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Economics Chapter 3: Production theory and market structure

Production

This refers to the process of creating utility in goods and services in order to satisfy human wants. It seeks to analyze the input-output relationships and to answer the following questions.

1) How will output respond if all inputs are simultaneously increased or decreased in the same proportion?
2) Supposing that there is more than one process of producing a commodity, how will the output' change in response to changes in the factor proportions?
3) What is the most efficient production technique that minimizes costs?
4) How can the least cost combination of inputs be achieved to maximize profits by minimizing costs?

Types of Production

- *Direct (subsistence) production;* the production of commodities for one's own consumption (home use) e.g. Planting maize for food at home without surplus left for sale, a doctor treating his own child.
- *Indirect (market) production; the* production of goods and services for exchange e.g. a farmer growing cotton for sale, producing pancakes for sale.

Stages (*Levels) of production*

- **Primary Production.** This refers to the extraction of raw materials from their natural existence.

  It involves application of factors of production on the raw materials in order to produce primary products. Primary production includes items like fishing, mining, lumbering, farming etc.
- **Secondary Production.** This involves the transformation of raw materials into final commodities which are ready for use. It includes activities like manufacturing, processing etc.
- **Tertiary Production.** This is the production of services. These services may be direct or indirect. The provision of these services is necessary because they help to bridge the gap between the producer and the consumer.

Specialization and division of labour

Specialization is a method of production whereby an entity focuses on the production of a limited scope of goods to gain a greater degree of efficiency and leaves out other activities to be done by other people or country or region.

Forms of specialization

1. **Specialization by craft**. This was the earliest from of specialization where certain families specialized in different activities basing on their location like fishing, hunting, farming, etc.
2. **Specialization by process.** This is where different people specialize in different stages in the production process.
3. **Regional specialization.** This is where a certain region specializes in carrying out an activity which it can do best.
4. **International specialization.** This is where a country specializes in production of a commodity which it can do best and exchanges it with other countries which cannot produce the commodity e.g. Developing countries like Uganda specializing in Agricultural products and developed countries in industrial products.

Division of labour

This is the allocation of tasks (activities) among workers in the production process such that each worker is given a task which he/she can perform best.

Advantages (merits) of specialization and division of labour

1. *It* **increases the efficiency of labour.** This is as a result of performing the same task over time.
2. **It is time saving**. This is because there is no need of moving from one job to another.
3. **It helps to improve on the quality of the product**. Workers become perfect in carrying out particular tasks.
4. **It helps to speed up the training process.** This is because a worker is trained to carry out a particular task in the production process.
5. **It enables workers to exploit their *n*atural talents by concentrating on particular** tasks which they can do better:
6. **International specialization promotes international trade.** This is because different countries utilize their resources to produce a commodity in which they can do best and exchange it with other countries.
7. **It increases the level of output**. This is because specialization increases the scale of production and reduces the production costs as a result of economies of scale.
8. **Specialization increases economic interdependence between countries.** This is because different countries can be able to get what they do not have from other countries through the process of exchange.
9. **Specialization promotes technological development through innovations and inventions** as a result of continuous use of machines. This leads to efficiency in production.

Demerits (Disadvantages) of Specialization and Division of labour

1. **It leads to boredom.** This is because performing the same task all the time becomes monotonous which results into loss of efficiency and work dissatisfaction.
2. **It is difficult to assess the individual contribution of the worker to the final product** under division of labour. This is because many workers contribute in the making of the total final product.
3. **It leads to loss of craftsmanship**. This is because when the job is divided into a series of tasks, one's skill in making a complete product is lost.
4. **Specialization leads to unemployment.** This is because when a worker is laid off from a certain firm, it becomes very difficult for the worker to get another job in another firm which requires different skills.

5. **It leads to unnecessary delays** in case of breakdown in one department of the firm during the production process.
6. **It leads to over production especially when markets are limited.** This leads to wastage of resources due to excess output which is not sold.
7. **International specialization promotes over dependence of one country on other countries**. This leads to shortage of certain commodities in case there are some misunderstandings among countries.
8. **It increases occupational labour immobility.** This is because workers concentrate on performing one task and with time may not be able to carry out other tasks.
9. **It leads to loss of responsibility among workers** which undermines team work. This is because each worker is concerned about his/her own tasks.

Factors (agents) of production

Factors of production are resources (inputs) required in the production of goods and services. They include, Land, Labour, Capital and Entrepreneurship

Factor price refers to the monetary reward (payment) given to the factor of production for its contribution to the production process. Examples of factor prices include; Rent, Wages, Interest and Profits

Classification of Factors of production

Physical factors of production; are tangible factors of production; e.g. land, capital, buildings, machines, furniture, tools and equipment etc.

Non-physical factors of production; are intangible factors of production for example skilled labour (services), entrepreneurship etc.

Specific factors of production; are factors of production which are only used for a specific purpose and cannot be put 'to any other use.

OR.

These are factors of production which cannot be used for any other purpose other than for which they were designed for example harvesters, railway lines, highly skilled labour, type writer etc.

Non-specific factors of production; are factors of production which can be used to serve various purposes for example a buildings, liquid capital, land, computers etc.

Note. Specificity of a factor of production is the extent (degree) to which a factor of production is designed to serve a particular purpose.

Mobility of factors of production

Factor mobility is the ease with which a factor of production can be moved from one geographical area to another or from one occupation to another.

Types of mobility of factors of production

- **Geographical mobility of a factor of production;** is the ease with which a factor of production can be moved from one geographical area to another for example a doctor moving from Nairobi to Kampala, an Entrepreneur moving from Mable to Gulu.
- **Occupational mobility of a factor of production.** This refers to the ease with which a factor of production can be transferred from one occupation to another, for example office practice teacher becoming a secretary, an accounts teacher becoming an accountant etc.

LAND

Land refers to all natural resources used in the production process. It includes soil, minerals, forests, water bodies, air etc. The reward for land is rent.

Characteristics of land

1. Its supply is fixed.
2. Land is a gift of nature.
3. It is geographically immobile that is, it cannot be transferred from one place to another.
4. It is occupationally mobile that is, it can be used for various purposes.
5. Land is not homogenous for example some land is fertile and another is infertile.

Importance of land

1. It is used for agricultural activities for example hunting, farming and fishing.
2. Land acts as a ground for waste disposal for example sewage disposal
3. Land is used for construction of industries, roads, building, etc.
4. It is a source of raw materials for example fish, water, minerals, timber etc.
5. It is a source of fuel for example coal and oil from the ground, charcoal form forests etc.
6. It is a source of government revenue since it can be taxed.
7. Land also provides beautiful scenery for tourism which is a source of foreign exchange.

Capital

Capital refers to any man made resource which is used in the production process for example machinery, buildings, money, clothes etc. Capital is used to produce other goods. In the factor market, capital is rewarded by interest.

Types of capital

1. **Real capital** is the physical assets used in the production of goods and services for example machines, buildings, roads etc. It is also called fixed capital.
2. **Liquid (money/financial} capital** is capital which is in cash form. It is used as a means of payment for capital goods.
3. **Floating (circulating/operating/working) capital** is capital used in the day to day running of the business activities for example buying raw materials.
4. **Human capital** is the productive qualities found in human beings for example skills and knowledge. Such qualities are attained through training and education.
S. **Overhead capital** is the social and economic infrastructure or assets which facilitate in the production process for example roads, banks, insurance etc.
6. **Public (social) capital** is capital owned by the government on behalf of its citizens for example government hospitals, schools, roads etc.
7. **Private capital** is the type of capital owned by private individuals. It includes private cars, schools, businesses etc.

Productivity of capital and marginal efficiency of capital

Capital productivity is the measure of how well physical capital is used in providing goods and services in a given time

Marginal productivity of capital is the additional output that results from adding one unit of capital—typically cash

Marginal efficiency of capital (MEC) refers to the expected (anticipated) monetary returns on an extra (additional) unit of capital employed in the production process.

Determinants of Marginal efficiency of capital (MEC)

1. **Anticipated level of output is** an expected increase in the level of output by the firm leads to an increase in MEC but an expected decline in the level of output by the firm leads to a reduction in MEC.
2. **Level of taxation;** the higher the amount of taxes imposed on capital, the lower the MEC and the lower the tax rate, the higher the MEC.
3. **Quantity and quality of other co-operate factors; t**he availability and high quality of corporate factors increases the MEC but lack and poor quality of such factors decreases the MEC.
4. **Available excess capacity**; availability of excess capacity increases the MEG but existence of full capacity reduces the MEC
5. **Rate of interest on capital**; the higher the rate of interest, the lower the MEC and the lower the interest rate, the higher the MEC.
6. **The rate of depreciation of capital**; the higher the rate of depreciation, the lower the MEC and the lower the rate of depreciation the higher the MEC. ,
7. **Market size**; the bigger the market size, the higher the MEC and the lower the market size, the lower the MEC.
8. **The general price levels (inflation**); the high level of inflation in the economy reduces the MEC but low level of inflation in the economy increases the MEC

Capital Accumulation (Capital Formation)

This is the process through which the stock of capital increases overtime for purposes of future investments. Capital accumulation can be in form of increased savings, resource utilization, construction etc. In the process of capital formation, society has to forego some of its present consumption and direct it to increasing the stock of capital goods in order to improve on the production of consumer goods in future.

Determinants of (factors influencing) capital accumulation

1. **The level of savings;** the higher the level of savings, the higher the level of capital accumulation on the other hand, the low rate of savings reduces the rate of capital accumulation.
2. **Level of technology;** use of better methods of production like modem machinery increases the productivity of factors of production hence, capital accumulation. On the other hand, use of poor production techniques reduces the productivity of factors of production hence low capital accumulation.
3. **Government policy**; favorable government policies like subsidization, tax holidays encourage investments and this increases the production of commodities hence capital accumulation. On the other hand unfavorable government policy like high taxes discourage investment hence law rate of capital accumulation.
4. **Level of development of social and economic infrastructure;** for example banks, hospitals, micro finance institutions, roads schools, etc. Availability of such infrastructure which is well developed facilitates the production and investments hence capital accumulation. On the other hand, the presence of under developed and poor infrastructure discourages production and investment hence low rate of capital accumulation.
5. **Political stability;** a politically stable country encourages both local and foreign investors

hence capital accumulation but a politically unstable country discourages investors hence-low rate of capital accumulation.

6. **Level of education;** high level of education in form of skills and knowledge increases the productivity of labour hence capital accumulation. On the other hand, low level of education limits labour productivity hence low capital accumulation.
7. **Level of liquidity preference;** this refers to the desire by individuals to hold their wealth in cash or near cash form other than investing it in alternative assets. The higher the level of liquidity preference, the lower the rate of capital accumulation and the lower the level of liquidity preference the higher the rate of capital accumulation.
8. **Degree of availability of market;** availability of both foreign and domestic markets encourages production and investments hence capital accumulation, But presence of inadequate markets limits the scale of production hence low capital accumulation. "
9. **Level of economic stability;** if the economy is stable, inform of stable commodity prices and interest rates, this encourages investment hence increased capital accumulation. On the other hand instability in form of inflation discourages investments hence low capital accumulation.
10. **Level of interest rate**; high interest rate charged on loans discourage potential borrowers or investors hence low capital accumulation and low interest rate charged on loans encourage investors hence increased capital accumulation.
11. **Level of population growth rate**; high population growth rates increase the dependence burden which reduces the level of savings. This limits the level of investment hence low capital accumulation. But a low population growth rate reduces the dependence burden hence high level of capital accumulation.
12. **Degree of availability of entrepreneurs**; the presence of individuals who have the capacity to generate new investments and who are innovative leads to capital accumulation and absence of entrepreneurs leads to low capital accumulation.

Importance (role) of capital accumulation in economic environment

1. **It leads to technological development in form of inventions and innovations**. This leads to the production of goods and services in large quantities and of high quality hence economic growth and development.
2. **It increases the standards of living.** This is due to increased incomes of individuals and production of a variety and better quality goods and services which are consumed at lower prices.
3. **It facilitates resource exploitation**. This increases production and investments in the industrial, agricultural and service sectors hence economic growth and development.
4. **It helps to create employment opportunities in the economy.** This is due to increased investments and production activities in the economy.
5. **It facilitates the construction social overheads** in form of roads, railways etc. This increases mobility of factors of production
6. **It helps to reduce on the level of inflation in the economy**. The increased production of goods and services helps to meet the high aggregate demand for goods and services. In addition, capital accumulation reduces the supply rigidities associated with the production of goods especially in the agricultural sector. This increases supply in the long run hence economic stability.
7. **It helps to solve the balance of payment problems.** This is as a result of increased production of high quality goods and services for export which helps the government to earn more foreign exchange. In addition, capital accumulation leads to establishment of import substituting industries and this reduces on the importation of high valued manufactured goods.

Therefore, the gap between export earnings and import expenditure is reduced hence favourable balance of payments.

8. It brings about market expansion through establishment of social and economic infrastructure. This facilitates trade and economic development.
9. **It increases the national income of the country**. This is as a result of increased production and economic activities resulting from capital accumulation.
10. It helps to relieve the country from the burden of the foreign debt. This is because capital accumulation increases resource exploitation and mobilization which increases the country's capacity to be self-sufficient and reliant.

Labour

Labour refers to all human effort both mental and physical which is used in the production process.

The types of labor

The types of labor in economics are **skilled, unskilled, semi-skilled, and professional**. Together, these four types of labor make up the active labor force.

Marginal product of labour refers to the additional output resulting from employing an extra unit of labour.

Average product of labour refers to output per unit of labour employed

Mobility of Labour

Mobility of Labour refers to the ease with which labour can be moved from one place of work to another or from one occupation to another.

Types of labour mobility

Geographical mobility of labour is the ease with which labour can be moved from one place of work to another, for example a worker transferring from Kampala to work in Mukono.

Occupational mobility of labour is the ease with which labour can be moved from one occupation to another, for example, a medical doctor becoming a biology teacher.

Immobility of Labour

Labour immobility is the inability (or difficulty) of labour to move from one place to another or from one occupation to another.

Types of labour mobility

Geographical immobility of labour refers to the inability of labour to move from one place of work to another.

Occupational immobility of labour refers to the inability (difficulty) of labour to move from one occupation to another.

Types of occupational mobility of labour

Horizontal mobility of labour refers to the change of occupation where no change occurs in the status of the worker. For example a biology teacher becoming a chemistry teacher, a minister of finance becoming a minister for internal affairs.

Vertical mobility of labour refers to the change of occupation which results into a change in the status of the worker, for example when a classroom teacher becomes a headmaster, a nurse becoming a doctor.

Factors affecting/Determinants of labour mobility

1. **The length of the training period.** The longer the length of the training period, the lower the mobility of labour and the shorter the training period, the higher the mobility of labour.
2. **The level of skills required for a particular job.** Jobs which require highly specialized skills reduce the mobility of labour but in cases where no special skills are required, the mobility of labour increases
3. **The degree of job security.** The more the security on the job in terms of permanent employment the lower the mobility of labour. But temporary employment in form of contracts increases labour mobility.
4. **The level of advertisement of the job.** In cases where the degree of knowledge about the existence of jobs by workers is high, mobility of labour increases. But in cases where labour lacks information about the prevailing jobs, mobility of labour reduces.
5. **The influence of trade unions and other professional associations.** In occupations where there are restrictions on entry into certain professions for example lawyers, mobility of labour reduces and in occupations where there are no restrictions, mobility of labor increases.
6. **Level of education.** The higher the level of education, the higher the mobility of labour and the lower the level of education, the lower the mobility of labour.
7. **Nature of the job.** Risky jobs with high occupational hazards. For example mining, body guards, sugar cane cutting etc. discourage workers hence labour immobility, but jobs which are less risky with fewer occupational hazards tend to attract workers hence increasing labour mobility.
8. **The degree of specialization.** The higher the level of specialization, the lower the mobility of labour and the lower the degree of specialization, the higher the mobility of labour.
9. **Age of the worker.** Old people tend to be immobile because they have more family responsibilities and cultural attachments but young individuals tend to be mobile because of less family and cultural attachments.
10. **Degree of political instability.** In areas which are politically stable, labour tends to be mobile as compared to areas which are politically unstable. This is because labour tends to fear to go and work in insecure places for fear of loss of life.
11. **Racial, tribal and religious prejudices.** In occupations where there is discrimination based on such prejudices, labour tends to be immobile. But in cases where there are no such discriminations, labour tends to be mobile.

The Entrepreneurship

An entrepreneur is a person or group of persons who under take the task of organizing the other factors of production in order to make production process possible. He or she is a co-coordinator, risk-taker, innovator and decision maker of the business enterprise. In the factor market, an entrepreneur rewarded with profits.

Functions of the entrepreneur

1. The entrepreneur is responsible for starting the business
2. The entrepreneur employs other factors of production such as land, capital and labour
3. The entrepreneur makes arrangements for rewarding the other factors of production
4. The entrepreneur makes decisions concerning the business activities and allocation of resources
5. The entrepreneur undertakes the necessary innovation for the proper running of the business
6. The entrepreneur takes responsibility of the profits and losses made by the business

Factors that influence the supply of Entrepreneurs

1. **The level of education and training.** There higher the level of education and training, the greater the supply of entrepreneurs and the lower the level of education and training, the lower the supply of entrepreneurs
2. **Personal abilities of the individuals.** In societies with a large number of individuals who are more innovative and hardworking, there is high supply of entrepreneurs while in societies with many people who are less innovative leads to low supply of entrepreneurs.
3. **The level of economic activities.** The higher the level of economic activities, the higher the supply, of entrepreneurs and the lower the level of economic activities, the lower the supply of entrepreneurs.
4. **The market size of commodities.** The bigger the market size, the higher the supply of entrepreneurs and the smaller the market size, the lower the supply of entrepreneurs.
5. **The government policy in relation to investment.** Conducive government policies towards investment encourage the supply of entrepreneurs while poor investment policies discourage the supply of entrepreneurs.
6. **The degree of political stability.** The higher the degree of political stability in the country, the higher the supply of entrepreneurs and the lower the degree of political stability, the lower the supply of entrepreneurs.

Forms of business organizations

A **business organization** is the control of economic resources aimed at producing and distributing commodities to the final consumers. Business organizations are categorized according to ownership into two broad categories. The privately owned business organizations include sole proprietorship, partnerships and joint stock Companies which can be private or public Limited Companies. The Public or state owned business organizations include public co-operations and parastatals

Sole proprietorship

This is where the business is owned and managed by one person. The owner may be assisted by family members. The major source of capital is personal savings and borrowing.

Merits (advantages) of a sole proprietor

1. **It is easy to set up the business.** This is because it does not require many bureaucratic procedures of registration and documentation as for the case of other business organizations like partnerships.
2. **It does not require a lot of capital to set up the business**. This promotes entrepreneurial abilities in

the economy.

3. **There is quick decision making**. This is because the business is owned and controlled by one person
4. **The benefits (profits) are enjoyed by the owner of the business** *alone* unlike other business organizations where profits are shared among the business shareholders.
5. **It is easy to develop personal contact with the customer**. This ensures that the customers' needs are satisfied.
6. **The business owner has self-interest and motivation** *in* business as opposed to the other forms of business organizations like the public enterprises.
7. **It is easy to supervise and manage the activities of the business** unlike other business organizations.
8. **A sole business owner enjoys the secrecy of his business** unlike other forms of business organizations like joint stock companies.

Demerits (disadvantages) of* a *sole proprietor

1. ***The business owner has unlimited liability***. That is, in case of the collapse of the business, the debt arising out of business operations can of large be recovered by selling the personal property of the business owner in addition to the property of the business.
2. ***It is difficult to expand business* and enjoy economies scale in the long run**. This is due to limited capital contributed by the business owner.
3. It is difficult to undertake speculation and division of labour due to small size of the business.
4. **There *is uncertainty in the continuity of* the business in case of the death of the business owner**. This is because the business activities are undertaken by one individual.
5. ***The sole proprietor is overworked and this leads to inefficiency***. The sole proprietor manages the business alone and does not get enough time to rest.
6. ***It is difficult to undertake research by the sole proprietor.*** This is due to limited capital contributed by the sole proprietor.
7. ***It is difficult to access credit facilities like loans from financial institutions***. This is due to lack of collateral security and lack of trust in one man's business by financial institutions.

Partnerships

Partnerships is a business type where members come together pool (contribute) financial resources in order to carry out business jointly with the aim of making profits.

The minimum number of members in partnership is two (2) and the maximum number is twenty (20). Each member in partnership is called *a partner:*

The sharing of capital and profits and general running of the business is spelt out in a document called a **partnership deed.** It is presented to the registrar of companies before business commences.

Types of partners

1. **Active partner.** This is one who contributes capital and takes part in the active management of the business. He also shares profits and losses jointly with other members of the partnership.
2. **Dormant partner.** This is one who does not take part in the active management of the business but contributes the capital and shares losses and profits of the business.
3. Quasi partner. This is a partner who offers his name to be used as the name of the partnership. He does not contribute capital to the business and does not take part in the active management of the business. He is not responsible for any debts and losses incurred by the business.

Merits (advantages) of partnerships

1. **Losses and other risks are shared among the members**. Partnerships involve a number of members and therefore the risks per unit member are greatly reduced.
2. **Partnership creates room for specialization within its members.** This is because different members have different skins regarding production, management, marketing etc. within the organization.
3. **There is continuity in business in case of death or sickness of one** partner unlike under sole proprietorship.
4. **It is to expand the scope of discovery and innovation under the partnership**, This is because members can easily share the skills and knowledge concerning business operations. This leads to improvement in the performance of the business.
5. **It is easy to form a partnership as compared to the joint stock company.** This is because it requires less documents or formalities as in the case of joint-stock Companies.
6. **It is possible to enjoy economies of large scale**, this is because it is easy to rise capital and expand on the operations of the business.
7. **It is easy to raise enough capital to start and expand the business under partnership**. This widens the capital base as compared to the sole proprietor.

Demerits (disadvantages) of partnerships

1. **Partnerships have unlimited liability.** That is, in case of debts arising out of the business operations, personal property of the partners in addition to partnership property can be sold in order to recover the debt.
2. **The mistake made by an individual affects all the members within the partnership**. This is due to collective responsibility in the business operations.
3. **There are delays in business decision making and implementations.** This is because all members have to be consulted before any action is undertaken.
4. **A partnership can be dissolved in case of death of one partner.** This affects the continuity of the business.
5. **Partnerships suffer from dis economies of scale due to large-scale operations of the business.** This is in form of mismanagement of funds.
6. **The membership of partnership is limited up to 20 members.** This limits the capacity of the partnership to mobilize and raise more funds in order to expand the business.

Joint-Stock Companies (Limited Liability Companies)

These are business organizations with several members (shareholders) who come together and contribute capital to start business with the aim of making profits.

Types of joint - stock companies

Public limited companies
These consist of not less than seven (7) members and there is no maximum number. The shares are freely transferable to the public. That is, members who wish to sell their shares the public are free to do so.

Private limited companies
These consist of a minimum of twenty (20) members and a maximum of fifty (50) members. The shares are not freely transferable to the public. That is, a member who wishes to sell his shares has to first consult all the other members within the company before he floats them to the public.

Formation of joint stock companies

The formation of joint-stock companies involves legal documents and these include:

1. **Memorandum of association (MOA).** This clearly lays down the name of the company with the word limited at the end, the location of the business, amount of capital to be contributed by each shareholder, purpose of the business and the signatures of all the shareholders.

2. **Articles of association (AOA).** This is the document which lays down the rules and regulations **governing** company. It spells out the rights and powers of each shareholder, the procedures of calling and conducting general meetings, powers of the executive and rules regarding the election of the executive members.
3. **Certificate of incorporation (COl).** This is issued by the registrar of companies after paying the registration fee by the promoters of the company. It gives the company a legal entity and authorizes it to begin floating the shares to the public so as to raise capital.
4. **Prospectus.** This document invites the general public to come and buy shares from the company. This is done after registration of the company to raise the required capital start business.
5. **Certificate of trading (C0T).** This is the document which empowers the company to start business operations. It is issued by the registrar of companies after the company has raised the minimum share capital required.

A share and a stock

A shareholder is an individual who owns and contributes capital to the company with the aim of making profits.

A share is a unit of capital contributed by each shareholder when starting the company with the aim of making profits.
A stock is a combination of shares contributed by shareholders to the company.

Types of shares

- **Ordinary shares**; are shares which do not carry a fixed rate of return (dividend). These shares receive only dividends after all preference shares have paid
- **Cumulative preference shares;** are shares which are entitled to dividends irrespective of whether the company has made profits of incurred losses in a given period
- **Preference shares;** are shares that carry a fixed rate of return (dividend). However, if no profits are made in the given period, no dividends are paid

Dividends, Retained profits and Debentures

- A **dividend** is a profit earned on the shares by the shareholders of the company.
- **Retained profits** are profits made by the company which are not shared among the shareholders but they are left to expand on the business.
- A **debenture** is a document that gives evidence that an individual or company has borrowed a certain sum of money from the person or institution named on it.

Types of debentures

- **Naked debentures;** this is a debenture where no collateral security is required in order to access the loan by the borrower from the lender. In case of failure to pay the loan, the lender (debentures holder) has no powers to take over or sell the borrowers property to recover his/her Money.
- **Mortgage debenture.** This is a debenture where the collateral security is required by the lender before the borrower is given a loan. In case of failure to pay the loan by the borrower, the debenture holder has the powers and rights to sell the borrower's property and recover his/her money.

Collateral security refers to the physical/tangible asset presented by the borrower before accessing the loan from the lender, For example land title, tangible house hold properties, motor vehicle registration card etc.

Advantages of joint - stock companies

1. It is easy to raise enough capital from the sale of shares. This increases the scale of operation of the business hence economic of scale.
2. **Shareholders have a limited liability**. That is, in case the business collapses the shareholders only lose their share capital to recover the business debts.
3. **There is continued existence of the company even if a shareholder dies or becomes insane**.
4. **It is easy to access loans from financial institutions.** This is because such companies are highly trusted by the financial institutions and they have enough collateral security
5. **In case of losses and other business risks, they are shared among the many shareholders**. This minimizes the burden of the loss per share holder.
6. **Shareholders are free to sell their shares to the public** for the case of public limited companies,
7. **The joint stock companies help individuals with limited entrepreneurial abilities to participate in business as shareholders.** This promotes economic activities in the economy.
8. **Joint stock companies are capable of employing necessary expatriates in various fields**. This increases efficiency in business operations.
9. **Joint stock companies are capable of offering employment opportunities to many individuals**. This is due to their large scale operation. This improves on the standards of living of individuals.
10. **Joint stock companies generate a lot of tax revenue to the government** in form of corporate and profit taxes. Such tax revenue can be used to construct both social and economic infrastructure.

Disadvantages of joint -stock companies

1. **Shareholders do not exercise full control over their business.** This is because; under joint stock companies management differs from shareholders.
2. **Shares are not equally owned**. Those with more shares tend to dominate decision making in line with their personal interests or benefits.
3. **It is difficult to start a joint stock company**. This is because there is a need to present several documents to the registrar of companies before the company is incorporated.
4. **There is bureaucracy in decision making**. This is because there is need to consult the various shareholders before the action is taken.
5. **There no secrecy in the running of the business**. For example books of accounts are published in the newspapers especially for public limited companies.
6. **High taxes are paid by shareholders.** This is because taxes are paid on both company profits and dividends.
7. **Rivals of the public company can easily buy off the majority shares there by crippling the activities of the company**.
8. **There is little personal contact between the shareholders of the company and the customers**. This undermines customer care services. ,.

9. **There is lack of flexibility in business operations.** This is because the company can only engage in activities which are stipulated in the constitution.
10. **There is a risk of suffering from diseconomies of scale.** This is as a result of large scale operation joint stock companies for example lack of sufficient markets, raw materials etc.
.

Sources of business finance

1. From personal savings of individuals
2. Borrowing from relatives and friends
3. Borrowing from financial institutions like banks and micro finance institutions
4. Borrowing from non-bank financial intermediaries like the housing finance companies, insurance companies etc.
5. Retained profits that is, profits which are not shared by the shareholders of the company. They are left in the company to expand the business. .
6. Through the sale of shares to the public as the case of joint stock companies.
7. Using debentures by companies in order to raise capital from the public.
8. Loans from international financial lending institutions for example I.M.F and World Bank.
9. Through gambling and national lotteries.
10. Through donations and grants.
11. Through the sale of government securities to the public for example treasury bills and bonds in case of public enterprises.

Some definitions

Money market is a market where short term financial assets are traded for example treasury bills.

Money markets include markets for such instruments as bank accounts, including term certificates of deposit; interbank loans (loans between banks); money market mutual funds; commercial paper; Treasury bills; and securities lending and repurchase agreements (repos).

Capital markets. This is a market where medium and long term financial assets are traded for example bonds, shares etc.
Stock exchange market is an organized market for the sale and purchase of securities such as shares, stocks, and bonds.

Features of money markets in developing countries

1. They are mainly urban based
2. They mainly charge high interest rates
3. They mainly operate on a small scale
4. There are still few participants in the market
5. They deal in a limited variety of financial assets
6. They mainly deal in short term financial assets

Subsistence production versus market production

Subsistence (direct) production

Subsistence /direct) production is the production of goods and services by and individual for use

Features (characteristics) of subsistence production

1. There is high degree of dependency on family labour in the production activities;
2. There is use of simple (rudimentary) tools for example pangas, hand hoes etc. in the production process
3. There is low labour productivity because of using poor production techniques.
4. There is lack of specialization in production.
5. Barter trade is the predominant system of exchange. That is exchange of commodities for

commodities

6. There is limited use of scientific production methods. For example, there is no application of fertilizers, mulching, etc.
7. There is absence of profit motive. Individuals simply produce for basic survival.
8. There is a high degree of conservatism. Production is greatly influenced by social attitudes and cultural beliefs.
9. Land is the basic factor of production characterized by diminishing returns.

Problems (disadvantages/demerits) of subsistence production

1. Poor standards of living due to production of poor quality output.
2. Narrow tax base because of limited production activities. This leads to low government tax revenue.
3. Poor infrastructure in form of poor roads, hospitals, communication services etc.
4. Technological backwardness due to lack of inventiveness as a result of conservatism.
5. Limited and poor quality output hence low levels of economic growth and development.
6. It discourages hard work and expansion of production due to absence of profit motive.
7. It limits the level of employment opportunities due to limited production activities.
8. It leads to low levels of foreign exchange earnings due to lack of trade activities.
9. It discourages the monetization of the economy due to use of barter system of exchange.
10. It promotes conservatism and cultural backwardness which leads to cultural dualism.
11. There is a high degree risks resulting from natural disasters due to over dependency on nature which adversely affects output.

Market (money/indirect/commercial) production

This refers to the production of goods and services for exchange in the market.

Features (characteristics) of market production

1. There is use of money as a medium of exchange.
2. There is existence of profit motive.
3. There is use of modem techniques of production.
4. There is production of high quality output.

S. There is use of hired labour in the production process.

6. There is use of capital intensive technology of production.

Advantages (merits) of market production

1. It encourages the production of high quality output hence better standards of living.
2. It widens the tax base thereby increasing government revenue through taxation.
3. It promotes the development of social and economic infrastructure in form of roads, marketing facilities, banks, telecommunication services etc. This leads to rural transformation.
4. It stimulates capital accumulation as a result of increased savings and production activities.
5. It increases foreign exchange earnings of the country as a result of increased production for export.
6. It promotes the optimal exploitation and utilization of resources. This is as a result of increased production of goods and services for the export market.
7. The presence of profit motive encourages hard work and large scale production. This promotes economic growth and development.
8. It promotes technological progress as a result of increased innovations and inventions.
9. It reduces on the dependency of the economy on other foreign economies for trade, manpower, technology etc.
10. It increases the supply of industrial raw materials for agro based industries. This promotes the

creation of forward and backward linkages between the agricultural and industrial sectors.

Input-output relationships (planning periods)

The input-out relationship explains how output is related to factors inputs. This relationship depends on the planning periods which include:

- **Very short run period.** This is the planning period where all factors of productions are fixed that is, it is impossible to increase on the factor of production with the aim of increasing output. Supply on market can only be increased by drawing stock from stores.
- **Short run period.** This is the planning period in which other factors of production are fixed and others are variable (change) for example land tends to be fixed in the short run while capital and labour on variable. In the short run the supply of land is fixed (perfectly) in elastic) while the supply of capital and labour is elastic therefore output is increased by increasing on the variable factors only and the law of diminishing returns applies.
- **Long run (secular) period.** This is a planning period where all factors of production are viable a part from Technology that is, it is possible to increase on output by varying both the variable and what has been the fixed factors in the short run.
- **Very long term period.** This is where all factors of production are variable including technology. In this planning period technological progress takes place and produces can increases output in the shortest time possible.

Note:

- **Variable factors (Inputs)of production**, are factor inputs whose supply is elastic in the short run. That is, if their demand increases their supply also increases for example labour.
- **Fixed factors of production** are factor inputs whose supply remains constant in the short run for example land.

Short run production Period

The production function is a mathematical relationship between factor inputs and output. The production function in the short run assumes the following;

1. At least one variable factor of production.
2. It assumes constant technology.
3. It assumes that all factors of production are perfectly divisible that is, they can be combined in all proportions.

Determinants of the production function

1. The amount of factor input used like capital, labour, land, etc.
2. The size of the production unit (the firm)
3. The level of prices for factor input
4. The proportion in which the factors of production are combined.

The production function can be expressed in the following ways:

(a) **As a mathematical statement/Equation.** In this case, output is expressed as a function of factor inputs. For example:

(i) $Q= f(K,L)$ where capital is fixed

(ii) $Q = aK + bL$

(iii) $Q = AK^{\alpha}L^{\beta}$ (Cobb Douglas production function)

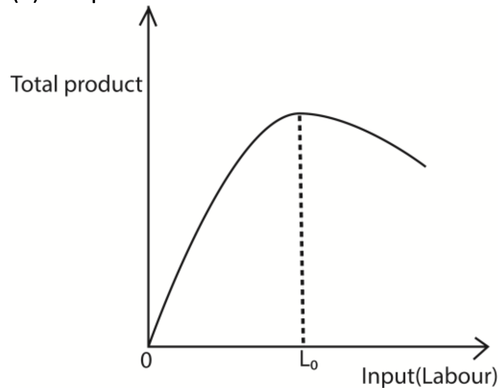
Where Q = level of production, K = capital and L = labour

(b) In mathematical (tabular form)

Input (labour)	Output (units)
10	100
20	200

30	300
50	250

(c) Graphical form



By keeping other factors constant (fixed) and one factor variable (labour) the relationship between output and labour can be explained graphically as shown above. Output increases with increase in labour up to a certain point beyond which output decreases as labour increases.

Variation of output in the Short run

By using the input-output relationship in the short run where we have one variable input (labour) and the fixed factor (land), a change in output can be analyzed in the following ways;

- **Total product.** This refers to the total amount of output produced using both variable and fixed factors of production in a given time.
- **Average product.** This refers to output per unit of the variable input.

  Average product = $\frac{Total\ product\ (output)}{Uints\ of\ a\ variable\ input(factor)}$

Note: If the variable input is labour then,

Average product of labour (AP_L) = $\frac{Total\ product\ (output)}{Uints\ of\ labour}$

- **Marginal product.** It refers to the additional output resulting from the use or employment of an extra unit of variable factor input

  Marginal product = $\frac{Change\ in\ total\ product\ (\Delta TP)}{Change\ in\ uints\ of\ a\ variable\ input(factor)}$

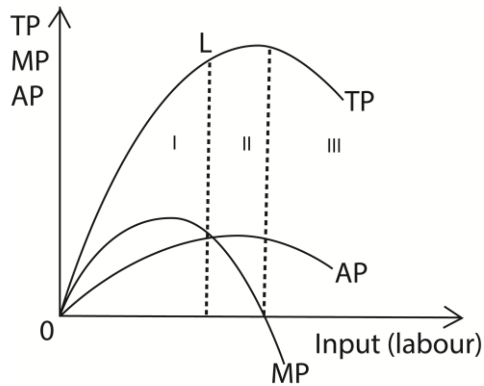
  Marginal product of labour (MP_L) = $\frac{Change\ in\ total\ product\ (\Delta TP)}{Change\ in\ uints\ of\ labour}$

A hypothetical example to show the mathematical relationship between T.P, A.P and M.P

Fixed factor (Land) in acres	*Variable factor (labour)*	*T.P(Q)*	*A.P*	*M.P*
5	1	5	-	-
5	2	15	7.5	10
5	3	45	15	.30
5	4	73	18.5	28
5	5	86	17.2	13-
5	6	91	15.2	5
5	7	91	13	0.

5	8	88	11	-3

Graphical illustration of the relationship between Average product, Marginal product and Total product



From the graph the following is observed;

- T.P begins by increasing, reaches maximum point B and then falls
- Marginal product begins by increasing reaches a maximum and then decreases up to the negatives.
- Average product begins by increasing, reaches a maximum and then falls.
- When total product (TP) is increasing at an increasing rate (up to point L), Marginal product (M.P) is also increasing. When TP is at maximum M.P is zero, when T.P is falling M.P is negative. Therefore M.P is the measure of the rate of change of total product.
- When average product (A.P) is increasing; M.P is higher than AP and when average product (A.P) is falling M.P is lower than A.P and when A.P is at maximum when MP = A.P.
- L is called a point of inflexion. It refers to the point below which MP is increasing and beyond which M.P is declining. OR. It is a point below which total product is increasing at an increasing rate and beyond which total product is increasing at a declining rate.

From the graph the short run input-output relationship can be explained in three stages of Production:-

Stage I: The stage of increasing returns.

This stage starts from zero output up to the point where AP is at maximum. In this stage TP, MP and AP are generally increasing. TP is increasing at an increasing rate. The ratio of the fixed factor to the variable factor is high. That is, the fixed factor is still underutilized by the variable factor. MP is greater than AP. Any rational producer (farm) cannot operate in this stage because an increase in the labour inputs (variable factor) can still lead to increase in output.

Stage II: The stage of diminishing returns.

This is also referred to as the optimal or economic region of production. In this region, MP and AP are declining but MP is still positive. There is efficient utilization of the fixed factor by the variable factor and therefore production should take place in this region. In other words, a rational producer whose aim is to maximize profits should operate in this region. MP is less than AP

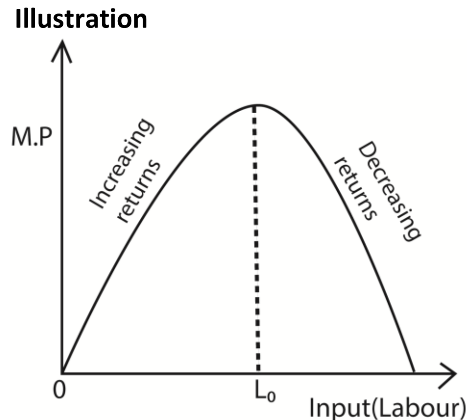
Stage III: The Stage of negative returns.

It is also called the intensive stage. In this stage, TP, AP and MP are declining and MP is negative. This implies, employment of an extra unit of a variable factor would instead lead to a decline in the total output. This is due to over utilization of the fixed factor by the variable factor. It is irrational to operate in this stage since the employment of an extra unit of variable factor leads to less output generated.

The law of diminishing returns (The law of variable factor proportions)

The law states that as more and more units of a variable factor (labour) are added to fixed factor (land), marginal product first increases reaches the maximum beyond which it diminishes.

Illustration



From the graph marginal product increases up to the maximum point beyond which it begins to diminish

Assumptions of the law of diminishing returns

1. It assumes a short run period
2. It assumes existence of a variable factor
3. It assumes existence of a fixed factor
4. It assumes constant technology
5. All units of a variable factor are homogeneous
6. Assumes that all factors of production are divisible and they are easy to change in proportions in which they are combined:
7. It assumes that factors of production are equally efficient in the production process. That is, they have the same skills, level of education etc.
8. It assumes constant factor prices.

Applications (importance) of the law of Diminishing returns

1. It makes it possible for the producers to determine the optimum level of a variable factor which can be combined with fixed factor to yield maximum output.
2. It's used as a basis for the formulation of the law of diminishing marginal utility under the theory of demand. .
3. The law forms the basis of Malthusian population theory which explains the relationship between population growth and food supply.
4. It forms the basis of the marginal productivity theory of wages. That is a wage given to workers should be equal to the value of his/her marginal product.
5. The law helps the producer to determine the profit maximizing level of output that is profits are maximized were marginal product is at maximum.

Variation of output in the long run

In the long run, all factors of production are variable apart from technology. Therefore, it is possible for the firm to vary (change) all the factor inputs in a given scale/proportion in order to produce a given level of output. The production relationships in the long run can be analyzed using the law of returns to scale in

terms of increasing, constant and decreasing returns to scale.

Returns to scale refer to the change in output when all factor inputs are changed in a given proportion. It shows the relationship between the proportionate change in the factor inputs and corresponding changes in the quantity of output produced in the long runs

The law of returns to scale can be analyzed in three stages:

Stage I: Increasing returns to scale. This is where, when factor inputs double, output (returns) more than doubles. Taking capital and labour as variable factor inputs, increasing returns to scale can be illustrated as shown below.

Capital	Labour	Output (kg)
2	10	100
4	20	300
8	40	700

Stage II: Constant returns to scale: This is where when factor inputs are doubled, output also doubles. That is inputs and output increase in the same proportion. This stage indicates the optimum size of the firm. It is illustrated as shown below:

Capital	Labour	Output (kg)
2	10	100
4	20	200
8	40	400

Stage III: Decreasing (diminishing) returns to scale. This is where an increase in factor inputs exceeds the increase in output in terms of scale. That is, when factor inputs are doubled output less than doubles.

Capital	Labour	Output (kg)
2	10	100
4	20	250
8	40	250

Economies and diseconomies of

Economies of scale (E.O.S) are cost advantages gained by companies when production becomes efficient. Companies can achieve economies of scale by increasing production and lowering costs

Note:

- **Real economies of scale;** are advantages(benefits/gains) enjoyed by the firm as a result of using reduced physical quantities of inputs used in the production of a given level of output. For example the number of units of inputs may change from 100kgsto 70 kg to produce the same level of output.
- **Pecuniary (Financial) economies of scale;** are advantages (benefits or gains) enjoyed by the firm inform of paying lower prices for factor inputs used in the production process. This normally occurs when the firm buys factor inputs in large quantities.

Note: Economies of scale can be internal or external.

- **Internal economies of scale;** are advantages (benefits) enjoyed by the firm inform of reduced average costs resulting from the firm's own expansion.

- **External economies of scale;** are advantages (benefits) enjoyed by the firm in form of reduced average costs due to the expansion of the industry as a whole.

Examples of internal Economies of scale

1. **Technical internal E.O.S.** These arise from the use of better methods (techniques) of production which results into lower average costs of production For example, a large firm can manage to purchase specialized machines like tractors which increase output at reduced average costs.
2. **Managerial (Administrative) internal E.O.S**. Large firms can acquire highly qualified personal in various fields for example, accountants, marketing managers, production managers, etc. These can help to do the work efficiently which lead to increased output at reduced average cost.
3. **Marketing internal E.O.S.** These are advantages enjoyed by the firm through buying and selling in large quantities e.g. when raw materials are purchased in bulk, the cost per unit are reduced also when goods are sold in bulk more revenue is realized by the firm hence reduced average cost.
4. **Financial internal E.O.S.** A large firm is able to secure a loan from financial institutions like commercial banks. This is because it has enough collateral securities and it is highly trusted by financial institutes.
5. **Transport internal E.O.S**. These result from a large firm transporting raw materials or commodities in bulk (large quantities) which reduces the cost per unit of transportation. For example the unit cost of transporting 600tones per trip is different from the unit cost of transporting 100 tones per the same trip.
6. **Storage internal E.O.S**. A large firm enjoys by storing raw materials or commodities in bulk as compared to small firms, That is, large firms incur lower: costs per unit as a result of storing in large quantities.

7, **Research internal E.O.S**. Large firms are able to carry out research as a way of improving on the quality and quantity of their output unlike small firms.

8. **Risks bearing internal E.O.S**. Large firms are able to diversify their output by producing a wider range of products and selling in different markets. In addition they are also able to insure their business activities against certain risks so to avoid losses.
9. **Social (welfare) internal E.O.S**. Large firms can afford to provide their workers with facilities like medical, transport, accommodation, higher wages, etc. all of which motivate their workers and make them feel contented. This increases efficiency hence reduced average c o s t s .

Examples of external economies of scale

1. **Transport external E.O.S.** Firms in one industry can share transport facilities and other social infrastructure which results into reduced average costs of transportation to each firm.
2. **Information external E.O.S**· Firms in one area can share information collected from various sources e.g., information concerning market prices, new commodities on market, exchange rates and information concerning other business opportunities. Such collective information can help to reduce the average costs to each firm in the industry.
3. **Technical external E.O.S.** Firms in one area can share specialized machinery and technical personnel, for example they can share maintenance facilities like workshops, garages etc. This implies sharing costs hence reduced average costs for each firm.
4. **Financial external economies of scale**. Firms in one area can attract financial institutions like banks, building societies advertising agencies, insurance companies, etc. This makes it possible for individual firms to acquire loans at lower interest rates and to carry out other activities at reduced charges hence reduced average costs to each firm.

5. **Marketing external economies of scale.** Firms under one industry can sell commodities and buy raw materials collectively in order to reduce on the costs and even enjoy huge discounts when buying. In addition firms may form marketing co-operatives which can assist in the selling of their products as an industry.
6. **Specialization external E.O.S.** Firms under one industry can enjoy reduced average costs when they specialize in different in the production process e.g. within the same industry, some firms may provide raw materials used by other firms through the backward and forward linkages making each firm to operate at lower average costs
7. **Welfare external economies of scale.** Firms under one industry can be able to establish certain social infrastructures like hospitals, schools, recreational centers, etc. which can improve on the welfare of their workers.

Diseconomies of scale

These are disadvantages accruing to the firm of in form of increased average costs resulting from over expansion of the scale of production of the firm or industry.

Note. Diseconomies of scale can be internal or external.

- **Internal diseconomies of scale.** These are disadvantages accruing to the firm in form of increased average costs resulting from over expansion of the scale of production of the firm.
- **External diseconomies of scale**. These are disadvantages accruing to the firmin form of increased average costs resulting from over expansion of the industry.

Examples of Internal Diseconomies of scale

1. **Managerial internal D.O.S.** As the firm over expands beyond its optimum level, supervision of workers, decision making and coordination becomes difficult and this results into increased average costs of management.
2. **Financial internal D.O.S.** Due to over expansion of the firm, it becomes very difficult to get enough money to finance all the production activities. This may force the firm to borrow at very high interest rates hence increasing the average costs of production.
3. **Marketing internal D.O.S.** As the firm over expands it may get problems in form of limited markets for its products. In addition, prices if inputs may rise due to their increased demand and this results into increased average costs of production.
4. **Technical internal D.O.S.** As the firm over expands the rate of depreciation of the machines increases. This forces the firm to incur high costs of repair and maintenance hence increased average costs of production
5. **Transport internal D. O.S.** As the firm expands the transport facilities may be over utilized due to transporting heavy and bulky products. This results into break down of infrastructure and vehicles, forcing the firm to incur higher costs of repair.
6. **Storage internal D.O.S.** This occurs when the firm has limited storage facilities yet the output is increasing. This forces the firm to incur high storage costs hence diseconomies of scale.
7. **Social internal D.O.S.** These can be in form of congestion which results into easy spread of diseases, increased theft etc.

Examples of external Diseconomies of scale

1. **Congestion**. This occurs when a number of firms compete for the available space for expansion.

2. **Pollution.** When many firms concentrate in one area, there is too much wastes and fumes from these firms or factories which pollute the environment. This increases the average costs of fighting pollution or removing the wastes of each firm,
3. **High competition**. The firms begin to compete for the facilities like ware houses, markets, raw materials etc. This increases the prices hence higher average costs of production for each firm,

Revision Questions

Section A questions

1 (a) Define the term "production"

(b) Mention any three agents of production in your country.

2 (a) What is meant by factor price

(b) Mention any three factor prices in an economy

3 Give any four determinants of demand for factors of production.

4 (a) What is meant by factor specificity?

(b) Explain the relationship between specificity and mobility of a factor of production

5 (a) Distinguish between horizontal and vertical factor mobility

(b) Give two examples of vertical mobility of labour.

6 (a) Distinguish between specialization and division of labour

(b) Give two advantages of specialization in an economy.

7 (a) What is meant by factor mobility?

(b) State three causes of factor immobility in your country

8 Mention four factors which limit occupational mobility of labour in your country

9 (a) Define Marginal efficiency of capital

(b) Give any three determinants of Marginal efficiency of capital.

10 Make a difference between private Limited companies and public Limited companies.

11 Distinguish between the following terms

(a) Unlimited liability and limited liability

(b) A share and a stock

(c) A money market and a capital market

12 Mention four features stock exchange markets in developing countries

13 (a) State the law of diminishing returns

(b) Mention any three usefulness of the law of diminishing returns

14 (a) State the law of variable factor proportions.

(b) Mention any three assumptions underlying the law above.

15 (a) Define marginal efficiency of a factor of production

(b) Mention three determinants of marginal efficiency of a factor

16 Outline four sources of business finance in your country.

17 (a) Differentiate between interest and profit

(b) Calculate the compound interest earned on the principle sum of 100.000/= lent for a period of three years at an interest rate of 10% per annum.

18 (a) What is meant by subsistence production

(b) Mention three features of subsistence (direct) production.

19 (a) What is meant by market (indirect) production

(b) Give three merits of market production.

20 (a) Distinguish between Pecuniary and real economies of scale

(b) Give two examples of pecuniary economies of scale

Section B questions

1. (a) With examples, distinguish between Horizontal and Vertical mobility of labour.

   (b) Explain the determinants of labour mobility in your country.

2. (a) Explain the role of capital accumulation in economic development

   (b) Discuss the factors that influence capital accumulation in your country

3 (a) What is meant by the term capital accumulation and capital depreciation

(b) Suggest measures that should be taken to increase the rate of capital accumulation in your country.

4 (a) Explain the barriers to occupational labour mobility.

(b) Suggest policies that can be adopted to improve labour mobility in your country.

5 (a) Distinguish between economies of scale and diseconomies of scale.

(b) Discuss the various economies of scale enjoyed by firms in your country

6 (a) Distinguish between external economies of scale and internal economies of scale

(b) Account for the survival of small firms despite the presence of economies of large scale production.

Concept of the firm

- **A firm** is a production unit under one management which organizes resources to produce goods and services.
- **An industry is** a collection of firms dealing in related products for example foot wear industry plastic industry, textile industry etc.

Types of industries

1. **Rooted Industries**. These are industries located near the source of raw materials e.g. Cement industries located near lime stone rocks, sugar industries located near, sugar cane plantations
2. **Footloose Industries.** There are industries which can be located anywhere without considering the source of raw materials or market.
3. **Tied Industries.** These are industries located near the market for their finished products e.g. furniture industries, bakeries, carpentry workshops soda industry, etc.

Objectives of the firm

1. **Profit maximization.** This is a major objective of the firm. The firm tries to minimize the costs and maximize the revenue the revenue in order to maximize profit. Profits are maximized at a point where marginal cost equals to marginal revenue.
2. **Sales revenue maximization.** The firm may aim at increasing sales through reduced prices, advertisement and other incentives given to customers with the aim of maximizing the sales revenue.

3. **Good image.** Some firms do not aim at profit making but to serve the community and maintain their reputation especially parastatals. This can be achieved by fixing low average prices, providing quality products and services that are appropriate to community needs.
4. **Market expansion.** Firms aim at getting a bigger market share as compared to their competitors through market research, supplying good quality products, advertisement etc.
5. **Long run survival.** The firm may operate in such way to exist for a long time. This can be achieved through proper management and making proper decisions.
6. **Entry limitation.** Some firms are interested in preventing other firms from entering the industry. This is achieved by setting lower prices that make entry of new firms in the-industry un attractive. This is referred to as **limiting pricing policy**.
7. **Employee welfare maximization**. Some firms aim at maximizing the welfare of their workers increasing the wage and non-wage benefits,

Survival of small scale firms alongside large firms

As firms increase their scale of operation, they enjoy economies of large scale. Therefore every firm must strive hard in order to reap such benefits. However some firms continue to operate on a small scale because of the following factors.

1. **Limited capital.** Small firms may be limited by capital for their expansion and this makes them to remain small for a long time.
2. **Limited Market Size.** Some firms may remain small due to a small market size which necessitates the production of low output. Therefore the firm remains small to avoid loss resulting from over production.
3. **Using bi-products from large firms.** Small scale firms may survive When they are using raw materials supplied by large firms. This makes them to remain in a small state despite the benefits of large production.
4. **Providing personalized services.** Small scale firms which provide personal services and pay individual attention to their customers like doctors, tailors may not need to operate on a large scale if they are to provide standardized services to their customers.
5. **Need for personal contact.** The owners of small scale firms can easily develop personal contacts with their customers. This may help the firms to keep on operating unlike large firms where the owners may not develop personal contacts with their customers e.g. salons.
6. **Simplicity in management.** Small scale firms are easy to manage that is there is easy communication and co-ordination within the small firm unlike large firms.
7. **Beginner firm.** When the firm has just started, it operates on a small scale because time is required for it to expand and enjoy the economies of large scale.
8. **Fear of diseconomies of scale.** Unlike large scale firms, small firms do not face internal diseconomies of scale and therefore, this forces them to small for a long time.
9. **Production of very expensive products.** Firms engaged in the production goods of ostentation may remain small because of the nature of their expensive products and the need to show class among their customers. Examples are firms dealing in sports cars, expensive jewelry etc.
10. **Flexibility in production.** Small scale firms can easily change the line of production without wasting much resources for example when the market demand changes, a small firm does not lose so much as compared to a large firm,
11. **Production of bulky and fragile products.** Small scale firms dealing in bulky and fragile products may feel secure to remain small to avoid risks of over expansion e.g. Firms dealing in glass making, brick making, eggs etc.
12. **Fear of paying taxes to the government.** Small firms can easily avoid and evade paying taxes and this

makes them to operate on a small scale.

Merging (Integration) of firms

This is where two or more firms join together to form one business unit with the aim of enjoying economies of large scale.

Reasons (Aims/Objectives) for merging/integration

1. To **expand the market** in form of increased sales resulting from large production.
2. To **ensure efficient management,** that is, different firms can combine different management skills which enable them to operate more effectively and efficiently.
3. **To reduce on the risks involved in business operations.** This is because under mergers risk bearing economies of scale can be enjoyed through diversification in production.
4. **To monopolize business activities.** When a number of firms combine to form one large firm, they can outcompete other small firms hence enjoying the monopoly power.
5. **To increase employment opportunities.** A number of business activities are created due to large scale of production hence more employment opportunities.
6. **To increase resource utilization.** A combined big firm can be able to raise more capital in order to increase on the utilization of resources and produce more goods and services, in case small firms have been operating at excess capacity.
7. **To ensure reliable supply of raw materials, f**or example when one firm is using bi-products of another firm as its source of raw materials.
8. To **increase on the profits** of each firm within the merger due to the large scale of operation of the merger.
9. To **ensure increased quality and quantity of output**. For example, through joint research, firms can be able to improve on the quality of their products.
10. **To promote specialization in production.** Each firm under the merger can specialize in producing a given product. This increases the efficiency and output of each firm.

Types of Mergers

(a) **Horizontal Mergers.** This is where two or more firms in the same industry and at the same stage of production join together so as to enjoy economies of large scale. For example Toyota Company merging with Nissan Company.

(b) **Vertical mergers.** This is where two or more firms in the same industry and at different stages of Production, join together (amalgamate). For example sugar firm merging with sugar cane producing firm, textile firm merging with cotton producing firm etc.

There are two types vertical mergers;

(i) **Forward Vertical Mergers.** This is the form of vertical integration where a firm at a lower stage of production merges with the firm at higher stage of production like a secondary school merging with a university, sugarcane firm initiating the process of merging with a sugar firm etc.

(ii) **Backward Vertical Mergers.** This is the form of vertical integration where a firm at higher stage of production absorbs a firm at a lower stage of production. For example the sugar firm absorbs a sugar cane plantation, a steel manufacturing industry absorbing an iron supplying company etc.

Note

- **Backward linkages.** This is a situation where the existing large firm or industry leads to establishment of another industry by providing inputs (raw materials). For example a sugar

industry having a backward linkage to a firm that grows sugar cane, a secondary school has backward linkage to a primary school

- **Forward linkages.** This is a situation where an existing firm or industry leads to the establishment of another firm to create market for its products. A sugar factory has a forward linkage to supermarket or restaurant, a secondary school has a forward linkage to a university.

(c) **Lateral integration/merger is** the expansion of a corporation to include other previously competitive enterprises within the same sector of goods or service production. For example **one candy maker takes over another candy maker**.

(d) **Conglomerate (Diversifying) mergers.** This is a merger between firms that are involved in totally unrelated business activities., For example a brewery industry merging with a textile industry, a sugar industry merging with a furniture industry. A conglomerate merger provides the merging companies with the advantage of diversification of business operations and target markets.

Factors which make it difficult for firms to Merge

1. Fear of complexity in management in form of bureaucracy
2. Fear of losing independence enjoyed by individual firms
3. Differences in aims and objectives of individual firms
4. Government policy which may be aimed at discouraging merging of firms
5. Fear of losing employment due to merging for example the managers
6. Fear of paying high taxes by one single big firm
7. Fear of losing personal contact with the clients of the firm.
8. Fear of under taking high risks associated with large scale operation
9. Fear of not achieving the optimum level of production due to a large scale of production
10. Fear of diseconomies of large scale. For example marketing and technical diseconomies of scale
11. Market potential may favor competition which forces firms to remain independent.

Advantages of merging of firms

1. It helps to expand the market in form of increased sales resulting from large firms.
2. It increases employment opportunities as a result of large scale production.
3. It increases utilization of resources hence increased output.
4. It helps to minimize unnecessary competition among firms producing related products in form of duplication of commodities.
5. It ensures reliable supply of raw materials.
6. It improves efficiency in management. This is because people of different expertise and experience are combined together under the merger.
7. It reduces the cost of advertising for individual firms.
8. It enables firms to carry out research jointly at a reduced cost.
9. It enables firms to access capital (loans) from financial institutions as a result of merging.
10. It enables the firms to share risks involved in production.
11. It enables firms to access the use of better techniques of production.
12. It increases profits of each firm due to large scale production.
13. It promotes specialization among firms which increases the level of output.

Disadvantages of merging of firms

1. It leads to over exploitation of resources.
2. It increases pollution due to the existence of the industry.
3. It leads to congestion of firms within the industry.
4. It leads to over production due to large scale production hence wastage of resources.
5. It leads to price fluctuations due to over production.

6. It leads to loss of independence of individual firms
7. It increases complexity iii management due to large scale operation.
8. It leads to emergency of collusive monopoly and its associated negative implications
9. It leads to unemployment in firms when the firms use capital intensive techniques of production.

Location of firms (Industries)

This refers to the setting up of a firm in a particular area.

Factors affecting the location of firms

1. **Availability of raw materials.** In situations where the raw materials are bulky the firm finds it cheaper to be near the source of raw materials. For example the location of cement factory in Tororo was due to the presence of limestone rocks.
2. **Availability of power supply.** Industries which require a lot of power are located near source of power, for example, industries manufacturing metal products like steel rolling mills. This explains why Jinja became the industrial town of Uganda due to the presence of hydroelectric power source.
3. **Availability of market.** Industries or firms producing perishable commodities like flowers, bread etc. are located near the market to avoid their products from getting spoilt or damaged while in transit. In addition, industries producing fragile and bulky commodities like glass and bricks need to be located near market areas.
4. **Availability of transport facilities.** There is need to locate a firm where transport is readily available and cheap .For example along railway lines, good road networks, water ways etc. This helps to minimize on the transport costs.
5. **Availability of water supply.** Some firms require water as a raw material in the production process, for example, water is used as an input in the brewery industry and it can be used for waste disproval by many industries. Therefore, it is economical for some industries to be located near a water source.
6. **Availability of land.** Land provides a site where a production unit can be established. Therefore it is economical for firms to be located in areas where land as available and cheap so as to provide room for industrial expansion.
7. **Availability of cheap labour.** Firms are located in areas where labour is cheap and is in enough supply. This is true with firms which are labour intensive.
8. **Government policy.** The government may be aiming at balanced regional development, employment creation, controlling rural urban migration which may force the government to locate a firm in a certain area.
9. **Political climate.** The location of a firm is determined by political stability (security) of the area. This is because a politically stable area provides a conducive investment climate which attracts firms to be located in a certain area.
10. **Availability of economic infrastructure.** For example banks, insurance companies, advertising companies etc. may force firms to concentrate in an area.
11. **Availability of suitable climate**. Firms are located in areas where the climate is generally favorable for their activities. For example it is not advisable to locate a paper industry in a swampy area.

Localization of firms

This refers to the concentration of firms in a particular area.

Factors which influence the localization of firms

1. **Industrial inertia.** This is the tendency of the existing firms to remain established in a given area even

when the location factors are exhausted.

2. **Availability of ready market.** The already established firms may provide market for the incoming firms and the new firms may provide raw materials for the already established firms and therefore such firms may decide to localize in one area.
3. **Power supply.** Availability of cheap and constant power supply may lead to the concentration many firms in one area.
4. **Availability of enough land.** When land is available and cheap, many firms concentrate in that area because of the existence of room for expansion.
5. **Availability of supply of skilled and unskilled labour**. When labour is readily available, and in large quantities, many firms may be established in that area hence localization .For concentration of many firms in Kampala.
6. **Security and political stability.** Localization of firms may be due to constant security and political stability which attract many firms in a particular area.
7. **Availability of water supply.** Water is needed for industrial purposes in various ways, for example, it is used an input, for waste disposal, a cheap means of transport etc. This can attract firms to concentrate in such an area so as to minimize on production costs.

The revenue concept of the firm

Revenue is the receipts (returns) derived from the sale of a given level of output at a given price in a given time.

Terms used under revenue

Total Revenue (T.R); this is the total amount of money the firm receives from the sale of its output.
TR = P x Q Where P = Price of each unit of output and Q = total out put

Average Revenue (A.R); refers to total revenue per unit of output sold

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

Note: Average revenue is the same as price under perfect competition

$$AR= \frac{TR}{Q} = \frac{P\ x\ Q}{Q} = P$$

Marginal Revenue (MR.) refers to the additional revenue resulting from the sale of an extra unit of output

$$MR = \frac{Change\ in\ total\ revenue}{Change\ in\ output} = \frac{\Delta TR}{\Delta Q}$$

Example

Output	TR	AR	MR
1	500	500	-
2	800	400	300
3	1000	333	200
4	1300	325	300
5	1600	320	350

The theory of costs

A **cost in economics** refers to amount of money paid (incurred) by the firm to produce a given level of output in a given time. Therefore costs are expenses of the firm in the production process. A firm's cost of production also includes all the opportunity costs of producing its output of goods and services.

Types of costs of a firm

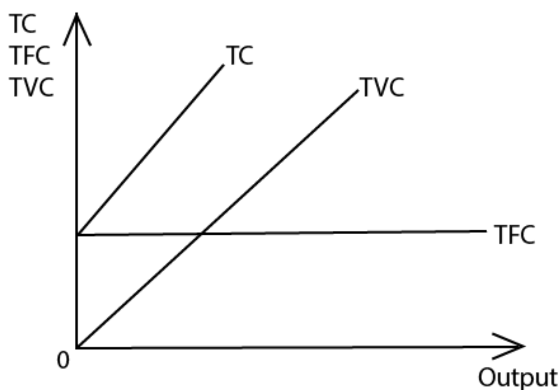
Implicit (transfer) costs. There are costs which are not considered when calculating profits of the firm by the accountants e.g. costs in form of noise, pollution, family labour, self-owned inputs, etc. They are normally assumed to be zero when computing profits.

Explicit (nominal/money) costs. These are costs which are considered when calculating profits of the firm by the accountants e.g. costs of raw materials, hired labour, transport costs etc.

Note. Explicit cost can either be fixed costs or variable costs.

Fixed (Supplementary/Overhead) costs. These are the costs incurred by the producer irrespective of the level of output. OR These are costs which remain constant irrespective of the level of output. For example the cost of land, building, vehicles, salaries for top management, rent.

Variable (Prime) Costs. These are costs which change with the changes in the level of output, that is; when the level of output increases, variable costs also increase for example the cost of raw materials, wage payments, transport costs, electricity etc.
Total costs (TC) = Explicit costs + Implicit costs
Total costs (TC) = Total Fixed costs (TFC) + Total Variable costs (TVC) + Implicit costs
Assuming that implicit costs = 0
TC =TFC + TVC.



Assuming zero implicit cost, TC = TFC + TVC.
When output is zero as shown from the graph, there are no variable costs (TVC = 0). This implies that the producer has not yet started producing and therefore he cannot incur any variable cost. Therefore Total Cost = 0 + Total Fixed cost (TC = TFC).

When output increases, TVC and TC increase by the same amount. This is because TFC are constant at all levels of output and an increase in TC results from the increase in TVC.

Variation of costs in the short run

In the short run, there are both variable costs and fixed costs of production. This is because some factors of production are variable and others are fixed.

Average Fixed Costs (AFC). These are total fixed costs incurred in producing an extra unit of output in a given time. Or these are fixed costs per unit output produced by the firm in a given time

AFC = $\frac{Total\ fixed\ costs}{Output} = \frac{TFC}{Q}$

Example 1

Given TFC = 8000/= and output = 20kg, find AFC

AFC = $\frac{Total\ fixed\ costs}{Output} = \frac{TFC}{Q} = \frac{8000}{20} = 400 shillings\ per\ kg$

Average variable costs (AVC) are total variable costs per unit of output produced in a given time. Or average variable costs are total variable costs incurred in producing in producing one unit of output in a given time.

AVC = $\frac{Total\ variable\ costs}{Output} = \frac{TVC}{Q}$

Example 2

Given TVC = 10000/= and output is 200kg, find AVC

AVC = $\frac{Total\ variable\ costs}{Output} = \frac{TVC}{Q} = \frac{10000}{200} = 50 shilling\ per\ kg$

Marginal cost refers to additional costs resulting from the production of an extra unit of output in agiven time

MC = $\frac{Change\ in\ total\ costs}{Change\ in\ output} = \frac{\Delta TC}{\Delta Q}$

Example 3

Given that output increased from 50kg to 75kg and total costs increased from 20,000/= to 25,000/=. Calculate MC.

MC = $\frac{\Delta TC}{\Delta Q} = \frac{25000-20000}{75-50} = \frac{5000}{25} = sh. 200\ per\ kg$

Average total cost (ATC/AC) is the total costs of production per unit of output produced by the firm in a given time. Or average total costs are total costs incurred in producing one unit of output in a given time.

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

Example 4

Given that TC = 400/= and output is 20 units, calculate ATC (AC)

ATC = AC = $\frac{TC}{Q} = \frac{400}{20} = sh. 20\ per\ unit$

Not that

TC = TFC + TVC;

Divide through by Q

$\frac{TC}{Q} = \frac{TFC}{Q} + \frac{TVC}{Q}$

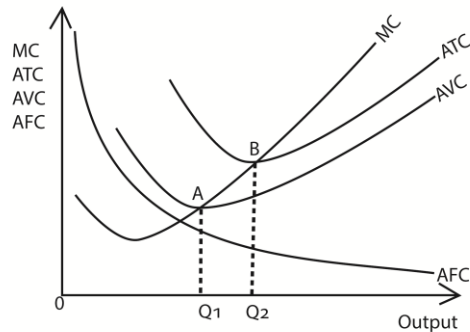
⇨ ATC = AFC + AVC

Numerical example to illustrate the short run variation of costs of a firm

Output Q	TFC	TVC	TC	MC	ATC	AFC	AVC
0	100	0	100	-	-	-	-
1	100	400	500	400	500	100	400
2	100	700	800	300	400	50	350

3	100	900	1000	200	333	33	300
4	100	1200	1300	300	325	25	300
5	100	1550	1650	350	330	20	310
6	100	2000	2100	450	350	17	333

Graphical relationship between AFC, ATC, AVC and MC



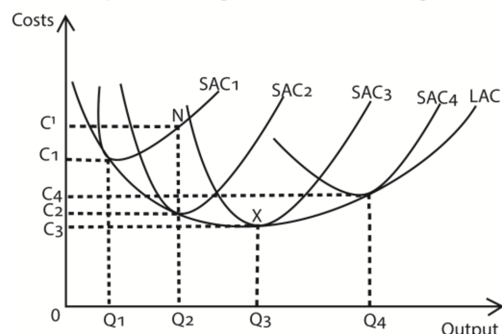
From the graph, MC, ATC and AVC curves a r e *U* - shaped because of law of diminishing returns

- AVC curve lies below ATC curve because AVC is part of ATC.
- As output increases the AVC curve comes closer to the ATC curve because of the continuous fall of AFC.
- The MC curve lies below the ATC and AVC curves when they are declining and it lies above them when they are rising.
- The MC curve cuts the AVC and ATC curves at their lowest (minimum) points (points *A* and *B* respectively).
- The minimum point of the AVC curve *(point A) is* on the left hand side of the minimum point of the ATC curve *(point B).*
- The ATC curve first decreases as output increases because of the fall in AVC and AFC. After point A, t h e AVC curve begins to rise but the ATC curve continues to fall because o f the continuous fall in AFC which outweighs the rate at which AVC is increasing.
- After point B the ATC Curve begins to rise because of the increase in AVC outweighs the rate at which AFC is falling.

Variation of costs in the Long run

In the long run, there are no fixed costs and therefore, all costs of production are variable. The firm is able to adjust its plant size by varying all the costs of production and at the same time producing at the minimum point of the long run average cost curve.

Relationship between long run and short run average costs

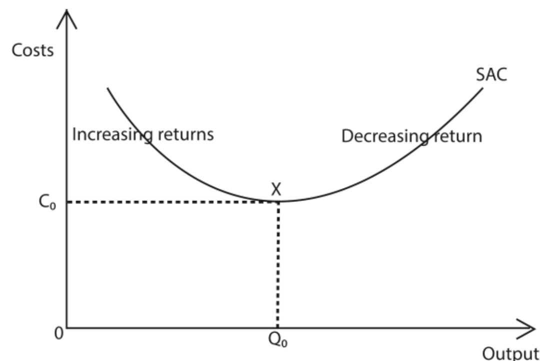


LAC - long run average cost curve; SAC - short run average cost curve

- The relationship between LAC and SAC curves is that the LAC curve is a locus of the series of the tangents of the minimum points of the SAC curves as shown from the graph.

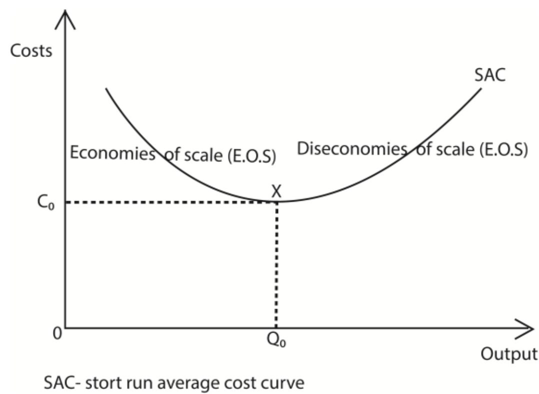
- The LAC curve is U-shaped but flatter as compared to SAC curve because of the gradual decline in the Average costs and the gradual increase in the average costs after the optimum point X which is due to economies and diseconomies of large scale respectively.
- The LAC curve is called the envelope curve or planning curve because it encloses all the short run average cost curves. The envelope curve is locus of the tangents of the minimum points of the short run average cost curves. Therefore a firm to produce more output in the long run, it must adjust its plant size which allows it to produce at the minimum level of the average cost curve.
- From the graph, to produce output OQ_2, the firm can either use plant size of SAC_1 or SAC_2. However the firm chooses the scale of operation of plant size SAC_2 to produce OQ_2 because costs CC_2 is lower than OC_1 indicated at point N on SAC_1.
- Therefore it is rational for the firm to use the plant size which produces output at the minimum possible average cost . For example output OQ_1 is produced at costs OC_1, on using plant size SAC_1, OQ_2 is produced at costs OC_2 using plant size SAC_2, OQ_3 is produced at costs OC_3 using plant size SAC_3 and so on.
- The process of changing the plant size of the firm according to the short run average cost curves continues as output increases until the optimum size of the firm is reached at point X. Beyond point X the average costs begin to increase as output increases.

Note: The average cost curve is U-shaped in the short run because of the law of diminishing returns which states that as more units of variable factor are added to fixed factor marginal product first increases up to a certain point beyond which it declines



SAC- stort run average cost curve

- From the graph the curve begins by sloping down wards as output increases because of the increasing returns. This is mainly due to increased utilization of the fixed factor by the variable factor leading to a decline in costs per unit output. At point X, the firm incurs the minimum possible costs (C_0) and producing the maximum possible output (Q_0). Beyond point X the average costs begin to rise because of the diminishing returns. This is mainly due to over utilization of the fixed factor by the variable factor hence the U-shape of the Average cost curve.
- The average cost curve is U-shaped in the long run because of the economies and diseconomies of scale. Economies of scale refer to the advantages or benefits enjoyed by the firm in form of reduced average costs due to the expansion of the industry or the firm itself. Diseconomies of scale refer to disadvantages accruing to the firm in form increasing average costs due to over expansion of the industry or the firm itself.



Note

Before point X the firm operates at excess capacity. Excess capacity is a situation where the firm produces output which is less than optimum output. OR. It refers to the state of underutilization of the available resources by the firm or economy such that the output produced is less than the optimum output.

Causes of excess capacity

1. Limited or inadequate capital
2. Presence of monopoly tendencies in the economy
3. Use of poor technology.
4. Limited skilled labour
5. Limited market
6. Political instabilities
7. Poor social and economic infrastructure
8. Inadequate entrepreneurs
9. Unfavorable government polices like high taxation.

Note: An **optimum firm.** This is a firm which produces the maximum possible output at the minimum possible costs. OR. It is a firm which operates at the minimum point of the average cost curve.

- **Equilibrium of a Firm.** A firm is in equilibrium (maximizes profits) when its marginal revenue (MR) is equal to marginal cost (MC) at higher levels of output.
- **Equilibrium of an industry.** An industry is said to be in equilibrium when there is no tendency for firms to leave or enter the industry. This means that each firm in the industry is in equilibrium. When the firm is in equilibrium, there is no tendency for its output to increase or reduce.

Market structures

A **market is a place**, area or medium, through which buyers and sellers exchange commodities,

A *market structure* refers to the characteristics governing a particular market which influence the performance of firms or buyers and sellers in that particular market.

Basically, there are four major types of market structures and these include;

1. Perfect competition
2. Monopoly
3. Monopolistic (imperfect) competition
4. Oligopoly

These market structures can be classified basing on the following features (characteristics):

1. **Number of firms.** Many firms: Perfect competition and monopolistic competition (imperfect competition); few firms: Oligopoly; One firm: Monopoly
2. **Degree of entry and exit.** Free entry and exit: Perfect competition and monopolistic competition; Restricted entry: Oligopoly; Blocked entry: Monopoly
3. **Degree of product differentiation.** Homogenous products: Perfect competition; Differentiated products: Monopolistic competition, Differentiated oligopoly
4. **Degree of advertisement.** No advertisement: Perfect competition; Informative advertisement: Monopoly; Persuasive advertisement for example monopolistic competition, oligopoly.
5. **Degree of knowledge or information about market conditions.** Perfect knowledge: Perfect competition; Limited information or knowledge: Monopolistic competition, monopoly, oligopoly
6. **Degree of government intervention.** No government intervention: Perfect competition; Government intervention: Monopoly, oligopoly, monopolistic competition.

Perfect Competition Market structure

This is a market structure characterized by the following features.

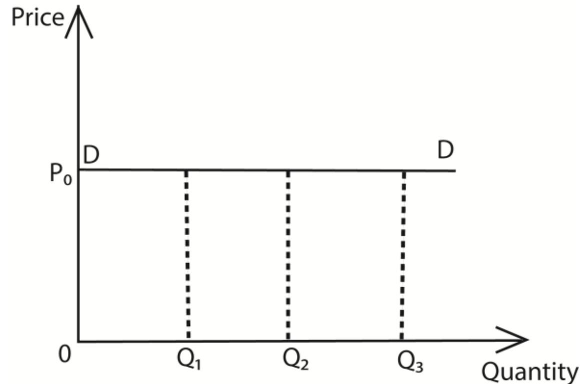
1. **Many firms (buyers and sellers).** There are many sellers and buyers involved in this market structure and therefore, there is no single firm which can influence the market price. Prices are determined by the forces of demand and supply.
2. **Freedom of entry and exit.** Firms are free to enter or leave the industry. When the firms in the industry are making profits, new firms are free to enter and when firms in the industry are making losses, some firms are free to leave the industry.
3. **Homogenous products.** All firms under this market structure sell identical products. These force them to charge a uniform price.
4. **There is no advertisement.** This is because under perfect competition all firms sell homogenous products and they charge a uniform price. Therefore, there is no need to advertise.

S. **Perfect knowledge about market conditions**. There is no ignorance on the side of the buyers about the prevailing market prices, quality of the products etc.

6. **No government intervention.** Under this market structure, the government does not interfere in economic activities in form of taxation and fixing prices for commodities.
7. **Sellers are price takers.** That is, there is no single seller who can influence the price of the commodity. This is because the prices of the commodities are determined by market forces of demand and supply. .
8. **There is perfect divisibility and mobility of factors of production.** That is, there is a possibility of dividing factors of production into smaller units during the production process and

factors of production are geographically and occupationally mobile.

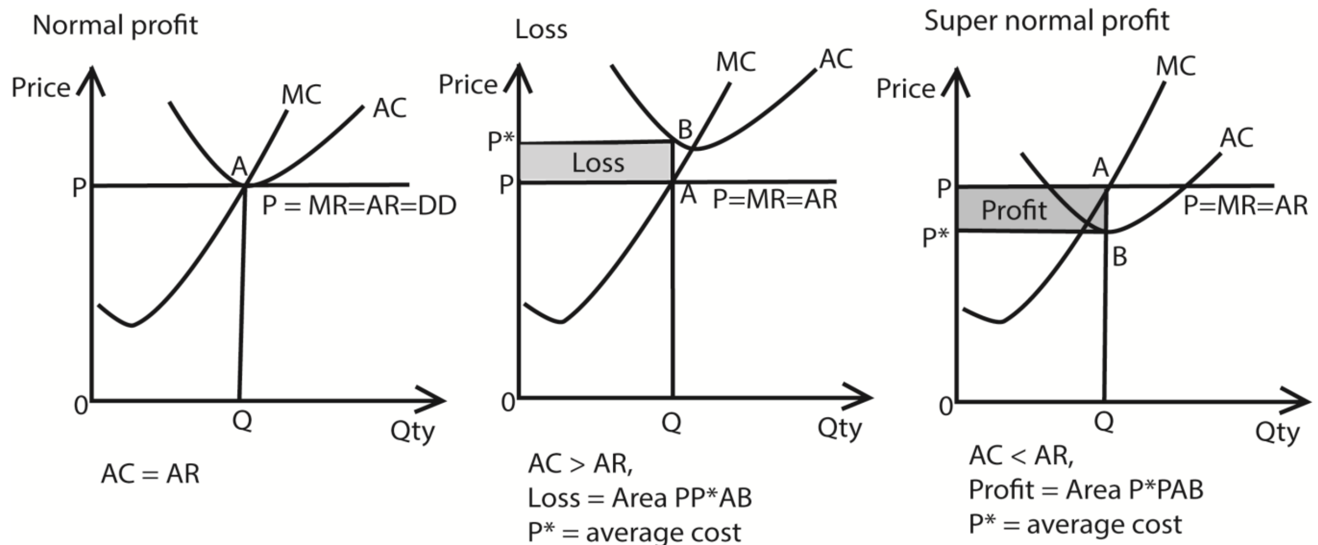
9. **Perfectly elastic demand curve.** The demand curve of the firm under perfect competition is perfectly elastic. This is because all firms charge a uniform price and therefore no single firm has the ability to fix its own price.



Note: Pure competition. This is a market structure which satisfies all the features of perfect competition apart from perfect knowledge, mobility and divisibility of factors of production.

Short run equilibrium position of afirm under Perfect competition

- Equilibrium is attained when MC= MR=AR and MC curve cuts the MR curve from below.
  - Three possibilities: Normal profit (MC = MR = AR =AC= DD = P); Loss (AC > AR) and super-normal profit (AC < AR) as shown in diagram below



From the graphs, equilibrium is attained at point A where MC = MR

Normal profit (zero profit) are obtained when AC = AR

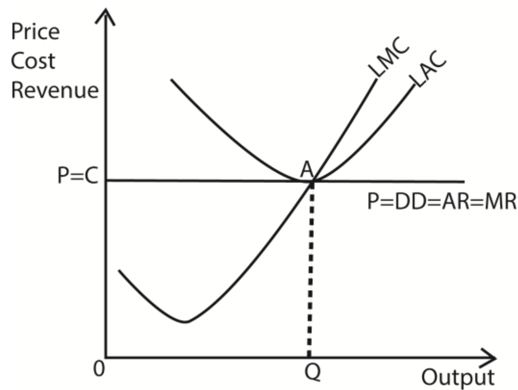
Loss is obtained when AC > AR, and loss is represented by the area PP*AB

Super normal profits are obtained when AC < AR and profit is represented by the shaded area P*PAB

Long run equilibrium position of a firm under perfect competition

The firm under perfect competition in the long run earns normal (zero) profits. This is because

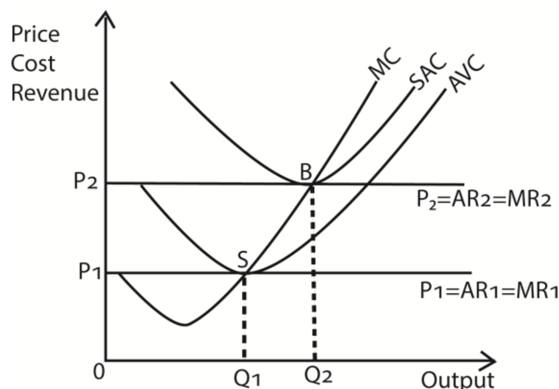
of free entry and exit where the abnormal profits in the short run attract new firms in the industry while losses expel some firms from the industry



From the graph the long run equilibrium position is attained at point A, where LMC = MR

At point A, output OQ produced at cost price OP, is also the sold at the same price. Since the selling price is equal to cost price, total revenue is equal to total cost, the firm earns normal or zero profit.

Break even and shutdown points of a firm under perfect competition



Break- even point This is refers to the point in the production process at which the firm under perfect competition neither earns profits nor makes losses. That is the firm earns *normal profits* From the graph, it is indicated at point *B* where marginal revenue curve meets the average cost curve.

Shut down point. This refers to a point in the production process below which the firm under perfect competition cannot cover the variable costs of production. From the graph, it is indicated at point S where average variable cost curve meets the marginal revenue curve.

Why may a firm continue to operate even if it is making losses In the Short run?
OR. Why may a firm continue to operate between the break even and shut down points?
OR Why may a firm keep an operating even if it is not covering the total costs of production?

Under perfect competition, a firm may keep on operating even if it is making losses because of the following reasons.

1. The firm may keep on *operating if it has the hope of getting a loan* (financial assistance) from financial institutions so as to improve on its production activities and earn profits in the long run.
2. If the firm is government owned and it is providing essential commodities to the society. For example

the firm supplying water or electricity, it keeps on operating at a loss due to the nature of the services it provides to the society.

3. When the entrepreneur has invested a lot of assets in business, he may be reluctant sell them off and as a result, he may continue to operate at a loss.
4. The firm may continue to operate due to the fear losing its cheap source of raw materials.
5. It may continue to operate so long as it covers its variable costs which are inevitable in production. For example the costs of raw materials.
6. The firm may continue to operate due to the fear of losing the already established market for its commodities.
7. It may keep on operating with the hope of getting another strategic location where it can attract more customers and minimize on the costs of production.
8. The entrepreneur may want to maintain his reputation and good image to the public and this forces him to continue operating even if he is making losses.
9. A firm may keep on operating if it expects to enjoy economies of large scale in the long run and earn more profits e.g. marketing and technical internal economies of scale.
10. If the goal of the firm is to provide employment to the society, a firm a may keep on operating even if it is incurring losses.
11. If the firm is surviving on the super normal profits made in the past, it may keep on operation even if it is making losses.
12. When the firm is newly established, it may keep on operating with the hope of getting more profits in future as it expands.
13. If the firm is a subsidiary of another profit making firm, it may keep on operating when it is covered by the main firm.
14. The losses made may be seasonal when the firm expects to make super normal profits in other seasons.
15. The firm may have hopes of emerging with another prosperous firm so as to enjoy economies of large scale
16. When the entrepreneur has the hope of *changing the management and administration* which has caused losses in the short run, the firm may keep on operating even if it is making losses.
17. If the entrepreneur expects to *use better techniques of production* which may allow him to minimize the costs and earn more profits in the long run, the firm may keep on operating in the short run.
18. The owner of the firm may *want to prevent his vital skilled manpower* from shifting to other firms. This is because if it shifts, it becomes extremely difficult and expensive to mobilize it back.
19. For fear to loss an established name

Advantages (Benefits/Arguments) for Perfect competition Market structure

1. **It increases the level of output.** This is because of a large number of firms involved in production due to freedom of entry of firms in the industry. This leads to a reduction in prices in the long run.
2. **Efficiency in resource allocation.** Since there is a number of firms producing for a limited market, competition forces them to be very efficient in order to out compete other firms and remain in the production process, hence the provision of better quality goods and services.
3. **No wastage of resources,** Since the market structure assumes perfect knowledge about the market conditions e.g. knowledge about market prices, the type and quality of commodities sold etc. there is no wastage of resources through advertisement by the sellers.
4. **High standards of living for the consumers.** In the long run high standards of living are enjoyed by consumers because of increased production of high quality goods and services which are bought at low prices.
5. **It provides an efficient standard measure for comparison of prices in other markets**.

6. **It promotes equitable distribution of income**. This is due to freedom of entry of firms in the production process
7. **Optimal utilization of resources in the long run**. Resources are fully utilized and efficiently allocated. This is because the inefficient firms are pushed out of production whereas the efficient firms keep on operating using the available scarce resources in the most optimal way.
8. **It ensures fair and stable prices.** Prices under perfect competition tend to be stable because all firms charge uniform price. This promotes economic stability hence economic growth and development.
9. **Creation of employment opportunities**. Because of competition among so many firms, investments are promoted in the economy which increases employment opportunities.
10. **Absence of consumer exploitation**. This is because all firms charge the same price and no single firm has the ability to restrict output and charge a high price so as to exploit consumers as the case is for monopoly.

Demerits (Disadvantages/Negative implications) of perfect competition

1. **Limited choice of consumers.** Consumers can not enjoy a variety of differentiated products. This is because under perfect competition, all firms produce and sell a homogenous product
2. **Difficult to expand in the long run.** In the long run, expansion of the firm is very difficult because firms earn normal profits.
3. **It is an ideal market situation.** It is based on unrealistic assumptions which do not apply in the real life situation.
4. **Research is limited in the long run.** It is difficult to carry out research in the long run because of the normal profits earned.
5. **It encourages duplication of goods and services.** This leads to resource wastage and misallocation
6. **Long run unemployment.** Because of competition, the inefficient firms are pushed out of production and therefore, people who have been working in such firms remain unemployed when these firms close down their operations. In addition, some firms may resort to the use of capital intensive techniques of production hence technological unemployment is created.
7. **Failure to provide Public goods and social facilities**. This is because such ventures are not profit making and they are very expensive to set up yet firms under perfect competition aim at maximizing profits.
8. **Exhaustion of resources (raw materials).** Because of free entry, many firms compete for the available scarce resources which lead to an increase in the prices of raw materials and costs of production in general.
9. **Price discrimination is not possible**. Prices tend to be constant and demand is perfectly elastic. This limits sellers to carryout price discrimination which is important in the economy with people having different income levels.

Monopoly Market structure

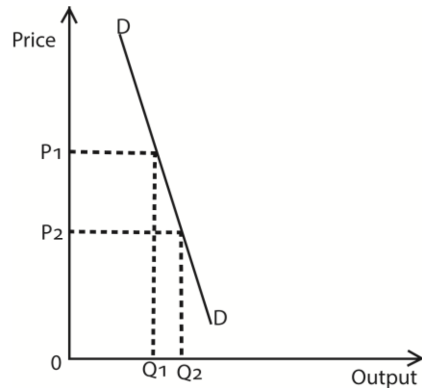
This is a market structure where there is a single producer or seller of a commodity which has no close substitutes or no substitutes at all, and entry of new firms in this market structure is blocked.

Monopolist. A monopolist is a single producer or seller of a commodity which has no close substitutes or no substitutes at all.

Monopsony. This is where there is a single buyer of a commodity or raw material in a given locality e.g. it may be a big firm being the sole buyer of raw materials in a given locality.

Features (characteristics) of monopoly market structure

1. Entry to the market by otherfirms is blocked both in the short and long run.
2. Firms aim at profit maximization and therefore produce at a point where MC = MR.
3. There is only one seller of a commodity which has no dose substitutes or no substitutes at all.
4. The firm under monopoly is the price maker, that is, it has the ability to determine the price of its own commodity.
S. The monopolist produces of excess capacity both in the short and long run. This is because he has the ability to restrict output and charge a high price.
6. The demand curve under monopoly is inelastic and downward sloping from left to right.



7. The monopolist earns abnormal profits both ill the short and long run. This is because he has the ability to restrict output and charge high price for his commodity.
8. The monopolist carries out informative advertisement just to inform his customers about the availability of his product on the market. This is because the monopolist has no competitors.

Types of monopoly

1. **Imperfect (simple) monopoly.** This is the type of monopoly where there is a single producer or seller of a commodity which has no close substitutes that is, the commodity can be substituted to a certain degree
2. **Pure (Absolute/Perfecta) monopoly.** This is the type of monopoly where a firm produces a commodity that has no substitutes at all.
3. **Statutory Monopoly.** This is the form of monopoly set up the act of the parliament to provide a certain service to the public for example NSSF, URA etc.
4. **Collective** (Collusive). This is the form of monopoly where firms producing similar products merge so as to monopolize certain economic activities.
5. **Bilateral Monopoly.** This is the form of monopoly where there is one buyer facing a single seller of a commodity.
6. **Spatial monopoly.** This is the form of monopoly arising from long distance between rival producers of a given commodity.
7. **Natural monopoly.** This is the form of monopoly which exists because of nature where the firm controls the sole ownership of a certain raw material for example River Nile being the only source of hydroelectric power in Uganda.
8. **Discriminating monopoly.** This is the form of monopoly where the seller has the ability to charge different prices to different customers for similar units of the commodity sold for example theaters, air transport, stadiums etc.

Basis (Origin/Sources) **of** *monopoly power*

Monopoly power refers to the ability of the producer to determine the price of the commodity and restrict entry of other producers from entering the market.

The factors which give rise to monopoly power include the following:-

I. **Patent rights.** These are legal barriers where the products of some people like authors; musicians etc. are protected from other producers by law. The law forbids other producers or firms from producing a similar commodity. The producer is given the sole right to produce a commodity or provide a service for a certain period of time without interference from other producers.

2. **Ownership of a strategic raw material.** Some firms or countries may be having the capacity to control the ownership of the only raw material. Therefore they become monopolists in the production of a certain commodity using such a raw material under their ownership e.g. middle east has the monopoly power in oil production.

3. **Exclusive knowledge of production techniques; i**n this case a person or firm may possess specific and unique knowledge which may not be possessed by others in the production process e.g. some specialists in the medical field whose services cannot easily be substituted like surgeons.

4. **Long distance between potential rivals**. Long distance can be the source of monopoly power among the producers of the same commodity in different localities. Each producer monopolizes the region in which his production unit is located as other producers from other regions cannot interfere due to long distance.

5. **Large scale of production.** The large efficient and well established firm may adopt the limiting pricing policy which aims at preventing the entry of new firms and elimination of the already existing inefficient firms by charging lower prices for the commodity in consideration. The large scale firm remains a monopolist because other firms are pushed out of the production process.

6. **Protectionism (trade restrictions).** This is where the government imposes tariffs and non-tariff barriers on the imported products so as to reduce foreign competition on the locally produced goods. The home producers therefore become monopolists as they are protected from foreign competition.

7. **Merging of firms.** This is where two or more firms producing related commodities come together to form one firm (collective monopoly). This can be aimed at controlling the materials, market, price of the commodity etc.

8. **Product differentiation.** This is another form where the firm may become a monopolist by supplying a commodity that is differentiated from others by certain trade market or brands.

9. **Nationalization by the government.** In this case, the government can take over private individual firms and therefore it becomes the monopolist. .

1O. **Market limitation.** The entry of new firms may be limited due to existence of a small market this is because they may find it uneconomical to and therefore already existing firm remains the monopolist.

11. **Large capital requirements.** Some firms may remain monopolist due to failure of other firms to raise enough capital to start similar businesses e.g. iron and steel industry.

12. Long period of training, Monopoly power can be created by restricting entry of new individuals by extending the training period required to join a given profession (industry).

Costs and Revenue curves under Monopoly

- The shape and nature of the cost curves *(A*C and *MC)* of a monopolist are the same as those of a firm under perfect competition.
- The average revenue (demand) curve is downward sloping from left to right implying that at a higher price a monopolist sells less output and more output is sold at a lower price. The demand curve is also downward sloping because the product sold by a monopolist has no close substitutes and the monopolist is a price maker.
- The marginal revenue (*MR) curve* is also downward sloping but below the average revenue curve. This is due to the principle that the margin is always below the average

Equilibrium position (Profit maximization) of a firm under Monopoly

Short-run refers to that period in which a monopolist cannot change the fixed factors. However, the monopolist is free in determining price due to lack of competition

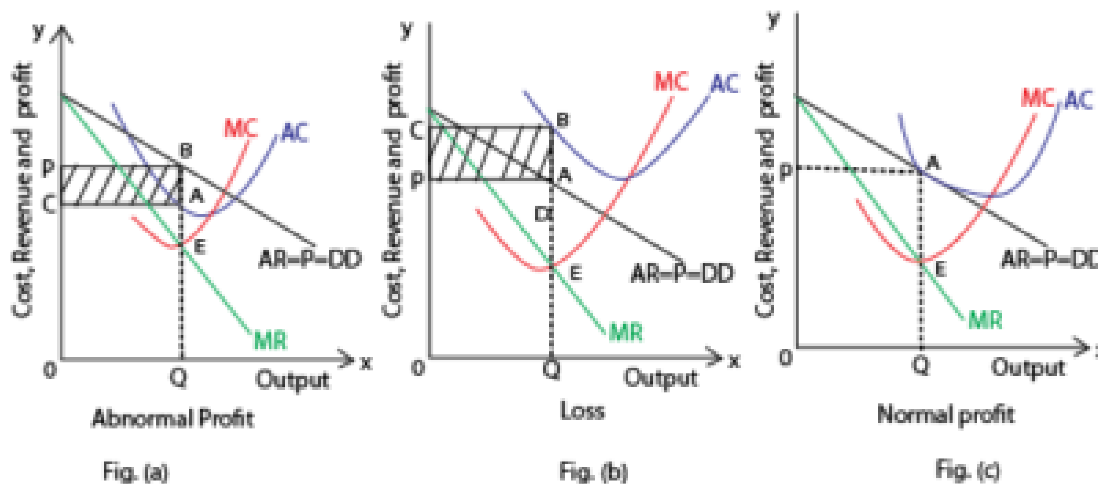
In short run equilibrium whether the firm makes an abnormal profit, normal profit or loss, it depends on the level of AC and AR which can be shown as follows:-

- If AR=AC, the firm receives a normal profit.
- If AR> AC, the firm receives abnormal profit.
- If AR< AC, the firm bears the loss.

The following conditions must be fulfilled in order to attain equilibrium under monopoly:-

- MR must be equal to MC
- MC must intersect MR from below.

The equilibrium position of a monopoly firm can be graphically presented as follows:-



Abnormal profit

In the first fig. (a), the equilibrium point is 'E' when MC cuts MR from below. The equilibrium level of output is determined at OQ. The level of revenue earned is OP and the cost incurred is OC. Since Revenue is greater than cost, the firm earns abnormal profit equal to the shaded area (ABPC).

Loss

In the second figure, point E is the equilibrium point where MC intersects MR from below. The equilibrium level of output is OQ. The cost incurred is OC and the revenue earned is OP. Since cost is higher than revenue, the firm bears loss equal to the shaded area (ABCP).

Normal profit

In the third fig. (c), the equilibrium point is at 'E' where the conditions for equilibrium are fulfilled, i.e. MC = MR. The equilibrium level of output is OQ. The revenue and cost are at the same level (OP). The firm earns just a normal profit to sustain its business.

Note: Since the monopolist has no competitors, he has the freedom to restrict output and charge whatever price he wishes. But this is not always the case because of the following reasons:
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1. **Fear of potential rivals/competitors.** This prevents the monopolists from charging a very high price, as this may attract new firms into the industry.
2. **Fear of the government intervention or regulation.** In this case, the government can intervene by controlling the monopoly power especially if the product is essential to the consumers.
3. **Fear of boycott.** The consumers may boycott the product produced by the monopolist. This fear compels the monopolist to change relatively lower prices and earn lower profits,
4. **Fear of emergency of new substitutes on market**. The high prices charged by the monopolist can give an incentive to other firms to think hard so as to come up with alternative close substitutes which can be more efficient and sold at lower prices hence making monopolist lose.
5. **Fear of nationalization.** The government may take over the monopolist firm in case it is over-exploiting the consumers by charging high prices.

Advantages (Merits/Positive implications) of Monopoly

1. **There is a possibility of price discrimination** where by similar units of a commodity are sold at different prices to different consumers. This enables the low income earners to consume high quality products at lower prices.
2. **Ability to carry out research**. A monopolist earns abnormal profits both in the short run and long run and therefore, it is possible to carryout research so as to improve on the quality of the products.
3. **Economies of scale are enjoyed by the firm under monopoly.** A monopolist has the ability to expand the firm using abnormal profits earned thereby enjoying economies of large scale.
4. **There is no resource wastage through advertisement**. A monopolist does not need to carryout persuasive advertisement because the commodity sold has no close substitute.
5. In case of government monopolies, public utilities like roads, hospitals, power supply etc. can easily be controlled and provided to the public fair prices (lower costs).
6. **Improvement in the welfare of the employees**. This is because a monopolist is in position to earn abnormal profits which it can use to improve on the welfare of its workers.
7. **Growth of infant industries.** The infant industries can be able to grow when they are protected by the government from external foreign competition. In this case, the infant industries monopolize the local market and therefore they are in position to get more profits for development purposes.
8. **There is no duplication of services and goods.** For example, if there is a firm producing a certain commodity in an area, there is no need of setting up another firm in the same area as this leads to resource misallocation through duplication.
9. **Source of government revenue**. Abnormal profits made by the monopolist can be taxed by the Government and tax revenue is used to provide social infrastructure like roads, hospitals etc.
10. **A monopolist is able to use better techniques of production and employ high quality manpower**. This is because he has enough money to acquire such technology and man power. This leads to the production of better quality products.

Disadvantages (Limitations/Weaknesses/Negative implications) of Monopoly

1. **Monopoly firms produce at excess capacity both in the short run and in the long run**, They do not fully utilize their resources to the optimal level.
2. **There is exploitation of consumers.** The monopolist may end up restricting output and charging high prices hence exploiting the consumers.
3. **There is absence of competition which makes the monopoly firm to become inefficient and produce low quality output.** This is because the commodity sold by a monopolist has no close substitute.
4. **Rich monopolies tend to exert pressure on government.** They end up influencing decision making in their favor. This is because such monopolies are the major controllers of the economy.
5. **Limited choice of the consumers.** A monopolist does not produce a variety of goods and services to the consumers. This limits the consumers' choice and welfare.
6. **There are shortages of the commodity in the economy in case a monopolist stops producing**. This leads to structural inflation. Therefore it is dangerous for an economy to monopolize the supply of a given commodity.

7. **A firm under monopoly may over expand in the long run leading to diseconomies of scales.** This is because the firm earns abnormal profits even in the long run.

8. **It leads to income inequalities.** A monopolist charges high prices and earns excessive profits. This leads to income inequalities in the economy as the monopolist will be earning high incomes as compared to producers.
9. **It leads to low output.** Under monopoly, there is under employment of resources which leads to the production of low output hence low levels of economic growth and development.

Measures to control Monopoly

1. **Use of price controls**. This is where the government fixes the prices of commodities produced by monopolists. This helps to reduce the monopoly power. The government fixes the price below the one charged by the monopolists. This forces the monopolists to increase output if he is to earn more profits.
2. **Taxation.** The government can impose high taxes on the monopolist so as to reduce on the abnormal profits. Taxation can be successful if the commodity produced by the monopolist has elastic demand.
3. **Nationalization.** This is where the government takes over the private firm owned by the monopolist with the purpose of controlling the supply of a given commodity. In this case, the government can now provide the commodity at lower prices to the consumers.
4. **Anti-monopoly legislations.** These are laws or regulations which are imposed by the government to control monopoly activities. Such laws prohibit monopoly activities as far as the supply of a given commodity is concerned.
5. **Subsidization.** This is a policy where the government provides incentives to other firms through subsidized factor inputs with the purpose of encouraging them to compete favorably with the original monopoly firm, this helps to reduce monopoly power in the country.
6. **Privatization.** The Privatization policy involves the transfer of ownership of state owned enterprises to private individuals. This helps to reduce monopoly power possessed by the government parastatal.
7. **Liberalization.** This policy helps to remove restrictions in trade activities. It allows other firms to freely join and participate in the economic activities which have been monopolized by a few firms hence reducing on the monopoly power.
8. **Anti-Protectionism policy.** The government can remove trade barriers with the purpose of exposing local infant industries to external competitors. This helps to reduce the monopoly of the local firms.

Price discrimination (Parallel pricing)

Price discrimination is the process (practice) of selling the same commodity to different consumers at different prices by the same seller in a given period of time, for reasons not associated with costs. For example prices of entertainment tickets at different costs for public and students or children and adults.

Conditions necessary for Price discrimination to succeed

1) the commodity should **not have close substitute.**
2) **Businesses must prevent resale.** Prevention of re-sale could be enforced in many different ways. For example students can only receive student discounts with a legitimate student ID, children can easily be identified from adults.
3) The **market in question must be geographically distant /spatially separated** in case of seats for football or entertainment such that it is easy for monopolist to charge different prices in the different market places or transfer of goods from one market to another is difficult
4) **There should be different elasticity** of demand in the different markets.
5) **Ignorance among customers** about other markets
6) **The seller or producer** must be a monopolist or the market must be imperfect.
7) **Personal services** that can be resold or transferred e.g. medical Doctor, teacher, entertainment etc.

8) **Product differentiation**; artificial differences made on similar products by a way of branding, trademarks.
9) **Low transport costs also lead to monopoly power** in that goods can be transferred from one market to another without affecting their prices.
10) **No government interference**

Forms (Basis) of Price discrimination

1. **Price discrimination according to personal income.** This is where different prices are charged to different income groups for example charging low prices to the low income earners and high prices to the rich for the same service.
2. **Price discrimination according to sex and age.** This is where different prices are charged for different sexes or ages for example higher charges may be fixed on tickets for a football match for adults and lower charges tor the children, lower charges on tickets for a dance for females and higher charges for males.
3. **Price discrimination according to status**. Students or soldiers in uniforms may be charged lower than other groups of people for certain services like transport and entertainment.
4. **Price discrimination according to geographical factors**. Price discrimination may be geographical, for example dumping where commodities are sold at lower prices in a foreign market as compared to the one charged in the domestic market.
5. **Price discrimination according to time of service.** This is where different prices are imposed on consumers when getting services at different times or period e.g. film shows tend to be more expensive on weekends as compared to week days, evening dances are more expensive as compared to dances organized during day time.
6. **Price discrimination according to use.** For example, during transportation, low transport charges can be charged on essential commodities and high transport charges for luxurious commodities.
7. **Price discrimination according to differentiation of product.** This is where consumers are charged differently according to the class. For example seats in air transport, first class seats are charged higher amounts as compared to other classes.
8. **Price discrimination according to the nature of the product**. For example packed commodities are charged higher amounts as compared to unpacked commodities even if they are of the same quality.

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Advantages (Merits) of Price discrimination

1. **Price discrimination increases the total revenue of the monopolist.** This is because, output sold increases due to the act of charging different prices to different consumers of similar units of the same commodity. .
2. **It helps to reduce income inequalities.** This is because the rich consumers are charged higher prices and the low income earners are charged low prices.
3. **It enables the low income earners to get essential commodities at fair prices.** For example medical services, transport and housing etc.
4. **Price discrimination helps producers or countries to dispose of the surplus output through the process of dumping.** Dumping is important to the producer because it encourages exploitation of resources within the home country by widening the external market for goods and services.
5. The profits earned by a monopolist through price discrimination can be used to expand on the business and to improve on the welfare of the workers.
6. **Price discrimination increases quantity sold and consumed example for electricity**, the first units are charged a high price as compared to the extra units. Therefore the more units you use, the less charge you incur for the extra units.

Disadvantages (Demerits) o f price discrimination

1. **Price discrimination leads to the provision of poor quality services especially to the low income**

earners. This is because there is no competition since it is carried out by a monopolist.

2. **Price discrimination based on dumping retards the development of young industries in a country where the commodities are dumped.** This is because consumers may prefer the cheap dumped commodities as compared to the expensive locally produced commodities.
3. **Price discrimination on the international market leads to the consumption of harmful and expired commodities** for example cheap expired drugs or food stuffs sold to developing countries by developed countries.

Monopolistic (Imperfect) Competition market structure

This is a market structure where there are many firms selling closely related (differentiated) products. In this market structure, the features of monopoly exist side by side with those of perfect competition.

Features (Characteristics) of Monopolistic Competition

1. **Existence of many firms.** There are many sellers and buyers involved in the exchange of closely related products.
2. **There is use of persuasive advertisement.** Firms under this market structure use persuasive advertisement in order to convince the customers to buy their products and therefore to expand their market share.
3. **Freedom of entry and exit.** When a firm makes profits in producing a certain commodity, other firms are free to enter in the production of the same commodity and when firms make losses, some firms are free to leave production.
4. **Sellers (producers) are price makers.** Firms under monopolistic competition have the power to either their control output or price of the output to a certain extent.
5. **There is government intervention.** The government can intervene by implementing certain policies like taxation, fixing prices of commodities in case firms over exploiting consumers etc.
6. **Profit maximization is the major goal of producers.** That is, all producers in this market structure aim at maximizing profits and minimizing costs.
7. Existence of brand loyalty. That is, certain consumers have a strong attachment to certain brands of commodities. For example Colgate, Coca-Cola products, Shell etc.
8. **The demand curve under this market structure is fairly elastic**. This is because firms sell close substitutes and there is stiff competition. In addition, the demand curve is down ward sloping from left to right because each firm has the ability to control price or output a certain extent.
9. **There is existence of excess capacity in production both in the short and long run**. Firms under this market structure do not fully utilize their resources to optimal level in the production process.
10. **There is existence of product differentiation.** Product differentiation refers to the measures taken by producers under monopolistic competition to create artificial differences among products of the same category to make them appear as close substitutes.

Methods of Product differentiation

1. Using different colors
2. Using different brands
3. Using different packaging materials
4. Using different designs.
5. Using different trademarks.
6. Using different tastes.
7. Using different scents, for example the perfume industry

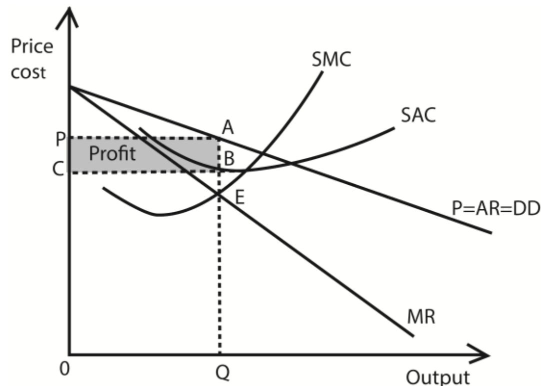
The nature of the Demand curve, Revenue curves and Cost curves for monopolistic competition

The cost curves (MC and AC) are the same as those of other market structures. The demand curve and the revenue curves are downward sloping like those of monopoly. This is because firms under imperfect competition are price makers. However, the demand curve is more elastic than that of monopoly due to the presence of close substitutes (differentiated products) and many competitors. The Marginal Revenue Curve is below the demand curve (Average Revenue Curve).

Short run equilibrium position of a firm under monopolistic competition

The monopolistically competitive firm earns super normal profits (abnormal profits) in the short run. Equilibrium is attained (profits are maximized) at a point where marginal cost(MC) is equal to marginal revenue(MR) and marginal cost curve should cut marginal revenue curve from below.

Illustration

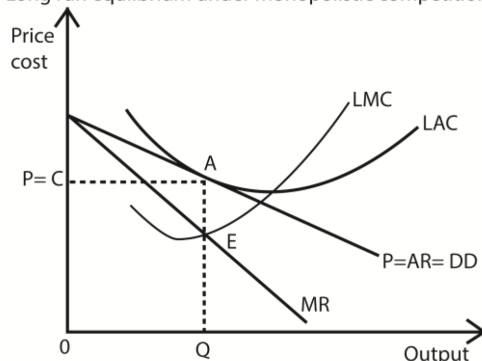


From the figure above, SMC, is equal to MR at point E. Thus E is the equilibrium point. Corresponding to this equilibrium point, the firm produces OQ output and sells it at a price OP. Thus, the firm earns pure profit to the extent of PABC since total revenue (OPAQ) exceeds total cost of production (OCBQ).

A firm, in the short run, may earn only normal profit if MC = MR < AR = AC occurs. A loss may result in the short run if MC = MR < AR < AC happens

Long run equilibrium position of a firm under monopolistic competition

- In the long run, monopolistic competition comes closer to perfect competition because the freedom of entry and exit allows firms to enjoy only normal profit. Because, of free entry and exit, the abnormal profits made by the few firms in the short run attracts new firms into the industry, This increases the production and supply of goods and services which are close substitutes hence a fall in price and revenue. In addition, the market share of each firm and the number of consumers reduces hence a reduction in profits,
- Also as new firms enter into the industry, the demand for raw materials increases which results into an increase in the factor prices hence increased costs of production. This forces the average cost curve to shift upwards until it is tangent to the marginal revenue curve.
- Equilibrium is attained (profits are maximized) at a point where marginal cost(MC) is equal to marginal revenue(MR) and marginal cost curve should cut marginal revenue curve from below



From the graph, equilibrium is attained at point E where the marginal cost (LMC) curve is equal to the

marginal revenue (MR) curve. At point E, the equilibrium output OQ, is produced and sold at price OP determined at point A. Therefore, the selling price is equal to the cost price. This implies that total cost is equal to total revenue and therefore the firm earns normal profits.

Advantages (Merits) of Monopolistic competition

1. **Firms undertake product differentiation which enables consumers to enjoy a variety of products**. This improves on their welfare due to a wide choice created.
2. **There is competition among firms which encourages efficiency in production**. This leads to the production of high quality products.
3. **Because of many firms involved in production of differentiated products, there are no shortages of goods and services as in the case of monopoly.** This is because even if one firm closes down, other firms can continue to produce goods and services.
4. **Creation of more employment opportunities.** This is because there are many firms involved in production which increases the utilization of resources and thereby creating more employed opportunities.

S. **Through competition, research and innovations are possible**. This is because each firm is aimed at increasing the quality of its product so as to compete favorably in the market.

6. Source of revenue to the government through taxation of the abnormal profits earned in short run

Disadvantages (Demerits) of Monopolistic competition

1. **In the long run, firms earn normal profits** and therefore it is not possible to expand on production and enjoy economies of large scale.
2. **There is production at excess capacity both in the short and long run.** This leads to underutilization of resources hence unemployment and underemployment.
3. **There is duplication of commodities in the market in form of product differentiation.** This leads to resource wastage.
4. **There is too much advertisement which leads to wastage of scarce financial resources.** In addition the advertisement costs are shifted to the consumers in form of high prices hence exploiting consumers.
5. **Research is not possible in the long run.** This is because firms earn normal profits and this may reduce the quality of the products.

Oligopoly Market structure

This is a market structure where there are few but large firms dealing in either homogenous or differentiated products. When the few firms are dealing in homogenous products, then the market structure is called pure **[perfect] oligopoly**. When the few firms are dealing in differentiated products, then the market structure is called **differentiated (imperfect) oligopoly**.

Under oligopoly, the firms are very few and therefore the decisions made by one firm directly affect the decisions of other firms in the same industry. Each firm has a considerable market share and it is difficult for the new firms to enter into the industry because of the large size and strength of the already existing firms.

Examples of oligopoly

1. Companies dealing in petroleum products. For example Shell, Petrocity, Total etc.
2. Telecommunication industry. For example MTN, UTL, Airtel etc.

3. Newspaper industry. For example New vision, Monitor, Red pepper etc.
4. Cement industry. For example Hirna, Tororo, Bamburi etc.

Features (Characteristics) of Firms under oligopoly

1. **Few firms of varying sizes**, that is some firms are large and well established while others are small and not well established.
2. **Close interdependence among firms**. Each firm is concerned with the activities and decisions made by other firms so as to make a right reaction. Any decision made by one firm, leads to a counter decision by other firms. For example, when one firm increases the price other firms may not increase, but when it reduces the price, other firms may also reduce
3. **Intensive advertisement.** Under oligopoly, there is a lot of advertisement and failure to advertise means loss of consumers (customers) and a sign of weakness. Advertisement is done through the media, trade shows, giving free samples etc.
4. **There is no unique pattern of pricing**, This is because each firm wants to remain independent so as to maximize profits.
5. **There is stiff (cut throat) competition among firms**. That is each firm acts in such a way to out compete other firms. This brings about intensive advertisement.
6. There is **existence of price rigidity.** Prices under this market structure tend to be stable or rigid for a long time despite the changes in the costs of production.
7. **The major aim of the firms is profit maximization**, Firms produce in such a way to maximize profits and minimize costs.
8. **Firms are price makers.** That is, they have control over the prices of their brands.
9. There is existence **of product differentiation** under imperfect oligopoly and production of homogeneous products under pure oligopoly.
10. **There is high degree of uncertainty among firms.** That is, the decisions made by one firm may, lead to unexpected reactions by other firms. For example when one firm reduces the price, it is not aware of how other firms will react.
11. **There is restricted entry.** It is difficult to enter into this industry because of the large size of the already existing firms and huge capital required to enter into the industry.
12. **Firms have a kinked demand curve.** The demand curve is elastic above the kink and is inelastic below the kink.
13. **There is wide spread use of non-price competition.** Non price competition refers to a situation where rival firms compete by using other means other than changing (adjusting) the price of the commodity. For example use of advertisement, carrying out after sales promotion, sponsoring games and sports etc.

Non-price competition

This is where rival firms compete using other means other than changing (adjusting) the price of the commodity. Examples of non-price competition include;

1. Improvement and maintaining the quality of the products with the aim of promoting customer loyalty.
2. Giving (distributing) free samples of the products to customers. This is mainly used when the product is new on the market for example soft drinks, telecommunication companies etc.
3. Use of persuasive advertisement with catchy slogans for example breweries companies, soft drink companies, firms selling cosmetics etc.
4. Carrying out promotional offers. For example selling the product at a lower price to customers through sales promotions, giving free training services to customers etc.
5. Offering gifts and prizes. For example petrol stations giving soap and other detergents to their

customers

6. Sponsoring sports activities like volley ball, football, cricket etc. This is aimed at winning and selling the product to the consumers who are supporters of a given sports activity
7. Supporting charity organizations by giving them household items like food, clothing, soap etc. For example child care centers, orphanage homes etc.
8. Carrying out trade fairs and exhibitions. For example firms participating in the international trade fair at Uganda Manufacturers Association grounds in Lugogo to showcase their products.
9. Providing after sales services. For example providing transport for those who buy in large quantities, free installation services, repairs etc.
10. Organizing consumer games in form of raffle draws where a customer buys the product and enters a draw. The winners are given prizes for example cars, phones, domestic appliances etc.
11. Opening up many branches and distribution centers in form of regional distributional centers and shopping outlets.
12. Using one stop shopping centers where the customer can conveniently find all what he requires in one place. This is common in big shopping malls like Shoprite, Garden city. Mazima mall etc.
13. Offering credit facilities to customers, for example allowing customers to acquire products on hire purchase, giving airtime on credit to their customers by telecommunication companies etc.

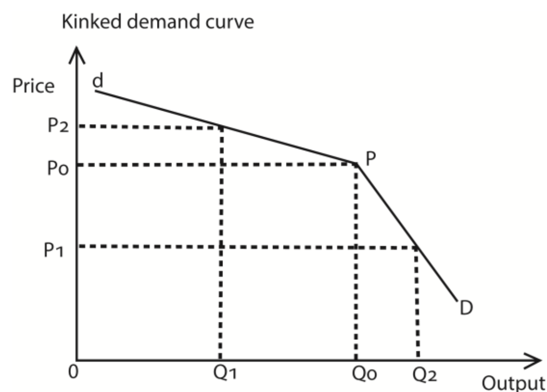
Revenue, Demand and Cost curves under Oligopoly

- The MC and AC curves are similar to those of other market structures. The AR curve is the same as the demand curve. The demand curve is characterized by a "kink" (corner/bend)
- The marginal revenue curve is characterized by a discontinuous gap. This is due to the kink in the demand curve. Because of the kink in the demand curve, we have two demand curves where, the upper part is elastic and the lower part is inelastic

Kinked demand Curve.

In an oligopolistic market, firms cannot have a fixed demand curve since it keeps changing as competitors change the prices/quantity of output. Their generalized demand curve is a kinked demand curve with two segments having different elasticity.

The upper segment is elastic at higher prices and the lower segment is inelastic at lower prices. The kink on the demand curve of an oligopolistic firm is that point of price rigidity (administered price) whereby none of the firms is ready to increase or reduce the price. This point is achieved in the long run after the negative effects of price wars.



From the figure, we know that

- The prevailing price level = P. The firm produces and sells output = OQ_0
- The upper segment (dP) of the demand curve (dD) is elastic. A small increase in price above P to P_2 leads a big fall in quantity sold from Q_0 to Q_1.
- The lower segment (PD) of the demand curve (dD) is relatively inelastic. A big decrease in price from P_0 to P_1 leads to a small increase in quantity from Q_0 to Q_2.

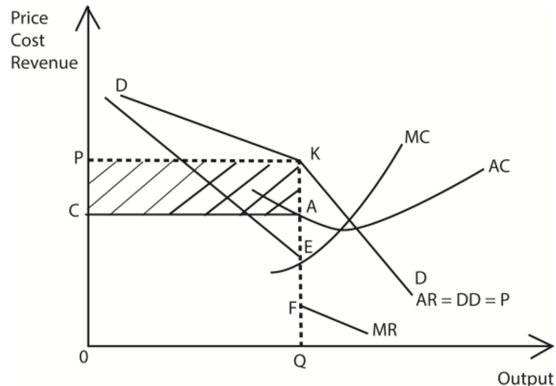
- Hence, no firm in an oligopolistic market will try to increase the price or decrease the price below price P since this leads to insignificant benefit.

Price rigidity (Administered Price)

This refers to a situation where prices in the oligopolistic market tend to remain stable over a given time despite the changes in the cost of production.

Equilibrium position of a firm under oligopoly

The firm under oligopoly earns abnormal profits both in the short and long run. Equilibrium is attained at a point where marginal cost (MC) curve is equal to the marginal revenue (MR) curve and MC curve should cut the MR curve from below.



- From the graph, DKD is a kinked demand curve and K is the kink. Because of the kink, the MR curve is separated by the discontinuous gap, EF into two MR curves. The marginal revenue curve above the gap is inelastic and the one below the gap is elastic.
- The discontinuity in the marginal revenue curve implies constant revenue as price and output remain fixed at the kink.
- Equilibrium is attained at the kink where MC is equal to MR in the discontinuous portion, At equilibrium, output OQ is produced at the cost price OC and sold at an administered price, OP determined at the kink.
- The shaded area AKPC represents the super normal profits.

Advantages (Merits) of Oligopoly

I. **There is competition and leads to the production of high quality production**. This enhances the standards of living of the consumers.
2. **There is existence of price stability under oligopoly.** This is due to price rigidity determined at the kink of the demand curve. This helps to reduce price fluctuations and consumer exploitation in the market.
3. **Ability to carry out research.** Oligopolistic firms are able to carry out research and improve on their techniques production. This is because they earn abnormal profits both in the short and long run.
4. **Firms under oligopoly can offer after sales services to their customers.** For example transportation, repairs of machinery, guarantees etc. This increases on their customers' satisfaction.
5. **Consumers have a wide** choice due to the production of differentiated products under differentiated oligopoly. This helps to cater for the different tastes and preferences of different consumers.
6. **Firms enjoy economies of large scale due to their large scale nature of operation** e.g. in terms of transport, storage, management etc.
7. **It leads to development of social and economic infrastructure**. This is as a result of large investments established in the economy.
8. **They provide employment opportunities to the people.** This helps to improve on their incomes and

standard of living.

9. **There is efficiency in production.** This is because firms are involved in competition and therefore there is no wastage of resources.

Disadvantages (Demerits) of oligopoly

1. **There are high costs of production involved in form of persuasive advertisement.** This leads to wastage and misallocation of resources.
2. **There is consumer exploitation.** Under oligopoly, firms may restrict output and end up charging high prices.
3. **It distorts the choice of consumers.** This is due to persuasive advertisement.
4. **It leads to unemployment.** This is due to collapse of the small firms as a result of being out competed by the large scale firms.
5. **It leads to income inequalities.** This is because the incomes are concentrated in the hands of the few rich individuals who own large firms.
6. **There is duplication of goods and services.** This leads to resource wastage in the economy.
7. **Large oligopolistic firms operate on a large, scale.** Because of this, they have economic power and can therefore influence the government in their favour and in the disfavor of the population.
8. **Firms under oligopoly are characterized by high levels of uncertainty**, This limits the ability of individual firms to make independent decisions because they are influenced by other firms.
9. **There is underutilization of resources.** This is because firms under oligopoly operate at excess capacity hence low levels of economic growth and development.

Revision Questions

Section A questions

1. (a) Distinguish between Marginal revenue and marginal cost
   (b) Explain why the Marginal revenue curve under perfect competition is constant.

2 State four reasons why firms invest.

3 Explain why the average total cost curve (ATC) is u-shaped in the;
   (a) Short run
   (b) Long run

4 (a) Distinguish between fixed costs and variable costs
   (b) Differentiate between prime costs and supplementary costs.
   (c) Give two examples of supplementary costs in an economy

5. Study the table below and answer the questions that follow. Show the working

Output	0	10	20	30	40	50	60
Total costs (in 000'shs.	100	120	220	300	360	400	420

   (a) Find the total fixed cost when output is 50kg.
   (b) Calculate the average total cost when output is 30kg.
   (c) Calculate the average fixed cost when output is 20kg.
   (d) Calculate average variable cost when output is 50kg.

6 Given the table below

Output	0	3	4	5	6	7	8	9	10
Total costs (in 000'shs.	600	1650	1860	2100	2400	2800	3400	4300	5800

   (a) Compute the schedule for TFC, TVC, MC, ATC, AFC and AVC .
   (b) What is the average fixed cost when output is 10?
   (c) What is the total variable cost for the first 3 units of output?
   (d) Which level of output represents the optimum level of the firm?
   (e) Which level of the output represents the break -even point of the firm?

(g) Which level of output represents the shutdown point of the firm?

(g) If marginal revenue is constant at 600/= per unit of output, what is the equilibrium output level of the firm.

7 Mention four ways through which a small scale firm can expand in size

8 (a) Differentiate between Industrial inertia and Localization of industries

(b) Give two disadvantages of Localization of industries.

9 (a) Distinguish between excess capacity and over production

(b) Give two causes of excess capacity in your country (2mks)

(c) Mention three ways of reducing, excess capacity in your country

10(a) Distinguish between a firm and an industry

(b) State two conditions for profit maximizing equilibrium.

11 Mention four reasons as to why firms continue to operate on a small scale despite the benefits of large scale production.

12 (a) Define the term merger as used in economics

(b) Mention three factors which hinder merging of firms in your country

13 (a) Distinguish between horizontal and vertical merging of firms

(b) State any two reasons for merging of firms in an economy

14 (a) Distinguish between “forward vertical" and "backward vertical” merging of firms.

(b) Give two conditions necessary for merging of firms in an economy

15 (a) Distinguish between forward linkages and backward linkages

(b) Give two examples of backward linkages in your country.

16 (a) Distinguish between a marginal firm and an optimum firm

(b) Give two reasons as to why the government may influence the location of industries,

17 (a) Why is the firm under perfect competition regarded as an efficient firm?

(b) State any two reasons why a firm may continue to operate below the Break-even point.

18 (a) What is meant by product differentiation

(b) Give any three methods of differentiating products in an economy

19 (a) What is meant by price discrimination

(b) State three conditions necessary for price discrimination to succeed

20 (a) What is meant by non- price competition?

(b) Give any three forms of non-price competition in your country.

21 (a) What is meant by discriminatory monopoly?

(b) Under what conditions is discriminatory monopoly profitable?

Section B questions

1. (a) Distinguish between location of firms and localization of firms

(b) Explain the advantages and disadvantages of localization of firms

2 (a) Explain the features of a perfectly competitive market

(b) Show and explain the equilibrium conditions of a perfectly competitive firm in the;

(i) Short run

(ii) Long run . .

3 (a) Distinguish between break - even point and shut down point of the firm.

(b) Explain why a firm may continue to produce even when it is not breaking-even?

4 (a) What factors may prevent new firms from entering an industry

(b) What are the merits and demerits of monopoly in your country?

5 (a) Explain the salient features of monopolistic competition in your country?

(b) Explain how the form under monopolistic competition determines output, price and profits in the short run and in the long run

6 (a) Account for the rise of monopoly in your country

(b) Discuss the methods of controlling monopoly in an economy

7 (a) What are the features of an oligopoly market structure

(b) Describe the forms of non-price competition used by oligopoly firms in your country

8 (a) Explain the features of the mobile phone industry in your country

(b) Explain how profits are maximized under the above mentioned market structure.

9 (a) Explain how a firm under monopoly maximizes profits

(b) Assess the implications (impact) of the existence of monopoly in an economy?

10 Explain the;

(a) Features of an oligopolistic market structure.

(b) Advantages of an oligopolistic market to consumers.

(c) Explain how an oligopolistic firm maximizes profits in the short run

Thank you
Dr. Bbosa Science