Provision of employment opportunities.
- Contribution to GDP of the country.
- Creation of backward and forward linkages/ provide market.
- Promote economic diversification.

NB: some roles are advantages but not all the advantages are roles.

Negative roles (disadvantages) of small scale industries

- **They promote wastage.** This is because of unnecessary competition and duplication of goods and services.
- **They under utilize resources.** This is because of small domestic market and limited capital hence produces at excess capacity.
- **Limited contribution to employment.** This is because they operate small scale and therefore their labour absorption potential is low.
- **They create congestion in peri-urban areas.** This is because it is where their production activities are concentrated e.g Katwe.

- **They lead to pollution of air and water.** This is through poor disposal of industrial waste products in areas where they are concentrated.
- **They produce poor quality goods.** This is because of use of poor technology and the goods do not compete favourably on the world/international market.
- **They lead to low revenue to the government.** This is because of the limited activities and low output produced by these industries.
- **They are associated with low production levels.** This is because poor methods of production used and hence reduced growth domestic product/ output.
- **They lead to increased administration and other costs.**

Limitations/hindrances to development of small scale industries

- Limited market for goods.
- Poor infrastructure in terms of roads, power supply etc.
- Political instability.
- Lack of enough capital to start up.
- Lack of entrepreneurial ability.
- No economies of large scale production.
- High level of taxation.
- Use of poor technology.
- Low level of supply of raw materials.
- Low degree of specialization.
- Production of perishable goods.

Questions

- 1(a) Distinguish between a firm and an industry.
- (b) Explain the role of small scale industries in the development of your country's economy.
- 2 (a) What are the merits and demerits of small scale firms in your country?
- (c) Explain the limitations to the development of small scale industries.

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 an area 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 consumers 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 peoples lives and their property in the localised area by ensuring security.

Demerits of localization:

- 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 degradation/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 peoples 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 its 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 firms 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 entrepreneurs keep their firm small because it is their objective.

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 its 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.

VARIATION OF OUTPUT IN THE SHORT RUN:

There are 3 ways of categorizing output in the short run namely:

- a. Total product/output (TP)
- b. Average product (AP)
- c. Marginal product (MP)

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 in a given period of time. The variation of total product is illustrated graphically by the TP curve as shown in the graph below:

An illustration of the total product curve:

As the variable factor (labour) increases, TP increases and reaches its maximum and then starts falling. Therefore, TP changes as more or less of the variable factor is used. In the illustration above, point **R** is the point of maximum technical efficiency of a variable factor with a fixed factor.

2. **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.

$$\therefore AP = \frac{TP}{\text{Units of the variable factors employed}}$$

$$\text{OR} = \frac{TP}{\text{Number of workers}}$$

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. The point where AP reaches a maximum is called the point of Diminishing average productivity

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. It shows how output changes when the variable factor changes.

$$MP = \frac{\Delta TP}{\Delta L \text{ (Units of the variable factor)}}$$

An illustration of the Marginal product Curve:

The marginal product of a factor can either be positive/zero/negative. The level of output where MP reaches maximum is called the point of diminishing marginal returns.

THE RELATIONSHIP BETWEEN INPUT AND OUTPUT (TP, AP, AND MP IN THE SHORT RUN)

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:

1. TP, AP and MP begin rising but TP rises faster than AP and MP i.e TP rises at an increasing rate while AP and MP rises at a decreasing rate.
2. When TP is at maximum (at point a), MP is equal to zero, when TP starts declining the MP becomes negative.
3. MP is equal to AP when AP is at maximum (at point c) beyond which AP starts falling.
4. 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.

Note: As the variable factor is increased, the following stages are observed as illustrated below.

Stages of the production process

- A. Stage 1 (Extension region):** This is a stage of increasing returns where TP, AP and MP are all increasing. It starts from zero output to maximum MP. The TP is

steadily rising fast at an increasing rate which implies that the fixed factor is in plenty in quantity relative to the variable factor (labour).

B. Stage 11 (Economic region):

This stage starts from maximum MP to maximum TP. The TP is still rising but at a decreasing rate. This is a stage of diminishing marginal product where $MP=0$ and TP is at maximum. This means that the variable factor (labour) is excessively employed on the fixed factor (land).

C. Stage 111 (Intensive region): This is where TP, AP and MP are all declining.

However, MP is negative. Therefore, the firm should not produce in this region.

NB. The slope of TP, AP and MP curves are explained by the law of diminishing returns or The law of variable proportions.

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.

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 LONG RUN PRODUCTION PERIOD OF A FIRM

In the long run, all factors of production are variable. The firm can buy more land, more machines and put more buildings and thus can increase all its factors of production and expand in size.

In the long run, the input-output relationship is explained by the law of returns to scale.

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 producers 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%.

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 words they are non-monetary costs.
- **Private costs.** These are expenses incurred by the firm in the production of a given level of output. They are internal expenses because a producer has to take account of such expenses e.g. paying wages, buying of raw materials.

TYPES OF COSTS:

They are broadly divided into two types namely;

1. Implicit costs/indirect costs/imputed costs.
 2. Explicit costs (Direct costs).
- **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.
 - **Explicit costs (Direct costs).** 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.
- NB: Explicit costs are sub-divided into two namely;**
- a. Fixed costs
 - b. Variable costs
- **Total Fixed costs(TFC)/Overhead/Supplementary/indispensable costs:** These are expenses incurred by a firm which **do not vary with the level of output** i.e. it is even incurred at zero output.
Examples of fixed costs include 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)/Prime costs/Operating/Avoidable costs:** These are costs that **vary with the level of output** i.e. the larger the output the higher the level of variable costs.
Examples of variable costs are; wages, expenses on raw materials, power, maintenance etc. they are also known as prime costs, direct costs, operating, running costs. Unlike the fixed costs its 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.

OTHER COSTS INCLUDE:

1. **Sunk costs.** These are expenses of the firm which cannot be recovered when the firm leaves the industry stops producing e.g money already spent in the past.
2. **Real costs/Opportunity costs:** These are non-monetary costs which have to be met by the entrepreneur in order to produce goods and services e.g an entrepreneur has to save part of his capital, invest it and then wait until the profits are realized.
3. **Pecuniary costs:** These are expenses expressed in monetary terms which are visibly incurred by the firm in the production process.
4. **Capital costs:** These are expenses incurred by the firm for the use of durable assets e.g buildings, machinery.
5. **Hidden costs:** These are expenses incurred in monetary terms but not necessary in monetary costs e.g voluntary assistance, the use of facilities without necessarily paying for them.

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.

$$AFC = \frac{TFC}{Q}$$

Whereby TFC is the Total fixed costs and Q is the output.

An illustration of The Average Fixed cost Curve:

The AFC is downward sloping and is never zero. This implies that the curve never touches any axis. Since TFC is constant, it means that as output increases, AFC falls because the fixed costs are spread over a big level of output hence the shape of the curve.

2. **AVERAGE VARIABLE COST (AVC):** This refers to the total variable costs incurred by the firm per unit of output produced.

$$AVC = \frac{TVC}{Q}$$

NB: The AVC curve is also U-shaped because of the law of diminishing returns

An illustration of the Average Variable Cost Curve.

The AVC curve is U-shaped. At low levels of output the AVC is high but it decreases as output increases from zero up to 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 set in.

NOTE: The relationship between AC and AVC is that:

1. AC is greater than AVC at all levels of output.
2. The difference between AC and AVC diminishes because it represents AFC whose values are declining.
3. AC and AVC are never equal because their difference (AFC) can never be zero.

3. AVERAGE TOTAL COST/ AVERAGE COST (ATC/AC). This is the total cost per unit of output produced.

$$AC = \frac{TC}{Q}$$

$$AC = \frac{TC}{Q} = \frac{TFC + TVC}{Q} = AFC + AVC$$

NB: Variation of average costs in the short run can be illustrated using the graph below.

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.

NOTE THE FOLLOWING ON THE GRAPH ABOVE:

A. The falling portion of the AC curve. The curve first falls because of specialization and increased utilization of the fixed factor by the variable factor hence the firm experiences increased returns to scale.

B. The minimum point of AC at point (a). This is the Optimum point of the firm which is reached when the firm produces the highest output(OQo) at the lowest cost(OCo). Therefore, there is effective utilization of the fixed factor at this point.

C. The rising portion of AC. This is where AC curve increases because of over utilising the fixed factor which results into diminishing returns i.e there is more variable factor in relation to the fixed factor thus leading to diminishing returns.

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	300	0	300	-	-	-	-
1	300	300	600	300	300	600	-
2	300	400	700	150	200	350	100
3	300	450	750	100	150	250	50
4	300	500	800	75	125	200	50
5	300	600	900	60	120	180	100
6	300	720	1020	50	120	170	120
7	300	890	1190	42.9	127.1	170	170
8	300	1100	1400	37.5	137.5	175	210
9	300	1350	1650	33.3	150	183.3	250
10	300	2000	2300	30	200	230	650

An illustration of the relationship between AFC, AVC, AC and MC:

NOTE THE FOLLOWING ON THE GRAPH:

- 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 AC and AVC curves.
- Secondly MC, AC and AVC curves are all U-shaped because of the law of diminishing returns
- 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.
- AC is greater than AVC at all levels of output because $AC = AFC + AVC$. This means that the difference between AC and AVC is AFC.
- As output increases the difference between AC and AVC (i.e AFC) declines. AC and AVC tend to come closer due to continuous fall in AFC. But the AFC curve can never be zero in the short run and thats why the AC curve can never intersect with the AVC curve.

NB: The relationship between AC and MC is that;

- (a) When AC is falling, MC is less than AC.
- (b) When AC is at its maximum, MC is equal to AC.
- (c) When AC is rising, MC is greater than AC.

VARIATION OF COSTS IN THE LONG RUN

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.)

It is also called the **Planning curve** because it guides the producers decision to establish a new plant.

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 firm's short run optimum output is OQ_1 being produced at costs OC_1 as it expands its capacity in period 2, the cost per unit of output falls to OC_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 OC_4 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.

NOTE: The AC curve is U-shaped in the short run because of the **Law of diminishing returns**. While its U-shaped in the long run because of **Economies** and **Dis-economies** of scale.

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 indicated by the downward sloping of the LAC curve such that as output increases from OQ_1 to OQ_3 .

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 is 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/administrative 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. OR Revenue refers to the receipts realized by the firm from selling its output at various prices at a given period of time.

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.

$$TR = P \times Q \text{ (Output/quantity).}$$

Or $TR = \text{unit price} \times \text{quantity}.$

3. **Average Revenue (AR).** This is the total revenue per unit of output sold by the firm

$$AR = \frac{\text{Total Revenue}}{\text{Quantity sold}}$$

$$= \frac{TR}{Q}$$

Average revenue is the price of the commodity at each level of output

$$\text{i.e } AR = \frac{TR}{Q}$$

$$\text{inse } TR = P \times Q$$

$$AR = \frac{PQ}{Q}$$

$$\therefore AR = P$$

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

$$MR = \frac{\Delta TR}{\Delta Q} \quad \Delta TR = \text{change in total revenue}$$
$$\Delta Q = \text{change in output}$$

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 PROFITS OF THE FIRM

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 /break even 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.

Windfall profits. These are unexpected earnings of the entrepreneur. They arise due to abrupt increase in demand for the commodity.

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 leads to high 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 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.
- Its 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. Firms produce 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. There is 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. Firms aim at 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 OQ₁ is the profit maximising output at price OP_1 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, its 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

$$\begin{aligned} TR &= P \times Q \\ TR &= 10 \times 100 \\ TR &= \text{Shs. } 1000 \end{aligned}$$

$$\begin{aligned} \text{Yet } AR &= \frac{TR}{Q} \\ &= \frac{1000}{100} \end{aligned}$$

$$AR = \text{Shs } 10$$

$$\therefore AR = P$$

The MR curve is also equal to the AR curve e.g. if the firm sells 10 units at Shs. 100 each then TR = Shs.1000.

Calculate the value of MR

$$\begin{aligned} MR &= \frac{\Delta TR}{\Delta Q} \\ &= \frac{1000}{10} \end{aligned}$$

$$MR = \text{Shs. } 10$$

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 be 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 (OQ_2).

PROFIT MAXIMISATION OF A FIRM UNDER PERFECT COMPETITION IN THE SHORT RUN

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.

- Output is determined at point A where $MC = MR$ i.e. OQ_e . Output OQ_e is produced at a cost OC_1 , 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 SHORT RUN 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 OQ_e determined where $MC = MR$. (OQ_e 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 OC_1 determined at point B. therefore at equilibrium AC is greater than AR implying that the firm is making losses indicated by ABC_1P_e 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 OQ_e is determined where $MC = MR$ i.e. OQ_e line/link.

Equilibrium price OP_e is automatically determined by the forces of demand and supply at point E i.e. OP_e 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 OQ_5 where $MC = MR_5$. When the price is reduced to OP_4 the quantity supplied reduces to OQ_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 economic profits while with output OQ_4 the firm makes zero or normal profits. Without OQ_3 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 Shut down 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 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. This is because in the long run a firm operates at optimum capacity with no excess capacity.
- It provides an efficient standard or convenient measuring rod for comparison of price determination in other markets. This is especially where firms are few in the industry which provides a basis for determining prices of goods and services.
- It ensures fair and stable prices in the market since the commodities sold are homogeneous.
- It ensures equitable distribution of income. This is because of the many firms and free entry and exit i.e. in terms of employment.
- It ensures increases output. This is because of large number of firms/ Producers in the market which produce more output thus promoting economic growth..
- No wastage of resources/funds in advertising that would increase the cost of production hence increase in prices of goods and services.
- There is production of high quality products. This is due to existence of many firms which create competition thus leading to production of high quality products.
- There is efficient utilization of resources. This is because of free entry of many firms which ensure efficient utilization of resources.

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 leads to emergence of natural monopolies and business ownership of capital. This is due to competition which makes inefficient firms leave the industry and the few firms that remain exhibit monopoly tendencies with their associated evils.
- It limits research and innovations in the production process. This is because in the long run firms earn normal profits which limit the expansion of firms.
- There is lack of economies of scale which limits the expansion of the firms. This is because firms earn normal profits in the long run.
- There is a limited variety of goods and services, which limits the consumers choices due production of homogeneous products.
- It may lead to unemployment in the long run. This is because 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. This is due to production of homogeneous products.
- It limits the production of essential public goods and services. This is because firms aim at profit maximization and ignore production of public goods.

STUDY QUESTIONS:

- Qn. 1(a) How are profits maximized under a perfect competition market in the short run and in the long run.
(b) What are the advantages and disadvantages of perfect competition.

IMPERFECT MARKETS: These are markets where there is undue influence exercised by sellers on buyers over the price and output put on the market.

Examples of such imperfect markets include:

1. **MONOPOLY**
2. **MONOPOLISTIC COMPETITION**
3. **OLIGOPOLY MARKETS**

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.
Reasons for the existence of Statutory Monopolies.
 - ✓ To protect consumers from exploitation in form of high prices by monopolists.
 - ✓ To raise revenue needed for development through taxation of these firms.
 - ✓ To maintain the quality of goods and regulate supply.
 - ✓ To cater for areas that require high capital to start and the private sector cannot handle.
 - ✓ To create employment opportunities for the people in the country due to production on a large scale.
 - ✓ To reduce regional imbalances in development.
- **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 similar commodity. E.g Tororo cement and Hima cement industries.

- **Collective/Collusive monopoly.** Collective monopoly is one which comes into existence due to merging of firms/firms forming cartels. E.g OPEC.
- **Discriminative monopoly.** Discriminative monopoly is one where a firm sells the same commodity to different customers at different prices irrespective of costs of production.
- **Quasi Monopoly:** This is a temporary monopoly due to existence of patent rights given to an inventor of a particular commodity.

Characteristics/ Assumptions/Features of monopoly

- There is a **single** producer/ seller of a product and many buyers.
- The product has no close substitutes.
- No persuasive advertising since the product produced has no close substitutes.
- The monopolist makes abnormal profits both in the short run and long run. They are maximized at a point where $MC = MR$ at a given level of output.
- A monopolist produces at **excess capacity** both in the short and long run situations. He restricts output so as to sale at a higher price.
- A monopolistic is a **price maker**. This is because he can influence price or output decisions but not both output and price unless the demand curve is perfectly inelastic. The demand curve slopes downwards from left to right implying that he can either reduce the price and sell more or increase the price and sell less. Thus, he cannot increase the price and output at the same time.
- The demand curve is **inelastic** because of lack of close substitutes. The more the demand is inelastic, the more the monopoly power. Therefore, the greater the absence of substitutes the greater the power of the monopolists to make profits.
- A monopolistic firm has the same behaviour in the short run and long run because of absence of freedom of entry of other firms.
- There are significant barriers to entry/blocked entry of new firms in the industry.
- MR is lower than AR at any level of output since the extra unit of output is sold at a decreasing price due to downward sloping of demand curve. Therefore, the MR curve lies below the AR curve.
- The main aim of the firm is to maximize profits which are maximized at a point where marginal revenue equals marginal cost ($MC = MR$).

FACTORS THAT GIVE RISE TO MONOPOLY/BASIS/CAUSES/ORIGINS/SOURCES OF 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.
- **Existence of a small market 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.
- **Exclusive 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.
- **Existence of 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.
- **Existence of 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.

- **Possession of 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.
- **Existence of 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.
- **Possession of unique talents:** Some people with natural abilities/talents tend to supply commodities that don't have close substitutes which gives them monopoly powers e.g. legal services is a monopoly of Solicitors and lawyers, singers of pop music, footballers etc.

THE RELATIONSHIP BETWEEN MARGINAL REVENUE AND AVERAGE REVENUE UNDER MONOPOLY:

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.

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 OQ_e
- >The price OP_e is determined at point A on the demand curve, where the output line meets the average revenue curve.
- >The cost OC_o 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 OP_eTQ_e but incurs high costs OC_oSQ_e .

Given that the exit of firms 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 firms output is OQ_e i.e. OQ_e line/link.

>The price $O P_e$ is determined at point M on the demand curve; where the output line meets the long-run Average Revenue curve i.e. $O P_e$ line/link.

>The cost $O C_o$ 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. (OQ_e). The higher Supernormal profits are represented by the shaded area $P_e M N C_o$.

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.
- **Low income earners benefit.** This is due to the practice of Price discrimination and this benefits the low income earners who would go without some commodities.
- **Research and innovations are encouraged.** This is because of presence of supernormal profits both in the short-run and long-run.
- **Monopoly facilitates the growth and development of infant industries.** This is because of patent rights accorded to them as well as blocked entry of firms.
- **Monopoly firms are sources of revenue to government.** This is through taxation on abnormal profits enjoyed by the firms.
- **Monopoly firms create and widen employment opportunities.** This is especially with state/statutory monopolies which operate on a large scale.
- **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 consumers welfare.
- **Abnormal profits are enjoyed in the short run and in the long run.** This is due to blocked entry of firms and this helps to expand the size of the firm through re-investing/ploughing back such profits in business.
- **Facilitates improvement in workers welfare.** This is due to the high abnormal profits enjoyed by the monopolists that are used to provide fringe benefits to the workers.

DEMERITS OF MONOPOY.

- **Monopoly leads to consumer exploitation.** This is 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 consumers choice, leading to low standard of living.
- **Monopoly promotes income inequality.** This is 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.** This is due to lack of competition on the market.
- **Monopoly leads to underemployment and unemployment of labour.** This is due to operation at excess capacity as well as blocked entry of the new firms.

- **Monopoly firms cause shortages of commodities on the market.** This is especially in times of breakdown of the industries thus leading to poor standards of living.
- **Monopoly firms exert pressure on government.** This is 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.** This is by way of underpaying them since they have no alternative.
- **Monopoly firms lead to underutilization of resources.** This is due to operating at excess capacity thus leading to limited output and high prices of commodities.
- **It promotes income inequality.** This is due to blocked entry of other firms and yet those employed in those firms earn higher incomes than those who are unemployed.

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 UNDER MONOPOLY.

Price discrimination is the act/practice by a monopolist of charging 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 childrens 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.
- **Discrimination according to convenience.** Goods and services that are convenient to the customers are highly charged than those which are not convenient. E.g travelling in First class is charged highly than economy class.

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.

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.

- It increases revenue to the government. This is due to taxation on the sales of a monopolist in different sub-markets.
- It increases the profit margins of the monopolist thus leading to increased efficiency in production.

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 consumers surplus since the commodity is sold by the monopolist.
- Poor quality commodities are sold at very low prices due to existence of monopoly power.
- It leads to misallocation of resources between different users. This is where resources are diverted to where they benefit most and leaving the production of cheaper goods to cater for low income earners.

HOW PRICE DISCRIMINATION IS PRACTICED:

1. A producer sells 500 units of a commodity in one market at shs.4000@ before discrimination. After price discrimination, he divides his market into 3 sub-markets. In market A, he sells 200 Units at shs.4000/= @ and then in Market B he sells 200 units at shs.4100/= each and in Market C, he sells 100 units at shs.4200/= @.

Calculate the total gains after discrimination.

Soln: **Total gains from discrimination = Total gains after discrimination - Gains before discrimin.**

$$\begin{aligned} \text{Gains before discrimination} &= 500 \times 4000 = \text{shs. } 2,000,000 = \\ \text{After discrimination: Market A} &= 200 \times 4000 = \text{shs. } 800,000 = \\ \text{Market B} &= 200 \times 4100 = \text{shs. } 820,000 = \\ \text{Market C} &= 100 \times 4200 = \text{shs. } 420,000 = \end{aligned}$$

$$\begin{aligned} \text{Therefore, Total gains from discrimination} &= (800,000 + 820,000 + 420,000) - 2,000,000 \\ &= 2,040,000 - 2,000,000 \\ &= \text{shs. } 40,000 = \end{aligned}$$

STUDY QUESTION

QN. A producer before discrimination sold 800 units of the commodity at shs.2000@. After discrimination, he sold 200 units at shs.2000= @ in **Market X**, then sold 200 units in at shs.2200= @ in **Market Y** and then sold 400 units at shs.2500= @ in **Market Z**. Calculate the total gains(revenue) after discrimination.

MEASURES THAT SHOULD BE UNDERTAKEN TO CONTROL MONOPOLY POWER IN A COUNTRY:

- **Adopt price control in form of maximum price on monopolised commodities.** This should be done such that it becomes illegal to trade above the set price by the government.
- **Adopt taxation in form of lump sum and specific taxes.** This should be done to reduce the supernormal profits enjoyed by monopolists.

NB:

- (a) **Lumpsum tax:** This is imposed on the output produced by the monopolist on the market. The aim is to reduce on the profit levels of the monopolist.
- (b) **Specific tax:** This is imposed on each unit of the output produced by the monopolist. This increases as output increases. This means that it increases the cost of production.
- (c) **Profit tax:** This is imposed on the profits of the monopolist but leaves price and output unchanged. This tax has no impact on consumers welfare.
- **Remove foreign trade restrictions on foreign goods.** This should be done to allow fair competition and promote efficiency of domestic firms.

- **Encourage new rival firms by government to join industry through provision of subsidies.** This should be done to increase competition thus producing high quality products.
- **Improve on economic infrastructures** such as roads, railways, electricity. This should be done so as to reduce on costs of production and attract new firms to join industry.
- **Adopt nationalisation** (where government takes over privately owned enterprises). This should be done so as to promote efficiency and increase output of goods and services.
- **Adopt Anti-merger laws** i.e. enacting laws against monopoly practices such as merging of firms. This should be done so as to reduce undesirable activities of monopolists.
- **Relax patent rights granted to inventors and copy rights to authors.** This should be done such that competition in production is open to many entrants.
- **Publicise all abuses of monopoly** such as political and economic corruption, unfair business practices etc. This should be done so as to reduce undesirable activities of monopolists.
- **Encourage the formation of consumers associations.** This should be aimed at increasing bargaining strength of consumers of a commodity and creating awareness among the consumers.
- **Encourage the establishment of specialized institutions such as National Bureau of standards.** This should be aiming at setting standards that producers must follow if they are to continue with their businesses.
- **Undertake privatization of inefficient public enterprises.** This should be intended to control or remove statutory monopolies thus increasing efficiency in production and reducing excess capacity in production.
- **Establish decrees/legal action against monopolists.** This should be done so as to ensure that certain output is put on the market to reduce exploitation of consumers.
- **Liberalise the economy.** This should be done so as to increase competition among producers thus increasing products on the market.

REASONS WHY MONOPOLY SHOULD BE CONTROLLED

- ❖ To reduce consumer exploitation. By controlling monopoly, more output is produced and put on the market which reduces prices thus reducing consumer exploitation.
- ❖ To prevent the production of poor quality products. This is because as monopoly is controlled, there is more entry of more firms in production which increase competition thus improving on the quality of output.
- ❖ To increase the production of a variety of goods and services. Thru controlling monopoly, more firms enter production which increases a variety of goods and services on the market thus increasing consumer choices.
- ❖ To reduce unemployment in an economy. By controlling inflation, more firms enter the market and these provide employment opportunities thus reducing unemployment.
- ❖ To reduce excess capacity in production.
- ❖ To protect workers from exploitation by monopolists.
- ❖ To avoid shortages of goods on the market.
- ❖ To reduce undue pressure exerted by monopolists on government.
- ❖ To reduce income inequality.
- ❖ To reduce wastage of resources.

STUDY QUESTIONS

- 1.(a) Distinguish between price legislation and price discrimination.
(b) Explain the necessary conditions for successful price discrimination.
- 2.(a) How are profits maximized under monopoly market situation.
(b) Examine the merits and demerits of monopoly in an economy.
- 3.(a) How does a monopoly firm maximize profits in the short run.
(b) Examine the implications of the existence of monopoly in Uganda.
- 4.(a) Justify the government policy of controlling monopoly.
(b) What are the advantages and disadvantages of monopoly in an economy.
- 5.(a) Account for the rise of monopoly in an economy.
(b) Assess the impact of monopoly in an economy.

SUB-TOPIC 8: MONOPOLISTIC COMPETITION

This is a market situation where there are many firms/ sellers producing **differentiated products which are close but not perfect substitutes** and there are many buyers. It is a market structure that has some elements of perfect competition and monopoly. In the real world the conditions of perfect competition and monopoly are relatively rare.

But the more realistic market situation is that of Monopolistic competition. This is because each firm produces goods which are close substitutes to those of other firms but they are not perfect substitutes since they are differentiated to appear distinct from their competitors.

Due to differentiation, each firm has some degree of control over the price that it charges i.e it can increase sales by reducing the price and that's why the demand curve is downward sloping like that of a monopolist. However, the existence of many substitutes limit his monopoly powers.

Examples of firms under monopolistic competition include Bakery industry, Soap and detergents industry, Salon services, Tea industry, Insurance brokers, firms producing toothpaste such as Delident, Colgate etc, firms producing petroleum products such as Samona, Movit etc.

NB: Product differentiation is a practice by which firms make their products appear different from those of their competitors when they may be the same.

OR: It is a practice of firms in which they create artificial differences between the goods which perform similar functions.

This is done in terms of Colour, Shape, Design, Branding, Trade mark, Packaging, Taste, etc.

Characteristics of monopolistic competition

1. **There are many buyers and sellers in the market (industry).** Firms 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.** This is done 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 but each firm has monopoly over its brand.
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 PROFIT MAXIMISATION OF A FIRM UNDER MONOPOLISTIC COMPETITION

1. In the short-run, profits under monopolistic competition are maximised at an equilibrium 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 PROFIT MAXIMISATION SITUATION OF A FIRM UNDER MONOPOLISTIC COMPETITION

In the long-run, firms continue to aim at maximizing profits 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.** This is due to competition among firms as well as producing goods which are close substitutes.

2. **It leads to production of a wide variety of commodities.** This is due to product differentiation, which improves consumers choice and preference.
3. **It leads to production of better quality products.** This is due to competition among firms which encourages efficiency in production.
4. **It leads to high output of products.** This is due to existence of many firms in the industry.
5. Monopolistic firms provide employment opportunities. This is due high freedom of entry of many firms which provide jobs and which improve on peoples welfare.
6. **Monopolistic firms contribute revenue to the government.** This is through taxation on abnormal profits of many firms.
7. **Monopolistic competition promotes inventions and innovations.** This is 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.** This is due to duplication of economic activities or services.
2. **It leads to underutilization of resources by firms.** This is due to production at excess capacity.
3. **Firms experience high costs of production.** This is due to existence of competitive advertisement and product differentiation.
4. **It leads to limited market share.** This is because of the many firms in monopolistic competition.
5. **It leads to distortion of consumer choices.** This is due to competitive persuasive advertisement.
6. **Limited research is done by firms.** This is due to absence of abnormal profits in the long-run.
7. **It leads to unemployment.** This is due to collapse and exit of inefficient firms in the long-run.
8. **It leads to consumer exploitation.** This is due to high prices charged under monopolistic competition.

NOTE: FEATURES OF MONOPOLISTIC COMPETITION IN THE LONG RUN

- Firms produce at excess capacity.
- Firms earn normal profits
- Firms have a fairly elastic demand curve.
- The AR is greater than the MR.
- There is reduced market share.
- The AC is equal to AR.

Sub- Topic 9: OLIGOPOLY:

Oligopoly is market structure in which there are a **few firms** either producing **homogeneous** products or **differentiated** products and with many buyers.

OR: It is a market structure where there are **FEW** firms (both small and large) with many buyers but firms produce either homogeneous or differentiated products.

The word Oligopoly is a Greek word which just means few firms in the industry.

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.** Each of these firms controls a substantial share of the market.
2. **There is close interdependence among firms in decision making.** 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. There are **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.
12. There is **existence of price-wars/ cut-throat competition.** Here firms engage in rival/cut-throat competition by under cutting each other in terms of prices which results into losses to all the firms.

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 $O P_0$ 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 $O P_0$, other firms will not follow. However if a firm reduces price below $O P_0$ 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.
4. **Limit pricing policy:** This is where already existing low cost firms in the industry set a low price for the incoming firms as a way of discouraging them.

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. Firms 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 PROFIT MAXIMISATION 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 $O P_e$ is determined at point A on the demand curve through agreement, where the output line meets the average revenue curve.
- >The cost $O C$ 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 ($O Q_e$). Supernormal profits are represented by the shaded area $P_e A B C$.

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 peoples 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.