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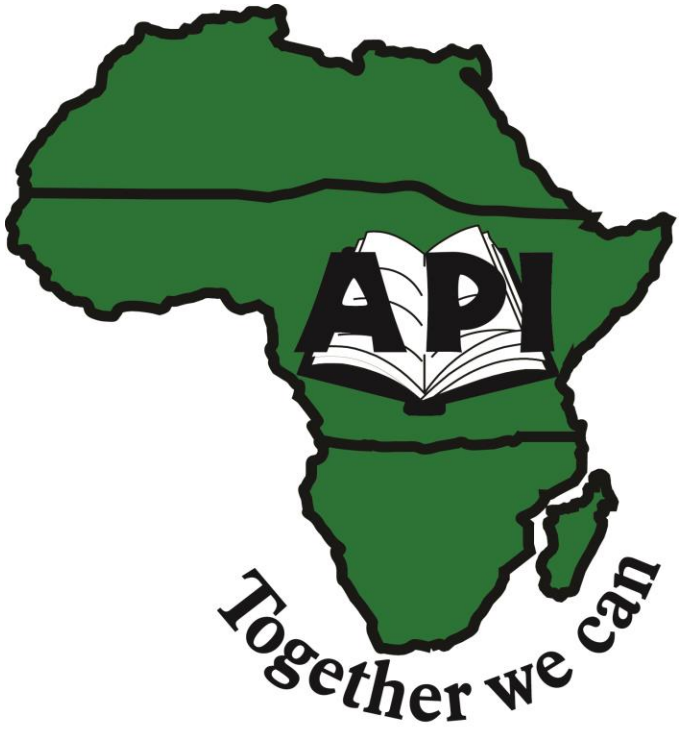

PROJECT PLANNING AND MANAGEMENT
TERM ONE STUDENT'S MODULES
(PPM)
Contents

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Course Name	: Accounting Fundamentals and Principles

Course Description
The Course stipulates the rationale of accounting principles in the day today business environments. It provides modalities of how best accounting procedures can be shaped to enhance business transactions in the market. It explains also various concepts that are commonly used in the accounting field, illustrations of different accounts and their calculations as well as understanding the assumptions of accounting.

Course Objectives

- To help students acquire basic knowledge and skills in preparing different forms of accounts
- To enable students in interpreting and analyzing financial statements
- To initiate them to earlier practices of managerial accounting.
- To help the students appreciate the role of Accounts in Business setting

Course Content

Introduction to Accounting

- Definition of Accounting
- Importance of Accounting information
- Components of Accounting
- Role of the accountant in society

The need for Accounts

- Users of financial statements and their information needs
- The objective of financial statements
- Qualitative characteristics of good financial information
- Constraints on relevant and reliable information

Factors that shape financial accounting

- Laws
- Accounting standards
- Accounting concepts (underlying Assumptions)
- European Union Derivatives

Understanding concepts used in Accounting

- An asset
- Liabilities
- Equity
- Performance
- Income
- Expenses
- Reliability of measurement
- Recognition of assets and liabilities

The accounting principles/assumptions

- The going concern concept
- The matching/accruals concept

- The consistency concept
- The prudence concept
- Materiality concept
- Historical cost concept

Control Accounts

- Format of the control accounts
- Advantages of the control accounts
- How accounting details are recorded

Cash books

- Drawings up a cash book, and its importance(two column and three column cash books)

Partnership Accounts

- Definition of partnership accounts
- The partners' capital accounts
- Partner's current accounts
- Partnership and Goodwill
- Accounting treatment of loans in a partnership
- Basic steps of sharing out partners' profits
- Revaluation

Mode of delivery Face to face lectures

Assessment
Course work 40%
Exams 60%
Total Mark 100%

Definitions:

Financial Accounting is the art of collecting financial data which is quantifiable in monetary terms, recording all that has been collected, classifying data and summarising in a significant manner and in terms of money, transactions and events which are at least of a financial character and analyzing data to enable interpreting the result thereof.

1. Any events and transactions of financial nature are recorded in books of accounts. Events of non-financial nature say the quarrel between the project manager and the chairman Board of trustees cannot find room in the books of accounts.

2. The records must portray the significance of all transactions and events individually and collectively class by class and as a whole.

3. The partners involved must be able to gather the true message of the results as embodied in the statement finally prepared.

The account process involves identifying, measuring and communicating economic information to permit judgement and decision by the user of the information.
Measurement is concerned with assessing or evaluating data so as to state its significance correctly.

Communication is done through reports and financial statements.

IMPORTANCE OF ACCOUNTING INFORMATION

- Some user groups use financial accounting primarily for standard purposes and others for decision-making purposes.
- Managers of all forms of organisations whether profit making or non-profit making require information to assist them in their decision making and control activities.
- Information is required about the viability of a project; whether to lease or buy, profitability of production line, the competitive position in the market, the introduction of a new product and whether to recruit or retrench.

COMPONENTS OF ACCOUNTING DISCIPLINE

1. FINANCIAL ACCOUNTING

Kohler's dictionary of accounting defines financial accounting as "Accounting for revenues, expenses, assets and liabilities of a business, a term often limited to the accounting concerned with published financial reports in contrast to internal aspects of accounting such as cost accounting." According to this definition, financial accounting is that branch of accounting that is concerned with the determination of the results of operation of an organisation during a given period and financial position of the organisation as on a date at the end of the period. It fulfils this objective by establishing a balance between revenues and expenditures/expenses (Statement of Comprehensive Income) and by laying out the assets and liabilities of the organisation (Statement of Financial Position) as on the date at the end of the trading period. The focus of financial accounting is primarily on historical report.

The information compiled by the financial accounting is intended for external use by investors, employees and their union, government-agencies and others. The information provided by those groups usually consists of the Statement of Comprehensive Incomes, Statement of Financial Position and statements of changes in the financial position for the period under review. Financial accounting can also be looked at as a branch of accounts which is heavily constrained by the generally accepted accounting principles and whose major focus is on the historical, custodian and stewardship aspect of accounting.

It is worth noting the features of these definitions as follows:

i) **Accounting principles**

Financial accounts are prepared on the basis of pronouncements of the financial accounting standards board. (F.A.S.B) An independent standard setting body. These pronouncements are referred to as generally accepted accounting principles (G.A.A.P). The purpose of G.A.A.P is an attempt to ensure that the resulting reports are understandable, reliable and relating consistent between comparable periods.

ii) **Historical**

Financial accounting deals with historical records such as revenues that have either accrued or have been realised and expenses that have been incurred or obligation to incurring has been

entered. Further more financial accounting reports comes at the end of the period concerned not before.

iii) **Custodian and store**

Financial accounts are prepared by a person who is responsible in the position of an agent. It is the financial accounting concerned with the custody or management of assets and discharge of liabilities by one person on behalf of another.

2. COST ACCOUNTING

Cost accounting is a form of mechanism by means of which costs of products and services are ascertained and controlled. It is that branch of accounting dealing with classification, recording, allocation, summarisation and reporting of current and prospective costs. Included in the field of cost accounting are the designs and corporations of costing systems and procedures, the method of determining costs by departments, functions, responsibilities, activities, products, territories, periods and other units of forecasted future costs and standards or desired costs as well as historical costs. The comparison of costs on different periods of actual estimated, budgeted or standard costs and of alternative costs and presentation and interpretation of cost data as an aid to management in controlling current and future operations.

3. MANAGEMENT ACCOUNTING

Management accounting is that type of accounting that provides information specifically to management for decision-making. It also provides information to management.

The major difference between financial and management accounting is that financial accounting is prepared for the benefit of many other groups apart from management where as management accounting is prepared primarily for purpose of management.

Management accounting is the process of identification, measurement, accumulation, analysis, preparation and interpretation as well as communication of information that assists the executive in fulfilling organisational objectives.

M.A seeks to meet the needs of management or in general the needs of the asset informal to the business.

It is designed for or adopted to the needs of information and control at various administration levels of the organisation.

4. FINANCIAL MANAGEMENT AND AUDITING

Financial management and auditing though not branch of accounting are common financial issues that need to be understood and differentiated from accounting.

Financial management deals with acquisition of funds and allocation of those funds to various competing issues to the organisation. Financial management functions do cover acquisition of funds, allocation of funds in various uses and management of liquidity.

Auditing is an independent examination of accounting and other records of an organisation with the aim of making on the operations of the organisation and financial position of that organisation.

Financial Accounting, management accounting, financial management and auditing

⇒ Financial accounting is a process of reporting the results and financial position of a business to satisfy the information needs of persons not involved in the day to day running of the business such as the suppliers, customers, the inland revenue and the general public. It entails the collection of raw-date, the recording, the classifying, the summarising, the analysing, interpreting, the reporting and even forecasting processes

⇒ Management accounting is primarily concerned with providing information as a guild to the more efficient conduct of the business. Since management is responsible for planning and controlling the resources of the business, management accounts is an information system which analyses data to provide information as a basis for managerial action. On the basis of the information from the management account, strategies can be drawn for the future that may be collective, preventive, competitive or otherwise in order to achieve the desired goals.

⇒ Financial management entails decisions taken to raise finance and control financial resources. Financial management includes decisions as to how the B/s should be funded (financing decisions), how the finance should be invested (investment decision) whether profit should ploughed back or distributed as dividends (dividend decisions) and how much credit should be given/taken (Cash management/or operating decision)

Auditing is the process of giving an independent opinion on financial statements of a business. It is a monitoring process of large businesses when ownership is divorced from management.

Auditors report as to whether or not the accounts of a business show a true and fair view of the business results for the year and financial population at the end of the year. The auditors in their report will refer to the profit and loss account, The Statement of Financial Position and the notes to the account.

THE ROLE OF THE ACCOUNTANT IN SOCIETY

He's role depends on where he works:

1. In the public practice the accountant would prepare accounts, provide general business advice and ensure tax compliance and tax planning of the businesses.

Whereas in industry and commerce, the accountant will make credit management decisions, prepare annual statutory accounts and provide cost information to management. He can also act as internal auditor or a tax adviser.

Generally the accountant interprets financial and complex accounting information to a lay man or he acts as indictor between the business and any authority.

An enterprise is an organisation that has pooled financial and non-financial resources together and operates these resources to achieve it's objectives. This enterprise may be a trading concern or a non-trading concern.

Trading concerns have profit as their main objective. Therefore it pools resources and operates them to generate profit (the excess of revenues over costs).

Trading concerns/enterprises may take the following form:-

Sole proprietorships: An individual accumulates financial resources and operates them to generate profits

The business is usually relatively small & is operated by one individual plus members of his family if need be. Profits made belong to owners and no other party has a stake in it.

Partnerships: Unlike the sole proprietorship this business setting is a result of a set of individuals with a common objective of profit who pool financial, managerial and other resources and operate them or engage employees to run the business. Relatively partnerships have a higher capital raised than the sole proprietorships. Profit is shared among the partners as agreed and if no agreement was made, it is shared equally. Where necessary a partner may advance the business a loan.

Body corporate: Ltd - private, plc public co: Companies unlike the first who forms of businesses have their financial resources pooled by shareholders (owners) who more often than not, are not involved in the operations but share in the profits and ensure that the employees engaged (especially the management team) are satisfying their interests. It is overseen by a board of directors, which hires the business's managerial staff.

Cooperative: Often referred to as a "co-op business" or "co-op", a cooperative is a for-profit, limited liability entity that differs from a corporation in that it has members, as opposed to shareholders, who share decision-making authority.

Non-trading concerns

These most of the time are NGO, clubs or associations or charitable organizations.
Their objectives vary e.g. disease, control, HIV, poverty eradication, promotion of sports, education, religion etc.
The financial accounts are drawn to account for the financial resources advanced.

Business entity convention

Unlike the legal concept of personality in accounting a business is an entity separate from the person (owner). All the owner does is to provide capital to enable the operations to take off.
This capital (accumulated financial resources) is considered a special obligation (Debt) of the business that lives with the business and may be repaid when the operations cease.

THE NEED FOR ACCOUNTS

The objective of producing corporate reports (accounts inclusive) is to communicate economic measurements of and information about the resources and performance of the reporting entity useful to those having reasonable rights to such information. The classes of people who might need information about a business are:

Users of financial Statements and Their Information Needs

The users of financial statements include present and potential investors, employees, lenders, suppliers and other trade creditors, customers, governments and their agencies and the public. They use financial statements in order to satisfy some of their different needs for information. These needs include the following:

(a) *Investors*. The providers of risk capital and their advisers are concerned with the risk inherent in, and return provided by, their investments. They need information to help them determine whether they should buy, hold or sell. Shareholders are also interested in information which enables them to assess the ability of the enterprise to pay dividends.

(b) *Employees*. Employees and their representative groups are interested in information about the stability and profitability of their employers. They are also interested in information which enables them to assess the ability of the enterprise to provide remuneration, retirement benefits and employment opportunities.

(c) *Lenders*. Lenders are interested in information that enables them to determine whether their loans, and the interest attaching to them, will be paid when due.

(d) *Suppliers and other trade creditors*. Suppliers and other creditors are interested in information that enables them to determine whether amounts owing to them will be paid when due. Trade creditors are likely to be interested in an enterprise over a shorter period than lenders unless they are dependent upon the continuation of the enterprise as a major customer.

(e) *Customers*. Customers have an interest in information about the continuance of an enterprise, especially when they have a long-term involvement with, or are dependent on, the enterprise.

(f) *Governments and their agencies*. Governments and their agencies are interested in the allocation of resources and, therefore, the activities of enterprises. They also require information in order to regulate the activities of enterprises, determine taxation policies and as the basis for national income and similar statistics.

(g) Public. Enterprises affect members of the public in a variety of ways. For example, enterprises may make a substantial contribution to the local economy in many ways including the number of people they employ and their patronage of local suppliers. Financial statements may assist the public by providing information about the trends and recent developments in the prosperity of the enterprise and the range of its activities.

The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an enterprise that is useful to a wide range of users in making economic decisions.

Financial statements prepared for this purpose meet the common needs of most users. However, financial statements do not provide all the information that users may need to make economic decisions since they largely portray the financial effects of past events and do not necessarily provide non-financial information.

Financial statements also show the results of the stewardship of management, or the accountability of management for the resources entrusted to it. Those users who wish to assess the stewardship or accountability of management do so in order that they may make economic decisions; these decisions may include, for example, whether to hold or sell their investment in the enterprise or whether to reappoint or replace the management.

Qualitative characteristics of good financial information:

Qualitative characteristics are the attributes that make the information provided in financial statements useful to users. The four principal qualitative characteristics are understandability, relevance, reliability and comparability.

i) Materiality

The relevance of information is affected by its nature and materiality. In some cases, the nature of information alone is sufficient to determine its relevance. For example, the reporting of a new segment may affect the assessment of the risks and opportunities facing the enterprise irrespective of the materiality of the results achieved by the new segment in the reporting period. In other cases, both the nature and materiality are important, for example, the amounts of inventories held in each of the main categories that are appropriate to the business.

ii) Reliable

To be useful, information must also be reliable. Information has the quality of reliability when it is free from material error and bias and can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent.

iii) Faithful Representation

To be reliable, information must represent faithfully the transactions and other events it either purports to represent or could reasonably be expected to represent. Thus, for example, a statement of financial position should represent faithfully the transactions and other events that result in assets, liabilities and equity of the enterprise at the reporting date which meet the recognition criteria.

iv) Relevant

To be useful, information must be relevant to the decision-making needs of users. Information has the quality of relevance when it influences the economic decisions of users by helping them evaluate past, present or future events or confirming, or correcting, their past evaluations.

The predictive and confirmatory roles of information are interrelated. For example, information about the current level and structure of asset holdings has value to users when they endeavour to predict the ability of the enterprise to take advantage of

opportunities and its ability to react to adverse situations. The same information plays a confirmatory role in respect of past predictions about, for example, the way in which the enterprise would be structured or the outcome of planned operations.

v) Complete

To be reliable, the information in financial statements must be complete within the bounds of materiality and cost. An omission can cause information to be false or misleading and thus unreliable and deficient in terms of its relevance.

vi) Comprehensible (comprehensive)/Understandable

An essential quality of the information provided in financial statements is that it is readily understandable by users. For this purpose, users are assumed to have a reasonable knowledge of business and economic activities and accounting and a willingness to study the information with reasonable diligence. However, information about complex matters that should be included in the financial statements because of its relevance to the economic decision-making needs of users should not be excluded merely on the grounds that it may be too difficult for certain users to understand.

vii) Comparability

Users must be able to compare the financial statements of an enterprise through time in order to identify trends in its financial position and performance. Users must also be able to compare the financial statements of different enterprises in order to evaluate their relative financial position, performance and changes in financial position. Hence, the measurement and display of the financial effect of like transactions and other events must be carried out in a consistent way throughout an enterprise and over time for that enterprise and in a consistent way for different enterprises.

viii) Neutral (purposeful and unbiased of the information)

To be reliable, the information contained in financial statements must be neutral, that is, free from bias. Financial statements are not neutral if, by the selection or presentation of information, they influence the making of a decision or judgement in order to achieve a predetermined result or outcome.

ix) Substance over Form

If information is to represent faithfully the transactions and other events that it purports to represent, it is necessary that they are accounted for and presented in accordance with their substance and economic reality and not merely their legal form. The substance of transactions or other events is not always consistent with that which is apparent from their legal or contrived form. For example, an enterprise may dispose of an asset to another party in such a way that the documentation purports to pass legal ownership to that party; nevertheless, agreements may exist that ensure that the enterprise continues to enjoy the future economic benefits embodied in the asset. In

such circumstances, the reporting of a sale would not represent faithfully the transaction entered into (if indeed there was a transaction).

x) Prudence

The preparers of financial statements do, however, have to contend with the uncertainties that inevitably surround many events and circumstances, such as the collectability of doubtful receivables, the probable useful life of plant and equipment and the number of warranty claims that may occur. Such uncertainties are recognized by the disclosure of their nature and extent and by the exercise of prudence in the preparation of the financial statements. Prudence is the inclusion of a degree of caution in the exercise o the judgements needed in making the estimates required under conditions of uncertainty, such that assets or income are not overstated and liabilities or expenses are not understated. However, the exercise of prudence does not allow, for example, the creation of hidden reserves or excessive provisions, the deliberate understatement of assets or income, or the deliberate overstatement of liabilities or expenses, because the financial statements would not be neutral and, therefore, not have the quality of reliability.

Constraints on Relevant and Reliable Information

Timeliness

If there is undue delay in the reporting of information it may lose its relevance. Management may need to balance the relative merits of timely reporting and the provision of reliable information. To provide information on a timely basis it may often be necessary to report before all aspects of a transaction or other event are known, thus impairing reliability. Conversely, if reporting is delayed until all aspects are known, the information may be highly reliable but of little use to users who have had to make decisions in the interim. In achieving a balance between relevance and reliability, the overriding consideration is how best to satisfy the economic decision-making needs of users.

Balance between Benefit and Cost

The balance between benefit and cost is a pervasive constraint rather than a qualitative characteristic. The benefits derived from information should exceed the cost of providing it. The evaluation of benefits and costs is, however, substantially a judgemental process. Furthermore, the costs do not necessarily fall on those users who enjoy the benefits. Benefits may also be enjoyed by users other than those for whom the information is prepared; for example, the provision of further information to lenders may reduce the borrowing costs of an enterprise. For those reasons, it is difficult to apply a cost-benefit test in any particular case. Nevertheless, standard-setters in particular, as well as the preparers and users of financial statements, should be aware of this constraint.

Balance between Qualitative Characteristics

In practice a balancing, or trade-off, between qualitative characteristics is often necessary. Generally the aim is to achieve an appropriate balance among the

characteristics in order to meet the objective of financial statements. The relative importance of the characteristics in different cases is a matter of professional judgment.

True and Fair View/Fair Presentation

Financial statements are frequently described as showing a true and fair view of, or as presenting fairly, the financial position, performance and changes in financial position of an enterprise. The application of the principal qualitative characteristics and of appropriate accounting standards normally results in financial statements that convey what is generally understood as a true and fair view of, or as presenting fairly such information.

Underlying Assumptions

Accrual Basis

In order to meet their objectives, financial statements are prepared on the accrual basis of accounting. Under this basis, the effects of transactions and other events are recognized when they occur (and not as cash or its equivalent is received or paid) and they are recorded in the accounting records and reported in the financial statements of the periods to which they relate. Financial statements prepared on the accrual basis inform users not only of past transactions involving the payment and receipt of cash but also of obligations to pay cash in the future and of resources that represent cash to be received in the future. Hence, they provide the type of information about past transactions and other events that is most useful to users in making economic decisions.

Going Concern

The financial statements are normally prepared on the assumption that an enterprise is a going concern and will continue in operation for the foreseeable future. Hence, it is assumed that the enterprise has neither the intention nor the need to liquidate or curtail materially the scale of its operations; if such an intention or need exists, the financial statements may have to be prepared on a different basis and, if so, the basis used is disclosed.

Financial Position, Performance and Changes in Financial Position

The economic decisions that are taken by users of financial statements require an evaluation of the ability of an enterprise to generate cash and cash equivalents and of the timing and certainty of their generation. This ability ultimately determines, for example, the capacity of an enterprise to pay its employees and suppliers, meet interest payments, repay loans and make distributions to its owners. Users are better able to evaluate this ability to generate cash and cash equivalents if they are provided with information that focuses on the financial position, performance and changes in financial position of an enterprise.

Notes and Supplementary Schedules

The financial statements also contain notes and supplementary schedules and other information. For example, they may contain additional information that is relevant to the needs of users about the items in the statement of financial position and statement of comprehensive income. They may include disclosures about the risks and uncertainties affecting the enterprise and any resources and obligations not recognized in the statement of financial position (such as mineral reserves). Information about geographical and industry segments and the effect on the enterprise of changing prices may also be provided in the form of supplementary information.

FACTORS THAT SHAPE FINANCIAL ACCOUNTING

The accounting discipline just like all other discipline is regulated to enable harmonised reporting and comparability. The following factors put together play an important role in the financial reporting:-

Laws

These result from a parliamentary process. In place are a number of statutes. Most important is the company's Act (Cap 110) of the Laws of Uganda.

It requires that companies prepare financial statements on annual basis to be presented to the owners in the Annual General Meetings (AGM)

Accounting standards

International Financial Reporting standards (IFRS),
International Accounting standard (IAS),
International Financial Reporting Interpretations Committee Interpretation (IFRIC),
Statements of standard accounting practices (SSAPs),
UK - Financial Reporting Standards (FRS)

The accounting standards committee through the standard setting process came up with a number of statements of standard accounting practices which are guidelines on presentation, disclosure or appropriate treatment of a number of issues that arise during financial reporting. However, due to changes overtime, the International Accounting Standards Board was replaced by the International Financial Reporting Standards Board and the revised International Financial Standards are numbered in order that they are revised.

The recommended treatment is to be complied with by all reporting entities.

c) Accounting concepts principles (Underlying Assumptions)

These are principles that underlie the preparation of financial statements unless specifically stated they are implied (read into the financial statements by a knowledgeable user)

d) European Union Derivatives

These directives are incorporated in financial reporting practices of the entire European community and any other states that have adopted their reporting culture.

Generally Accepted Accounting Practices (GAAPs)

These are practices in the accounting discipline that may be traced from time immemorial and have been lived with the profession.

The stock exchange

This also has an influence on financial reporting in that the values attached to securities are determined by the

Other international influences

A number of regulatory bodies exist on both local or international levels.

Reporting may be influenced by the needs of a given nation, region (e.g the COMESA) or trade area like (P.T.A)

THE FINANCIAL STATEMENTS

These are summaries of the accounting records prepared usually by senior accounts staff for purposes of the user.

They show the operations of an enterprise over again financial reporting period and the financial position of the enterprise.

The reporting period vary according to the circumstances of a given enterprise but the normal accounting period is one year (any period of twelve months)

Complete set of Financial Statements

A complete set of financial statements comprises:

(a) a statement of financial position as at end of the period;
(b) a statement of comprehensive income for the period;;
(c) a statement of changes in equity for the period;
(d) A statement of cash flows for the period;
(e) Notes, comprising a summary of significant accounting policies and other explanatory information; and
(f) A statement of financial position as at the beginning of the earliest comparative period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.

An entity may use titles for the statements other than those used in this standard.

Then financial statements are sometimes referred to as 'final accounts'.

- **Features of Financial Accounting Information:**
- **Accounting Standards:** Financial accounts are prepared on the basis of standards set by the board of the International Financial Reporting Standards Committee (IASC), an independent standard setting body. These Standards are referred to as International Financial Reporting Standards (IFRS). The purpose of IFRS is an attempt to ensure that the resulting reports are understandable, reliable and relating consistent between comparable periods.

- **Historical:** Financial accounting deals with historical records such as revenues that have either accrued or have been realised and expenses that have been incurred or obligation to incurring has been entered. Further more financial accounting reports comes at the end of the period concerned not before.
- **Custodian and store:** Financial accounts are prepared by a person who is responsible in the position of an agent. It is the financial accounting concerned with the custody or management of assets and discharge of liabilities by one person on behalf of another.

The Elements of Financial Statements

Financial statements portray the financial effects of transactions and other events by grouping them into broad classes according to their economic characteristics. These broad classes are termed the elements of financial statements. The elements directly related to the measurement of financial position in the statement of financial position are assets, liabilities and equity. The elements directly related to the measurement of performance in the statement of comprehensive income are income and expenses. The statement of changes in financial position usually reflects statement of comprehensive income elements and changes in financial position elements.
The presentation of these elements in the statement of financial position and the statement of comprehensive income involves a process of sub-classification. For example, assets and liabilities may be classified by their nature or function in the business of the enterprise in order to display information in the manner most useful to users for purposes of making economic decisions.

Financial Position

The elements directly related to the measurement of financial position are assets, liabilities and equity. These are defined as follows:

(a) An asset is a resource controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise.

(b) A liability is a present obligation of the enterprise arising from past events, the settlement of which is expected to result in an outflow from the enterprise of resources embodying economic benefits.

(c) Equity is the residual interest in the assets of the enterprise after deducting all its liabilities.

The definitions of an asset and a liability identify their essential features but do not attempt to specify the criteria that need to be met before they are recognized in the statement of financial position. Thus, the definitions embrace items that are not recognized as assets or liabilities in the statement of financial position because they do not satisfy the criteria for recognition. In particular, the expectation that future economic benefits will flow to or from an enterprise must be sufficiently certain to meet the probability criterion before an asset or liability is recognized.

Assets

The future economic benefit embodied in an asset is the potential to contribute, directly or indirectly, to the flow of cash and cash equivalents to the enterprise. The potential may be a productive one that is part of the operating activities of the enterprise. It may also take the form of convertibility into cash or cash equivalents or a capability to reduce cash outflows, such as when an alternative manufacturing process lowers the costs of production.

An enterprise usually employs its assets to produce goods or services capable of satisfying the wants of needs of customers; because these goods or services can satisfy these wants or needs, customers are prepared to pay for them and hence contribute to the cash flow of the enterprise. Cash itself renders a service to the enterprise because of its command over other resources.

The future economic benefits embodied in an asset may flow to the enterprise in a number of ways. For example, an asset may be:

(a) used singly or in combination with other assets in the production of goods or services to be sold by the enterprise;
(b) exchanged for other assets;
(c) used to settle a liability; or
(d) distributed to the owners of the enterprise.

Many assets for example, property, plant and equipment, have a physical form. However, physical form is not essential to the existence of an asset; hence patents and copyrights, for example, are assets if future economic benefits are expected to flow from them to the enterprise and if they are controlled by the enterprise.

Liabilities

An essential characteristic of a liability is that the enterprise has a present obligation. An obligation is a duty or responsibility to act or perform in a certain way. Obligations may be legally enforceable as a consequence of a binding contract or statutory requirement. This is normally the case, for example, with amounts payable for goods and services received. Obligations also arise, however, from normal business practice, custom and a desire to maintain good business relations or act in an equitable manner. If, for example, an enterprise decides as a matter of policy to rectify faults in its products even when these become apparent after the warranty period has expired, the amounts that are expected to be expended in respect of goods already sold are liabilities.

The settlement of a present obligation usually involves the enterprise giving up resources embodying economic benefits in order to satisfy the claim of he other party. Settlement of a present of a present obligation may occur in a number of ways, for example, by:

(a) payment of cash;
(b) transfer of other assets;
(c) provision of services;
(d) replacement of that obligation with another obligation; or
(e) conversion of the obligation to equity.

An obligation may also be extinguished by other means, such as a creditor waiving or forfeiting its rights.

Equity

Although equity is defined as a residual, it may be sub-classified in the statement of financial position. For example, in a corporate enterprise, funds contributed by shareholders, retained earnings, reserves representing appropriations of retained earnings and reserves representing capital maintenance adjustments may be shown separately. Such classifications can be relevant to the decision-making needs of the users of financial statements when they indicate legal or other restrictions on the ability of the enterprise to distribute or otherwise apply its equity. They may also reflect the fact that parties with ownership interests in an enterprise have differing rights in relation to the receipt of dividends or the repayment of capital.

Performance

Profit is frequently used as a measure of performance or as the basis for other measures, such as return on investment or earnings per share. The elements directly related to the measurement of profit are income and expenses. The recognition and measurement of income and expenses, and hence profit, depends in part on the concepts of capital and capital maintenance used by the enterprise in preparing its financial statements.

The elements of income and expenses are defined as follows:

(a) Income is increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

(b) Expenses are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or than those relating to distributions to equity participants.

The definitions of income and expenses identify their essential features but do not attempt to specify the criteria that would need to be met before they are recognized in the statement of comprehensive income.

Income

The definition of income encompasses both revenue and gains. Revenue arises in the course of the ordinary activities of an enterprise and is referred to by a variety of different names including sales, fees, interest, dividends, royalties and rent.

Gains represent other items that meet the definition of income and may, or may not, arise in the course of the ordinary activities of an enterprise. Gains represent increases in economic benefits and as such are no different in nature from revenue. Hence, they are not regarded as constituting a separate element.

Expenses

The definition of expenses encompasses losses as well as those expenses that arise in the course of the ordinary activities of the enterprise. Expenses that arise in the course of the ordinary activities of the enterprise include, for example, cost of sales, wages and depreciation. They usually take the form of an outflow or depletion of assets such as cash and cash equivalents, inventory, property, plant and equipment.

Losses represent other items that meet the definition of expenses and may, or may not, arise in the course of the ordinary activities of the enterprise. Losses represent decreases in economic benefits and as such they are no different in nature from other expenses. Hence, they are not regarded as a separate element.

Capital Maintenance Adjustments

The revaluation or restatement of assets and liabilities gives rise to increases or decreases in equity. While these increases or decreases meet the definition of income and expenses, they are not included in the statement of comprehensive income under certain concepts of capital maintenance. Instead these items are included in equity as capital adjustments or revaluation reserves.

Recognition of the Elements of Financial Statements

Recognition is the process of incorporating in the Statement of Financial Position or statement of comprehensive income an item that meets the definition of an element and satisfies the criteria for recognition set out. It involves the depiction of the item in words and by a monetary amount and the inclusion of that amount in the Statement of Financial Position or statement of comprehensive income totals. Items that satisfy the recognition criteria should be recognized in the Statement of Financial Position or statement of comprehensive income. The failure to recognize such items is not rectified by disclosure of the accounting policies used nor by notes or explanatory material.

An item that meets the definition of an element should be recognized if:

(a) it is probable that any future economic benefit associated with the item will flow to or form the enterprise; and
(b) the item has a cost or value that can be measured with reliability.

The Probability of Future Economic Benefit

The concept of probability is used in the recognition criteria to refer to the degree of uncertainty that the future economic benefits associated with the item will flow to or from the enterprise. The concept is in keeping with the uncertainty that characterizes the environment in which an enterprise operates. Assessments of the degree of uncertainty attaching to the flow of future economic benefits are made on the basis of the evidence available when the financial statements are prepared. For example, when it is probable that a receivable owed by an enterprise will be paid, it is then justifiable, in the absence of any evidence to the contrary, to recognize the receivable as an asset. For a large population of receivables, however, some degree of non-payment is normally considered probable; hence an expense representing the expected reduction in economic benefits is recognized.

Reliability of Measurement

The second criterion for the recognition of an item is that it possesses a cost or value that can be measured with reliability. In many cases, cost or value must be estimated; the use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability. When, however, a reasonable estimate cannot be made the item is not recognized in the Statement of Financial Position or statement of comprehensive income. For example, the expected proceeds from a lawsuit may meet the definitions of both an asset and income as well as the probability criterion for recognition; however, if it is not possible for the claim to be measured reliably, it should not be recognized as an asset or as income; the existence of the claim, however, would be disclosed in the notes, explanatory material or supplementary schedules.

Recognition of Assets

An asset is recognized in the Statement of Financial Position when it is probable that the future economic benefits will flow to the enterprise and the asset has a cost or value that can be measured reliably.

An asset is not recognized in the Statement of Financial Position when expenditure has been incurred for which it is considered improbable that economic benefits will flow to the enterprise beyond the current accounting period. Instead such a transaction results in the recognition of an expense in the statement of comprehensive income. This treatment does not imply either that the intention of management in incurring expenditure was other than to generate future economic benefits for the enterprise or that management was misguided. The only implication is that the degree certainty that

economic benefits will flow to the enterprise beyond the current accounting period is insufficient to warrant the recognition of an asset.

Recognition of liabilities

A liability is recognized in the Statement of Financial Position when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement of a present obligation and the amount at which the settlement will take place can be measured reliably. In practice, obligations under contracts that are equally proportionately unperformed (for example, liabilities for inventory ordered but not yet received) are generally not recognized as liabilities in the financial statements. However, such obligations may meet the definition of liabilities and, provided the recognition criteria are met in the particular circumstances, recognition of liabilities entails recognition of related assets or expenses.

Recognition of Income

Income is recognized in the Statement of Comprehensive Income when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably. This means, in effect, that recognition of income occurs simultaneously with the recognition of increases in assets or decreases in liabilities (for example, the net increase in assets arising on a sale of goods or services or the decrease in liabilities arising from the waiver of a debt payable).

Recognition of Expenses

Expenses are recognized in the Statement of Comprehensive Income when a decrease in future economic benefits related to a decrease in an asset or an increase of a liability has arisen that can be measured reliably. This means, in effect, that recognition of expenses occurs simultaneously with the recognition of an increase liabilities or a decrease in assets (for example, the accrual of employee entitlements or the depreciation of equipment).

Measurement of the Elements of Financial Statements

Measurement is the process of determining the monetary amounts at which the elements of the financial statements are to be recognized and carried in the Statement of Financial Position and Statement of Comprehensive Income. This involves the selection of he particular basis of measurement. They include the following:

(a) Historical cost. Assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire them at the time of their acquisition. Liabilities are recorded at the amount of proceeds received in exchange for the obligation, or in some circumstances (for example, income taxes), at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business.

(b) Current cost. Assets are carried at the amount of cash or cash equivalents that would have to be paid if the same or an equivalent asset was acquired currently. Liabilities are carried at the undiscounted amount of cash or cash equivalents that would be required to settle the obligation currently.

(c) Realisable (settlement) value. Assets are carried at the amount of cash or cash equivalents that could currently be obtained by selling the asset in an orderly disposal. Liabilities are carried at their settlement values; that is, the undiscounted amounts of cash or cash equivalents expected to be paid to satisfy the liabilities in the normal course of business.

(d) Present value. Assets are carried at the present discounted value of the future net cash inflows that the item is expected to generate in the normal course of business. Liabilities are carried at the present discounted value of the future net cash outflows that are expected to be required to settle the liabilities in the normal course of business.

Concepts of Capital and Capital Maintenance

A financial concept of capital is adopted by most enterprises in preparing their financial statements. Under a financial concept of capital, such as invested money or invested purchasing power, capital is synonymous with the net assets or equity of the enterprise. Under a physical concept of capital, such as operating capability, capital is regarded as the productive capacity of the enterprise based on, for example, units of output per day.

Concepts of Capital Maintenance and the Determination of Profit

The concepts of capital above give rise to the following concepts of capital maintenance:

(a) Financial capital maintenance. Under this concept a profit is earned only if the financial (or money) amount of the net assets at the end of the period exceeds the financial (or money) amount of net assets at the beginning of the period, after excluding any distributions to, and contributions from, owners during the period. Financial capital maintenance can be measured in either nominal monetary units or units of constant purchasing power.

(b) Physical capital maintenance. Under this concept a profit is earned only if the physical productive capacity (or operating capability) of the enterprise (or the resources or funds need to achieve that capacity) at the end of the period exceeds the physical productive capacity at the beginning of the period, after excluding any distributions to, and contributions from, owners during the period.

THE ACCOUNTING CONCEPTS/ASSUMPTIONS/PRINCIPLES

Accounting practice has developed gradually over a long period of time. Many of its procedures are operated automatically by accounting personnel and there procedures in common use imply the acceptance of certain concepts. These concepts are the basis of our current accounting system.

Fundamental accounting concept

These are the broad basic assumptions, which underlie the periodic financial accounts of businesses enterprises. They are referred to by all accounting committees and above all, identified as fundamental by statute (The companies Act 1985) which also adds the separate valuation principles, They are:-

1- The going concern concept

This is the assumption that the business will continue in its operational existence for the foreseeable future (at least 12 months from all the reporting date) and that there is no intention or necessity to cut back the scale of its operations significantly (e.g shut down one of the departments or shop, supplying to a given sales deport) or to cease operations completely (wind-up)

2- The matching/accruals concept

This is the assumption that the financial statements disclose items in the period that they relate the revenues shown are those generated/earned during the given period and they are treated together with costs necessary incurred in generating such revenues. Any incomes received in the period which they don't relate to are not disclosed in the comprehensive income statement and any expense the benefits of which are not enjoyed during the period are also not shown in the financial statement (the comprehensive income statement).

3- The consistency concept

The consistency concept is the assumption that similar items have been awarded similar treatment and the same treatment is applied from one period to another in accounting for such items to allow for comparisons and decision making.

For example, if stocks are valued at their stocks cost during period 1, the period 2 stocks should as well be valued at cost and not at market price or replacement cost.

4- The prudence concept

A person is said to be prudent when he gives the most cautions presentation of the situation in accounting a knowledgeable user assumes that the prepares has been cautions to the extent that he has not anticipated any gains (all gains reported have been realised) and any expenses or losses foreseen with reasonable certainty have been recognised in the financial statements. One accounting standard; statements of standard accounting practices (SSAP). Disclosure of accounting policies describes these four concepts as fundamental accounting concepts. The companies Act 1985 adds to these four a fifth:

5- Materiality concept

This is the assumption that only material items appear in financial statements. Any immaterial items have not been highlighted or reported distinctly.Items are material if their omission or misstatement would affect the impact of the financial statements on the reader. Materiality as a concept is relative but some items disclosed in amounts are particularly sensitive and even a very small misstatement of such item would be seen as a material error.For example where the disclosure of the absolute amount if a statutory requirement. In assessing materially the content of the item is important; not only its amount i.e. consider the class of transactions, the amount balances and from the financial statement as a whole.

6- Historical cost concept

The basic principles of accounting is that transactions are normally stated in accounts at their historical amount i.e. at their values when they occurred and the value of items in the financial statements is based on the price that was paid for them. This is because there is an objective documentary evidence to prove the transaction e.g. the purchase price of an asset or amount paid for an expense on the invoice.

Accountants prefer to deal with objective costs rather than estimates. However the principle is faced with problems when the market value of property is higher than cost or where the assets wear and tear out and reduce value with usage and passage of time and the effects of inflation.

7- The money measurement concept

Accounting deals with quantifiable information i.e the information that can be measured in monetary terms. Much as most people will agree to the monetary valuations, accounting can never tell every thing about a business (qualitative workforce problems etc are not easy quantifiable.

8- Entity Concept:-This is the assumption that the affairs of an entity are treated as separate from the non-business activities of its owners. The items recorded in the books of the business are therefore restricted to the transactions of the business. The only time that the personal resources of the proprietor affects the accounting records of a business is when the proprietor introduces capital into the business or makes a drawing.

9- The dual aspect concept

This is the assumption that the preparer of the financial statements recorded the two aspects of each of the transaction of the business. The financial effect of each of the aspects is equal but opposite, one representing an asset of the business and the other representing claims against the assets.

10- The realisation concept

This concept is the reverse of prudence. It holds the view that incomes should never be anticipated unless they are realised. This guards against exciting owners about revenue that will never arise.

Income is realised when the goods or services sold are provided for the buyer who accepts liability to pay for them the monetary value agreed. At this point income is in cash or near cash form. The point at which income is realised may be different from time the customer pays for the goods or takes delivery.

The accounting period convention

For accounting purposes the life time of the business is divided into arbitrary periods of a fixed length, usually one year. At the end of each arbitrary period, at least two financial statements are prepared, the Statement of Financial Position and the profit and loss account which is drawn on the basis of matching concept. This is done to strike a compromise between theoretical accuracy and the needs of uses who require periodic financial statements which will form the basis of subsequent financial decisions.

The substance over form convention

This is the assumption that the preparer reflected the economic. Substance of transactions in the accounts irrespective of their legal form. For example, where assets are acquired on hire purchase or lease terms, those assets are not owned by the user until (in the hire purchase agreement) the final instalment has been paid and the hire purchase has exercised the option to buy. However, he should record as fixed assets in his amounts at the start of the hire purchase I lease agreement the cost of such assets. The substance of the transaction is that the accounts should reflect the use of a fixed asset in the business and the legal form is that the user does not have title to the fixed asset.

THE ACCOUNTING EQUATION

The whole of financial accounting is based upon a very simple idea; The accounting equation
If a business is to be set up and start trading then it needs resources.
Assuming that it is the owner of the business who has supplied all of the resources; This can be shown as;
Resources in the business = Resources supplied by the owner.

The amount of resources supplied by the owner is called CAPITAL. The actual resources that are then in the business are called ASSETS. This means that when the owner supplies all the resources the equation above can be shown as

Assets = Capital

It is assumed that people other than the owner supply assets to a business. The amount owing to these people is known as LIABILITIES. Therefore the equation can be modified as;

Assets = Capital + Liabilities

Each side of the equation will always have the same total value because it is the same thing thus

Resources: what are they? = Resources: who supplied them
= Assets (CAPITAL + LIABILITIES)

Its a fact that the total value of each side will always equal one another, and that this will always be true no matter how many transactions they may be. The actual assets, liabilities and capital may change, but the total of these assets will always equal the total liabilities + capital.

Assets consists of tangible, intangible, investments and current assets where as liabilities consists of long term and current liabilities. Capital is the owner's equity or the network of a business and comprises the initial out lay and any further capital introduction and any reserves adjusted for what is drawn out of the business by the owner.

ACCOUNTING CONCEPTS

- These are basic assumptions which underlie the periodic financial accounts of a business enterprise.

The accounting concepts are recommended within the International Accounting Standard No. 1 (IAS 1 - Presentation of financial statements).

These concepts include:

i) Historical cost concept
ii) Money measurement concept
iii) Business (separate) entity concept
iv) Realisation concept
v) Dual (double entry) concept
vi) Accruals concept
vii) Going concern concept
viii) Prudence concept
ix) Consistency concept
x) Substance over form concept
xi) Materiality concept
xii) Objectivity/ Neutrality/True & Fair View

i) Historical cost concept

- It means that assets are normally shown at cost price; and that is basis for valuation of the asset.
- This implies that:
  a) Transactions are stated at their value when they occurred.
  b) Assets are stated at their historical cost, such that the value of an asset in the Balance sheet is based on the price that was paid for it.

This concept is usually objective because there is usually documentary evidence to prove the purchase price of assets acquired, or amounts paid for expenses (i.e Invoices, GRNs, DNs will be available).

However, there are some problems with the principle of Historical Cost, namely :

. the wearing out of assets over time.
. the increase in market value of property over time
. inflation

ii) Money measurement concept

Accounting is mainly concerned with facts or transactions to which a monetary value can be attributed.

Therefore, Accountants will mainly record those transactions that :-

a) Can be measured in money terms and
b) Most people will agree to the money value of the transaction i.e. fair value in the eyes of a "reasonable man".

However, this implies that accounting (Book-keeping) may NOT give you all the details about a business enterprise, for example,

1. What does proper Book-keeping tell us about the good or bad character of the Top Managers anyway ! !

2. Do properly maintained Books of Accounts, ever inform us that the Labour force (Workers) are unhappy and about to strike ?

iii) The Business Entity concept

- This recognises the fact that for accounting purposes, a business is considered to be a separate entity from its Owners and/or Managers.
- This means that the business transactions (affairs of the company) are to be treated as being quite distinct from those of the non-business activities of the owners and/or managers.
- The items to be recorded in the books of the company, are therefore restricted to the business transactions only.
- The only time that the personal resources of the proprietor affect the accounting records of the business is when the proprietor (Boss) introduces money (Initial or Added capital) into the business or takes out money from the business (drawings).

Scenario:

1. Mr. Tyson Tonto, the owner of T.T & Sons, a wholesale shop in Kampala's Downtown (Kikubo), has appointed you to be the Assistant Accountant in his business. He has authourised you to issue a cheque worth 2 million shillings from the business bank account, for the payment of College tuition fees for Amarios Tonto Junior who has recently joined the University.

2. This morning, Mrs. Bond Tonto gave her husband, Mr. Tyson Tonto, Shs. 200,000/- for toys for their youngest son, Squadron Tonto. Mr. Tonto has smilingly informed you ! !

3. Yesterday Mrs. Bond Tonto visited their wholesale shop and picked household goods worth Shs 150,000/- and Mr. Tonto has advised you to write off those goods since they were not sold to any customer.

4. Early this Month, Mr.Tyson Tonto managed to negotiate for a 3 year loan of Shs 25 million from his personal bankers and has acquired a Corona saloon car worth Shs 8 million for himself and a Van worth Shs.13 million for the business. He is not willing to talk to you about the balance.

5. Mr.Tyson Tonto took pack of Ug Waragi from his shop paying cash Shs 40,000

Required: Comment about the above transactions.

iv) Realisation Concept

This concept recognises that profits can only be taken into account when actual earning has occurred. The Normal criteria observed include:

1.Goods or services are provided/delivered to the buyer.
2.Buyer accepts liability to pay for goods or services
3.The monetary value of the goods or services has been established
4.The buyer will be able to pay for the goods - i.e. the buyer is not bankrupt!!

Earning is neither that time when the order is received from the customer nor that time when the goods are finally paid for.
Earning occurs when a sale deal is assumed sealed - above criteria.
Consequently, profits are recognised in our Books of accounts when realised or earned.

v) Materiality concept
It recognises that only material items should appear in the financial statements.

Items are material transactions, if their omission or misstatement would affect the impact of financial statements, i.e. if a material transaction is omitted or misstated, the users take a different decision than they would have made without this omission or misstatement.

An error which is too trivial to affect anyone's understanding of accounting reports is referred to as immaterial.
However, small (trivial) transactions may be lumped up together with other trivial but similar items.
Likewise some transactions may be fairly estimated if immaterial and especially when the effort (time and labour) is not cost effective

Scenario

Is it worth establishing exact number of pens or sheets of duplicating paper that have been consumed by the finance department for the month of June ?

If the answer is YES, then we need to visit all the desk in the finance department in order to establish the balances of unused pens and paper !!

If the answer is NO, then we may assume that pens and sheets of duplicating paper already issued to finance department are already used up. After all they will be used up anyway !!

vi) Dual (Double entry) concept
For every business transaction that occurs there are two accounting records to be passed.

First entry - to be debited in an account A.
Second entry - to be credited in a another account B.

Both debit and credit entries to be equal in value (amounts in shillings or other currency)

- This dual concept emphasises the fact that a business enterprise owns assets and owes liability (to the owner and lenders).
- The assets are therefore funded by the owner and /or lenders
  A = C + L

Note: In accounting it is not the number of debit entries or credit entries that matters, but it is the total of debit entries that should be equal to the total of credit entries.

vii) Accruals (matching) concept

It states that in computing the profit, revenue earned must be matched against the expenditure incurred in earning it.

Furthermore, Revenues are recognised in the accounts when they are earned regardless of whether these incomes are received or not yet received)these Debtors).
Likewise costs and expenses are recognised in the accounts when they are incurred, whether these costs/expenses are already paid or outstanding (i.e. creditors and accruals).

Therefore, net profit is the difference between revenues and expenses
Net Profit = Revenue – Expenses i.e the sales and other revenues to be recognised for the year ended 31st December 2001 will be compared with all the costs and expenses for the year ended 31 December 2001, this way we shall derive the Net Profit of the year 2001.

viii) Going concern concept

The Going concern concepts implies that the business will continue in operational existence for the foreseeable future, and that there is NO intention to put the company into liquidation or to make drastic cutbacks to the scale of operations.

For the continuously operating business, the main importance of the Going Concern Concept is that assets of the business should NOT be valued at their "Break-up" or "Piece-meal" or "Net separable value" - which is the amount the business would sell for if the assets were to be sold off one by one.

If the Business is a Going Concern then the business will be valued as a whole, such that both the tangible assets e.g furniture and intangible assets e.g. Goodwill, may be included.

ix) Prudence Concept

It states that, where alternative procedures or alternative valuations are possible, the one selected should be the one which gives the most cautions presentation of the business's financial position or results. For example :-

- Assume that you are a fisherman who has made a Good catch of fish for the day, but you find yourself left with half of your catch by the end of your working day. Imagine the value of your closing stock !!
- Alternatively assume you are in textile business and you recently went to Dubai and Hong Kong, coming back with 10 pieces of dresses each costing Shs100,000.
  You have already sold the 10 pieces at shs 150,000 each but 8 of them on credit and your customers have not yet paid up !! Out of past experience 10% of debtors never pay you. What is your Debtors' figure in the Balance Sheet ?
- Likewise, assume you have bought

CONTROL ACCOUNTS

When a company carries out many transactions, it will have a lot of accounts records to keep. It will also follow that due to the voluminous nature of the accounts work, many errors and omissions may go undetected by the Trial Balance.

Therefore, companies with large volumes of accounts data to keep are advised to maintain a control account for each of the ledgers. Only those ledgers whose control accounts do not balance are the ones which will need a detailed check to identify the errors.

Format of the control accounts

	Total of the opening balances	X	
Add:	Total entries which increase the control account		X
Less:	Total entries which Decrease the control account		(X)
	Overall new total (Closing balance of Control account)		X X

Advantages of the Control accounts

1. Locating or detection of errors
2. Normally under a responsible / senior official therefore fraud is prevented
3. Management can extract control accounts' balances of debtors and creditors faster i.e. before the Junior officer derives the accurate balances from the Sales ledger (debtors book), the Sales ledger control account may be used.

a) A new clerk takes over responsibility for some of the sales records on 1 January 20x2. The summary figures he receives from his predecessor are as follows (at 1 January 20x2):

	Shs'000
Sales ledger control account	10,000
Sales ledgers: total of debit balances	10,483
Sales ledgers: total of credit balances	497

At 31 December 20x2, after his first year of responsibility the clerk arrives at the following summary figures:

	Shs'000
Sales ledger control account	16,600
Sales ledgers: total of debit balances	15,547
Sales ledgers: total of credit balances	551

On investigation you find the following facts, all of which relate to between 1 January 20x2 and 31 December 20x2:

i) June sales total was added as Shs 9,876,000 when is should have been correctly added as Shs8,967,000.

ii) A sales invoice which should have been charged to A's ledger account with an amount of Shs 642,000 had actually been charged to B's ledger account with an amount of Shs426,000.

iii) A credit note for customer D of Shs 123,000 had been incorrectly treated as a sales invoice in her ledger account. (Customer D's account had a large debit balance at 31 December 20x2).

iv) Contra entries of Shs 800,000 correctly entered in the separate ledger accounts, had been omitted from the control accounts.

v) Cash discounts given of Shs 74,000 have been completely ignored by the clerk.

Required

i) Calculate, with necessary workings, the adjusted figures at 31 December 20x2 for sales ledger control account, total of sales ledger debit balances and total of sales ledger credit balances.

ii) Produce a clear statement of the net amount of the remaining errors which the clerk appears to have made during the year 20x2 which have not yet been discovered.

Not for Profit Organisations (Clubs & Societies)

This are concerns whose intention is NOT to make profits but to provide vital services and facilities to the society (members of the general public). Their main intention is to improve the general welfare of society.
Examples may include :- UNICEF, UNDP, UWESO, SOS-Kakiri, Red Cross Society, CARE International, The Church of Uganda, Uganda Golf Union, FUFA, The Scouts clubs, ICPAU, ACCA, The Makerere Guild e.t.c

Upon critically analysing these examples, it is evident that although some of the above generate income, all the above clubs and Societies are Not set up to make any profits but to cater for you and me such that we may have better lives by providing health facilities, education facilities, social enmities, provide shelter to the poor, poverty eradication programmes and so on.

Accounting details will be recorded in the following :

1. **Receipts and Payments book –** will record all monies received and paid ut on behalf of the organisation. It is the *Cashbook* (if it is properly maintained). *Note : the balance may be given or you may have to extract by comparing the receipts against the payments made; the balance may be either a debit or credit (overdraft) balance.* The Receipts side (DR) Payments book may show donations received, proceeds from ticket sales, rent received, membership fees received, etc. The Payments side may show rent paid, donations paid, purchases actually paid, other expenses paid, Fixed assets acquired etc.

2. **Bar trading account –** this will show any profit or loss made out of the canteen, restaurant, bar etc . Some organisations may run bars or canteens as income generating activities, therefore it is vital to anlyse these operations to ascertain whether these canteens or bars are self sustaining or not.

<u>Bar trading account</u>
Bar Sales (Bar takings) X

Opening stock (bar)	X	
Bar purchases	X	
Closing stock	(X)	
Cost of Sales	**(X)**	
Bar gross profit		XX
less: Bar expenses		
Bar man's salary		X
Bar rental		X
Bar depreciation		X
Net profit on Bar operations		**XX**

Note : *The net profit from the bar is an income if a profit and an expense if a deficit, to be reflected in the Income and Expenditure account.*

3. **Subscriptions accounts** – since most of these organisations are funded by members, it proper to record the details of the membership fees received, fees in arrears (unreceived but due), fees in advance (received but not yet due), and the fees actually recognisable as Income for a particular period

The Annual Subscription account

DEBIT SIDE	**Shs**	**CREDIT SIDE**	**Shs**
Balance B/f – Arrears Subscriptions	X	Balance B/F – Advance subscriptions	X
Subscriptions earned (I&E a/c)	X	Subscriptions received (see Receipts side)	X
Balance C/f – Advance Subscriptions	X	Balance C/F – Arrears subscriptions	X
TOTALS	XX	**TOTALS**	XX
Balance B/f – Arrears Subscriptions	X	Balance B/F – Advance subscriptions	X

Note : **The common/ prudent practice for the NPOs is to ignore the Subscription in arreas since they may not take any action even when a member refuses to pay, but the EXAMINERS normally require recognition of the subscriptions in arrears.**

The Life membership account
Some of the members may decide to make one lump sum payment to the organisation, in respect of their subscriptions such that no more subscription fees are due from these members. The organisation may then set a policy of recognising that life membership fees over the remaining life span of the member, who has paid the life membership.
Note: follow the scheme given by the examiner

The Accumulated Fund B/F
Often the examiners leaves you with the burden of establishing the accumulated fund available at the beginning of the accounting period.
Technique to follow:

Accumulated fund = Fixed assets + Current assets – Current and long term liabilities

4. **Income and Expenditure account** – although these organisations are Not making profits, they earn income and also make payments in line with their objectives. Therefore we need to check on whether the organisation generate enough incomes to cater for the expenses it incurred in a a certain period or not. This is the equivalent to the trading, profit and loss account for the trading concerns and it is prepared it is prepared on *accruals basis*

Format of the Income and Expenditure account

The Raretes Golf club

Income and Expenditure account for the year ended 31st December 2002

Incomes	***Shs***	
Donations earned (small) X		
Subscriptions earned (from the subscriptions accounts)	X	
Net Profits from the Bar operations	X	
Surpluses on special fund raising activities e.g Dinner dances, tournaments, speeches		X
Other "revenue" incomes	X	
Total incomes XXa		
Expenditure		
Donations offered	X	
Rent for the year	X	
Office Depreciation, exclude bar depreciation	X	
Telephone & postage		X
Office salaries		X
Other office expenses (revenue)	X	
Total expenses XXb)		
SURPLUS OR DEFICIT (to be added to the Balance sheet figures)		***XX a-b***

5. **Balance Sheet** – to show the Assets, Accumulated Fund and Liabilities.

The balance sheet of the non profit making organisations is similar t that of the trading concerns with the **EXCEPTION of the Capital and reserves part.**

The NPOs maintain an Accumulated Fund account instead of a Capital account.

Format of the Balance Sheet

The Raretes Golf club

Balance Sheet as at 31st December 2002

	Cost	**Depreciation**	**Net Book Value**
Fixed assets	**Shs'millions**	**Shs'millions**	**Shs'millions**
Equipment	400	130	270
Vehicles	220	100	120

	620	***230***	***390***
Current assets			
Stocks(bar + others)		60	
Subscriptions in arrears		30	
Prepayments		25	
Cash balances		95	
Total Current assets			**210**
Total Assets Employed			**600**
Financed by:			
Accumulated Fund B/F		310	
Add: Surplus for the year		105	
Add: Donations (Big)		90	
Accumulated Fund C/F			505
Life Membership a/c			55
Current Liabilities			
Subscriptions in advance		17	
Trade creditors-bar purchase		13	
Accruals		10	
Total Current Liabilities			**40**
Total Funds Employed			**600**

Activity / Example
The following is a summary of the receipts and payments of Bitakuli Members' club during the year ended 31st July 2002

Receipts	Shs'000	Payments	Shs'000
Cash & bank balances b/f	210	Secretarial expenses	163
Competition tickets	437	Rent	1,402
Members' subscriptions	1,987	Speakers' expenses	1,275
Donations	177	Donations to charities	35
Refund of rent	500	Prizes for competitions	179

The following valuations are also available as at :

	31st July 2001	31st July 2002
	Shs'000	Shs'000
Equipment (original cost)	975	780
Subscriptions in arrears	65	85
Subscriptions in advance	10	37
Owing to suppliers of prizes	58	68
Stocks of prizes	38	46

Required:
Prepare the Income and Expenditure account for the Club and a Balance Sheet as at 31st July 2002.
(show the subscriptions account and the prizes account at a minimum)

STOCKS AND IAS 2
Stocks are the items which an organisation holds in its stores or premises either for Re-sale or for usage (consumption within business as stationery, raw materials).
Types of Stocks include:-
Stocks of Raw materials, which will be used for the manufacturing of Products,
Stocks of Work –in-progress, which will comprise the incomplete/ unfinished /half –made products,
Stocks of Finished goods, which are readily available for either sale or usage and
Stocks Consumable stores (e.g stationery, lubricants, fuel, cleaning materials, spare parts e.t.c).

Stock Taking Activity
Normally organisations carry out the Stock taking activity, to establish the physical quantities of stocks, attach a value and therefore establish their STOCK VALUATION for the Balance Sheet purposes.
Stock taking may be carried out at the end of an Accounting period or during the Accounting period.

The Storekeeper is the custodian of stocks and the main responsibilities include
- keeping all the organisation's stocks safe i.e against theft, damages and other foreseable dangers
- properly maintaining the stores, such that it has all the relevant favourable conditions to the stocks being maintained there e.g the storage for Fish require a good refrigeration system whereas the storage of Cement requires a dry store.
- Properly maintaining the stores records especially the quantities i.e Stock bin cards should be accurately updated.
  Key documents include Goods Received Note, Sales invoice, Loading orders, Purchase orders, Delivery notes to mention but a few.

Continuous stock taking
Perpetual stock taking

Cost or Net realisable value
IAS 2 recommends that:-
Stocks should be valued at either the Cost or Net Realisable Value but whichever is LOWER.
This ensures that the Prudence concept is upheld.

Tutorial note :

(i) this test is carried out on each category of stocks to ensure that this principle is respected. Damaged stocks, obsolete stocks, and slow moving stocks are normally adjusted to either cost or net realisable value whichever is lower.

(ii) cost implies the historical cost, which will include all costs incurred to have the stocks in their present location and conditions

(iii) Net Realisable value is the **Selling price** less the **related sales costs/related modification costs**, necessary for the sale to occur

Activity/Example

Tarjan Limited had stocks worth Shs.94,390,000/- as at 31st August 2002, its year end. During the stock taking exercise it was observed that several items which had cost a total of Shs.12,750,000/- had been damaged. The Production Manager has arranged for these to be repaired at a cost of Shs.1,400,000/- and the Sales Manager has confirmed a Sales order with one of the customers, who has agreed to pay Shs.13,150,000/- for these damaged goods provided they have been duly repaired and delivered to the Customer's premises. The delivery costs for this sale is estimated to be Shs.200,000/-

Required:

Advise the Assistant Accountant on the stock figure to include in the Balance sheet as at 31st August 2002.

Solution:

Damaged stocks	**Shs**
At Selling price	13,150,000
Less: repair costs	(1,400,000)
Delivery costs	(200,000)
Net Realisable Value	**11,550,000**
At Cost	12,750,000

Good stocks	*Shs.*
Total cost of all stocks in the stores	94,390,000
Less: Damages at cost	(12,750,000)
Add: Damages at Net Realisable Value	11,550,000
Therefore the Cost to be included in the Balance sheet	**93,190,000**

Stock Valuation Methods

FIFO, LIFO and AVCO are the most common methods.

IAS 2 recommends Cost methods to be used for stock valuation purposes, and in particular FIFO and AVCO are preferred.

The following details relate to the purchase and issues of Material 22XA for the month of March 2002.

Date	Quantity Purchased	Price per Kilogram	Quantity Issued
01.03.2002	100	300	-
05.03.2002	200	400	-

07.0 3.2002	-	800	150
15.03.2002	400	450	-
20.03.2002	-	900	450
27.03.2002	100	500	-
31.03.2002	-	1000	50

Required: Establish the Stock Valuation using FIFO, LIFO and AVCO methods

a) **FIFO – First in, First out**

This method assumes that the first goods to be received are the first goods to be issued

Refer to the Activity/example about Material 22XA

Date		Receipts			Issues			Balance	
	Quantity	Unit cost	Amount Shs.	Quantity	Unit cost	Amount Shs.	Quantity	Unit cost	Amount Shs.
01.03.	100	300	30,000	-	-	-	100	300	30,000
05.03.	200	400	80,000				100 200 300	300 400	30,000 80,000 110,000
07.03	-	-	-	100 50	300 400	30,000 20,000	150	400	60,000
15.03	400	450	180,000	-	-	-	150 400 550	400 450	60,000 180,000 240,000
20.03	-	-	-	150 300 450	400 450	60,000 135,000 195,000	Nil 100	450	45,000
27.03	100	500	50,000	-	-	-	100 100 200	450 500	45,000 50,000 95,000
31.03	-	-	-	50	450	22,500	50 100 150	450 500	22,500 50,000 72,500

b) **LIFO – Last in, Last out**

Goods which came in last are assumed to be issued out first i.e each issue of goods is made from the most recent consignment of goods received before the issue date, and where there is NOT enough left of the latest consignment, then the balance needed is issued from the next previous

Refer to the Activity/example about Material 22XA

Date		Receipts			Issues			Balance	
	Quantity	Unit cost	Amount Shs.	Quantity	Unit cost	Amount Shs.	Quantity	Unit cost	Amount Shs.
01.03.	100	300	30,000	-	-	-	100	300	30,000
05.03.	200	400	80,000				100 200 300	300 400	30,000 80,000 110,000
07.03	-	-	-	150	400	60,000	100 50 150	300 400	30,000 20,000 50,000
15.03	400	450	180,000	-	-	-	100 50 400 550	300 400 450	30,000 20,000 180,000 230,000
20.03	-	-	-	400 50 450	450 400	180,000 20,000 200,000	Nil 100	300	30,000
27.03	100	500	50,000	-	-	-	100 100 200	300 500	30,000 50,000 80,000
31.03	-	-	-	50	500	25,000	100 50 150	300 500	30,000 25,000 55,000

c) **AVCO – Weighted Average Cost**

With every new receipt (purchases) of goods made, the average cost for all the items in the stores is re-calculated.

Average cost is the **total cost of all the items** in the stores **divided** by the **total number of items** (quantity) in the stores.

Refer to the Activity/example about Material 22XA

Date		Receipts			Issues			Balance	

	Quantity	Unit cost	Amount Shs.	Quantity	Unit cost	Amount Shs.	Qty	Amount Shs.	Average Cost Shs.
01.03.	100	300	30,000	-	-	-	100	30,000	300
05.03.	200	400	80,000				100 200 300	30,000 80,000 110,000	366.67
07.03	-	-	-	150	366.667	55,000	150	55,000	366.67
15.03	400	450	180,000	-	-	-	150 400 550	55,000 180,000 235,000	427.27
20.03	-	-	-	450	427.27	192273	100	42,727	427.27
27.03	100	500	50,000	-	-	-	100 100 200	42,727 50,000 92,727	463.635
31.03	-	-	-	50	463.635	23,182	150	69,545	463.635

The effect of the stock method on the Gross profits may be analysed as follows:

Material 22XA

Trading Account per		FIFO	AVCO	LIFO
		Shs.	Shs	Shs
Sales	(150*800) + (450*900) + (50*1000)	695,000	695,000	695,000
Opening Stock		Nil	Nil	Nil
Purchases	(30,000+80,000+180,000+50,000)	340,000	340,000	340,000
Less: Closing Stock		(72,500)	(69,545)	(55,000)
Cost of Sales		267,500	270,455	285,000

Gross Profits	427,500	424,545
410,000		

It can be noted from the above analysis, that profits may be affected by the Stock valuation method chosen.

Activity/ practice question 5.1

Master Outfits Ltd has been in business for the past 3 years, dealing in Suits. Their purchases and sales of goods have been as follows:

		Purchases	Sales	
Year1	January	40 at 200,000/= each	November	50 at 325,000/= each
	September	30 at 220,000/= each		
Year 2	February	20 at 230,000/= each		
	May	10 at 245,000/= each		
	October	34 at 250,000/= each	December	28 at 720,000/= each
Year 3	April	17 at 270,000/= each		
	August	60 at 300,000/= each	September	62 at 825,000/= each

Required:

Calculate the Gross Profit for each of the three years using FIFO, LIFO and AVCO methods

Activity/ practice question 5.2

The results of a company's stocktaking at the financial year end were:

Item	Category	Cost (Shs.000)	Net Realisable Value
1	X	20	21
2	X	30	28
3	X	10	9
4	Y	70	73
5	Y	90	88
6	Y	100	102
7	Z	200	210
8	Z	250	240
9	Z	280	270

Required: Give the stock figure for Balance sheet purposes.

Activity

Megalot Ltd made the following purchases and sales of stock item C4321 during May 2002:

May 10th Purchased 3,000 units at Shs.6,000/= each

May 15th Sold 2,500 units at Shs.9,500/= each

May 17th Purchased 1,000 units at 6,650/= each

May 27th Sold 900 units at 9,750/= each

The opening stock was 250 Units at 5,500/= each

Required : (a) Compute the gross profit using FIFO, LIFO and AVCO bases

(b) Suppose that a physical check on item C4321 at end of May revealed 830 Units. What factors might account for the difference ?

What is the correct valuation for the following stock items

(a) 200 calculators invoiced at Shs 40,000/= each less 20% discount. The goods were delivered to the head office with a carriage charge of Shs 50,000/= for the consignment. Since purchase, the goods have been transported to a branch at a cost of Shs 56,000/= and the calculators have been rust proofed at a cost of Shs 3,000/= each. The invoice from the supplier was paid less a settlement discount of 5%.

(b) A Company's financial year ended 31st July 2002, which happened to be a Wednesday. It was not possible to take stock on that day, and stocktaking therefore took place on Saturday 3rd August 2002, when the stores were closed. The value at cost, of the raw material stock was Shs 9,320,600. However, during Thursday 1st and Friday 2nd August the following transactions occurred:

Raw materials costing	Shs.1,041,700 were received from suppliers
Raw materials costing	Shs.23,500 were returned to suppliers
Raw materials costing	Shs.899,100 were issued from the stores
Raw materials costing	Shs.54,600 were returned to the stores in good condition

Certain items included in the stocktaking valuation at a cost of Shs.783,200 were found to have a net realisable value of Shs.672,400. These items were not part of the four transactions occurring on 1st and 2nd August 2002.

Required

(i) State the value of the company's stocks of raw materials as at 31st July 2002

Tutorial Note : Some of the factors affecting the stock valuation method include: - ignorance, convenience, custom (company policy), taxation, remuneration purposes, advice from Experts (Auditors), and lack of information.

PARTNERSHIP ACCOUNTS

A partnership is a relationship between people carrying on business in common (together), with the view of making a profit. A number of partners is normally a minimum of two people and a maximum of 20 people.

The liability of the individual partners is normally ***unlimited***. Partnerships are normally run in accordance with their partnership agreements or deeds where applicable otherwise the *Partnership Act 1890* applies.

Partnership Deed

This is a written *(formal)* agreement among the partners regarding terms and conditions of the partnership business. Provisions normally include:

- The profit sharing ratio (PSR)
- The rates of the interests applicable on the Partners' capital or Partners' drawing (if any).
- The salaries payable to each Partner (if any).
- Goodwill valuation in the case of changes in Partnership.
- Other necessary and obvious provisions may include:

. Name of the Partnership
. The Location of the business
. Type of business to deal in, etc...

The Partners' Capital Accounts ("Fixed" Capital A/cs)

Partners contribute money to set up and run a business. These monies are recorded in the "Fixed" Capital A/cs

DR	Cashbooks or Asset account (e.g. car)		X
	CR Capital Account		X

Being money introduced into the business.

This capital account is a fixed (constant) account whose balances do not change with changes in day to day financial positions. These capital balances may only change in the case of changes within the partnership, i.e.

- Introduction of a new partner
- Retirement of the partner (or death)
- Revaluation of a partnership.

Dr Partners' Capital Account CR

Details	A	B	Details	A	B
Balance c/d	x	x	Balance B/f	x	x
	xx	Xx		xx	xx
			Balance b/f	x	x

Partners' Current Accounts

These are accounts in which day to day transactions affecting the partners would be recorded e.g. drawings, salaries, interest and capital balances, profits attributed to individual partners, etc..

Dr Partners' Current Account

	A	B		A	B
Drawings	x	x	Balance b/d	x	x
			Appropriation/Profit a/c	x	x
			Appropriation/salary a/c	x	x
			Appropriation/Interest on capital Account	x	x
	xx	Xx		xx	xx
			Balance b/f	x	x

Profit and Loss Sharing Ratio

These are normally stated in the Partnership deed and are usually based on the initial capital contribution or based on the individual partner's ability to solicit business (Clients) or manage the Partnership.

Partners' Drawings
Sometimes partners are entitled to withdraw some money from the partnership for their personal use. Partners may be required to pay interest on these drawings (to discourage them from making unnecessary withdrawals). Remember drawings directly reduce on Capital.

Interest on Capital
Some Partnership in their agreements provide that payments be made for interest on Partners' capital contributions. Partners with big capital balances end up earning interest on capital, as an incentive for partners to increase or maintain their capital (investment monies) within the partnership. *Interest on capital is not an expense to the partnership but a profit to the partners*. Normally charged on the opening capital balances of the partners.

Partners salaries
A partner may be responsible to perform some extra duties within the running of the business. Some partners are grossly involved in the day -to -day management of the business. As per the partnership deed such partners may be entitled to salaries.
A partner's salary is not a partnership expenses but it is part of the profit appropriations.

Appropriation of the Profit
The Appropriation A/c is prepared to divide the partnership profit or loss among the partners as specified in the Partnership Deed. The profits made by the partnership may be shared by the partners in the form of salaries, interest on capital and the remainder (residual) profits.

Accounting entries in relation to appropriation of profits may be as follows:

1. Net profit made during accounting period

DR	Profit and Loss Account	X	
CR	Appropriation Account		X

2. Partners salaries

DR	Appropriation Account	X	
CR	Current Account		X

Note: If these salaries have already been paid to the partners, then the cash A/c has been credited and drawing A/c has already been debited therefore:

DR	Appropriation Account	X	
CR	Drawings Account		X

3. Interest on Capital
DR Appropriation Account
CR Current Account

4. Interest on drawings
   DR Current Account
   CR Appropriation Account

5. Share of Profit (remainder)
   DR Appropriation Account
   CR Current Account
   Share of Loss
   DR Current Account
   CR Appropriation Account
   Drawings
   DR Current Account
   CR Drawings Account for each partners.

   N.B. The Trading Profit and Loss Account of a sole trader and a Partnership are similar, except for this appropriation (sharing) of profits.

Guaranteed Minimum Profit
Debit balance on current account

Some times the partners overdraw their current account by taking home more money than their profits that are due to them in a certain accounting period. In this case, there will be a debit balance in the current account of that partner i.e. the partner owes the business money.

If the business is still a going concern, this debit balance will be adjusted against the subsequent year's profits.

Partnerships and Goodwill
Goodwill means the reputation of the business. It is an intangible asset arising from the business' ability to make more profit as compared to other firms in the same trade and with the same assets.

This earning ability may be influenced by:

- Location of the business
- Good performance of the business (operational performance) i.e. the firm deliver well.
- Employment of high calibre staff (qualified experience, high integrity)
- Good management skills
- Broadly basic clients

The value of the partnership may be presented in the financial statements (Balance sheet statement will reflect the total assets owned by the business).

However, these assets will be based on the past recorded transactions. If the firm can yield/can be valued at a higher amount that its balance sheet asset figures, the difference is positive Goodwill.

Goodwill is the difference between the value of the entire business as a going concern and the value of its net separable assets.

Accounting Treatment of Loans in a Partnership

When a partner gives a loan within a partnership, they become creditors. Upon receiving the loan (in cash or cheque form) debit cash book, credit Loan account, being the loan liability).

DR Cash Book
CR Loan Account

Being the recognition of the loan.

In the balance sheet, this will be shown as either a current liability (if payable within the next 12 months or a long term liability if repayable after the next 12 months).

Upon calculation of interest as per the partnership deed, interest on loan (from partners) will be recorded as follows:
DR Profit and Loss Account (Interest Account)
CR Current Account

Interest on loans offered by the partners is an expense to the partnership and not on appropriations of Profits.

Tutorial Note:

If there is no partnership deed, the partnership Act 1890 applies i.e. interest will be awarded at 5% per annum on the loans by the partners to the business,

Basic steps of sharing out Partners' Profits

a) Establish the Net Profit for the period.

b) Appropriate profits as Interest on Capital, as salaries of the partners
DR Appropriation Account
CR Partners' Current Account

c) If the partners agreed to pay interest on drawings, calculate the interest on drawings due from each partner.
DR Current Account
CR Appropriation Account

d) As for the residual profits (net profit + Interest on Drawings - Interest on Capital - Partners salaries) share out in accordance with the Partners' Profit sharing ratio.

DR Appropriation Account
CR current Account

In case of a resultant loss,

DR current Account
CR Appropriation Account.

For drawings,

DR Current Account
DR Drawings Account

Retirement or Death of a Partner

Changes in a partnership automatically dictate preparation of a new partnership deed. This is due to the fact that wherever changes occur, **legally** the partnership dissolves and a new one is formed.

Therefore when a partner leaves the firm, his share of assets is calculated and transferred to him (or the representative). During these calculations assets are re-valued, liabilities are established, goodwill may be ascertained, etc..

REVALUATION

This involves the comparison of the market values of the assets and liabilities, with their net book values in the existing books of Accounts.

a) If the assets; Net Book Value NBV is higher than the new value (possibly market value), then there is a loss on revaluation i.e. asset valued at lower than NBV.
DR Revaluation Account
CR Assets Accounts
Being a loss on revaluation.

b) If the asset is valued at higher than NBV,
DR Asset Account
CR Revaluation Account
Being Profit of revaluation.

Upon establishing the overall balance on the revaluation Account (Credit balance = Profit, Dr. Balance = loss).

i) Credit balance = Profit
DR Revaluation Account
CR Partners' Capital Account using profit sharing ratios.
Being partners' share of profits on revaluation

ii) Debit balance = Loss
DR Capital Accounts of partners
CR Revaluation Account

Being partners' share of loss on revaluation.

GOODWILL

The excess of the price paid for the business over the market value of its individual assets and liabilities.

N.B. The value of goodwill may be given by the examiner or you may be given the scheme of calculation to follow.

Treatment of Goodwill in the Accounts

A business may choose to:

i) Write off goodwill immediately. In this case goodwill never appears in the balance sheet. This is normal treatment for the non-purchased goodwill, i.e. such as for the partnership. Upon establishing the value of goodwill, the following entries will be passed.

First entries DR Goodwill accounts using (old profit sharing ratio)
CR Partners' Capital Accounts only with old/existing partners are affected.

Second set of entries DR Partners' Capital Account (the new/existing partners affected. Using new profit sharing ratio)
Dr Goodwill Account

A,B and C are in partnership, sharing profits equally, C is retiring and Goodwill has been agreed at £30,000. Their capital accounts have £70,000, £45,000 and £56,000 respectively. Their current accounts have £15,000, £24,000 and £4,000 DR. respectively. A and B will contribute share profits equally.

Required: Present Goodwill, Capital and current Accounts.

GOODWILL ACCOUNT

Balance b/f	30,000	Capital	30,000

CAPITAL ACCOUNT

	A	B	C		A	B	
Goodwill	15,000	15,000	-	Balance b/f	70,000	45,000	56,000
				Goodwill	10,000	10,000	10,000

CURRENT ACCOUNT

A	B	C	A	B	C
		4,000	15,000	24,000	

ii) Write off goodwill over a period of years (i.e. amortised [depreciation] goodwill). This treatment assumes that goodwill has a definite or limited useful life and therefore it will be offset (charged) against profits.

Normal treatment for purchased goodwill. This goodwill appears in the balance sheet, and the amortised/depreciated amount in ma certain period will appear in the Profit and Loss Account.

iii) Retain the goodwill in the books of Accounts (on assumption that the reputation of the business is continuously improving).

ADMISSION OF PARTNERS

When a new partner is joining the firm:

i) The old existing partners will be interested in ensuring that they receive all their share of the profits already earned.

ii) The new partner will be interested in making sure that he doles not suffer a share of any previously incurred losses. Therefore it is necessary to ascertain the networth of the existing partners (including Goodwill shares) and sometimes involving the revaluetion of assets and liabilities.

Note: The total additional capital introduced by the new partner will be recorded as follows:
DR Assets Account (cash book/car etc.)
CR New partner's Capital Account.

Value of goodwill as the ;partnership admits a new partner.

First
DR Goodwill Account
CR Partners' Capital Account
(Use old P.S. Ratiuo)

Second
DR All the partners' Capital Accounts
CR The goodwill Account
(Use new P.S. Ratilo)

Example

Scap, Iron and Ore are partners in a scrap metal business, sharing profits in a ratio 5:3:2 respectively. Their capital and current accounts balances on 1 January 19x2 were as follows;

	Capital Account	Current Account
Scrap	24,000	2,000
Iron	18,000	(1,000)
Ore	13,000	1,500

Interest at 10% per annum is given on the fixed capitals and salaries of £8,000 per annum are credited to iron and Ore. Expansion of the business was hindered by lack of working capital. So Scrap made a personal loan of £20,000 on 1 July 19x2. The loan was to be repaid in full on 30 June 19x5 and loan interest at a rate of 15% per annum was to be credited to Scrap's account every full year. The partnership profit (before charging loan interest) for the year ending 31 December 19x2 was £63,000 sand the partners had made drawings of:

Scrap £16,000; Iron £16,500; Ore £19,000 during the year.

Required:

Prepare the Trading, Profit and Loss Appropriation Account, the Partners' Capital and Current Accounts, and the partnership Balance Sheet, in respect of the year ended 31 December 19x2.

Non Profit Making Organisations (Clubs & Societies)

This are concerns whose intention is NOT to make profits but to provide vital services and facilities to the society (members of the general public). Their main intention is to improve the general welfare of society.
Examples may include :- UNICEF, UNDP, UWESO, SOS-Kakiri, Red Cross Society, CARE International, The Church of Uganda, Uganda Golf Union, FUFA, The Scouts clubs, ICPAU, ACCA, The Makerere Guild e.t.c

Upon critically analysing these examples, it is evident that although some of the above generate income, all the above clubs and Societies are Not set up to make any profits but to cater for you and me such that we may have better lives by providing health facilities, education facilities, social facilities, provide shelter to the poor, poverty eradication programmes and so on.

Accounting details will be recorded in the following :

6. **Receipts and Payments book –** will record all monies received and paid out on behalf of the organisation. It is the *Cashbook* (if it is properly maintained). *Note : the balance may be given or you may have to extract by comparing the receipts against the payments made; the balance may be either a debit or credit (overdraft) balance.* The Receipts side (DR) Payments book may show donations received, proceeds from ticket sales, rent received, membership fees received, etc. The Payments side may show rent paid, donations paid, purchases actually paid, other expenses paid, Fixed assets acquired etc.

7. **Bar trading account –** this will show any profit or loss made out of the canteen, restaurant, bar etc . Some organisations may run bars or canteens as income generating activities, therefore it is vital to analyse these operations to ascertain whether these canteens or bars are self sustaining or not.

<u>Bar trading account</u>

Bar Sales (Bar takings) X
Opening stock (bar) X

Bar purchases	X	
Closing stock	(X)	
Cost of Sales	**(X)**	
Bar gross profit		XX
less: Bar expenses		
Bar man's salary	X	
Bar rental	X	
Bar depreciation	X	
Net profit on Bar operations		**XX**

Note : *The net profit from the bar is an income if a profit and an expense if a deficit, to be reflected in the Income and Expenditure account.*

8. **Subscriptions accounts** – since most of these organisations are funded by members, it proper to record the details of the membership fees received, fees in arrears (unreceived but due), fees in advance (received but not yet due), and the fees actually recognisable as Income for a particular period

The Annual Subscription account

DEBIT SIDE	**Shs**	**CREDIT SIDE**	**Shs**
Balance B/f – Arrears Subscriptions	X	Balance B/F – Advance subscriptions	X
Subscriptions earned (I&E a/c)	X	Subscriptions received (see Receipts side)	X
Balance C/f – Advance Subscriptions	X	Balance C/F – Arrears subscriptions	X
TOTALS	XX	**TOTALS**	XX
Balance B/f – Arrears Subscriptions	X	Balance B/F – Advance subscriptions	X

Note : **The common/ prudent practice for the NPOs is to ignore the Subscription in arrears since they may not take any action even when a member refuses to pay, however the EXAMINERS normally require recognition of the subscriptions in arrears.**

The Life membership account

Some of the members may decide to make one lump sum payment to the organisation, in respect of their subscriptions such that no more subscription fees are due from these members. The organisation may then set a policy of recognising that life membership fees over the remaining life span of the member, who has paid the life membership.

Note: follow the scheme given by the examiner

The Accumulated Fund B/F

Often the examiners leaves you with the burden of establishing the accumulated fund available at the beginning of the accounting period.

Technique to follow:

Accumulated fund = Fixed assets + Current assets – Current and long term liabilities

9. **Income and Expenditure account –** although these organisations are Not making profits, they earn income and also make payments in line with their objectives. Therefore we need to check on whether the organisation generate enough incomes to cater for the expenses it incurred in a a certain period or not. This is the equivalent to the trading, profit and loss account for the trading concerns and it is prepared it is prepared on *accruals basis*

Format of the Income and Expenditure account

The Raretes Golf club

Income and Expenditure account for the year ended 31st December 2002

Incomes	***Shs***	
Donations earned (small) X		
Subscriptions earned (from the subscriptions accounts)	X	
Net Profits from the Bar operations	X	
Surpluses on special fund raising activities e.g Dinner dance, tournament, speeches		X
Other "revenue" incomes	X	
Total incomes XXa		
Expenditure		
Donations offered	X	
Rent for the year	X	
Office Depreciation, exclude bar depreciation	X	
Telephone & postage	X	
Office salaries	X	
Other office expenses (revenue)	X	
Total expenses XXb)		
SURPLUS OR DEFICIT (to be added to the Balance sheet figures)		***XX a-b***

10. **Balance Sheet –** to show the Assets, Accumulated Fund and Liabilities.

The balance sheet of the non profit making organisations is similar t that of the trading concerns with the **EXCEPTION of the Capital and reserves part.**

The NPOs maintain an Accumulated Fund account instead of a Capital account.

Format of the Balance Sheet

The Raretes Golf club

Balance Sheet as at 31st December 2002

	Cost	**Depreciation**	**Net Book Value**
Fixed assets	**Shs'millions**	**Shs'millions**	**Shs'millions**
Equipment	400	130	270
Vehicles	220	100	120
	620	***230***	***390***
Current assets			
Stocks(bar + others)		60	
Subscriptions in arrears		30	
Prepayments		25	
Cash balances		95	

Total Current assets			**210**
Total Assets Employed			**600**
Financed by:			
Accumulated Fund B/F		310	
Add: Surplus for the year		105	
Add: Donations (Big)		90	
Accumulated Fund C/F			505
Life Membership a/c			55
Current Liabilities			
Subscriptions in advance		17	
Trade creditors-bar purchase		13	
Accruals		10	
Total Current Liabilities			**40**
Total Funds Employed			**600**

Activity / Example

The following is a summary of the receipts and payments of Bitakuli Members' club during the year ended 31st July 2002

Receipts	Shs'000	Payments	Shs'000
Cash & bank balances b/f	210	Secretarial expenses	163
Competition tickets	437	Rent	1,402
Members' subscriptions	1,987	Speakers' expenses	1,275
Donations	177	Donations to charities	35
Refund of rent	500	Prizes for competitions	179

The following valuations are also available as at :

	31st July 2001	31st July 2002
	Shs'000	Shs'000
Equipment (original cost)	975	780
Subscriptions in arrears	65	85
Subscriptions in advance	10	37
Owing to suppliers of prizes	58	68
Stocks of prizes	38	46

Required:

Prepare the Income and Expenditure account for the Club and a Balance Sheet as at 31st July 2002.

(show the subscriptions account and the prizes account at a minimum)

FINAL ACCOUNTS OF LIMITED COMPANIES:

Limited companies developed as a result of the need for owners not taking part in the management of the business. This is also coupled with the limitations of sole trade and partnership businesses.

A limited company is a legal person set up by law. A company once set up can sue or be sued in its own name.

The process of setting up a company is initiated by promoters, who draft the constitution of the company. The constitution consists of:

- Memorandum of association and
- Articles of association.

TYPES OF COMPANIES

Limited liability companies: In event that such a company fails to pay its debts, the members are only liable to the debts up to the amount of capital in form of shares they subscribed.

Private companies: These are companies;

- Whose membership is limited to a minimum of 2 and a maximum of 20,
- Whose shares are not easily transferable,
- That can not raise capital from the public.

Public companies: These are companies;

- Whose minimum membership is 7 with no maximum,
- Whose shares can be transferable and
- Which can invite members of the public to subscribe for shares.

Key definitions of capital:

1) Authorised share capital: This is the share capital that the company has been allowed to issue out to shareholders. It can also been referred to as registered or nominal capital.
2) Issued share capital: This refers to the total share capital actually issued to shareholders.
3) Called up share capital: This comprises that proportion of the issued share that the company directors have asked the shareholders to make payment for.
4) Uncalled up share capital: This is the proportion of the issued share capital which remains to be received in future.
5) Paid up capital: This is the total of the amount of share capital that has been paid for by the shareholders.

Types of shares

Shareholders of limited companies are entitled to rewards in form of dividends. The amount of dividends that each shareholder receives depends on the type of shares as follows:

Preference shareholders are entitled to a fixed percentage dividend and are supposed to receive it before any other shareholders receive anything. In the final accounts preference shares are stated as, say; 50,000 10% preference shares of shs. 1,000 each. This means that the total capital raised was;

Shs. 50,000,000 (50,000 shares x shs. 1,000)
and the dividend entitlement is;
Shs. 5,000,000 (shs. 50,000000 x 10%)

Ordinary shareholders: These are also referred to as equity shareholders rank for dividend from the remainder of the total profits. It is worthy of mention that the remaining profits of the company belong to the ordinary shareholders. They can be stated as, say, 20,000 Ordinary shares of shs. 1,000 each. The dividend for ordinary shareholders is normally determined by directors mid way (interim) or at the end of the year **(final**).

The income statement

The income statement of a limited company is drawn up in the same as that of sole traders in all respects except for the following additional items;

1) In the profit and loss account other expenses are considered like;
- Directors remuneration; This payment to directors is only found in company accounts.
- Debenture interest; A debenture is used when money is borrowed by a company in form of a loan and a certificate is issued out to loan providers. The debenture attracts a %age interest.
- Audit fees

2) Another addition is the appropriation account as shown below;

	shs.	Shs.
Profit before taxation		XXX
Less corporation tax		(XXX)
		XXX
Add retained profits b/f		XXX
		XXX
Profit after taxation		
Less	XXX	
General reserves		
Preference dividends	XXX	
Interim	XXX	
Final		
	XXX	
Ordinary dividend	***XXX***	XXX
Interim		XXX
Final		
Retained profits c/f		

The balance Sheet

The balance sheet would appear as follows;

	Shs.	Shs.	Shs.
Non current assets			
A			XXX
B			XXX
			XXX
Current assets			
Inventories		XXX	
Accounts receivables		XXX	
		XXX	
Cash at bank		XXX	
Cash in hand		XXX	
Prepayments		XXX	
Current liabilities	XXX		
	XXX		
Accounts payables	XXX		
	XXX		
Accrued expenses	***XXX***	(XXX)	
			XXX
Taxation			XXX
Debenture interest			
Proposed dividends		XXX	(XXX)
Working capital.		XXX	XXX
Long term liabilities			XXX
			XXX
Debentures			XXX
Other loans			XXX
Capital employed			XXX
Financed by:			
Ordinary shares			
Preference shares			
Retained profits c/f			
Reserves			

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Course Name	:Economics Theory

Course Description

This course deals with major economic models and theories, the behavior of market forces, main features of the Uganda economy, basic features of international economies as well as understanding Uganda monetary and financial system.

Course Objectives

- To strengthen the student's capacity in determining the market forces of demand and supply in their countries.
- To assist in providing basic economics knowledge for policy makers, government officials as well as people working in the private sector.
- To enable students make rational decisions in their own businesses/organizations in terms of economic decisions.

Course content

Introduction to Micro Economic theory

- Definition & scope of Economics
- Basic principles of Economics
- The Production Possibility Curve(PPF)
- Its implication on development of an economy
- The concept of a market
- Types of markets
- Price determination in the market
- Types of prices

Demand theory

- Definition of demand function
- Law of demand
- Factors that influence demand for goods and services
- Market demand
- Derivation of the market demand curve
- Factors that influence a change in demand
- The slope of the demand curve

Supply theory

- Definition of supply
- Law of supply
- Factors that influence supply of goods and services
- The slope of the supply curve
- Change in quantity supplied Vs change in supply

Production theory

- Definition of production

- Levels/stage of production
- Types of production
- Examining different factors of production
- FOP and their relevance to national development

Theory of Costs

- Types of costs
- Short run costs of production
- Examining the relationship between TFC, TVC and TC
- Long run cost curves
- Derivation of the long run average cost curve

Economies of scale

- Internal economies of scale
- External economies of scale
- Internal diseconomies of scale
- External diseconomies of scale
- The product concept of the firm

Market structures

- Perfect competition
- Monopoly
- Monopolistic competition
- Oligopoly

Assessment
Course work 40%
Exams 60%
Total Mark 100%

DEFINING ECONOMICS

According to Robbins, ''Economics is a Science which studies human behaviour as relationship between ends and scarce means which have alternative uses". When defining economics, the following should be noted.

1. Economics is a social science because it studies and predicts human behaviour.
2. Human wants are insatiable (endless). It is assumed that man is borne greedy and that all his wants can never be satisfied.
3. Man satisfies some of his wants by consuming (using) goods and services (commodities). These commodities are produced by using resources (factors or means of production), which are scarce.
4. Means or factors of production have alternative uses. Therefore man has to allocate them well to produce the maximum possible amount of commodities.
5. The economic problem arises when man tries to allocate the scarce resources to produce commodities that would satisfy his wants (ends) the more.

6. Time is also scarce in the production process. There are 24 hours in a day, which have to be allocated to different tasks.

THE SCOPE OF ECONOMICS

This refers to the limit to which economic problems can be discussed in addition to what is implied in the definition, the following should be noted about the scope of economics.

1. The subject matter of economics. This covers all aspects of economics activity namely. Production, exchange, consumption & distribution of commodities. Production involves the "creation" of goods and services. Exchange is the transfer of goods and services Distribution concerns the division of goods and services among individuals and groups.
2. Economics is both an Art and science. As an art; Economics involves the utilisation of facts of science for practical purposes. As a science, economics is a systematized body of knowledge ascertainable by observation and experiment and it uses a scientific method to process theory.

   A scientific method consists of 2 approaches;

   (a) Induction: This involves the use of observation, collection and organisation of facts about events to derive laws (theories) which can be tested.
   (b) Deduction: This is where assumptions and conclusions about events are tested against actual events.

3. Economics is a positive & normative science. Positive economics is about what the world is, was or will be. It is about facts in real life.
   Normative economics is about what the world should be or would be or ought to be – normative economics depends on individual's opinion. Economics disagree on most normative statements but agree on most positive statements.
4. Economics is related to other social sciences. Other social sciences include political science; sociology psychology etc. problems in these sciences affect economic condition of any country.
5. Economists get technical facts from natural science and engineering natural sciences like physics & chemistry can provide scientific facts, which can be used in economic analysis. However Economics and other social sciences differ from natural science because;
   (a) Social sciences deal with the behaviour of man, which change over time with changes in economic social and political conditions.
   (b) Experiment in social sciences cannot be controlled. E.g. When investigating the relationship between the price and quality demanded of a commodity one can not control other factors like income tastes and preferences etc. which also affect demand in such a case it is assumed that other factors remain constant (ceteris paribus) while investigating economic phenomenon.

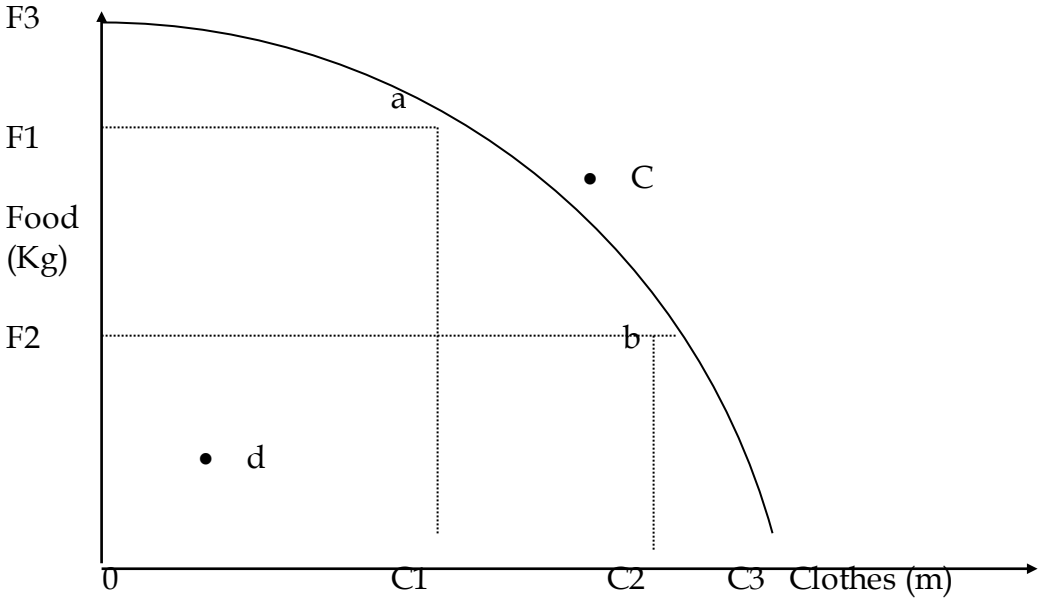
BASIC PRINCIPLES OF ECONOMICS

Basic principles of economics explain fundamental economic problems of man. These principles are:

1. Scarcity: Scarcity means that all commodities are relatively less than people's desires for them. This is because resources are not enough to produce all commodities that people want to consume. Scarce goods are called economic goods where as those which exist in abundance are called free goods. Economists are mainly concerned with economic goods. However scarcity is relative term, e.g. Gold is more scarce than sand because it has more demand than supply compared to sand.
2. Choice: Choice refers to the taking of the right decision. It arises because of scarcity, which requires one to find consumers to issues like what goods shall be produced? For who shall be produced? How much shall be produced? Etc. If human beings were rational they would rank their wants in their order of preference (priorities) such that they would first satisfy the most pressing wants and end with the least pressing wants. Such a list of wants organised according to priorities is called the scale of preference deadline.
3. Opportunity cost: It refers to the next alternatives foregone when choice is made. It also arises because of scarcity e.g. by buying a car, you can forego a house when resources are not enough to buy both. If the house is the next alternative on your scale of preference, the opportunity cost of having one car would be the number of houses that you forego (do with out). This principle is illustrated on the opportunity cost curve or production possibility frontier (PPF).

THE PPF

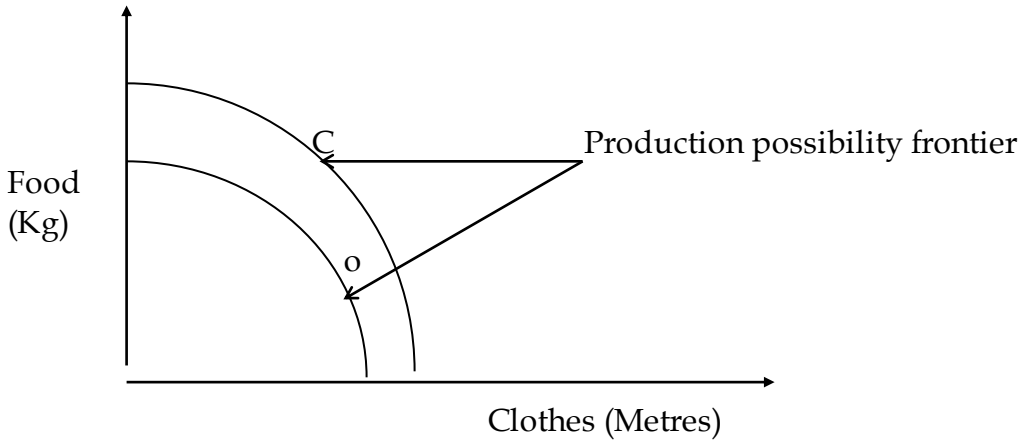
It is a locus of points showing the combinations of commodities that may be produced when all resources are fully utilised E.g. assuming that a country utilises all its resources to produce clothes and food, the production possibility curve would appear as shown below.



The above figure shows that a country can produce either 0F3 Kg of food or 0c3 metres of clothes or various combinations of food and clothes.

The PPF illustrates the following:

1. Scarcity and choice: Resources are scarce because the country cannot produce beyond its production possibilities curve using the fixed resources. According to the above figure, to produce C_1, C_2 more metres of cloth, we forego F_1, F_2 kg of food. Hence there is a need to choose between the two and to assume questions; what to produce? How much of each commodity to produce?
2. Opportunity Cost: This is illustrated by a movement along the production possibility frontier. E.g. in the figure above, from a to b, to produce C_1, C_2 more metres of cloth, we forego F_1, F_2 kg of food. Therefore, the opportunity cost of producing C_1C2 extra metres of clothes is $F1F_2$ kg of food that we forego.
3. Efficiency in production: In figure above points on the curve (e.g. a and b) show efficient utilisation of available resources. Points inside the curve (e.g. d) shows that some resources are not utilised i.e. there is under employment or inefficiency. Points outside the curve (e.g. c) are not attainable using available resources.
4. Economic growth: This is illustrated by the shift of the production possibility frontier outwards (to the right as shown below.



The above figure indicates that there is an increase in resources and hence increase in commodities produced. This may be the result of discovering more resources e.g. minerals or importing more resources.

ECONOMIC THEORY

(a) This involves presentation and analysis of small economic group or groups of individuals e.g. price of one commodity, SS & dd of one commodity, study of one firm etc.
(b) Macro economics:- This deals with total or aggregate behaviour of all individuals in each economy. It looks at the economy as one functioning unit e.g. aggregate income, aggregate dd and SS, inflation, unemployment etc.

Obviously macro economics explanations are not necessarily separate from micro economic explanations e.g. the growth of the economy is most likely to have been affected by the allocation of investment funds across the various sectors of the economy; Unemployment will be affected by the decline and rise of individual industries, but the fundamental reason for a distinction being made is the notion that broad aggregates might behave differently from the way that is predicted by theories based on observing the

behaviours of individual's markets, e.g. a cut in wages in one industry may make it profitable for employers in that industry to employ more workers but Keynes suggested that a cut in wages across the economy as a whole might reduce the aggregate demand for goods and services hence forcing all employers to cut back on production and hence workers.

(c) Development theory: this involves the analysis of the whole society it looks at the past trend, analyses the present and predicts what will happen in the future e.g. it looks at change in national income in a changing society.

ECONOMIC SYSTEM

This refers to the organisation of ownership, allocation and distribution of resources in each economy. The major economic systems include planned/command economies, market economies, subsistence economies and mixed economy.

Planned/Command economies: In a command economy, all or most decisions about resource allocation are made by central planning authority. The government fixes the quantity of each good to be produced and the price at which is sold.

It sets quotas for each individual production unit. It decides how many resources should be employed in producing the goods. The state decides how each worker is to specialise. Such a government believes that it knows best how to organise, distribute and co-ordinate a country's resources.

There is no private profit, because all resources are public owned. The individuals consumer, although being able to express a desire for certain types. Communist economies are command economies. In such planned economy, economic efficiency depends on the accuracy of the government's plan in fore costing society's wants and allocating resources to meet them. Frequently the chosen output mix will be inefficient, for instance the prices of certain consumer goods may be set at a lower level than the free market price for ideological reasons.

In a communist economy people there have only limited freedom, if any in their economic decisions, but in return they have greater security and greater social equality, basic necessities should be made available to every one at the price fixed by the government that they can all afford, but there are frequently shortages of consumer goods, which limit that choice.

The disadvantages of a planned/command Economies.

1. Having the state controlled price system it becomes impossible to judge the wants of households and so what is produced might not be what the household wanted.
2. Planning usually involves large bureaucracies, which are wasteful labour resources.
3. The co-ordination and management of large-scale economic plans are difficult in practice because of the enormous scale of the undertaking.

4. It is arguable that government of individualship lessens the incentives, of individuals and reduces initiatives, efforts and productivity due to absence of profit motive.
5. There is no consumer sovereignty; therefore freedom of choice is violated.
6. Due to opposition of masses, centrally planned economies have always been characterised by lack of domestic institutions.
7. There is absence of competition in a command, which is a discentive to efficiency.

Advantages of Command/Planned Economy

1. It ensures proper allocation of resources
2. There is price and economic stability, which can lead to rapid economic growth e.g. the communes of China.
3. Maximisation of social welfare due to public ownership.
4. The state gets full control and is able to implement economic plans effectively.
5. It reduces income inequalities by removing inequalities of opportunity in society.
6. The production and consumption of un desirable goods (demerit goods) can be prevented.
7. Public goods and merit goods can be provided since production in a planned economy is not for profit motive.

Capitalist system/Litisses faire/free market economy:

A capitalist free market economy is a complete contrast to a planned economy because economic decisions are left to individuals.

The allocation of resources is the result of countless individual decisions by producers & no role for the government (state) in directing and allocation of resources.

In this system there is freedom of choice in that individuals are free to buy and hire economics resources, to organise these resources for production to sell their products in markets of the own choice. Because of this, individuals are free to enter and leave any industry producers are motivated by profits their production decision.

Thus in a market economy quantities produced, prices and resource allocation are all market determined. However, a free market economy might create un satisfactory outcomes for how wealth is distributed, what goods are produced and how they are produced.

Disadvantages of the market Economy

1. Since all resources are only available at their prevailing market prices some members of the community might be badly deprived, unable to afford even the basic necessities of the life.
2. It might result in a very unsatisfactory and socially un acceptable distribution of income.
3. Some desirable products may not be produced for lack of profitability e.g. construction of roads, Health centres etc.
4. Some un desirable products may be produced e.g., dangerous addictive drugs.

5. Competition may be eliminated by monopolies and other restrictive practices, reflecting the disproportionate economic power of certain firms and groups of society.
6. Competition may lead to a wastage of resources e.g. excessive advertising.
7. Private wealth may be maximised at the expense of others. Where such equalities of wealth exist, resources may be allocated to production of luxury goods to the exclusion of necessities for the poor.
8. Some vital services (e.g. police and courts of law, fire services, etc) would not be provided by private enterprises and must be provided by the government.
9. Some prices of key goods (e.g. agricultural goods) might be volatile, subject to big rise and falls unless measures for prices stabilisation are taken by the government.
10. Some other key goods, such as health and education, might be provided in inadequate quantities in a free market. And provision of those goods by the state will be necessary to create them in adequate quantities.

Advantages of the market economy

1. Good quality products are likely to be generated since in free market economy there is competition, which encourages the improvement in quality or products.
2. It does not require any person to monitor it and thus costs of administration are reduced.
3. It provides an incentive to work hard and efficiency through price and profit signals. Resources go to those who can utilise them better.
4. Goods and services may be available to consumers at cheap prices. Since individuals are not forced to buy goods which he cannot afford especially if they are not essential goods.
5. Consumers sovereignty is promoted. Producers produce goods which consumers buy more.
6. Flexibility in production depending on profitability.
7. There is no resource wastage.

Mixed Economics

There is a system, which combines competitive private enterprises with some degree of central control. The disadvantages of both an entirely command economy or an entirely free market economy suggest that, a certain amount of government planning is valuable, despite the problems of a controlled economy.
Thus a mixed economy is that economy where some resources are owned by state (government) and others by private individuals.

<u>Reasons as to why the government have no intervene in a free economy.</u>

1. To restrain the unfair use of economic power by monopolies or other bodies who might be able to impose their wishes on the rest of society.
2. To correct the inequalities of the free market system, distributing wealth between individuals and regions.
3. To provide goods and services that private enterprises would be reluctant or unable to provide in sufficient quantities and at an acceptable price e.g. special equipment for handicapped people, armed forces and the provision of electricity and railway system.

4. To remove socially undesirable consequences of private production e.g. pollution control, regional imbalance in employment.
5. To direct change in the structure of the nations industries, by retraining programmes, aid to renew industries, investment in research and development etc.
6. To manage inflation rates, employment levels, the balance of payments and the economic growth rates in accordance with social objectives.
7. To moderate the ups and downs in the trade cycle, by trying to deepen dd when it is so high that steep price inflation occurs.

PRICE THEORY

Price theory is the study of prices. Prices are relative values of goods and services in terms of money at a particular time. Price theory is also concerned with the economic behaviour of individual consumers, producers and resource owners. It explains the production, allocation, consumption and pricing of goods & services.

THE CONCEPT OF A MARKET.

In economics, a market is an arrangement in which buyers and sellers negotiate the exchange of a well defined commodity. In the market, buyers and sellers must communicate together.

TYPES OF MARKETS

1. Product markets: These are markets in which goods & a service to consumers are bought and sold.
2. Resource markets: These are markets in which production resources especially labour and capital are bought and sold.
3. Spot market: This is a market where a commodity or a currency is traded for immediate delivery.
4. Forward market: This is also referred to as future market. This is a market where buyers and sellers make a contract to buy or sell commodities or services at a fixed date of the price agreed in the contract.
5. Free market: This is a market where there is no government (central authorities) intervention.
6. Controlled market: This is a market controlled by the government.

Types of markets as per structure.

7. Perfect market: This refers to the market where non of the buyers or sellers had the power to influence prices in a market by either influencing demand or supply.
8. Imperfect market: This is a market where a buyer or a seller has the power to influence the price in the market by either influencing demand or supply.

PRICE DETERMINATION IN THE MARKET

Price: The price of a good or in put shows what has to be given up in order to obtain a good or service. It is usually denoted in money terms, although payment not need be in monetary terms only.

In the market, price is determined in the following ways.

1. Haggling: This is when a seller asks for a given price and a consumer urges for a suitable price. The seller keeps on reducing the price and the buyer keeps on increasing the amount is willing to pay. Both parties will reach a compromise and that will be the price of a commodity. If a consumer have got more power, the price will be in his favour and vis –versa.
2. Fixing by treaties: Here buyers and sellers come together to fix the price of a commodity. The price agreed upon can later be revised by amending the treaty, e.g. the prices of coffee used to be fixed by the international coffee agreement. Prices of commodities can also be fixed by the government.
3. Sales Auction: This takes place when there is one seller and many buyers. Buyers compete for the commodity by offering high prices. The commodity is taken by one who pays the higher prices (the highest bidder) the seller at times fixes the reserve price or the minimum price he/she can accept.
4. Determination of price by forces of demand and supply.
5. Resale price maintenance: Some manufacturers want to control the prices at which the retailers will sell their products. They (manufactures) allow a discount to retailers and indicate to them the price to change consumers e.g. newspapers.

TYPES OF PRICES

(a) Equilibrium Price: This is a price determined by forces of demand and supply.
(b) Market Price:- This is the price prevailing in the market at any particular time.
(c) Normal price:- This is the equilibrium price which is established after along period of fluctuations.
(d) Reserve Price: This is the minimum price below which a seller will not sell his commodity in a perfectly competitive market.

ANALYSIS OF DEMAND AND SUPPLY

DEMAND THERORY

Demand refers to the desire backed by the ability and willingness to have the commodity desired. The total demand in an economy is referred to as "aggregate demand". Demand backed by actual payment may be described as effective demand"

DEMAND FUNCTION

This is an algebraic expression of the dd schedule expressed either in general terms or with specific numerical values expressed for various parameters and usually including all factors affecting dd.

i.e. Qd = F(pi, pj, yh, t, E, Dy, A, G, P_n, Setc)

Qd = demand of a good
Pi = Price of goods
Pj = price of other goods
Yh = the size of household income
T = tastes and fashion
E = expectations
Dy = the distribution of income
A = Advertising
G = Government policy
Pn = Population
S = Seasonal changes

Thus the demand for a commodity is influenced by so many factors some of which are the following:

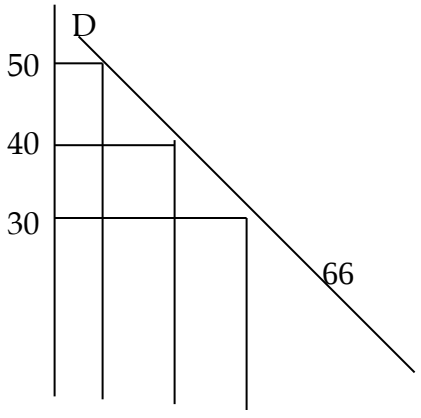
Demand and price of the good
The demand of a good depends on its own price. The higher the price, the lower the quantity demanded and vice versa. When the price increases, consumers will buy less of the commodity whose price have increased and buy more of the substitute whose price will have not changed.

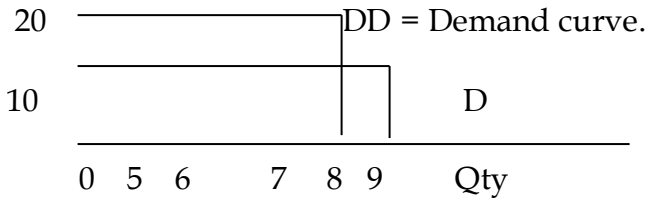
The demand schedule.
This is a table showing the level of demand for a particular good at various levels of price of the good in question. It relates to the specific period of time (e.g. per annum, per month etc) it is drawn on the basis that other factors affecting the level of demand e.g. income, tastes, price of other goods etc are held constant.

Demand schedule for soap powder

Price per Kg	Quantity demand in 10 kgs
10	9
20	8
30	7
40	6
50	5

We can show this schedule graphically with price on Y-axis and quantity demanded on the X-axis.
The demand curve price





The demand curve is drawn by joining the points shown in the figure above by a continuous line DD. Thus the demand curve is a graphical representation of the demand schedule. It is a locus of points showing quantity demanded of the commodity at various prices per period of time. It is drawn on the assumption that the higher the price the lower the quantity demanded and vis-versa other factors remaining constant.

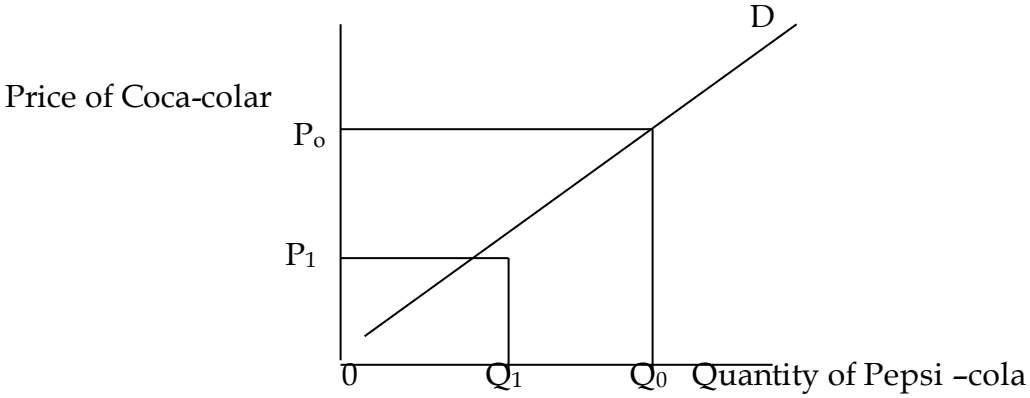
2. Demand and the price of the other goods.

The change in one good may not necessarily change the demand for another good e.g. on increase in the price of salt will not affect the demand for motor cars, However there are goods for which the market demand is in some way interconnected these inter-related goods are referred to as either substitutes or complements.

Substitutes goods

These are goods that are alternative to each other, so that an increase in demand for one is likely to cause a decrease in the demand for another e.g. Coca-cola and Pepsi –cola, bus rides and car rides etc.

The cross demand curve of substitutes.



In the figure above, a fall in price of coca-cola (Po-P1) causes a decrease in the demand for Pepsi-cola from Q0 to Q1.

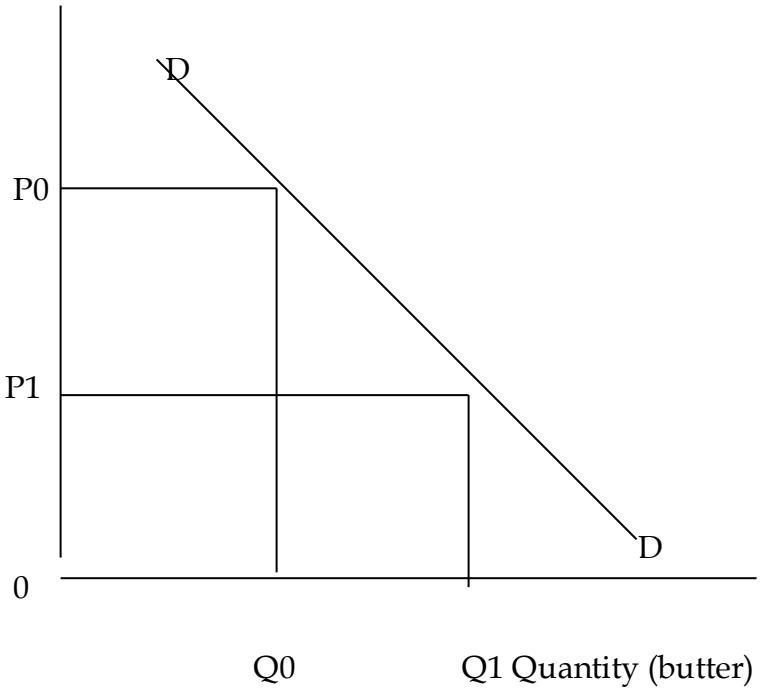
Goods are regarded as substitutes if a rise (or a fall) in the price of one good results in a rise (or fall) in demand for the other. The extent or amount of substitution that takes place depends on:

(a) The amount of price change
(b) The closeness of substitutes.

Complements
These are goods that tend to be bought and used together so that an increase in the demand for one is likely to cause an increase in the demand for the other e.g. motor cars and fuel, bread and butter etc.

In the above figure a fall in the price of bread from P0 to P1 will increase the quantity of butter demanded from Q0 to Q1 because demand for bread will rise in response to the price change.

The demand curve of complements
Price of bread



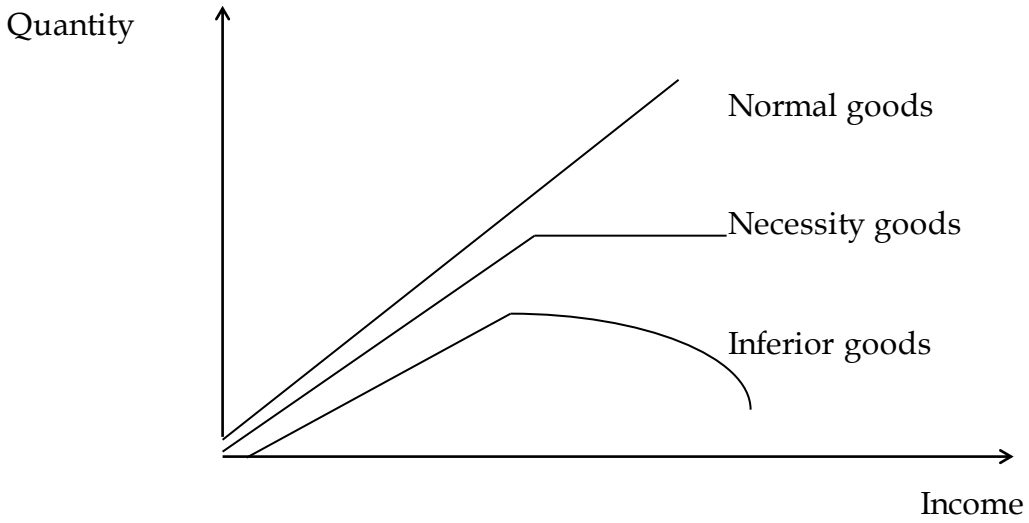
3. Demand and the size of the household income

   The level of income that a household earns will affect the demand for a good. More income will give household more to spend and they will want to buy more goods at exiting prices. However, a rise in household income will not increase the market demand for all goods and services. The effect of a rise in income on demand for an individual good will depend on the nature of the good.

   (a) If arise in household income increases demand for a good, then such a good is a normal good.
   (b) If demand increases up to a certain point and then remains uncharged as house hold income continues to rise e.g. basic foodstuffs such as salt, bread etc for which demand can reach a maximum level because there is a limit to what consumers can or want to consume then such goods are necessities.
   (c) Goods whose demand eventually falls as income rises are called interior goods e.g. tripe, Kasese Waragi etc. The reasons for falling demand is that consumers will prefer

superior products to interior products (e.g. beef instead of tripe, Uganda waragi instead of Kasese (crude) then goods are interior goods.

The above three cases can be illustrated with the figure below:



4. Demand taste and fashion.

   A change in fashion will alter the demand for a product. Changes in taste may stem from psychological, social or economic causes e.g. if it becomes fashionable for middle class households in Sheraton Hotel to drink wine with their meals, the flow of expenditure on wine will increase.

   Taste of fashion is likely to be un predictable and so changes in demand might be only temporary e.g. the influence of an advertising campaign may have a temporary effect on demand.
5. Demand and expectations

   Where consumers believe that prices will rise, or that shortage will occur, they will attempt to stock up the product, thereby creating excess demand in the short run which will increase the prices. This can then lead to panic buying e.g. fear of war, expectation of the budget, the effects of strikes etc.
6. Demand and the distribution of national income

   Market demand for a good is influenced by the way in which the national income is shared between households when income is equitably distributed in the economy, the market demand for the product will be high and vice-versa.
7. Demand and seasonal changes

The demand for certain product changes according to changes in seasons e.g. X-mas cards, tapes etc. When the season is favourable, the demand will be high and vice –versa.

8. Government policy and demand

   When the government imposes taxes on goods, prices of goods increases.
   This discourages consumers and quantity demand reduces. The offering of subsidies by the government encourages consumption and therefore quantity demanded increase.

9. Population

   The demand for the production is influenced by the size of the population, a big size of population will lead to move effective demand than a small one provided by the population has an ample purchasing power.

The individual demand curve

The individual demand curve focuses the attention on the effects of a change in the prices of one commodity on the consumer's behaviour. It is influenced by factors like:

(a) The goods own price
(b) Price of other goods
(c) The size of household income
(d) Tastes and fashions
(e) Expectations
(f) Advertising.

Market Demand

The market demand is the summation of the individual consumer's demands for a homogeneous commodity. The summation of different quantities of a commodity demanded by a number of individuals at various prices will give "a market demand schedule)".

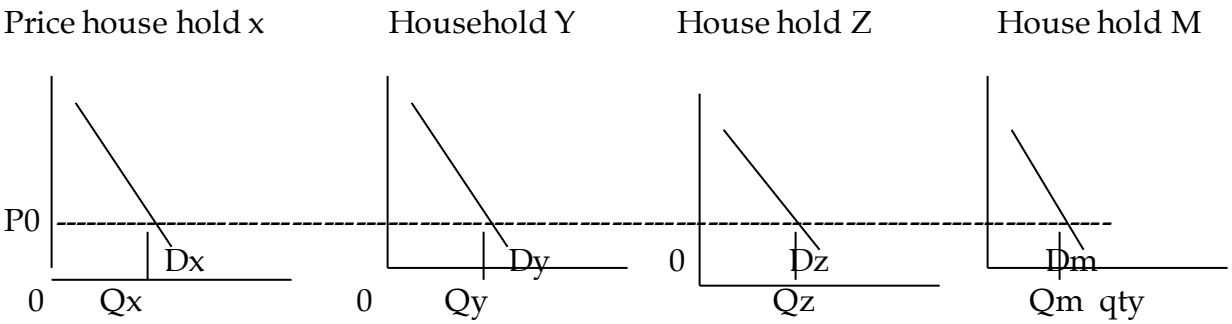
The market demand schedule for three consumers (X,Y,Z)

Price (shs)	Quantities dded in 000kgs			Total demand in 000kg
	X,	Y,	Z	
600	5	3	2	10
500	8	7	5	20
400	11	10	9	30
300	14	14	12	40

Market demand curve

This curve is also drawn from the demand schedule, expressing the expected total quantity of the good that would be demanded by all consumers together at any given price.

Derivation of the market demand curve.



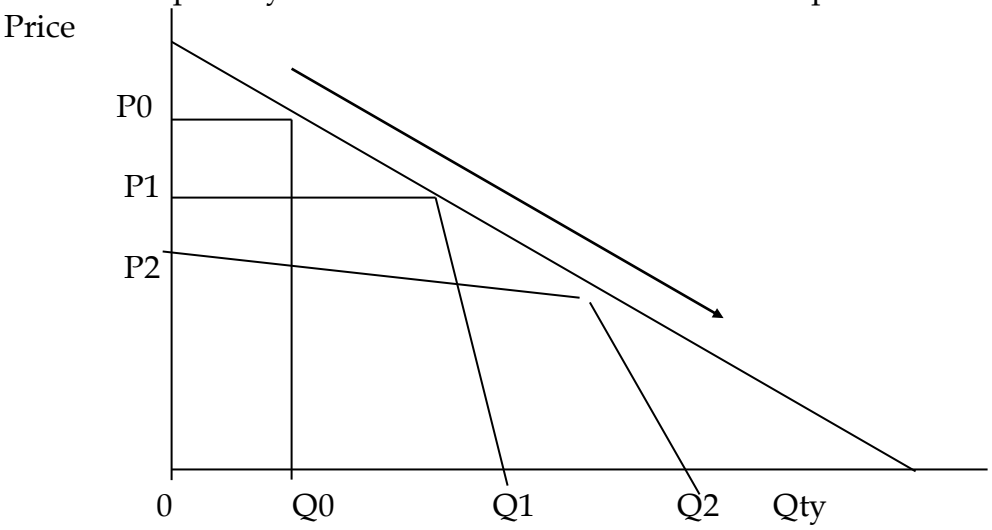
In the Market Qm quantity will be bought which is made up by adding together the quantities (Qx,+Qy+Qz). The market demand curve Dm is obtained by the horizontal summation of the individual demand curve (Dx, Dy, and Dz)

NB: Market demand is influenced by factors like:

(a) The market price of the commodity
(b) Price of other commodities
(c) Income distribution
(d) Taste and preference of all households
(e) Size of population
(f) Total household income etc.

Movement along the demand curve when the price changes.
Changes in quantity demanded caused by changes in price are represented by movements along the demand curve movement along the demand curve represented by changes in price at the same demand curve.

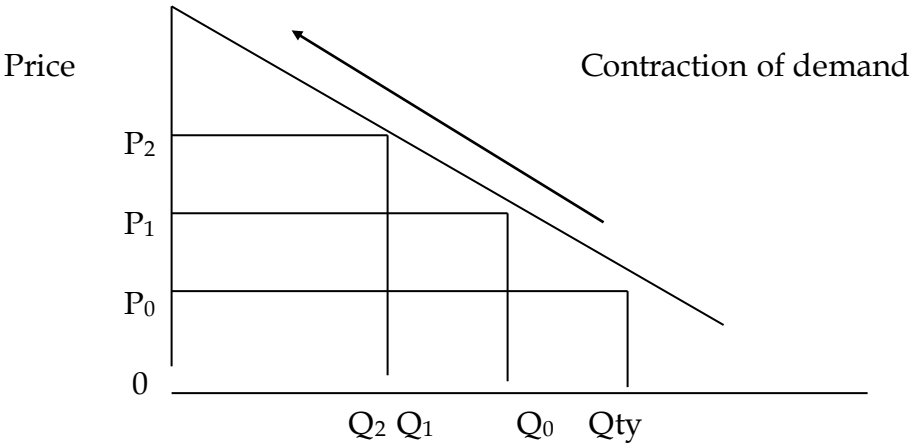
Extension of the Demand curve
This is indicated by the down ward movement along the same demand curve. It refers to an increase in quantity demanded due to a reduction in the price of the commodity.



In the figure above, as the price reduce from P0 to P1, to P2 quantity increases from 0Q0 to 0Q1 to 0 Q2.

Contraction of demand

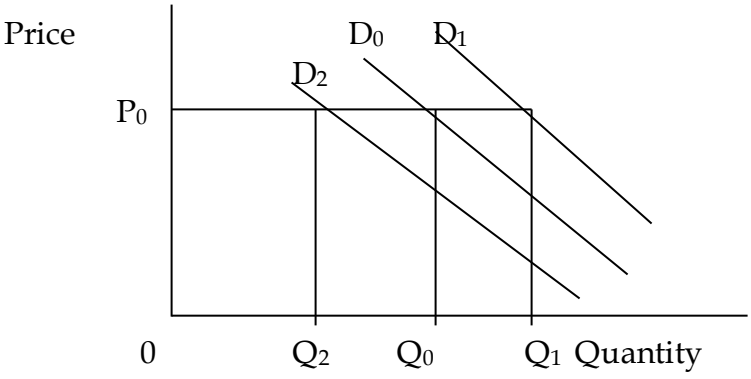
This is indicated by the upward movement along the same demand curve. It refers to a decrease in quantity demanded due to an increase in the price of the commodity.
Illustration



CHANGE IN DEMAND

It refers to the change in quantity demand ed at constant prices brought about by changes in factors which determine demand.

When there is change in other factors that affect demand, the relationship between quantity demanded and price will also change and there will be a different price quantity demanded schedule and so a different demand curve. We refer to these changes as a shift of the demand curve.



The figure above depicts arise in demand at each price level with the demand curve shifting to the right from D_0 to D_1 e.g. at price $0p_0$ demand for the good would rise from OQ_0 to OQ1. This shift could be caused by any of the following;

(a) A rise in household income
(b) A fall in the price of substitutes
(c) A fall in price of the complements
(d) A change in tasted towards this product
(e) An expected rise in the price of the product
(f) Increase in population
(g) Subsidisation of consumers
(h) A more less equal distribution of income.

The above figure also depicts "decrease in demand" at each price level, which is represented by a shifting to the left of the demand curve from D_0 to D_2. This may be caused by the reverse of the changes described in the points above. At price Opo, the demand will fall from $0Q_0$ to $0Q_1$

NB:

1. A shift of the demand curve to the right portrays an increase in the quantity demanded at any given price.
2. A shift of the curve to the left portrays a reduction in the quantity demand at any given price.

<u>THE SLOPE OF THE DEMAND CURVE.</u>

The demanded curve is a locus of points showing quantity demanded of a commodity at a various prices per period of time. The demand curve slopes down wards from left to right it illustrates the LAW OF DEMAND which states that
The higher the price, the lower the quantity demanded and vise-versa (ceteris peribus). This is due to the following factors;

1. The law of diminishing marginal utility: It states that as one consumes more of a commodity, after a certain point, the satisfaction derived from additional units (marginal utility) diminishes (reduces. As the consumer purchases more of the commodity, marginal utility diminishes. He can consume additional units only if the price is reduced.
2. Income effect;

   As the price falls real income of the consumer increases i.e. they can purchase more units of the commodity with the same money income. Alternatively an increase in price reduces real income and reduces quantity demanded. Thus real income is money income over price. It is the actual quantity of goods obtained from the money income.
3. Substitution effect

   As the price of the commodity falls keeping the prices of substitutes constant, consumers purchase more of it and purchase less of the substitutes. When the price of the commodity increases, consumers abandon it and buy its substitutes, which are relatively cheaper.

4. The price effect;

This is a combination of income effect and substitution effect when the price of the commodity falls, consumers buy more of it because of the substitution and income effects.

5. Presence of low income groups

   Ordinary people (low income group) buy more when price falls and less when price arises. The rich do not have any effect on the demand curve because they are capable of buying the same quantity even at a higher price.

6. Different uses of the commodity. If the commodity has many uses, then it means those uses have some substitutes. Therefore the price of the commodity increases, people will divert A to those substitutes and therefore quantity demanded will decrease and vis-versa.

SUPPLY

Supply refers to the quantity of goods and services that existing suppliers would want to produce for the market at a given price in a given period of time.

The supply function
This is the statement which shows the technical relationship between quantity supplied and the major determinants of quantity supplied of the commodity.

Qs = F(P1, P2, P11, F1, Fn, G, T etc)

Where P1 = The commodity's own price
P_2,P_n = Factors of production
G = Goals of the firm
T =Technology

The factors which influence the quantity supplied

1. Price of commodity itself: In general, suppliers will want to supply a greater quantity of their out put at higher prices. Higher prices may mean greater profits and so the firm would be attracted by the prospects of bigger profits into supplying more units of out put. This can be shown by the supply schedule below.

The supply schedule

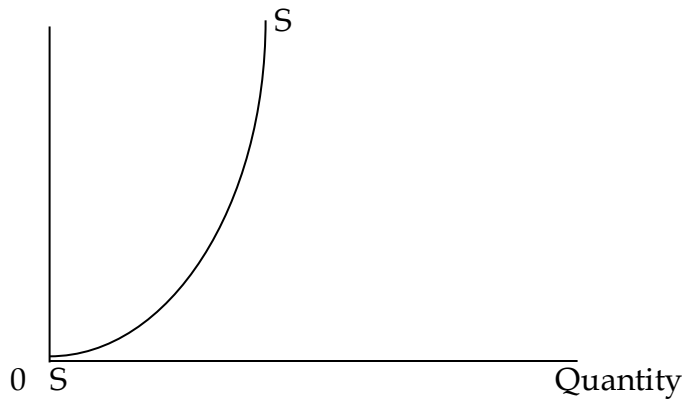
This is a numerical representation showing the amount of the commodity brought to the market at various prices per period of time.

A table showing the supply schedule for product Y

Price per Unit (SHS)	Quantity Supplied per Month (Kgs)
100	10,000
150	20,000
300	30,000
500	40,000

This schedule can be shown graphically with price on Y – axis and quantity supplied on X – axis

The supply curve



SS= Supply Curve

The supply curve is drawn by joining the points shown in the figure above by a continuous line SS. Thus the supply curve is a graphical representation of the supply schedule. It is the locus of points showing quantity supplied of each commodity at a various prices per period of time, the greater the quantity supplied other factors remaining constant.

2. The price of other goods

   An increase in the price of other goods would make the supply of a good whose price does not rise more un attractive to suppliers. Keeping other factors constant, when the prices of substitutes increases it becomes more profitable to produce substitutes which fetch higher and profits. When the price of substitutes fall, quantity supplied of the commodity increase because it becomes more profitable to produce the commodity whose price is relatively higher e.g. when the price of cassava fall, producers reallocate resources from cassava production to potato production whose price are relatively high for products which are produced together. An increase in supply of the other e.g. an increase in price of shirts would lead to an increase in supply of cotton, cotton oil dye etc.

3. The cost of production

   The cost of production which in turn depends on the prices of factors of production i.e. wages, interest rates, rent and profits. A rise in price of these factor (increases costs of production) which reduces supply and vise-versa.

4. Changes in technology
   Technological developments which reduce costs of production and increase productivity will rise the quantity supplied of a good & vice-versa.

5. Natural Factors

   Unfavourable natural factors decrease supply and vice-versa (e.g. agricultural goods)

6. Goals of the firm

   If the goal of each firm is profit maximisation, then supply will be low so as to change higher prices. If it is sales maximisation, then supply will be high and produces would want to sell as much as even though they are getting little profits.

7. Number of produces

   If there are many produces of a commodity quantity supplied is likely to be higher than where are few producers.

8. Working conditions

   Favourable terms of services would like good working condition prestige of work of services, power, professional excellence etc. will increase supply. These terms are referred to as non-pecuniary advantages (are not measurable in monetary units). While poor working conditions (non- pecuniary disadvantages) will reduce supply.

9. Government Policy

   Taxation will increase costs of production which lead to low quantity supplier and subsides would lead to a reduction in cost of production and an increase in quantity supplied.

10. Gestation period

    This is the production period (maturing period). The longer gestation period reduces SS and a shorter gestation period increase the SS.

11. Entry of new firms in the industry

    Once the market price and profits are conducive enough, this will act as a factor that will attract other firms in the industry leading to an increase in the SS of the commodity on condition that there is free entry and exit (perfect competition). In case of blocked entry (monopoly) SS will be restricted so as to sell at high prices.

12. **Demand:** High market demand calls for increase production and SS and Vice-versa.

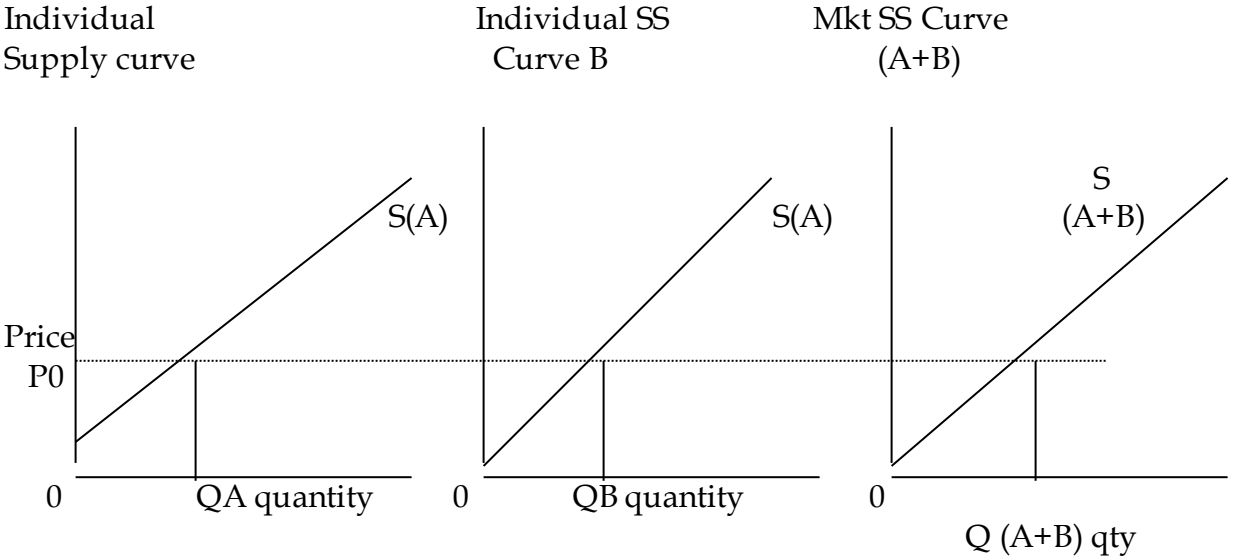
13. **Availability of inputs:** The more available the inputs the greater the supply. Scarcity of factor inputs reduces SS.

The Individual SS Curve

An individual SS curve shows the quantity of a good that the individual firm want to SS to the market at any given price.

The market supply Curve

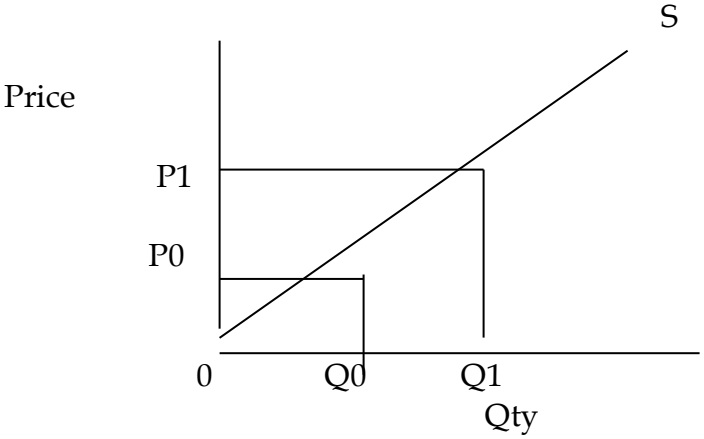
The market supply curve shows the horizontal summation of the SS curves of all individual suppliers in a commodity. The market supply curve is more elastic than the supply curves of the various individual's suppliers. This can be illustrated in the figure below.



In the figure above the quantity supplied in the market is the summation of the quantities supplied by (A) and (B) i.e. Q (A+B).

THE LAW OF SUPPLY

This law states, keeping other factors constant, the higher the price the greater the amount of the commodity supplied and vice-versa. It is illustrated by the supply curve.



In the figure above, when the price increases from OP0 to OP1 quantity supplied increases from OQ0 to OQ1 and vice versa.

The slope of the supply curve.

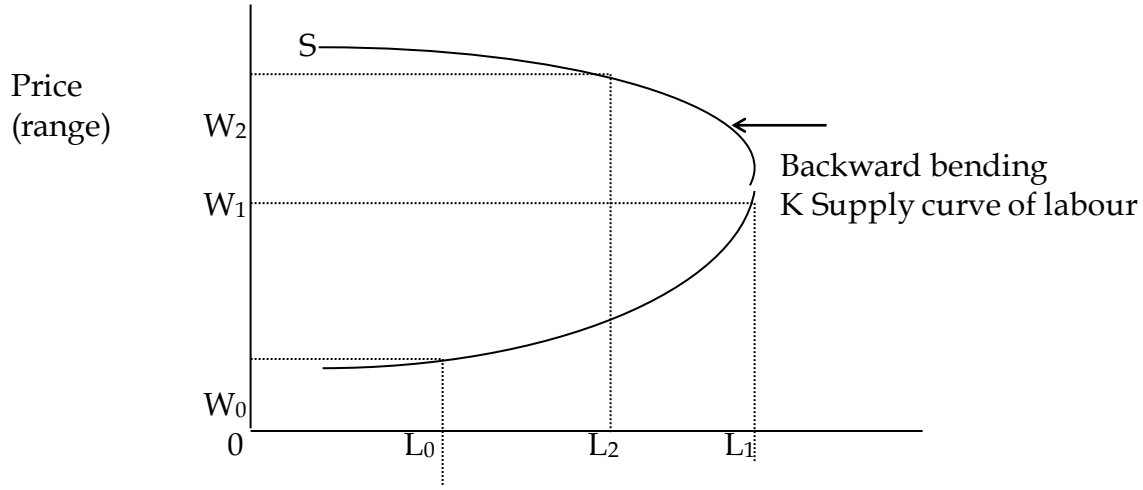
The SS curve is positively sloped (it sloped upwards from left to right) showing the direct relationship between price and quantity supplied. (see the figure above)

The positive slope is explained by the following factors:

1. Entry of new firms in the industry; When the price of a commodity increase new firms will be attracted to enter the industry due to prospects of increase profits. This will lead to an increase in SS as the price increases.
2. Profit Motive; If the goal of the firm is to earn more profits, then as the price of the commodity increase suppliers will SS more in order to make more profits.
3. The attempt by firms to maintain equilibrium under project competition.
4. The struggle to maintain equilibrium in the free market condition.
   As demand increases, prices will due to a shortage, firms will increase output in order to cover the shortage.
5. Ease of diverting resources from the production of the commodity whose price has reduced to the production of the commodity whose price has increased e.g. if the price of groundnut increase keeping the price of beans constant producers will easily divert resources (land, labour, capital) from the production of beans to the production of groundnuts. This will lead to an increase in SS of groundnut as the price increases since producers will be expecting higher profits.
6. The attempt by firms to maintain equilibrium under perfect completion:
   Under such conditions firms aim at producing at a point where P=MR=AR=MC. So firms always struggles to adjust output so as to equate price and marginal cost.

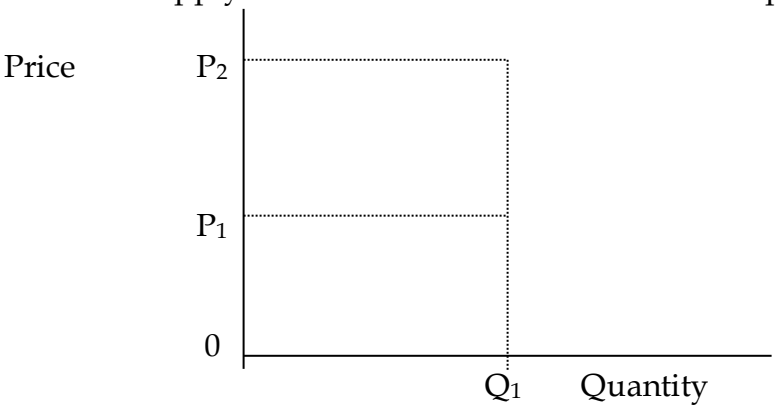
<u>ABNORMAL/RESRESSING/EXCEPTIONAL SUPPLY CURVE</u>.
Normal supply curve usually slopes upwards from left to right. In this case the regressive supply curves do not obey the law of supply and they do not slope upwards from left to right. Examples are:

1. The supply curve of labour



In the figure when the range is increased from 0W0 to 0W1, labour supplied increase from 0L0 to 0L1. After point K, as the range increases from 0W1 to 0W2, labour supply reduces from 0L1 to 0L2. After point K, makes start working less hours because the range 0W1 was enough to meet their targets. Some workers may later abandon work after working enough money. Such workers are called target workers because they work only to full fill certain targets after which they leave work or work less hours. Also as people work more money, they prefer leisure to work.

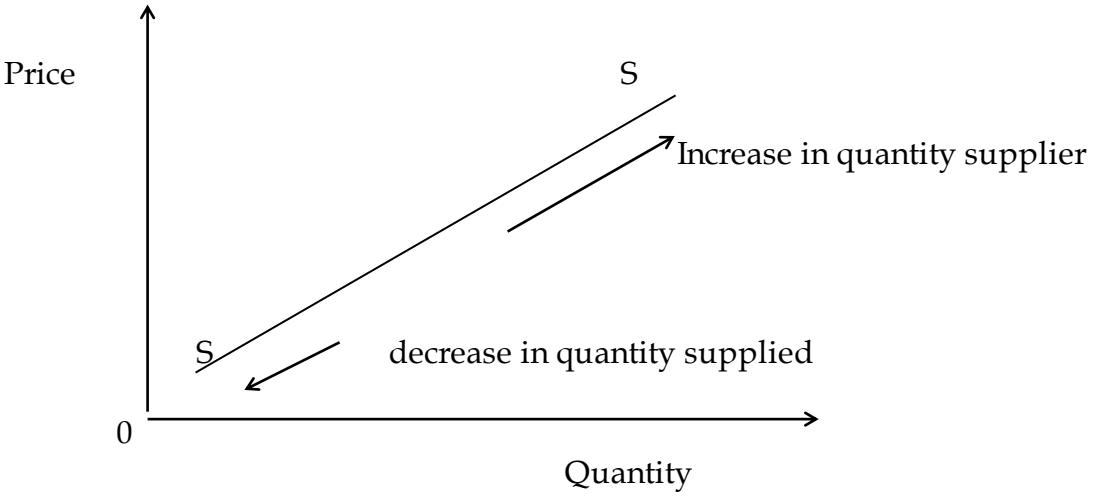
2. Fixed supply: This is another case of abnormal supply curves



In the figure despite the increase in price from 0P1 to 0P2, quantity supplied remains the same (0Q1) e.g. the supply of Agricultral products in the short run.

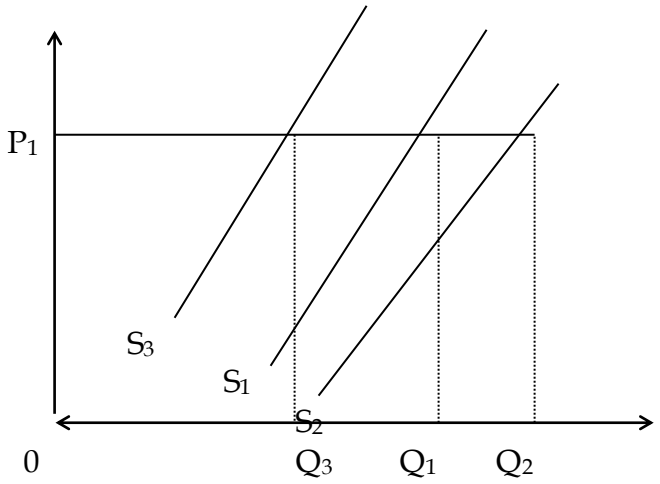
CHANGE IN QUANTITY SUPPLIED AND CHANGE IN SUPPLY

1. Change in quantity supplied. This occurs when there is a change in price of a commodity when other determinants of quantity supplier are assured to remain constant. It is illustrated by movements along the same supply curve as shown below:



2. <u>Change in supply</u>

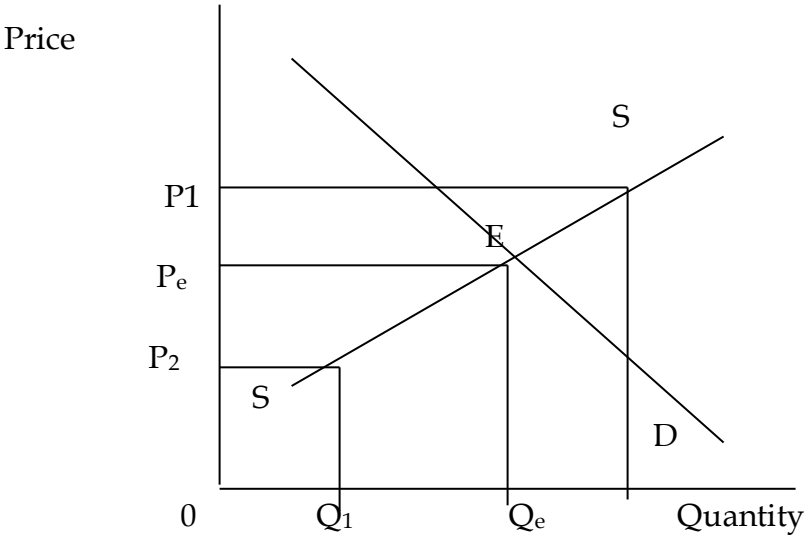
This refers to the change in the state of supply at constant prices which arises from changes in variables which are assumed constant by the law of supply e.g. technology, price of competing commodities, etc. It is illustrated by the strict of the supply curve.



From the figure, at each possible price e.g. 0P1, quantity supplied can increase or decrease because of changes in other determinants a quantity supplied. Increase in supply curve to the right (S1 to S2). Quantity supplied increase from 0Q2 to Q2 at a constant price 0P1. Decrease in supply is illustrated by strict of the supply curve to the left (S1 to S3). Quantity supplied decreases from 0Q1 to 0Q3 at a constant price 0P1.

PRICE DETERMIANTION BY FORCES OF DEMAND AND SUPPLY.

In a competitive market, prices are determined by the mechanism which is the coordination of different objectives and activities of buyers and sellers by 'invisible forces' of demand and supply. This can be illustrated graphically as shown below.



In the figure at a high price, 0P1, simply exceeds demand i.e. we have excess supply (Q1,Q2) because producers supply too much because of the high price. Suppliers reduce the price to 0P2 so as to sell the excess supply. At a low price 0p2, there is high demand which leads to

excess demand i.e. a situation where demand exceeds supply. Excess demand implies that there is a shortage of commodities which results into an increase in the price. The trend of increasing and falling price continues until quantity demanded is equal to quantity supplied. This point (E) is called equilibrium. From the figure above, 0Qe is equilibrium quantity bought and sold. 0Pe is equilibrium price. When equilibrium price is stable for some time (i.e. in the long run) it is called the normal price or the natural price.

NB: Equilibrium price may be different from the market price. Market price refers to any price determined by buyers and sellers in the market. Irrespective of whether supply is equal to demand or not. Therefore, equilibrium price is the market price where what is brought to the market by suppliers is cleared by buyers without learning any excess supply or excess demand.

PRODUCTION THEORY

Production refers to the process through which utility is created in the goods and services in order to satisfy human wants which may be private or public. It involves the following:-

a) Change of form e.g raw materials to finished products or intermediate goods.
b) Change of place. This involves the transportation of raw materials and finished products
c) Change of ownerships which involves exchange of goods and services.
d) Provision of direct services such as those of a teacher an engineer, a doctor etc.

LEVELS OPF STAGES OF PRODUCTION

1. Primary production: This refers to the extraction of basic raw materials from land, seas, air, etc and application of labour on these resources to produce primary products, such production includes farming, mining, hunting, fishing etc.
2. Secondary production. This involves the transformation of raw materials into finished commodities which are ready for use. It is the actual creation of utility in goods to make them provide satisfaction. It includes manufacturing, construction etc.
3. Tertiary production. This involves the production of services. These services may be direct as those of a teacher, doctor, lawyer, etc or commercial services which facilitate trade e.g insurance, transport, banking, warehousing etc. The provision of these services is necessary in order to bridge the gap between the producer and consumer

TYPES OF PRODUCTION.

a) Direct production: This involves the production good and services for one's own satisfaction. This type of production is also called substance production e,g making of tools for one's own use, treating your own child etc.
b) Indirect production: This is the production of goods and services for exchange (for market)

c) Round about production. This is the production of items not for consumption but for further production e.g production of machines, inputs like chemicals used in some industries, etc.

The products of this type of production are known as producer goods

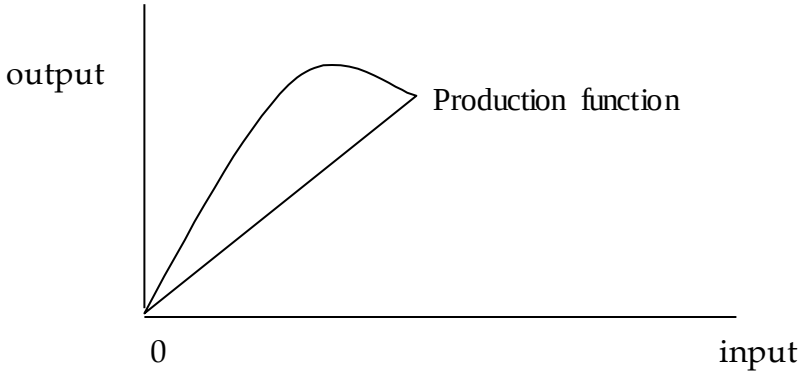
FACTORS OF PRODUCTION

These are known as agents of production. They refer to the resources or inputs required in the production of goods and services. They include land, labour, capital, and entrepreneur.

Every time a unit of output is produced, inputs must be combined to bring about transformation. The technical relationship (physical) between producer inputs and the output per unit of time is known as the production function e.g in producing 5 bags of beans, one can require one acre of land, 2 hoes, 2 workers, fertilisers, etc, mathematically, it is represented as:- $Qx = f(L, K, N, T, \ldots\ldots)$

Where QX = quantity produced (output)
L = land
K = Capital
N = Labour
F = Functional relationship
T = Technical progress

Graphical representation of production function



The above figure shows the relationship between output and input.

CAPITAL

This refers to any man made resource which is used in the production process e.g machinery, roads, buildings, money etc. the payment to capital is interest.

Capital accumulation

It refers to a process through which the capital of a country increases over time. Capital accumulation is necessary because it increases resources utilisation, standards of living and acts as an engine for development.

LABOUR

This refers to all human effort both mental and physical inherited or acquired which is used in the production process labour can be skilled, unskilled, semi-skilled, productive and un productive labolur

LABOUR SUPPLY

Labour supply refers to the number of all able bodies individuals willing to work at the ongoing wage rate. It also refers to the number of hours a labourer is willing to offer for work. Its payment is a wage or salary.

FACTORS AFFECTING LABOUR SUPPLY.

1. The age structure of the population. The labour force of a country is constituted by people of age between 16 – 64 years. The age category of 0 – 15 years and of 65 years plus is considered unproductive labour. In a country where the first category is higher, labour supply will be high and where the second category is high, labour supply will be low.
2. The size of population is likely to have a high supply of labour than that one with a small size of population
3. Education level. This determines the supply of skilled and educated labour. Once the level of education is low, supply of skilled labour will be low and vis-versa.
4. Degree of job security. Jobs with job security attract more labour than those without. Workers are often attracted in occupations with limited changes of being chased anyhow.
5. Rate of investment in the economy where there is a high rate of investment especially in the industrial sector, supply of labour will increase due to availability of training facilities for labour.
6. Period of training where the period of training is long, labour supply will be low and vis-versa. This is especially true with skilled labour.
7. Job esteem (respect). Jobs with low esteem attract less labour for example there are very few people willing to work as toilet cleaners, therefore labour supply in such occupations is low due to the low level of respect in such jobs.
8. Political stability. In areas with political unstability and insecurity will not attract labour. This factor explains the levels of labour supply especially in form of foreign expatriates in countries besieged with political instabilities.

LAND

It refers to all natural resources which aid in production found any where on the earth or above it. It includes soil, minerals, forests, swamps, rivers, lakes, seas and atmosphere. Its payment is rent.

THE ENTREPRENEUR

This is a person or group of persons who combine the other three factors of production into an organised relationship to make the production process possible.

FUCTIONS OF AN ENTREPRENUER

1. Co-ordinator. He combines all other factors of production together, he puts them in a 'pot' of production and he generates goods and services. Right quantities of each input and the best proportions are chosen to ensure efficiency and the best quality of products.

2. Controller. He controls or manages the enterprise. He takes care of the staff discipline, supervise them and he looks into staff welfare and ensure proper use of finance.

3. Decision maker. He takes a high level of decisions concerning the running of the business i.e he decide what to produce, how to produce, for whom to produce, where to produce and what price to charge etc.
4. Risk and uncertainty bearing. There are many risks and uncertainties in business e,g theft, a fall in demand, change of government policy etc. The entrepreneur risks his capital against such risks and uncertainties. He insures against risks or spreads them by producing many products in which case it is called hedging so as to reduce losses.

5. Innovator. An entrepreneur looks into the future of his business to predict whether it is bright or gloomy. He designs appropriate measures to make improvements or tackle problems. He looks out for new methods of production, new methods of combining factors of production to produce the same commodity in the cheapest manner.

6. Director. He directs all the factors of production.

The payment to entrepreneur is profit.

THE THEORY OF COSTS

Costs of production refers to what is incurred to produce a given amount of output. Costs of production include:

1. **Implicit costs**: These are costs which cannot be computed in monetary terms. They are not included in the calculation of the costs of the firm. Such costs are incurred by the producer's own labour, estimated rent for his building, the interest on capital invested by the entrepreneur himself, the salary he would get if he was not content with the profits, the salary he would pay his house wife, etc.

2. **Explicit costs**: These are costs (expenses) which are production. They are calculated in monetary terms. They include: Labour costs, raw material costs, power, transport, etc.

3. **Economic costs**: These are payments made by the producers to resource suppliers in order to ascertain continuous supply of raw materials.

4. Social costs; They refer to the disadvantages which are imposed on society as a result of private production. Such costs include pollution, resource depletion, etc. Sometimes these costs are referred to as externalities of production.

SHORTRUN COSTS OF PRODUCTION

Shortrun is a period in the production process in which a firm cannot alter its size, equipment and scale of organisation to meet increasing demand such costs include:

(a) **Fixed costs(FC)**: These are costs which do not vary with the level of out put. They are costs which are incurred irrespective of out put levels. They include: Rent, interest on capital, salaries of top management, etc. Fixed costs are also referred to as supplementary costs, over head costs, un avoidable costs or indispensable costs of production.

Total fixed costs(TFC) is the summation of all the fixed costs.

(b) **Variable costs** (VC): These are costs of production which vary with the level of output. As output changes costs also change. They are also referred to as prime costs, direct costs or avoidable costs of production. Total variable cost (TVC) is the summation of all the variable costs of production.

(c) Total cost (TC): This is the overall cost the firm incurs in order to produce its output. It is the sum of the variable costs and the fixed costs. This can be expressed.

Total cost (TC) = Total Fixed Cost (TFC) + Total Variable Costs (TVC)
i.e. TC = TFC + TVC

RELATIONSHIP BETWEEN TFC, TVC AND TC

1. The total fixed curve is a straight line because total fixed costs do not vary with output levels.

2. The TFC curve begins above zero because of the fixed costs, i.e. even when output is zero some costs have to be incurred.

3. The TC curve lies above the TVC because it is a sum total of both the TVC and TFC i.e. TC = TFC + TVC.

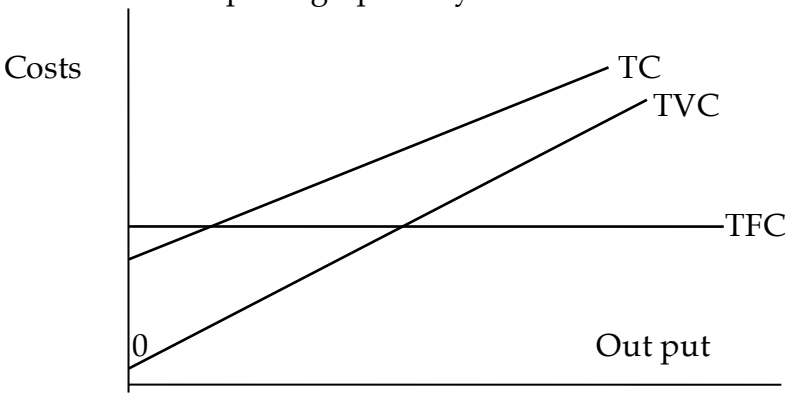
4. When output is zero, there are no costs incurred (TVC = 0, so TC = TFC).

5. The TVC curves slopes upwards from left to right because variable costs increase as output increases.

A TABLE SHOWING TFC, TVC AND TC

Out put (O)	TFC	TVC	TC = TFC + TVC
0	60	0	60
1	60	30	90
2	60	40	100
3	60	45	105
4	60	55	115
5	60	75	135
6	60	120	180

This relationship can graphically be shown as below



PER UNIT COST OF PRODUCTION

1. Average total cost (ATC): This refers to the total cost of production per unit output. This can be expressed as:

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

   Where Q is the output.

2. **Average fixed costs** (AFC): This refers to the fixed costs incurred in producing each unit of out put. IT is equal to the total fixed costs divided by total output i.e.

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

3. **Average variable costs** (AVC): This refers to the variable costs incurred in producing each unit of output

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

4. Marginal cost (MC): This refers to the additional costs incurred in producing an extra unit of out put. It is expressed as:

   $MC = \frac{\text{Change in Total Cost}}{} = \frac{\Delta TC}{}$

Change in out put ΔQ

Where Δ = Change

Illustration Table

Output	TFC	TVC	TC	AFC	AVC	AC	MC
1	60	30	90	60	30	90	-
2	60	40	100	30	20	50	10
3	60	45	105	20	15	35	5
4	60	55	115	15	13.75	28.75	10
5	60	75	135	12	15	27	20
6	60	120	180	10	20	30	45

Graphical Representation

RELATIONSHIP BETWEEN MC, AC, AFC AND AVC

1. AC, MC and AVC curves all take a U-shape i.e. they first decrease, reach a minimum and later rise as out put increases implying that initial costs drop and later rise. This U-shape is attributed to the law of variable proportions.

2. As production expands, AVC tends closer to AC curve because of the continuous fall in the AFC, i.e. AFC tends to zero as out put rises.

3. The AFC curve slopes downwards continuously because the fixed costs are divided by the increasing out put. This implies that increasing out put will make the AFC curve to fall continuously.

4. AVC always lies below the AC when the fixed costs still exist. This is because AC at any out put includes AVC and AFC at that out put. From the cost theory of the firm, AC = AFC + AVC.

5. After the AVC has reached its lowest point and starts rising, its rise over a certain range is offset by the fall in the AFC so that the AFC continues to fall (over that range) despite the increase in AVC.

6. MC curves cuts the AC and AVC at their lowest points and from below.

7. The point where MC = AC is referred to as the optimum point of the firm and at this point average costs are lowest (at minimum).

IMPORTANCE OF THE CONCEPT OF MARGINAL COST IN FORMULATION OF THE THEORY OF THE FIRM

The concept of marginal cost has great relevance in the formulation of the theory of the firm. Its importance include:

1. It is very vital in the determination of the equilibrium point of the firm. Using marginal cost approach a firm is in equilibrium where marginal cost (MC) is equal to marginal revenue (MR) i.e. MC = MR.

2. Marginal costs help a firm to determine the optimum out put or size of the firm. This is determined at a point where marginal cost (MC) is equal to equal average cost (AC) i.e. MC = AC.

3. Marginal cost curve is helpful in the derivation of the supply curve of a firm under perfect competition where we take part of the marginal cost curve above the AVC.

LONG RUN COST CURVES

This is also known as a planning curve or an envelope curve. It is referred to as envelope curve because it is formed by a series of short run average cost curves. Each point on the longrun average cost curve (LAC) corresponds to a point on the shortrun average cost curve (SAC) which is tangent to the LAC at that point. It is also known as a planning curve because it enables the firm to have trial factor combination until it achieves the best size. Each time when there is a change in out put as a result of changed scale of operation, there is a new shortrun average cost curve, the firm will continue with these trials until it achieves the best size i.e. it gets the lowest shortrun average cost curve which is tangential to the longrun average cost curve.

DERIVATION OF THE LONG RUN AVERAGE COST CURVE

When does a firm decide to use a larger plant?

Assuming that the available technology to the firm at a particular time includes three methods of production, each with different plant size. I.e. a small plant, medium plant and large plant. These plants can be illustrated in the figure below:

In the figure above, a small plant operate with costs demoted by the curve SAC1, the medium size plant operates with the costs on SAC2, and large with SAC3 respectively. If the firm plans to produce output OQ1, it will choose a small plant if it plans to produce OQ2, it will choose the medium plant. If it wishes to produce OQ3, it will choose the large size plant.

If the firm starts with a small plant and its demand gradually increases, it will produce at lower costs (up to level Q1) beyond that point costs start increasing. If its demand reaches the level Q1, the firm can either continue to produce with the small plant or it can install the medium size plant. The decision at this point depends not on costs but on the firms expectations about its future demand.

In the limit if there is very large number (infinite number) of plants, we obtain a continuous curve which is the planning long run average cost curve of the firm. Each point on this curve shows the minimum (optimal) cost of producing the corresponding level of out put.

Therefore, the longrun average cost curve (LAC) is the locus of points denoting the least cost of producing the corresponding level of out put. The LAC is U-shaped and it is often called the "envelope curve" because it envelopes the short run average cost curves (SAC).

In the longrun, there are no fixed costs. Time is long enough such that the firm is able to vary all the factors of production and therefore all costs become variable. To increase out put therefore, the firm expands in size. Cost per unit can increase or remain constant or reduce as the firm expands in size depending on whether the firms is enjoying the advantage of expansion (economies of scale) or disadvantages of expansion (diseconomies of scale).

ECONOMIES OF SCALE

Economies of scale refers tot he advantages accruing to the firm in form of reduced average cost of production resulting from increasing the size of the firm. This is illustrated in the figure below:

From the figure, at the lowest point of the shortrun AC curve (SAC) i.e. At a, the firm begins to face the law of diminishing returns. In the longrun, the firm is expanded by hiring more units of all the factors. The expansion in size of the firm leads to the reduction in average costs from OC1, to OC2 and eventually to OC3. The trend of increasing the size of the firm and reducing average cost continues (because of economies of scale) until point C when costs per unit out put begin to increase as the firm over expands in size. This eventual increase in average cost of production is due to diseconomies of scale and is due to over expansion of the firm.

From the figure, OQ3 is the optimum size of the firm in the longrun. Therefore, the longrun average cost curve (AC) is U-shaped because of economies and diseconomies of scale while the shortrun average cost curve (SAC) is U-shaped because of the law of diminishing returns.

Economies of scale can be classified as:

1. Internal economies of scale
2. External economies of scale

INTERNAL ECONOMIES OF SCALE

Internal economies of scale refers to the fall in Average costs of production arising from specialisation which is encouraged in the large firm. Internal economies are enjoyed by the firm in the following forms.

1. Technical Economies:

These arise out of specialisation of capital (machines) which result into reduced average cost of production.
E.g. a large firm can afford to purchase specialised machines like tractors, milking machines, etc. which lead to increased out put and reduced average costs
(since AC = $\frac{TC}{Q}$, increase in Q reduces AC).

2. **Managerial (Administrative) Economies**:

These arise out of specialization of labour which leads to efficiency; increased output and reduced average costs. A large firm can afford to employ specialists like accountants, engineers, etc.

3. **Financial Economies**:

A large firm can easily secure loans from financial institutions because it has securities. Financial institutions usually trust large firms.

4. Marketing Economies:

A large firm can afford to buy factors of production in bulk from many areas. It can also afford to sell commodities in bulk in several markets since it can own trucks for purchasing and distributing tasks by diversifying its input markets, a large firm buys in puts at favourable prices which leads to reduced average costs. A large firm can also afford to advertise e.g. giving samples.

5. Transport economies:

When raw materials or commodities are transported in bulk, the costs per unit out put is always
low e.g. when hiring a vehicle, a large firm transporting say 10 tonnes per trip is likely to pay almost the same amount as a small firm transporting 5 tonnes per trip.

6. **Storage economies**:

Storage costs per unit out put reduce when commodities or raw materials are stored in bulk. E.g.
when a large firm rents a store to keep 100 tonnes of commodities, it would pay the same amount
as a small firms which stores 10 tonnes in the same store.

7. **Research Economies**:

A large firm can afford to finance research e.g. by establishing a laboratory or hiring research assistants. Research can lead to new technology, increased out put and hence reduction in average costs.

8. **Welfare Economies (Social economies);**

Large firms can afford to provide their workers with facilities like houses, medical facilities, etc.
These can lead to improved efficiency of labour which leads to increased out put and reduced average costs.

9. Risk-bearing Economies:

A large firm can afford to pay premiums and to produce a variety of products. All these reduce
risks of loss.

EXTERNAL ECONOMIES OF SCALE

These are advantages accruing to the firm in form of reduced average costs of production resulting from the expansion of the industry as a whole. In other words, they arise from the concentration of many firms in one area. They are enjoyed by all firms in the industry.

External economies of scale include:

1. Economies of concentration: This is where firms in one area:-

(a) Share training facilitate.
(b) Share the same transport facilitates and other infrastructure.
(c) Carry out technical implements together etc. All these result into reduced cost of production in each firm since firms share costs.

2. Economies of information. Firms in one area can co-operate to enhance the formation of associations which provide information for improvements.

3. **External technical economies:**

Firms in one area can share specialised maintenance facilities e.g. garage, carpentry workshops etc. The sharing of costs leads to reduction in average costs in each firm.

4. **External financial economies**:

Firms in one area can attract new financial institutions like banks, building societies, etc.

NB: Economies of scale can also be classified as:

1. Pecuniary Economies: These arise out of paying lower prices for inputs and distribution of the product at a low cost by the large firm. They are as a result of bulk buying and bulk buying and bulk selling.

2. Real economies: These are associate with reduction in physical quantity of inputs per unit out put arising out of large scale production.

DISECONOMIES OF SCALE

These are disadvantages accruing to the firm in form of increased costs of production per unit out put arising form over expanding the scale of production. Diseconomies of scale can also be classified as:

1. Internal diseconomies and
2. External diseconomies of scale

INTERNAL DISECONOMIES OF SCALE

These arise out of over expansion of the firm. They include:-

1. **Managerial diseconomies:**

Supervision of workers and decision making becomes difficult co-ordination between workers and management becomes difficult. This results into inefficiency and increased costs per unit out put.

2. **Technical diseconomies**:

As the firm over expands, wear and tear of machines increases. Also the cost of maintaining gadgets increases.

3. **Financial diseconomies**:

As the result of over expansion of the firm, it becomes very difficult to get enough funds to run the firm. Also the cost will be increased by the high cost of borrowing (interest).

4. **Marketing diseconomies**:

It becomes difficult to get enough quantities of raw materials for the large firm. As a result, the price of raw materials may go up resulting into high cost of production. Also it becomes difficult to get enough market for commodities. This leads to high distribution costs and advertising costs.

EXTERNAL DISECONOMIES OF SCALE

This refers to increase in average costs of production of the firm as a result of over expansion of the industry as a whole. They are the result of many firms concentrating in one area. As a

result of over expansion of the industry, the following would lead to increase in average cost of production.

1. Land rent would be high because of increased competition.

2. Accommodation and cost of living would be high because of competition.

3. Transport costs would increase and there would be congestion of vehicles and human beings.

4. Pollution would result out of congested factories and would affect the health of workers. Also the firm would incur costs to fight pollution e.g. purifying water, etc.

All the above factors affect all the firms in the same locality and lead to increase in cost per unit out put.

THE PRODUCT CONCEPT OF THE FIRM

In production economics, there is a strong relationship between cost of a firm and its out put. The out put can be categorised as follows:

(a) Total product (TP)

This is the total amount of a particular commodity resulting from employment of all factors of production (variable and fixed).

(b) **Marginal product (MP)**

In production economics, the term margin refers to addition to total. Marginal product therefore refers to the additional output resulting from employment of an extra unit of available factor.

$$MP = \frac{\text{Change in total product}}{\text{Change in variable input}}$$

If we take labour as the variable factor

$$MP = \frac{\Delta TP}{\Delta L}$$

Where Δ represent change
i.e. ΔTP = change in total product
ΔL = change in labour units

(c) Average product (AP); This is output per unit of the variable factor. It is the total product divided by the variable in puts employed.

$$AP = \frac{\text{Total product}}{\text{Total variable factor}} = \frac{TP}{TVF}$$

Table of Illustration

Variable factor	Total product (TP)	Average product (AP)	Marginal product (MP)
1	8	8	8
2	24	12	16
3	54	18	30
4	82	20.5	28
5	95	19	13
6	100	16.7	5
7	100	14.3	0
8	96	12	-4

The table above illustrate the relationship between MP, AP and TP.

Relationship between AP, MP and TP

(i) When total product is at maximum marginal product is zero.

(ii) As MP becomes negative, TP begins to decline.

(iii)When MP rises, AP is also rising and when MP begins falling, AP will be increasing at a decreasing rate.

(iv)The MP curve cuts the AP curve at its maximum point.

(v) All the MP, TP and AP at first increase at an increasing rate, then increase at a constant rate and finally begins to decline. This is explained by the law of variable proportions.

THE LAW OF VARIABLE PROPORTIONS

This law states that, as more and more units of the variable factor are employed, holding the quantities of the fixed factor constant, a point is reached beyond which the marginal product. Average product, and total product will increase at an increasing rate then increases at a constant rate and eventually they diminish. In order to understand the law of variable properties. It is necessary to see the relationship between the fixed and variable factors at the different stagees as seen above on the figure.

STAGE I

This is a stage of increasing returns. The TP, AP and MP are increasing. IN this stage the fixed factors are too much in relationship to labour (variable factor) and as capital is used intensively it becomes efficient hence TP, MP and AP will increase.

STAGE II

This is a stage of diminishing marginal product. It begins where the AP is at maximum because labour becomes inefficient as less of the fixed factor is available, i.e. additional out per worker is reducing.

STAGE III

During this stage, MP, AP and TP will all decline until MP becomes zero and the efficiency of the workers could have declined.

Conclusion from the law

1. Fixed factors like land have a limit beyond which output cannot be increased even if there is employment of more variable factor.

2. When TP, MP and AP begin to decline, it becomes un profitable to continue producing, therefore the ratio of the variable factor must constantly be reviewed to avoid loses.

3. Employment of more units of labour does not make output increase indefinitely. The productivity of each worker decreases when the ratio of labour to the fixed factor increases.

NB: The law of variable proportions is the same as the law of diminishing returns.

SURVIVAL OF SMALL SCALE FIRMS

Despite the fact that large firms enjoy economies of scale, small firms survive alongside the large firms because:

1. Small firms do not need to advertise extensively as large firms and hence incur less costs.

2. Small firms are easy to manage. This results into efficiency and reduced costs of production.
3. Small firms do not face the problems of internal diseconomies of scale.

4. At times small firms are located far from large firms and hence they monopolize local markets despite the fact that they may be selling at higher prices than large firms which are far.

5. Some small firms use by-product of large firms e.g. sweets use the by-products of the sugar industry. The two firms cannot compete with each other.

6. Owners of small firms can easily develop personal contacts with customers. Later they can start giving credit facilities. In such a case they would maintain their market despite the fact that they may be selling at a high price.

7. Small firms may sell to customers the appropriate small quantities whereas large firms tend to sell in bulk (wholesale).

8. Where the market size is small it necessitates establishment of a small firm.

9. Some activities do not require large firms e.g. shoe shining, hair salons, etc.

THE REVENUE OF THE FIRMS

Revenue refers to the proceeds or returns realised or derived from the sale of a commodity at given price. Revenue of the firm can be looked at in 3 ways:

1. Total revenue (TR): This is the total amount of money received by the firm as a result of selling its total output produced per unit of time.

   $TR = P \times Q$
   Where Q is quantity sold and P is the price per unit

2. Average revenue (AR): This refers to revenue per unit output. It is the same as the average price.

   $AR = \frac{TR}{Q} = \frac{PQ}{Q} = P$
   Where Q is quantity

3. Marginal Revenue (MR): This is the additional revenue resulting from selling an extra unit of out put.

$MR = \frac{\Delta TR}{\Delta Q}$
Where ΔQ is change in output sold.

THE PROFIT OF THE FIRM

The term profit has been defined in very many ways by economists, accountants and even policies economists. In simple terms;

Profit (Π) = Total Revenue (TR) - Total Cost (TC)

i.e. Π = TR - TC
Since TR = P x Q. A firm can maximise profits in 2 ways.

1. By maximizing revenue through out put maximization and increase in price of commodities.

2. By minimising costs.

Normal profits

This refers to where the firm's average cost is equal to the price (AR) at which it sells output. In other words, a firm which earns normal profits covers its opportunity cost of production or in lay man's language, it earns zero profits (i.e. TR -TC = 0).

Abnormal profits

This is earned by the firm which sells its out put at a price greater than the average cost (P>AC). In other wards, the firm sells at the price which is greater than the opportunity cost of production.

A FIRM AND AN INDUSTRY

A firm is a productive unit under unified control and management. It may be a sole proprietor, a partnership, a company or a government owned firm, e.g. a factory.

An industry is a description of several or many firm's which are engaged in producing the same kind of commodities (although each firm may be under its ownership and management, or may use its label). E.g. a tea producing industry would include all firms (factories producing tea).

DERIVING THE SUPPLY CURVE OF AN INDUSTRY

Since the industry is a combination of firms, its supply curve can be derived by horizontal summation of supply curves of the various firms in the industry. This is illustrated graphically in the figure below;

From the figure, Firm A supplies 5 units at 4 shillings per unit. While firm B supplies 6 units at the same price. In the whole industry, 5+6 = 11 units will be supplied at 4 shillings. Note that the industry supply curve is more elastic than the supply curves of various firms in that industry.

EQUILIBRIUM OF THE FIRM AND EQUILIBRIUM OF AN INDUSTRY

The term equilibrium refers to the state of stability when there is no tendency to change.

Equilibrium of the firm refers to the point of profit maximisation when the firm has no tendency to increase or reduce output. At this point, marginal cost (MC) is equal to marginal revenue (MR). If the firm increases out put and produces beyond this point, marginal cost would be greater than marginal revenue and hence the firm would be operating at a loss. When the firm produces below the point where MC = MR, profits would be less because less units of output are produced. The condition for profit maximisation (MC = MR at the highest level of out put) applies to all firms.

Equilibrium of an industry is reached when there is no tendency for its out put, to increase or reduce. At this point, there are neither new firms entering the industry nor old firms leaving the industry. In other words all firms are earning normal profits which do not attract new firms or force firms out of the industry immediately.

MARKET STRUCTURES

Market structures can be classified according to the number of firms in the industry as follows:

1. Perfect competition
2. Monopoly
3. Monopolistic competition
4. Oligopoly

PERFECT COMPETITION

Assumptions of perfect competition

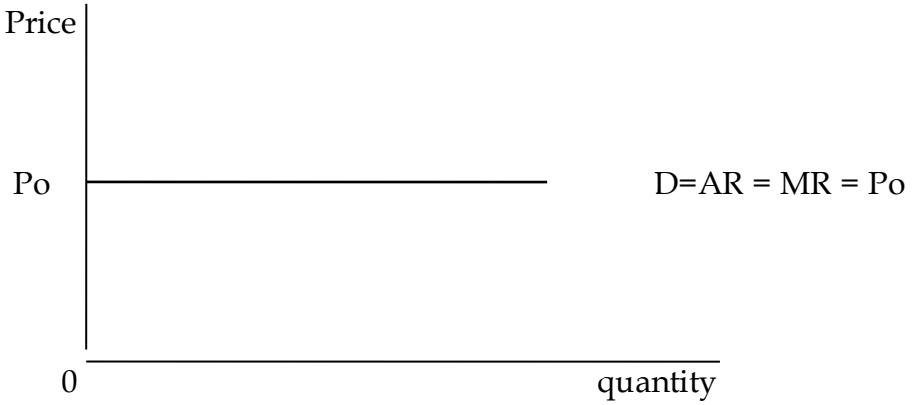
Perfect competition is a market structure which fulfils the following assumptions.

1. Many firms (sellers) of the same size. This means that one firm cannot influence the price in factor or commodity markets. Sellers are therefore price takers and not price makers. It is also assumed that there are many buyers.
2. Homogenous products: There is no product differentiation or any other form of non-price competition. Therefore competition is centred on only prices. Also consumers cannot differentiate the products produced by any firm. Due to this under perfect competition, there is no advertisement.
3. Free entry and exit: when firms earn abnormal profits (supernormal profits), other firms are free to join the market and exhaust the profits. In the long run, where there are no profits, firms are free to leave the industry.
4. Perfect knowledge i.e. no ignorance on side of buyers and producers about factor and commodity markets, or about future trends relevant to their decision - making now. Consumers are aware of prices charged in the whole market and the know the quantity of products.
5. Perfect mobility of factors of production. I.e. factors of production can move freely from one firm to another throughout the economy and raw materials are not monopolised. In otherwards, there is perfect competition in the factor market.
6. No government regulation. I.e. no government intervention I form of tariffs, subsidies, rationing, etc.

7. Profit and utility maximization. The goal of all firms is profit maximisation. All consumers (buyers), aim at maximising satisfaction (utility) and therefore buy from the cheapest source.

Note; Perfect competition satisfies all the above conditions. In pure competition, conditions number 4 and 5 are not fulfilled and thus there is an element of monopoly though sellers are price-takers.

THE DEMAND CURVE OF A FIRM IN PERFECT COMPETITION



The demand curve of a firm in perfect competition is perfectly elastic because of competition. No firm can influence the over all price in the market. The price tends to be constant at OPo (in the figure above). Above OPo nobody buys from the firm, i.e. buyers would buy form other sellers. If a firm reduces the price below OPo, other firms would also do the same.

SHORT RUN EQUILIBRIUM PRICE, OUT PUT WITH PROFITS IN PERFECT COMPETITION

Profit maximization (equilibrium) is attained at the profit where Marginal Cost (MC) equals Marginal Revenue (MR).

A diagram showing short run equilibrium of the firm under perfect competition

From the figure, OP1 is the cost price per unit. With out put OQo, Total cost (TC) = OP1B Qo.

OPo is the selling price per unit with the out put OQo, Total Revenue (TR) = OPo AQo.

Profit (Π) = TR - TC

= OPo AQo - OP1BQ
= P1PoAB (the shaded region)

Therefore, OPo is the profit maximising price (equilibrium price), OQo is the profit maximising out (equilibrium output) and P1PoAB is abnormal profits (supernormal profits).

LONGRUN PROFIT MAXIMISATION IN PERFECT COMPETITION

Because there is free entry of firms, in the longrun, other firms are attracted by the abnormal profits to join the market and hence form the industry. As a result, total out put would increase leading to fall in price and fall in profit until when all firms start to earn normal profit.

The figure shows that, in the longrun, profit maximisation of a firm in perfect competition is at point (e) where longrun marginal cost (LMC) is equal to marginal revenue (MR). This point is at the lowest point of the longrun. Average cost curve (LAC) out put OQ1 is produced at cost of OP1 per unit and sold at the price OP1. Since P = Ac, (and TR = TC), the firm is earning normal profit (zero profit). This applies to all firms in the industry. A firm which covers only its average cost (which sells at P = Ac) is called a marginal firm.

THE SHUT DOWN POINT AND BREAK EVEN POINT

From the figure we note the following:

1. In shortrun, the firm in perfect competition produces out put OQ1 and sells it at price OP1, earning abnormal profits P1P4DA.

2. In the longrun, the abnormal profit attracts new firms to join the market and form the industry. This leads to increase in total out put which results into fall in price from OP1 to OP2. All the firms earn normal profits. (Since P = AC) at pint B. This point B where the firm neither incurs losses nor earns profits is called the **Break-even point**.
3. Because of competition and increased total out put, the price can even fall to OP3. This pint (C) below which the firm cannot operate is called **shut down point**. At this point, P = AVC. In otherwards the firm just covers the variable costs of production. Below the shut down point, P<AVc and therefore, the firm would not operate because it cannot cover variable costs e.g. cost of raw materials, wages, etc.

4. The supply curve of a firm in perfect competition is that part of the marginal cost curve above the point where price (P3) = AVC i.e. above point C or above shut down point. Below point C, the firm cannot supply anything since it cannot cover variable costs.

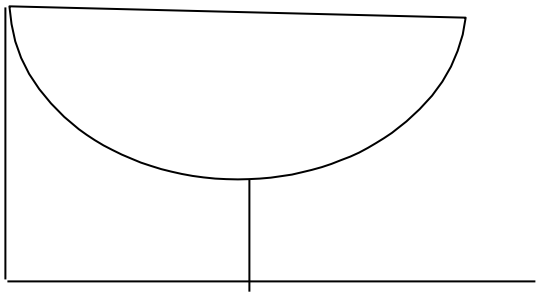
5. A firm can keep on operating even if it does not cover the total costs of production (between B and C) This is because of the following factors:

(a) In the shortrun, the firm would keep on operating provided it covers variable costs. E.g. it can buy raw materials, pay wages etc., though it cannot cover fixed costs like insurance, rent, etc.
(b) It may expect to enjoy economies of scale in the longrun, i.e. to produce at low costs and earn profits.
(c) f a firm is run by the government, and is vital to society, it would afford to operate at a loss, e.g. water supply, roads, electricity supply, etc.
(d) he goal of the firm may be to provide employment for members of the family. In such a case if would keep on operating at a loss in the short run.
(e) When the producer has invested in many assets in the business, he/she may be reluctant to sell them and hence keep on operating hoping to make improvements.

(f) The firm may have prospects of securing a loan from financial institutions so as t make improvements, reduce costs and earn profits.
(g) The entrepreneur may want to maintain his/her reputation and good faith to the public and to his/her customers.
(h) The entrepreneur may adopt new and better methods of production. He/she can try to reduce costs of production by reducing the number of workers, changing the administration, etc.

ADVANTAGES OF PERFECT COMPETITION

1. In the long run, there is efficiency in production and full utilisation of factors of production. Every firm produces at the minimum point of the Average cost curve as shown in the figure below.



OQo = Optimum out put
At L, there is no excess capacity

2. In the longrun, consumers enjoy high standard of living because more commodities are produced and sold.
3. There is no wastage of funds in advertising which would lead to high costs and high prices.
4. There is high out put because of free entry of firms in the market.
5. Competition leads to quality improvement in all firms.
6. Resources are well utilised by efficient firms, inefficient (high cost) firms are pushed out of the market.

DISADVANTAGES OF PERFECT COMPETITION

1. Commodities produced are homogenous and therefore consumers cannot enjoy a variety of differentiated products.
2. In the longrun, expansion of the firm may be very difficult because there are no enough profits to "plough back".
3. Research may be impossible because the profit realised is not enough to cater for research activities.
4. Prices tend to be constant and demand is elastic. This limits sellers to carry out price discrimination.
5. There is a high risk of unemployment when inefficient firms are pushed out of the market.
6. Public utilities like water supply, roads, etc. may not survive in perfect competition. This calls for government intervention.

7. Assumptions of perfect competition are unrealistic and may be misleading and difficult to attain in the real situation.

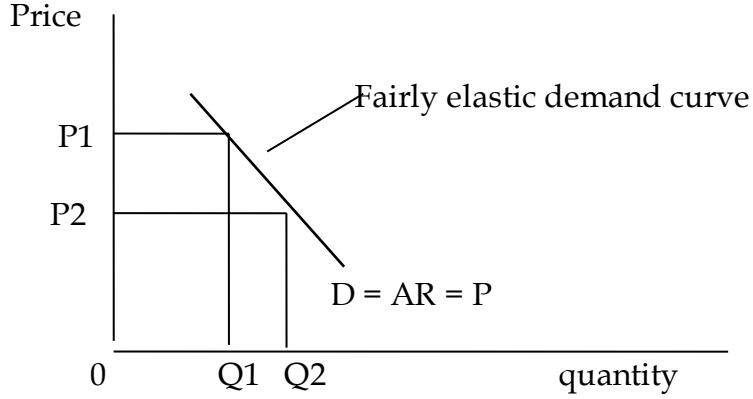
MONOPOLY

Monopoly is a market situation where there is one seller of a product which has no close substitutes. Entry of new firms is restricted and there is no persuasive advertising. In pure monopoly, there is one firm which deals in a product that has no substitutes at all. In practice, there is no pure monopoly because there is no commodity which has no close substitutes at all. Monopoly is a market situation where there is one buyer of a commodity or a factor of production e.g. one employer.

FACTORS WHICH GIVE RISE TO MONOPOLY (the basis of monopoly)

1. Patent rights e.g. writers of books, where the law forbids other firms to deal in the commodity.
2. Ownership of strategic raw materials, usually under government control e.g. minerals.
3. Exclusive methods of production e.g. doctors.
4. Long distance among producer's where each producer monopolizes the market in his/her locality (spartial monopoly).
5. Advantages of large scale production which do not allow small competitors to compete successfully with large firms. Also where there is room for only one seller e.g. roads and railways in Uganda. Such undertakings are usually controlled by the government i.e. they are public utilities. In such cases, the market is said to have created natural monopolies.
6. Protectionism. This is when trade barriers are imposed on the product to exclude foreign competitors. In such cases the home producer may become a monopolist.
7. Take overs and mergers. "Take over" is when one firm takes over the assets and organisation of another where as mergers are formed when firms combine their assets and organisations into one to achieve strong market position. Both situations may result into a monopolist firm.
8. Collective monopoly or collusive monopoly. This is where firms come together in a formal or informal agreement (cartel) to achieve monopoly power. Such firms can fix quotas (maximum out put each may put on the market). They may also set the price very low with the objective of preventing new entry of other firms. This is called limit pricing. An example of a monopolist firm in Uganda is Uganda railways corporation (URC) which handles railway transport.

THE DEMAND CURVE FOR A MONOPOLIST



The demand curve for a monopolist firm is fairly elastic. The seller can determine either price or quantity but not both i.e. if he/she fixes a high price (OP1), quantity demanded would be low (OQ1). If he/she supplies much of the commodity (O Q2), the price would be low (OP2). In such a situation the seller is a price maker because he/she can influence the price in the market.

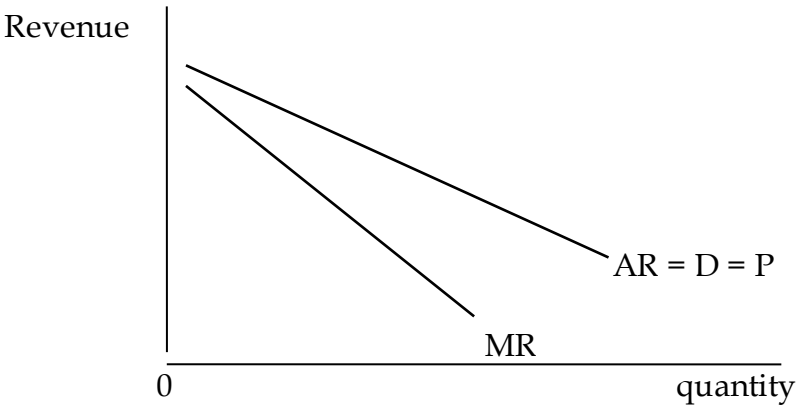
AVERAGE REVENUE AND MARGINAL REVENUE UNDER MONOPOLISTIC COMPETITION

Unlike perfect competition where MR and AR are equal, under monopoly, AR lies above MR. The reason is that since demand is downward sloping in order to sell an extra unit, the price must be decreased. The additional revenue therefore is less than the price at which that unit is sold.

In monopoly, AR falls as more units of output are produced and sold. MR is always less than AR.

Out put	Price (AR)	Total Revenue (TR)	Marginal Revenue (MR)
1	10	10	-
2	9	18	8
3	8	24	6
4	7	28	4
5	6	30	2
6	5	30	0
7	4	28	-2

Graphical representation



MARKET SITUATION FOR A MONOPOLIST

As in other firms, the monopolist maximises profit when MR = MC, at the highest level of out put.

A diagram showing profit maximisation of the firm under monopoly

In the figure, OP1 is the cost price per unit and OQe is the total quantity bought. Therefore Total cost = OP1 CQe OPe is the selling price per unit, with, output OQe, Total revenue = OPeAQe.
Profit = TR (OPeAQe) - TC (OP1 CQe) Qe = P1 Pe AC

Point (B) is equilibrium point where MC = MR.

The monopolist firm produces at excess capacity i.e. OQe is below the lowest point of the AC curve which is at point D. Since costs are still falling, the firm could still produce more out put up to OQ1. But in order to keep the price up, it produces less than optimum.

ADVANTAGES OF MONOPOLY

1. There is no duplication of services and this saves resources e.g. if there is one Hydroelectric power plant there may not be the need to set up another one in the same area.
2. Economies of scale can be enjoyed by the firm because it is capable of expanding using the abnormal profits earned.
3. There is a possibility of price discrimination (i.e. selling the same commodity at different prices) which benefits the low income earners.
4. Research can easily be carried out using the abnormal profits.
5. There is no wastage of resources in persuasive advertising which leads to increase in prices.
6. Public utilities like roads, telephone, etc. are easily controlled by the state as a monopolist.
7. "Infant" industries can grow up when they are monopolies and are protected from competition.

DISADVANTAGES OF MONOPOLY

1. Because there is no competition, the firm can become inefficient and produce low quality products.
2. Monopolist firms produce at excess capacity i.e. they under utilise their plants so as to produce less out put and sell at a high price.
3. Monopoly firms may charge higher prices than firms in perfect competition.
4. In case a monopolist stops producing, there would be shortage of the commodity.
5. Monopolist firms tend to exert pressure on the government and at times they can influence decision making because they are controllers of production.

MEASURES TO CONTROL MONOPOLY

Because of the above disadvantages of monopolies, the following methods can be used to control their activities.

1. The government can fix prices of commodities.
2. Taxation. The government can impose taxes on monopolist firms to tax away the abnormal profits. However, the monopolist can shift the burden of taxes on to the buyers in for of high prices.

3. Anti-monopoly (Anti trust) legislation i.e. laws imposed to control monopolies. Such laws can prohibit monopolisation, and collusion among firms to raise prices or inhibit competition.
4. Nationalisation of monopoly firms by the government.
5. Subsidization. New firms can be subsidized so that they compete with the monopolist firm.
6. Removing the basis of monopoly e.g. removing tariffs on imported goods.

PRICE DISCRIMINATION UNDER MONOPOLY

Price discrimination exists when a commodity is sold at different prices irrespective of the cost of production. Examples include different seats in a theatre or stadium, different grads in a hospital (grade A and Grade B), doctors services, etc.

DEGREES OF PRICE DISCRIMINATION

There are three degrees (types) of price discrimination

(a) **First degree or perfect discrimination**

This type exists if a monopolist is able to charge each consumer for his good the maximum price that the buyer would be willing to pay rather than go without the good. The monopolist is able to sell each unit of his goods the maximum price. At this degree of price discrimination all the consumers surplus is taken away by the seller.

(b) **Second degree price discrimination**

This is when a monopolist charges the consumers a lower price when he purchases larger quantity of the good conversely, a higher price is charged to a consumer who buys a smaller quantity. At this degree part of the consumers' surplus is taken away.

(c) **Third degree of price discrimination**

This is when the monopolist gets more revenue by separating his market into sub-markets and a different price is charged in each market.

CONDITIONS FOR PRICE DISCRIMINATION

1. The commodity must be sold by a monopolist.
2. Elasticity of demand should be different in different markets. A higher price should be charged in the market where elasticity of demand is low and where elasticity of demand is high, a lower price should be charged.
3. The cost of dividing the markets should be very low e.g. in cases of dumping, costs of transport should be low.
4. Buyers should not know how much is charged on others. This is possible especially where goods are sold on order.
5. It should be impossible for buyers to transfer the commodity from where the price is low to where the price is high. This is possible especially with services of doctors, teachers, etc.

NB Price discrimination may also be used to sell units of the same commodity at different prices to the same customer e.g. telephone charges high on 3 minutes and then low on other minutes.

ADVANTAGES OF PRICE DISCRIMINATION

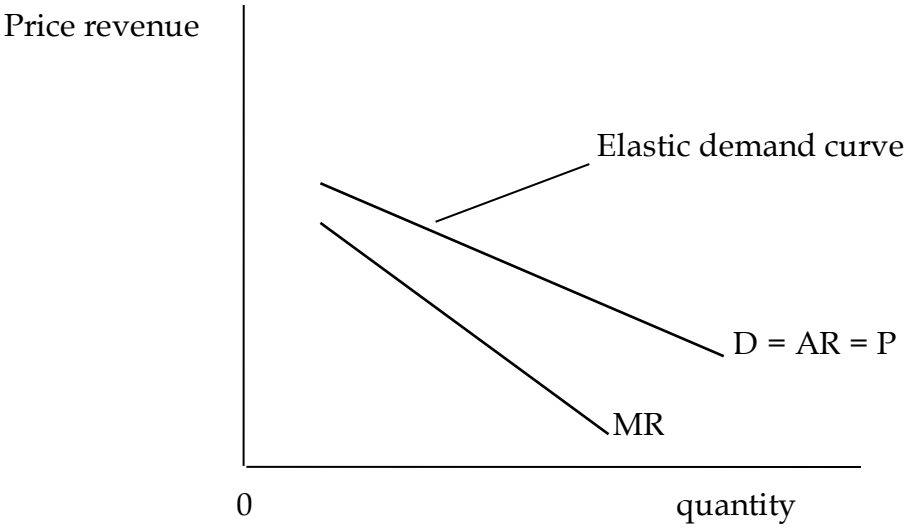
1. It enables the poor to get essential services at low prices e.g. cheap houses to civil servants, doctors charging low prices on poor patients.
2. To the producers, it increases total revenue because out put sold increases.
3. It is one way in which the rich subsidize the poor thus a method of income distribution. The rich are charged highly on commodities while the poor are subsidized on the same commodities.
4. It increases sales and consumption e.g. for electricity, the first units, may be charged higher price than other extra units. Therefore, the more units of electricity you use the less charger you would pay for extra units.
5. It helps producers to dispose off surplus commodities e.g. dumping.

MONOPOLISTIC COMPETITION

Monopolistic competition market structure has characteristics similar to that of perfect competition except that the commodity dealt within monopolistic competition is not homogeneous. Products are differentiated (but they are close substitutes). Product differentiation may be in form of packing, design, quality, branding, etc.

There is need for persuasive advertising in monopolistic competition. Because of product differentiation, the seller has some control over the market price. Examples are small restaurants, hair salons, shoe repairs, etc.

THE DEMAND CURVE OF A FIRM IN MONOPOLISTIC COMPETITION



The demand curve for a monopolistic competitor is more elastic than that of monopoly because of the presence of close substitutes in the former. MR is below the AR as in case of monopoly. The demand curve is downward sloping because each firm has monopoly power over its product and is not a price taker.

SHORT-RUN EQUILIBRIUM OF A FIRM IN MONOPOLISTIC COMPETITION

Profit maximization (equilibrium) for a monopolistic competitor in the short run is reached where MR = MC. At this (C) equilibrium quantity is OQe and equilibrium price is OPe. In the short-run, abnormal profit (P1PeAB) is earned. The firm produces at excess capacity (excess capacity is QeQ1) because it produces less output than the optimum (OQ1).

LONG - RUN EQUILIBRIUM OF A FIRM IN MONOPOLISTIC COMPETITION

From the figure we note the following:-

1. In the long run equilibrium is attained at point E1 where longrun marginal cost curve (LMC) = MR. Output OQe is produced and sold at price OPe, normal (zero) profit is earned by all firms. (Since P = AC).

2. Because of free entry of new firms, in the longrun the demand for the product is shared among more brands. Therefore, the demand curve would keep on shifting to the left until a point is reached where the demand curve is tangent tot he ATC (LAC) curve. At equilibrium, normal (zero) profit is earned and there is excess capacity, (OQ1, -OQe = Qe Q1) because the firms is producing out put less than the optimum (Lowest point of the AC curve). So production efficiency is not achieved under monopolistic competition. In order to maintain the market share, the seller has to advertise.

ADVANTAGES OF MONOPOLISTIC COMPETITION
1. Produce differentiated products that enables consumers to get a variety of products.
2. Firms compete to make improvement on the quality of products.
3. n case one firm collapses, substitute are available.
4. The price charged is lower than that of a monopolistic because of competition from substitutes.

DISADVANTAGES OF MONOPOLISTIC COMPETITION
1. There is under utilization of the plant in the short-run and in the long-run. There is excess capacity and output produced is lower than that produced by a firm in perfect competition.
2. In the long run, there is no profit to make improvements so the firms may not expand to enjoy economies of scale.
3. The price charged on buyer is higher than in perfect competition.
4. In the longrun, there are no profits to invest in research since the firm earns normal (zero) profits.
5. To maintain the market share, the seller has to advertise. This increases costs and the price.

OLIGOPOLY
This refers to a market structure within which firms are aware of the mutual interdependence of sales, production, investment and advertising plans. Hence manipulation by any firm of variables under its control is likely to evoke retaliation from competing firms. These features

are commonly described to markets in which the number of sellers are few. Where such competition is between two firms, the market is called DUOPOLY.

CHARACTERISTICS OF OLIGOPOLY

Oligopoly is a market structure characterised by the following:-

1. Few, un equal, competing forms. Each firm, though faced with competition from other firms, has enough market and therefore cannot be a price taker.
2. Non-price competition e.g. advertising, quality of services, etc. If one firm reduces the price, others would do the same and all firms would end up losing.
3. Each firm is concerned with the activities of other firms so as to act accordingly e.g. it can reduce the price when others reduce the price.
4. In most cases there is product differentiation.
5. The demand curve under oligopoly is kinked. It is elastic above the kink and inelastic below the kink.

6. Different pricing behaviour take place like

- Imperfect collusion
- Perfect collusion
- Price administration

THE DEMAND CURVE, MR CURVE AND EQUILIBRIUM OF A FIRM IN OLIGOPOLY

The market situation of a firm in oligopoly is illustrated in the figure above.

The demand curve is ABD and marginal revenue curve is ACD MR. From the figure we note the following:-

1. The price and demand curve. The price (OP1) is administered by the biggest price firm or by the low cost firm. If a firm increases the price above OP1 it would lose its market. Therefore, the demand curve is fairly elastic above the administered price (OP1). If a firm reduces the price below OP1, other firms would do the same leaving the market for each firm constant. So the demand curve is less elastic below the administered price. When the 2 demand curves are combined, they make a kinked demand curve.
2. The marginal Revenue curve: Because of the 2 demand curves, the marginal Revenue (MR) curve also has 2 parts. The 2MR curves are separated by a gap (CD). When the firm increases the price above OP1, its market share would reduce thus a reduction in MR is large above OP1. When the firms reduces the price below OP1 its market share remains almost constant and therefore the gain in revenue (MR) is less below OP1.
3. Equilibrium; Equilibrium is attained at the point where MR = MC. The MC meets MR curve in the discontinuous gap (CD) and the position of MC in the gap does not affect equilibrium. At equilibrium, OQ1 is produced and sold at administered price OP1. The above analysis is on shortrun market situation of oligopoly.

In order to avoid under selling each other ("the price war"), firms may come to an agreement (a carter) where they fix quotas and at times fix the price to restrain competition such collusion makes oligopolists behave like a monopolist.

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Course Name	: Computer Theory and Applications

Course Description

The Course deals with the introduction, background and significance of computers, computer hardware and software, networking and the internet, the various computer devices and their applications such as operating systems, input/output devices etc, to students. The Course explains some practical applications such as Ms Word, Ms excel, Power point and their presentation and browsing the internet. It provides prior knowledge to computer language program which can be helpful at further stages of Computer studies.

Course objectives

- To help students attain basic knowledge of the computer
- To help students to become familiar with the use of internet and browse the World Wide Web through routine practice.
- To enable students develop foundational skills for information technology.

Course content

Introduction to computers

- Information management
- Why were office systems less beneficial than computerized systems
- Why computers are better than people
- Limitations of computers
- Effects of office automation on business
- Definition of computers
- Characteristics of computers
- Types of computers

Hard ware concepts

- The processor and its elements
- Manual input devices that include keyboard, web camera, the monitor, mouse
- Automatic input devices that include modems, magnetic ink character recognition, optical mark reading, magnetic stripe cards
- Output devices that include VDU, speakers, printers,
- Storage devices that include; hard disks, floppy disks, Flash disks, tape storage

Networks and data communications

- Configurations that include; centralized, decentralized and distributed processing as well as key features of distributed processing
- Networks that include: Local Area Network(LANs), Wide Area Networks(WANs),Metropolitan Area Network(MAN), storage Area Networks
- Client-server computing
- Data communication that include; oral, paper and electronic data communication
- Data transmission equipment that include; coaxial cables, modems, multiplexers

Software Concepts

- Definition of software
- Operating system

- Functions of an operating system
- Windows, MS-DOS, features of windows 95, features of windows 98
- Application software and packages
- Examples of word processing programs
- Spread sheets
- Examples of spread sheets

Personal Information Managers (PIM)

- Importance of PIM
- Examples of PIMs
- Integrated packages
- Utility programs
- Viruses
- Types of viruses and how they are transmitted

Programming Languages

- Low level language i.e Machine code, assembly
- High level language
- Advantages of high-level languages over low-level language

Assessment
Course work 40%
Exams 60%
Total Mark 100%

CHAPTER ONE

1:0 ATTRIBUTES TO INFORMATION

Everything that we do, either in our personal life or as part of the activities of work depends on information. Therefore, information is a key resource for success of most of the companies and organisations.
Information refers to facts or knowledge about something, which could be important for decision-making.

1:1 INFORMATION MANAGEMENT

Like any other resource, i.e. machines, money, etc. Information must be controlled and organised. It should be managed (collected, organised and controlled). Information management is accomplished by the factors considered below:

i) Identifying current and future information needs
Information is always needed for current decisions e.g. current sales performance, and any likely future changes e.g. need for future expansion.

ii) Identifying Information Sources

In order to make good decisions, the information used must be collected from proper sources e.g. if the company sales are affected by weather, then reliable information about weather should be collected from Meteorological Department.

iii) Collecting the Information
Some information may easily be collected using any simple means, but other information may only be got after using wise tactics or a series of procedures e.g. a profit for the month, or year.

iv) Storing the Information
Information collected should always be stored securely and accessibly to enable future use and reference.

v) Ensuring that information is communicated to the right person who needs it
Always information should only be communicated to people who need it and kept away from those who don't deserve it.

1:2 DEFINITIONS

Data
These are the raw materials for information. Any thing that the computer can work with, either numbers of any kind, texts, facts, etc.

Information
This refers to processed data. Items that have been re-arranged so as to give the user a meaning, which could be vital for decision-making.

Qualities of good information
Good information has a number of specific qualities for which accurate is a useful mnemonic (symbol).

Accurate
Information should obviously be accurate because using incorrect information could have serious and damaging consequences.

Consistency
Especially in accountancy, information should always be consistent e.g. if the March report of slow paying students is prepared on the basis that slow paying students are those who have not paid within 60 days, but the August report considers students who have not paid within 30 days, then is not valid to compare the two reports.

Clarity
The information should always be clear to the user. If the user can't understand the information, then he certainly can't use it properly.

Reliability

Information must be trusted by the managers who are expected to use it. An information source may therefore play a great role here.

Communication
Information should always be communicated to the right person.

Channel of communication
Depending on the type of information being communicated and to person(s) for whom it is intended, a proper channel should always be used.

Volume and brevity
Information should be brief, so long as this does not mean that it is incomplete or inaccurate. Huge volumes of information may be hard to absorb even if all of it is relevant.
Timing
Information should always be delivered in time, as information delivered shortly after a decision is already taken is always useless however relevant and accurate it is.

Cost
The benefits to be achieved from the information should out way the costs involved in obtaining and communicating it to the people concerned. This may either be in the short or long run.

Question:
What is information? What are the main qualities of good information?

1:3 TECHNOLOGY FOR INFORMATION

Information handling and processing in offices has been made easy due to enormous development in office machines and computers.
However on the other hand the manual systems exist along side computerised systems.

Why manual office systems are less beneficial than computerised systems.
- ♦Labour productivity is usually lower, particularly in routine and operational applications.
- ♦Processing is slower where large volumes of data need to be dealt with.
- ♦Risks of errors are greater, especially in repetitive work like payroll calculations.
- ♦Information is generally less accessible.
- ♦It is difficult to make corrections or alterations.
- ♦Quality of output is less consistent and not as high as well-designed computer output.

Why computers are better than people
- ♦For storing information
- ♦It's more accurate than humans
- ♦It works faster than humans
- ♦Its automatic i.e. carries out many operations without human input
- ♦It is diligent i.e. works for long hours without getting tired
- ♦It's used for entertainment
- ♦It's used for communication e.g. email, Internet

♦It's used for data base management i.e handling large volumes of information (data)
♦It's used for computations

LIMITATIONS OF COMPUTERS
♦Less flexible than humans
♦Have to be explicitly "told" what to do
♦If an unanticipated situation arises, PCs can produce erroneous results
♦Have no potential to work out a solution

1:4 OFFICE AUTOMATION

This is majorly composed of word processing, spreadsheets, databases, telephone and fax (facsimile) and networks.

Effects of office automation on businesses
Office automation has an enormous effect on business in a variety of ways:
♦**Routine processing**
The processing of routine data can be done in bigger volumes, at greater speed and with greater accuracy than with non-automated - manual system.

♦**The paperless office**
There might be less paper in the office (but not necessarily so) with more data processing done by keyboard. Data storage done electronically other than using papers.

♦**Management information**
This is likely to change both in nature and quality, as more information will easily be available and accessible, through information analysis done easily and so on.

♦**Organisation structure**
This may change, as the PCs are likely to be locally controlled in an office or branch, creating a shift to decentralisation.

♦**Customer Service**
This can improve especially if the customers can call an organisation and the feedback the staff give to callers is from the organisation's on-line data base.

1:5 HOME WORKING
Advances in communication technology have, for some tasks, reduced the need for the actual presence of an individual in the office. This is particularly time for tasks involving computers.

The advantages of home working for an organisation involve the following:

a) Cost saving on space
Rental changes are a little high and if some employees can do their work from home, then this will reduce on the space occupied and thus the rental fees.

b) A larger pool of labour
More applicants are expected especially for clerical positions, especially from people who are committed else where and office time tables may collide.

c) Freelance employees
This category of employees will be good for the organisation as there will be no sick pay, holiday pays and salaries especially when there is no sufficient work.

The advantages to the individual
♦No time wasted commuting to the office.
♦The work can be organised flexibly around the individual's domestic commitments.
♦Jobs that require concentration may sometimes be done better at home without the office disruptions.

Disadvantages
To the Organisation
The major disadvantages to the organisation are normally lack of control as managers will have no close supervision of the workers.

To the Individual
♦**Isolation**
If just forced to work from home, this may cause barriers to social life experienced in offices.

♦**Intrusions**
A home worker is vulnerable to home interruptions e.g. a kid or members of the family who may forget that the individual is home working.

♦**Adequate Space**
It may not be always possible to obtain a quiet space at home in which to work.

♦Freelance home workers normally have fewer rights compared to office stationed workers.

Question:
Today home working is booming in employment sector, what do you think has led to this and what advantages does the organisation get from this kind of trend?

1:6 IT AND ACCOUNTING (ACCOUNTING PACKAGES)

Years back, accounting records were only prepared manually, developments in information recording technology has however advanced and now the same accounting records can be made using computers e.g. ledgers, trial balances,

profit and loss accounts, balance sheets, etc. The only difference is that these various books of accounts have TO be count invisible and can only be called out.

The advantages of accounting packages compared with a manual system are as follows:
♦Non-specialists can use the packages.
♦A large amount of data can be processed very quickly.
♦Computerised systems are more accurate than manual.
♦Double entry is automatic

If you enter the details of an invoice the system automatically updates the sales account, the VAT account, the debtor's ledger control account and the memorandum of sales ledger account. There is no need to enter the information four times.

♦Integration; all ledgers and records can be linked up.
♦Easy information analysis in terms of trial balance or a debtors' schedule.

Disadvantages
The advantages of computerised accounting systems far out weight the disadvantages, particularly for large businesses. However, the following may be identified as possible disadvantages.

♦The initial time and costs the system, training personnel and so on.
♦The need for security checks to make sure that unauthorised personnel do not gain access to data files.
♦The necessity to develop a system of coding and checking.

♦Lack of audit trail. It is not always easy to see where a mistake has been made.
♦Possible resistance on the part of staff to the introduction of the system.

Types of accounting packages

The most widely used packages are as follows:
Small business (1-10 people)
♦Sage Line 100 or Line 50
♦Quick books
♦Tas books

Small to medium (10-30 people)
♦Sage Sovereign
♦Pegasus opera
♦Exact
♦Multisoft prestige

Medium - sized businesses (30-200 people)
♦ Sun-accounts
♦Tetra chameleon
♦Scala
♦Dynamics

Large business (200 - 2000 people)
♦Coda
♦JBA

Very large businesses
♦SAP
♦Oracle
♦Dun & Brad Street

CHAPTER TWO
HARD WARE CONCEPTS

2:0 INTRODUCTION
Under this chapter, we shall look at the following:
♦ Computer components
♦Characteristics of a computer
♦The Processor
♦Other peripherals
♦ Manual input devices
♦Automatic input devices
♦Output devices
♦ Storage devices

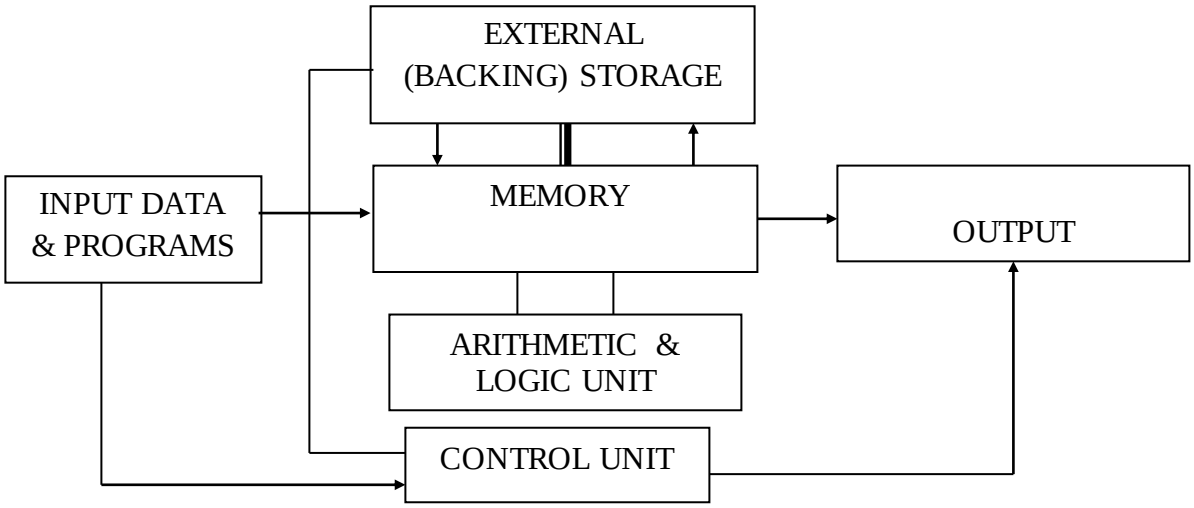
2:1 COMPUTER COMPONENTS
Hardware – these are the physical parts of the computer e.g the mouse, monitor, and keyboard
Software – these are the invisible components of the computer. They are the programs and instructions, which run the computer
User- should be trained personnel

2:2 COMPUTERS

Definition:
A computer is a device, which will accept input data, process it according to programmed logical and arithmetic rules, store and out put the results. A computer is therefore a mixture of physical things like keyboards, mice, screens, circuits and cables (hard ware) and intangible arithmetic and logic (software). Hardware means, the various physical components (tangible) as opposed to the non-tangible software elements.

CHARACTERISTICS OF COMPUTERS (Assignment)
♦Machine
♦Processing
♦Versatile- performs multiple functions easily
♦Electronic
♦Automation
♦Storage- stores a lot of information in a very small space

♦Accuracy
♦Compatibility
♦Consistency



Types of Computers

These are categorised by size and output

By Output

i) Digital
ii) Analogue

By Size

i) Super computers
ii) Main frame computers (at times called enterprise servers)
iii) Mini computers, now often called mid-range computers
iv) Micro-computers, now commonly called PCs.

We shall group (iii) and (iv) as 'Small business computers'.

Super Computers

A super computer is used to process very large amounts of data very quickly. They are particularly useful for occasions where high volumes of calculations need to be performed, for example in meteorological or astronomical applications.

Main frames

A main frame computer system is one that has at its heart a very powerful central computer, linked by cable or telecommunications to hundreds or thousands of terminals, and capable of accepting simultaneous input from all of them.

♦Other characteristics include:
♦Has centralised service departments
♦Handles multi-level output
♦Very high processing speed
♦Have disk drives like magnetic tapes

♦Very large size therefore handles big tasks and can support many users
♦Stores vast amount of data
♦Industrial use
♦Expensive but slightly smaller than super computers
♦Support services for data preparation, control and programming

Medium and small business computers

Mini computers
A mini computer is a computer whose size, speed and capabilities lie some where between those of a main frame and a PC.

Characteristics
♦Smaller than mainframe computers
♦Have smaller storage capacity and are slower
♦Linked to other computer workstations
♦Handles multi-level output
♦Are large in size
♦Disk drives include tape drives
♦Environmental control is not necessary
♦Limited output and input peripherals

Personal Computers
The 'personal computers' (or 'micro computers') are the most common computers available in most of the businesses and even in homes.
Characteristics
♦Small for personal use.
♦Low output
♦Operated in desks
♦Most common computers in business
♦Handles relatively big tasks
♦Have fairly good processing speed
♦Have limited input and output devices
♦Compilers and interpreters are permanently stored in hardware as ROM
♦They are often linked together in a network to enable sharing of information between users.

File servers
A file server is more powerful than the average desktop PC and it is dedicated to providing additional services for users of networked PCs.

A very big net work may use a 'main frame' as its server, and indeed main frames are beginning to be refereed to as 'enterprise servers'.

Portables

The original portable computers were heavy, weighing around five kilograms, and could only run from the mains electricity supply. Subsequent developments allow true portability.

i)The Laptop. Powered either from the electricity supply or using a rechargeable battery. It uses 3½" disks, CD - ROMS, liquid crystal or gas plasma screen and is fully compatible with desktop PCs.

ii) The notebook is about the size of an A4 pad of paper. Some portables are now marketed as 'sub-note books'.
iii)The pocket computer or hand held, may or may not be compatible with a true PC.

Much as PCs (portables) may be very popular because of their easy way of transportation and occupation of smaller space in offices, they have some draw backs;

i) Key board ergonomics
   The keys are too small, or too close together for easy, quick typing.
ii) Battery power
   They normally don't last for long periods.

A typical PC specification may involve the following:

♦Intel 233 mttz pentium 11 processor 33. 6 kpbs internal fax modem.
♦64 MB FAST EDO RAM (expandable to 512 MB)
♦6.4GB hard disk drive, 15" SVGA colour monitor LR, NI up to 1024 x 768 energy star compliant.

Advantages
♦Easy to transport
♦Occupy small spaces in offices

2:3 THE PROCESSOR

The processor is the 'brain' of the computer.

Definition
A processor is the collection of circuitry and registers that performs the processing in a particular computer and provides that computer with its specific characteristics.

The processor (sometimes referred to as central processing unit (or CPU) is divided into three areas.

♦The Arithmetic and Logic Unit, (ALU)
♦The Control Unit,
♦The Main Store or Memory (RAM & ROM)

In modern computer systems the processing unit may have all its elements - arithmetic and logic unit, control unit and the input/output interfall on a single 'chip'.

Definition
A chip is a small piece of silicon upon which is etched an integrated circuit, which consists of transistors and their interconnecting patterns on an extremely small scale.

The chip is mounted on a carrier unit which is 'plugged' on to a circuit board called the mother board with other chips, each within their own functions such as sound (a 'sound card') and video (a 'video card').

Arithmetic and Logic Unit (ALU)
The ALU is the part of central processor where the arithmetic and logic operations are carried out. These include arithmetic (e.g. adding and multiplying) and logical functions such as comparison, movement of data, etc.

Control Unit
The control unit receives program instructions, one at a time, from the main store and decodes them.
♦It then sends out control signals to the peripheral devices.
♦Registers are paths that connect the ALU to the main memory
♦Data buses are wires connecting the micro processor to the memory through which data flows
♦An address is a pattern of channels that identify a unique storage location
♦Toner is an electronically charged dry ink substance used in printers

Memory
The computer processing is normally much faster if the computer has the information it needs readily to hand.
The computer's memory is also known as main store, internal store or immediate access storage. The memory will hold the following.

i) Programs, the control unit cuts on program instructions that are held in the store; these program instructions include the operating systems.
ii) Some input data. A small area of internal store is needed to take in temporarily the data that will be processed next.
iii) A working area. The computer will need an area of store to hold data that is currently being processed or is used for processing other data.
iv) Some output data. A small area of store is needed to hold temporarily the data or information that is ready for output to an output device.
Each individual storage element in the computer's memory consists of a simple circuit which can be switched on or off. These two states can be conveniently expressed by the numbers 1 and 0 respectively.

Each 1 or 0 is a bit.
Bits are grouped together in groups of eight to form bytes.

A byte may be used to represent a character for example, a letter, a number, or any other symbol. The characters formed can be grouped together to form words or figures, etc.

Since a byte has 8 bits, there are 2^8, or 256, different combinations of 1s and 0s, which is sufficient to cover numeric digits, upper and lower case alphabets, punctuation marks and other symbols.

The processing capacity of a computer is in part dictated by the capacity of its memory.
Capacity is calculated in kilo bytes (1kb = 2^{10} (1024), (megabytes = 2^{20} bytes), and gigabytes (2^{30}) or Kb, Mb and Gb.

Port
This is a socket in the CPU into which peripherals can be connected

Expansion Slot
These are access slots to where computer cards can be fixed on a CPU during upgrading

Types of Memory
There are basically two types of memory i.e. RAM and ROM.

RAM: (Random Access Memory)
This is the memory that is directly available to the processing unit. It holds the data and programs in current use. Data can be written on to or read from Random Access Memory.

RAM is 'volatile'. This means that the contents of the memory are erased when the computer's power is switched off.

Memory Cache

Primary cache
This is a small capacity but extremely fast memory chip which save a second copy of the pieces of data most recently read from or written to main memory. When the cache is full, older entries are 'flushed out' to make room for new ones. Primary cache is often part of the same chip as the CPU.

Secondary cache
This is a larger, slower cache between the primary cache and the main memory.
The principal here is that if a piece of data is accessed once it is highly likely that it will be accessed again soon after words, and so keeping it readily to hand will speed up processing.

ROM (Read Only Memory)
This is a memory chip into which fixed data is written permanently at the time of its manufacture. New data cannot be written into the memory, and so the data on the memory is unchangeable and irremovable.

ROM is 'non-volatile' memory, which means that its contents do not disappear when the computer, power source is switched off.
A computer's start-up program, known as a 'boot strap' program, is always held in a form of a ROM. 'Booting up' means running this program.

When you turn on a PC you will usually see a reference to BIOS (Basic Input/Output System). This is part of the ROM chip containing all the programs needed to control the key board, screen disk drives and so on.

2:4 OTHER PERIPHERALS

♦**Uninterrupted Power Supply (UPS)**
It stabilises the power thus enabling the user to save his/her work before the power supply is completely terminated. Hence it's called a stabiliser.

2:5 MANUAL INPUT DEVICES
These are input devices, which are quite labour - intensive. They include the following:

Keyboard
This is a board of keys, which includes the alphabet, numbers (0-9) and some basic punctuation, together with other keys. It is used to enter data into the computer's main memory. It resembles a typewriter except for some keys like the function keys (F1, F2 etc), control keys, alter keys, escape keys etc. It mainly has three parts:
♦The alphabetical keypad – these include letter keys A-Z
♦The functional keypad – (F1-F12)
♦The numeric keypad - (0-9)
There are 2 types of keyboards:

Standard Keyboard	Enhanced Keyboard
♦Older style	♦Latest style and most common
♦Has 10 function keys on the left hand side of the keyboard	♦Has 12 function keys at the top of the keyboard
♦Cursor keypad is on the right and is used for numeric entry	♦Has shift, control and alt keys on both sides of the space bar

The Function Keys
F1 – is used for help
F2 – is used for page setup/programming
F3 – is used for page break down or break up
F4 – is used for moving a group of words from one position to the other
F5 – is used for password
F6 – is used to replace a word
F7 – is used for exiting/closing the screen
F8 – is used for sizing the appearance of the screen
F9 – is used for envelope set up

F11 – is used for highlighting the appearance of the screen

Other Keys

Caps lock- is used for writing capital letters
Shift keys- used to obtain the uppercase character of a button
Enter Key – used for creating spaces between lines. They also move the cursor to the next line. It also executes commands
Back space key – is used to erase letter by letter at any cursor point. A cursor is a blinking feature that indicates a point of insertion i.e the point where the next character will appear
Space bar – it creates space between words
Delete key – it deletes error at cursor point
Insert key – it is used to insert a missing letter in a group of words
Home keys – it is used to take the cursor back home
End key- it takes the cursor either at the end of the line or end of the document
Page up/down – takes the cursor at the upper or down page
Tab key – it is used for making paragraphs
Arrow keys – are used for moving through the document
/ Forward slash
\ Back slash
: Full colon
* Asterisk
. Period
; Semicolon
? Query
, comma

Web Camera
It enables the user to take photographs and view the other person online

The VDU (Visual Display Unit) – the Monitor
This can be used in conjunction with a keyboard to display text to allow the operator to carry out a visual check on what she has keyed in.
It can also be used to give messages to the operator, and the operator can respond to messages by keying in new instructions. The monitor gives a soft copy of the data held by the computer. It's both an input and output device.

Types of VDUs

♦Coloured screens which display information in various colours
♦Monochrome screens which display in black and white
♦Graphic screens which display information in graphs

Mouse
This is often used in conjunction with a keyboard, particularly in windows - based systems. It may be used in place of a keyboard. It's used with windows programs to provide additional flexibility to the user
Even joysticks and track balls may also be used as the mice.

Parts of a mouse

♦Left- for clicking
♦Right- for popping
♦Middle- moving up and down the document

2:6 AUTOMATIC INPUT DEVICES
These include the following:

Modems
When the modem converts analogue signals to digital signals during data transmission, is said to be an input device.

Magnetic ink character recognition (MICR)
MICR is the recognition by a machine of special formatted characters printed in magnetic ink. This is done using ink, which contains metallic powder and special typewriters.

Optical character recognition and scanners
OCR is a method of input involving a machine that is able to read characters by optical detection of the shape of those characters. Optical (or laser) scanners can read printed documents by recognising the characters, convert them into machine code and record them.

The advantage of OCR over MICR is that the OCR can read any ordinary typed or printed text provided the quality of the input document is satisfactory.

The disadvantage however, evolves around the distinction between O and 0, then 1 and I which is a bit hard.

Optical Mark Reading (OMR)
This is normally used for numeric characters. Values are denoted by a line or cross in an appropriate box, whose position represents a value, on a pre-printed source document (or card). The card or sheet is then read by a device which senses the mark in each box and translates it into machine code.

An example would be a multiple choice question paper.

Bar Coding and Electronic Point of Sale (EPOS)
A bar code reader is a device, which reads bear codes, which are groups of marks which, by their spacing and thickness, indicate specific codes or values. Normally used in super markets.
EPOS devices use bar coding and act both as cash registers and as terminals connected to a main computer.

This enables the computer to produce useful management information such as;
♦ Sales details and analysis
♦ Stock control information
And all this very quickly

Magnetic Stripe Cards
These can be used at the door entrances where the card is passed over the reader which senses the information to the computer to open the door if the holder of the card is supposed to enter. They are also used in banks by Automated Teller Machines (ATM).

Voice recognition
A computer soft ware has been developed that can convert speech into computer sensible form. The input device needed here is Microphone. The available software currently require the user to speak very slowly, dictating one word at a time - but this all can at best be 90% accurate.

Question
a) What is the major distinction between ROM and RAM.
b) Briefly describe 8 (eight) input devices to computers.

2:7 OUTPUT DEVICES

These are devices that communicate the results of processing from the computer to the user. This could be a process or just an instruction. They include the following:

Visual Display Unit (VDU)
As out put devices, these can usually be used where there is no requirement for a permanent out put and when the volume of the out put is small. E.g. in cases of a single enquiry or current balance on account.

Speakers
These tend to output audio stored information e.g. at the airport, the computer through loud speakers may pass announcements to passengers, or you can listen to your favourite music from the computer using its speakers, etc.

Modem
This acts as an output device when the digital signals are converted into analogue signals so as to be transmitted over a telephone line.

Printers
This is a device that prints texts, graphics or images on paper producing hard copy (hard copy refers to a document on the paper as distinct from that one of the screen).

Classification of Printers
Printers can be classified as:
♦Impact printers
♦ Non- impact printers

IMPACT PRINTERS

These mechanically strike the paper during the printing. The print elements i.e. hammer, ribbon and ink strike the paper to deposit the characters on it after relieving signals from the computer's central processing unit. Impact printers are comparatively noisy and slow.

Examples include:
Dot matrix printer- the characters it prints consist of series of dots arranged in a pattern to form the characters.
Daisy wheel – The printing mechanism involves a wheel on which available characters are located. In the course of printing, the wheel rotates as it impacts the required characters onto the paper.

NON - IMPACT PRINTERS
Here with these printers, the paper is not mechanically struck, but the printing is quickly done with the print elements like laser beams, heat, ink to produce hard copies.

Examples of these include:
Laser printers, Inkjet printers, Epson printers etc.

Differences between impact and non impact printers

♦Non-impact printers are fast compared to the slow impact printers.
♦Impact printers use inked ribbons yet non-impact printers use thermo or electrostatic principles.
♦Impact printers are cheap yet non-impact printers are expensive due to the technology used to make them.

♦Impact printers are generally noisy while non-impact printers are quite quiet.

Another classification of printers would be based on single print output i.e., character, and line or page printers.

Character printers print character-by-character - hence comparatively slow.

Line printers print an entire line at a time - hence comparatively fast and more expensive than character printers but less costly than page printers.
Page printers print the whole page at a go thus the fastest and most expensive printers.

A character can be, a number, letter, symbol, etc.
Plotters
These are devices that produce hard copy of complex drawings such as graphs, engineering, drawings, maps, curves, etc.

2:8 STORAGE DEVICES
These are items/devices that can be used to store Data or Information for subsequent use. They include the following:-

Disks
This is a device that aids in reading and writing information to and from a secondary storage device. They are the predominant form of backing storage medium nowadays because they offer direct access to data, an extremely important feature.

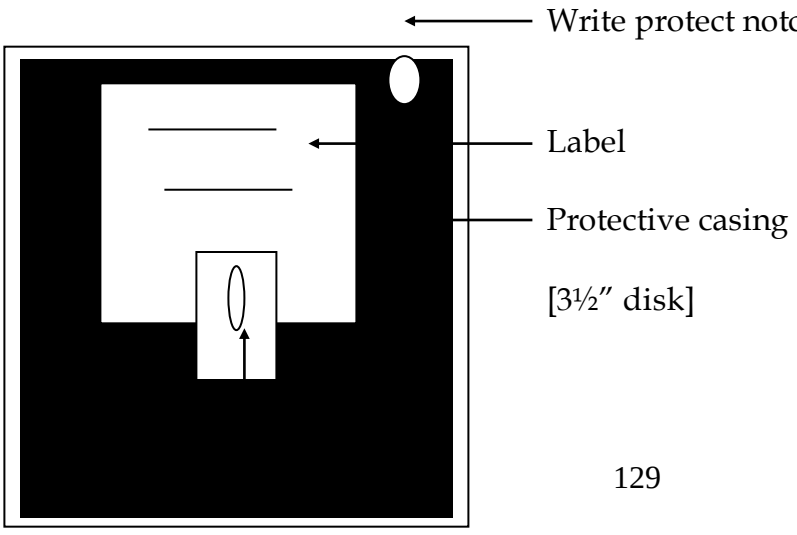
Data is held on a number of circular, concentric tracts on the surfaces of the disk, and is read or written by rotating the disk past read/write heads, which can write data from the CPU's memory on to disk, or can read data from the disk for input to the CPU's memory. he mechanism that causes the disk to rotate is called a disk drive.

The Disk Drive
This is the media where computer programme files reside e.g. hard disk, floppy disk, CD-Roms, magnetic tapes etc

Hard disks
A modern business PC invariably has an internal storage medium, but external disks may be used too. Everything stored by a user on the computer is stored on the hard disk. Internal storage medium. Stores most computer applications. Capacity usually 100MB. Designed with letters – C to S. Hard disks are metallic storage device on which data and information are magnetically stored on round metallic platters. Hard disk of different storage capacities are available e.g. those of 40 MB, 2GB, 4GB, 10GB, etc.

There are also removable disk packs which can be used for back-ups, mass storage or for moving files between computers.
Examples include;
- IDE (Integrated Drive Electronics)
- Zip drive
- Jaz drive, etc.

Floppy disks
Computer data or information can be stored externally on floppy disks.
A floppy is a flat circular plastic platter held permanently in a plastic case. A normal average floppy disk is about 3½". This can hold up to 1.44 Mb of data.
Diagram



Precautions for storing floppy diskettes

- Keep away from Magnetic fields
- Keep away from Excessive heat
- Keep away from Moisture
- Keep away from dust
- Avoid throwing about
- Write protect to combat viruses

Differences between floppy disks and hard disks

- Floppies area flexible yet hard disks are permanently fixed though a few of them (hard disks) can be moved.
- Floppies are plastic yet hard disks are metallic.
- Hard disks store more information that floppies
- Floppies have lower reading capacity than hard disks.

Compact Disk-Read Only Memory (CD-Rom) Drives

External storage medium. Storage capacity is more than the floppy disk, hard drive. Designed with letters D to E

Flash Disks

More storage capacity than CDs. Holds about 178 floppy disks or 120 MB. Has high data transfer speed and compatible to operating systems like Windows XP. 2000

Tape Storage

Tape cartridge is another but now less commonly used storage device. It is not any different from audio or video cassette tape except that some are larger than normal audio cassettes. Like any audio or video cassette, data has to be recorded along the length of the computer tape and so it is more difficult to access. It is not usually possible to read from and then write on to a single piece of tape. Reading and writing are separate operations using separate heads and so two drives are necessary for the two operations. Tape store more data than floppies. Fast tapes which can be used to create a back-up file quickly are known as tape streamers.

File update on tape storage facility is in a such way that, the changes are made on the current tape and get recorded on a completely new tape. This means that every time a change or update is to be made a completely new tape is made from the previous tape containing the most recent updates. This is what we call the grandfather - father - son relationship.

Its main advantages as far as data back-up is concerned is that should the son get lost or messed up in any way, t hen the most recently updated tape, before the son, i.e. father is obtained and changes that occurred since the production of the son are done to the father to come up with another sons - replacing the lost one.

CD-ROMS (Compact Disk - Read Only Memory)
These are small silvery disks that are read by the CD-ROM drive using a laser. They are called read-only because you can't change the data on them. Your computer can only read and copy the data on them.

Most soft ware these days are purchased on CD ROM, CD ROMs have massive libraries of data, vast collection of stereo sound chips, high colour graphics all of which take up a lot of storage space.

DVDs (Digital Video Disks) ROM
These are almost like CD-ROMs only that DVDs have more storage capacity (5 GB) with excellent access speeds, internet - based technologies which promise three - dimensional worlds, CD-quality sound and video.

Question
a) Of what advantage are the external storage systems.
b) Briefly describe 4 (four) external devices you know.

CHAPTER THREE

NETWORKS AND DATA COMMUNICATIONS

3:0 Introduction
Under this Chapter we shall look at the following;
♦Configuration
♦LANS, WANS, MAN and client-server computing
♦Data communication

3:1 CONFIGURATIONS
The term configuration refers to the way in which computers are linked together.
♦At one extreme an organisation may have just a single 'stand-alone' computer that can only be used by one person at a time.
♦At another extreme, an organisation may have hundreds or thousands of computers, all able to be used simultaneously and to communicate with each other.

Centralised Processing
Centralised processing means having all the data/information processing done in a central place such as a computer centre at head office. Data will be collected at 'remote' (i.e. geographically separate) offices and other locations and sent in to the central location.

At the central location there will be:
♦A central computer, probably a large main frame
♦Central files, containing all the files needed for the system.

Decentralised Processing
Decentralised processing means having the data/information processing carried out at several different locations, away from the 'centre' or 'head office'. Each region, department or office will have its own processing systems, and so:
♦There will be several different and unconnected computers in the various offices;
♦Each computer will operate with its own programs and its own files.

Multi-user and distributed systems
In practice, information systems do not have to be entirely centralised or entirely decentralised, and a suitable mixture of centralisation and decentralisation is now normally used.

i)Local offices can have their own local systems, perhaps on PC, and also input some data to a centralised processing system.
ii)Computer systems can be networked, and there might be:
- ♦A multi-user system; or
- ♦A 'distributed' data processing system

Multi-user Systems
With a multi-user system there is a central computer with a number of terminals connected to it. The terminals are dumb terminals, which means that they do not include a CPU and so cannot do independent data processing.

A dumb terminal is that terminal which has no capacity for data processing.

Note:
An intelligent terminal however, is that terminal that can carry out data processing on its own without relying on the central computer.
♦The terminals in a multi-user system might be sighted in the same room or building as the central computer, or may be geographically distant from the central computer, connected by an external data link.

Definition
Remote Access
This describes access to a central computer installation from a terminal, which is physically distant.

Remote Job Entry
This is used to describe a method of processing in which the computer user inputs his data to the computer from a remote terminal.

Distributed Processing
A distributed system is a combination of processing hardware located at a central place, e.g. a main frame computer with other, usually smaller computers located at various sites with in the organisation.

The central and dispersed computers are linked by a communication network.

A typical system might consist of a mainframe computer, linked to local mini-computers, linked to desktop PCs as intelligent terminals (see NB above), and to a range of peripheral equipment.

Key features of distributed processing include:

a) Computers distributed or spread over a wide geographical area.
b) A computer can access the information files of other computers in the system.
c) The ability for computers within the system to process data 'jointly' or 'interactively'.
d) Processing is either carried out centrally, or at dispersed locations.
e) Files are held either centrally, or at dispersed locations.
f) Authority is decentralised as processing can be performed autonomously by local computers.
g) End- users of computing facilities are given responsibility for, and control over their own data.

3:2 NET WORKS

A network is an interconnected collection of autonomous processors. With a network there is no single central computer.

There are two main types of network, a local area network (LAN) and a wide area network (WAN). The key idea of a network is that users need equal access to resources such as data, but they do not necessarily have to have equal computing power.

LANS, WANS and client-server computing.

LANS (Local Area Networks)

Definitions:

A LAN is a network of computers located in a single building or on a single site. The parts of the network are linked by computer cable rather than via telecommunications lines.

WANS (Wide Area Network)

These are networks on a number of sites, perhaps on a wide geographical scale.
WANS often use mini computers or main frames as the 'pump's that keep the data messages circulating; where as shorter-distance LANs normally use PCs for this task.

Differences between WANs and LANs

1. A WAN covers a greater geographical area unlike a LAN usually limited to a single building or site.
2. WANs will send larger computers as file servers.
3. WANs will send data over telecommunication links while LAN will use a cable.
4. WANs are normally larger than LANs and have more terminals linked to the network.

5. A 'WAN' can link two or more LANs using gateways.

Metropolitan Area Network (MAN)
This connects computers in a municipality

Storage Area Network (SAN)
These are computers connected by use of unique characters e.g. passwords

Definition
A gateway is a device that is used to connect two networks of a similar type.

Client - server Computing
As the name suggests, client server computing describes the relationship between the devices in the network.
Client
A client is a machine which requests a service e.g. a PC running a Spreadsheet programme which it requests from a storage machine (the sever).
A server on the other hand, is a machine dedicated to providing a particular function or service requested by client. Servers include; files servers, print services e-mail and fax servers.

Types of file servers:

Low end file server
This is used in a network of about six people or users running a couple of software applications and a database.

Mid range file server
This might support 20 to 30 users.

High end file server
Is used in a large dependent network of about 50-100 users, handling transactions, processing and an accounting system.

Network Operating System
This is a set of programmes responsible for the smooth running of a network.
When computers and other devices are linked/connected to form a network, they won't have the characteristics of networked computers (like sharing of data) unless the network operating system is installed.
It has the following functions;
- ♦It establishes the link between the nodes of the network.
- ♦It monitors the operations of a network.
- ♦It controls the recovery process when the system or part of it breaks down.

Examples of network operating systems include:-
Novell network, Windows NT, UNiX, etc.
Advantages of Client Server Computing

1. Greater resilience
Processing is spread over several computers. So client server systems are more resilient. Should one computer/server breakdown; other locations can carry on the processing.

2. Sharing programmes and data files
This can be shared by all the PCs on the network. With stand alone PCs, each will have its own data files and might be unnecessary duplication of data.

3. Sharing of data
Each PC in a network can do the same work, providing flexibility in sharing workloads. In a peak period, two or more people can share the work without having to leave their own desks.

4. Sharing peripherals
In some cases, say LAN, five PCs might share a single on-line printer where as if there were a stand alone PC, each might be given its own separate printer. Computer sharing of peripherals is significantly of benefit especially where resources are scarce or expensive.

5. Compatibility
Client-server systems are more likely than centralised systems to have windows interfaces, making it easier to move information between applications e.g. spreadsheets and accounting programs.

Disadvantages of client-server computing

Main frames are better than client-server computing at dealing with large volumes of transactions.
It is easier to control and maintain a system centrally. Client-server computing does not favour data security compared to centralised systems.

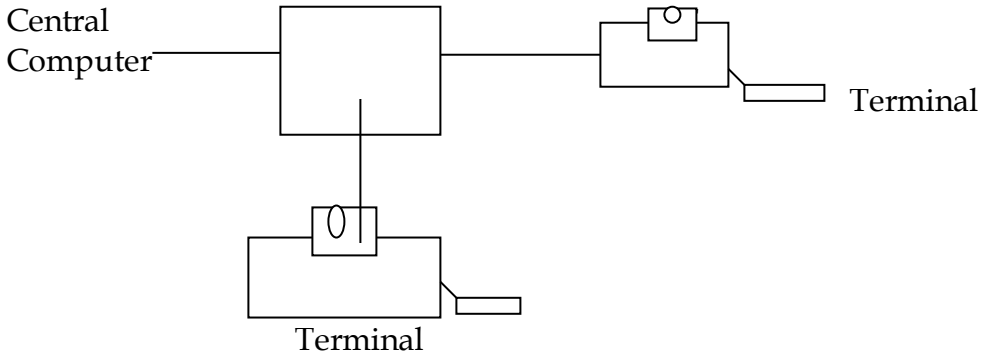
Each location may need its own expert network administrator to keep things running smoothly. This creates unnecessary duplication of skills and over manning.

3:3 NETWORK TOPOLOGY
This means the physical arrangement of nodes in a network.

A node
This is any device connected to a network. It can be a computer, or a peripheral device such as a printer.

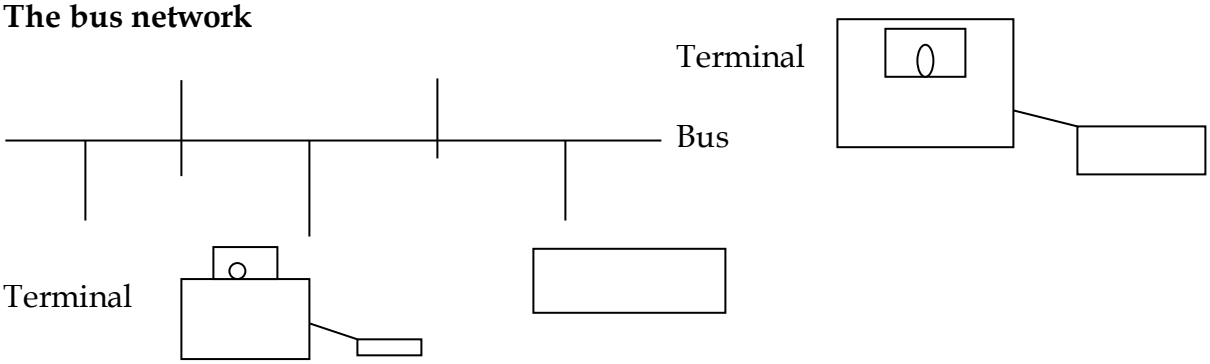
There are several LAN topologies including; the ring network, star network, bus network and Hierarchical network.

Star Network



A number of small computers or peripheral devices are linked to a central unit. The central unit may be a host computer or a file server. A host computer is a large centralised computer, usually a mini computer or a main frame. This topology is common for linking several micro computers to a main frame.

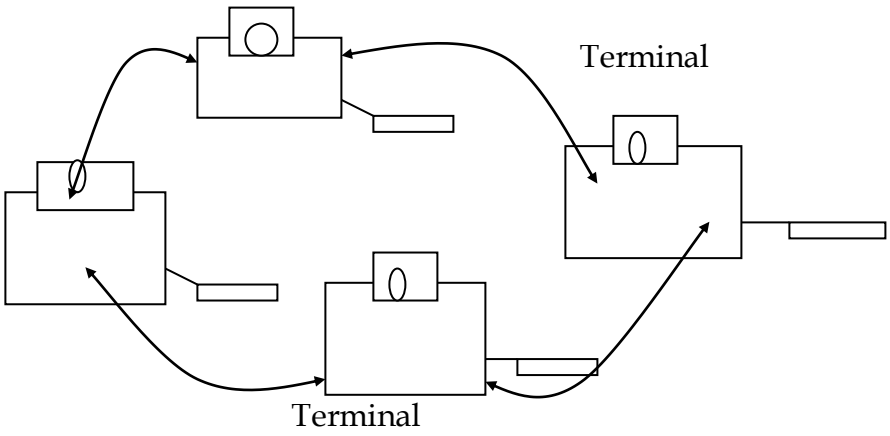
The bus network



In the bus network, each device handles its own communication control. There is usually no host computer or file server. A file server is a large capacity hard disk storage device and it basically stores data and programs.

All communication in a bus network travel along a common cable called a bus. As it passes along the bus, the information is examined by each device on the network to see if its intended for it. This topology is suitable where a few micro computer are to be linked.

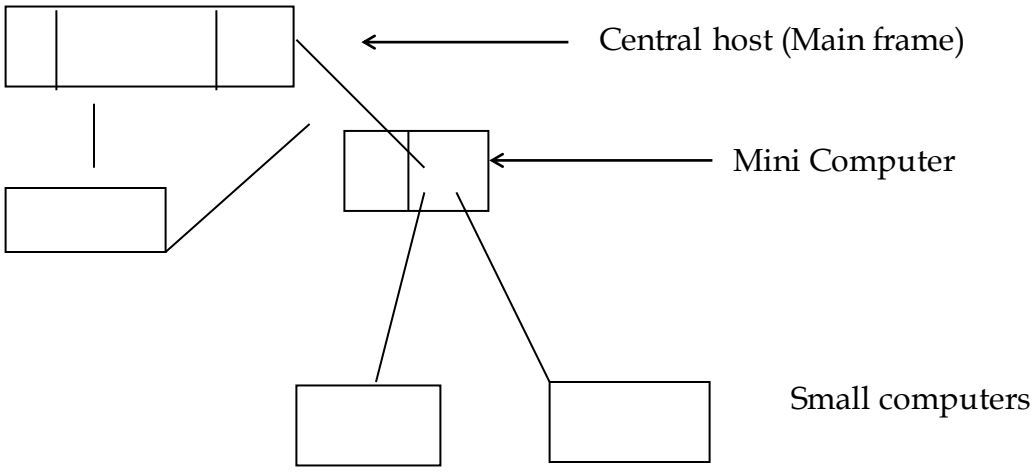
The Ring Network



Each node is connected to two (2) others forming a ring.

Messages are passed around the ring until they reach the correct destinations. This is the least frequently used topology.

Hierarchical (Hybrid) Network



A hierarchical network consists of several computers linked to a central host computer just like a star network. However, these other computers are also hosts to other smaller computers or peripheral devices.

The host at the top of the hierarchy could be mainframe computers, then the last level micro computers.

This topology is useful in centralised processing in organisations e.g. different departments within an organisation may have individual micro computers connected to departmental mini computers, the mini computers in turn may be connected to the organisation's main frame which contains data and programmes accessible to all.

3:4 DATA COMMUNICATION

There are three methods of data communication:
1. Oral communication
2. Paper communication
3. Electronic data communication

Oral Communication
This may occur in a face-to-face situation or by telephone.
It may involve one calling the other on phone asking for particular information, which may be given verbally on the phone.

Paper Communication

Paper-based communication involves the use of internal memoranda, computer print outs and monthly accounting reports.

E.g. copies of despatch notes raised might be sent to the relevant department to be physically matched with customer's order, so that invoices can be raised.

This method means that there is a permanent 'hard copy' record of each transaction. This method may be cheaper that electronic communication, as data communications links do not need to be set up.

The disadvantages are that there may be delay in the delivery of information, particularly between sites. Also the necessity for data transcription increases the risk of error.

Electronic communication
Here information is exchanged via computers, enhancing the amount and quality of information communicated.
Details of despatches of goods from stock might be automatically passed to the sales ledger or accounting sub-system by the ware housing or stock control sub-system so that invoices can be processed.

Advantages of Electronic Communication
Speed is guaranteed since the transmission is almost instant.
Accuracy is always good since there is some kind of automation.
This method eliminates much of human processing.

Data Transmission Equipment

a) Coaxial Cables
A coaxial cable consists of one central conductor, which is surrounded with an insulator and then with the other conductor. In this way, the outer conductor prevents interference from reaching the inner coax cables are used for high-speed network data links. Also used for TVs signals e.g. Aerials.

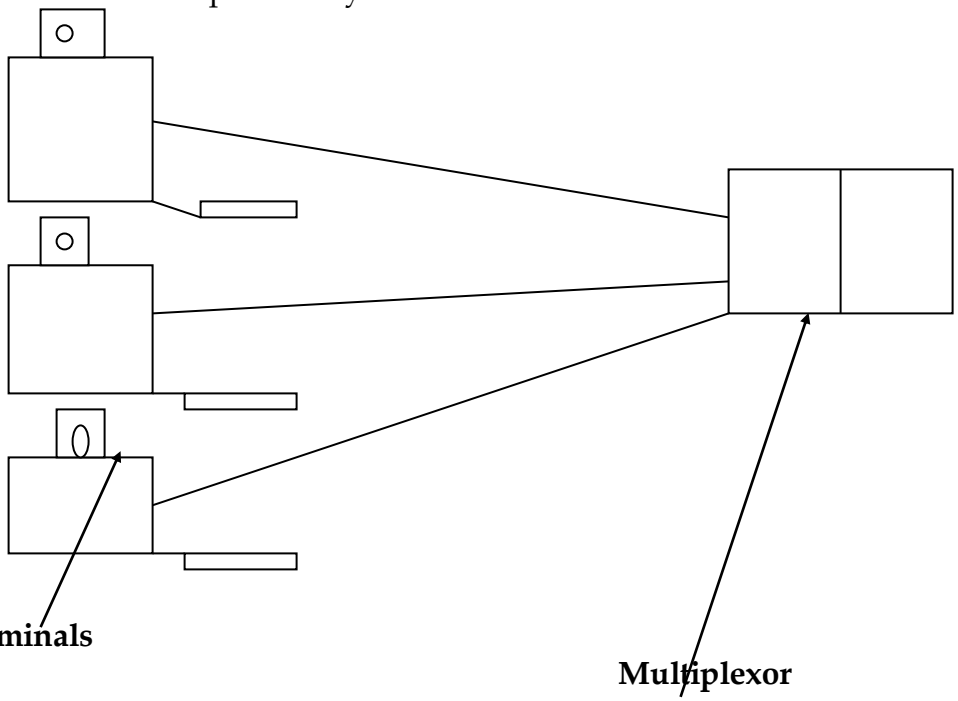
b) Modems
For data transmission through the existing 'analogue' telephone network to be possible, there has to be a device at each end of the telephone line that can convert (Modulate) the data from digital form to analogue form, and (Demodulate) from analogue form to digital form, depending on whether the data is being sent out or received along the telephone line.

This conversion is done by devices called modems. There must be a modem at each end of the telephone line. Digital means 'of digits or numbers'. And is in coded (binary) form.

c) Multiplexors (Concentrators)
These are devices, which are used to send data from several sources down a single line at the same time.

Multiplexing involves combining or merging signals. It accepts signals from several communicating devices and directs transmission to and from a computer along a single carrier channel.

It codes data in a special way so that it can be sorted out at it destination.



It saves line charges as only one telephone line will be required to connect several computers.
Terminology key terms

Band Width
The amount of data that can be sent down a telecommunications line is in part determined by the bandwidth.

Definition:
Bandwidth is the range of frequencies that the channel can carry. Frequencies are measured in cycles per second, or in Hertz. The wider the band width, the greater the number of messages that a channel can carry at any particular time.

Band Rate
This is a measure of the speed of transmission and roughly equates to number of bits per second.

Interfaces
The point of interaction between the computer and the user, principally in terms of using a display screen for in put and retrieval of information. The two principals forms of interface are often described as Graphical user interface.

Protocols
This is an agreed set of operational procedures governing the format of data being transferred, and the signals initiating, controlling and terminating the transfer.

This helps in cases of data transmission errors, which can get detected, and also take steps to recover the lost data.

Question;
1. a) What is a computer?
   b) List and briefly describe the major components of a computer.

CHAPTER FOUR

SOFTWARE CONCEPTS

4:0 Introduction
Under this Chapter we shall look at the following:-
- ♦Operating system
- ♦Application programs
- ♦Utility programs
- ♦Programming languages

Definitions
Software refers to the programmes that tell the computer what to do. Soft ware is by far the most valuable asset of a computer user.

A program is a set of instructions that a computer follows in order to produce the desired results or effects. There are 3 (three) categories of soft ware (programs):

i) The operating software;
ii) The programming languages and language translators
iii) The application software

4:1 OPERATING SYSTEM
Also referred to as the executive program

Definition:
This is a program or suite of programs, which provide the bridge between application software (such as word processing packages, spread sheets or accounting packages) and the hardware.
An operating system controls the action of other programs, which are said to run under it - under its control. It looks after such actions as disk access.

NB: All application soft ware is designed to run under a specific operating system.

Functions of an operating system

1. It checks the initial set up of the computer once it has booted - up or started via the BIOS. (BIOS) Basic Input Output System is that module forming the part of an operating system, which controls the input and output of data to peripherals i.e., a disk, key board, monitor, mouse, etc. At times it can be stored on ROM.

2. It checks whether the hardware including peripheral devices i.e. printers, are functioning properly.
3. It calls up program files and data files from disk storage into memory.
4. Opening and closing of files, checking of file labels etc.
5. Maintenance of directories or folders in storage. A directory is a file storage.
6. Controlling input and output devices including interaction with the user information executed one by one.
7. Controlling system security e.g. monitoring the use of passwords. Ask for a password before anything is done.
8. Handling of interruptions e.g. machine failure and error reporting.
9. Managing multitasking

Multi tasking is an action which allows the computer to appear to be running several programs simultaneously e.g. sending a document you have completed for typing on a printer while working on another document and at the same time listening to your favourite tracts on CD.

Multitasking needs a suitable operating systems and sufficient memory to hold all programs and the data to be processed by each program. The main problem with multitasking is ensuring that programs don't interfere with each other. This is done by restricting the way the CPU gains access to programs.

PCs operating systems include, MS-DOS (Microsoft Disk Operating System), MS Windows 3.X, MS - Windows 95, 98, 2000, OS/2 by IBM Co., Windows NT, UNIX, Net-ware. These are all version of operating system.

4:2 WINDOWS

Early incarnations of windows, culminating in Windows 3.1 and Windows for Work groups 3.11, were not genuine operating systems in their own right, but were really an operating environment for an older Microsoft system called MS-DOS.

MS-DOS, very hostile to beginners, had all application programs run under it.

In 1993, Microsoft launched Windows N.T, a complete operating system for networks, then Windows 95, 98 and 2000.

Features of Windows 95

Features of Windows 95 include the following:-

a) A 'desktop', from which everything in the system branches out. Disk drives, folders (directories) applications and files can be placed on the desktop.
b) A 'task bar' which is always on top and which includes a start button and buttons representing every open application.
c) Long file names are supported.
d) There is a recycle bin for easy deletion of files.
e) Easy integration with widely used networking software is possible.
f) Multitasking is available (see definition above).

Windows '98
Features of Windows 98
a) It is easier to use
User interface enhancements include easier navigation, such as single-click launching of Applications, icon highlighting, forward/backward buttons, and an easy to customise start menu.

b) Greater reliability
More refinements and upgrades were made to Windows 95 and include;
♦An internet-base resource site
♦Testing user's hard disk and fixing problems automatic
♦Enhanced back up and restore function

c) It is faster
The application loading, system start up, and shut down time are faster.

d) Web integration
There are a variety of features designed to enhance internet access and use of Internet facilities.

e) It is more entertaining with its better graphics and video capabilities and better support for games, hard ware such as joysticks. Later versions can even allow people to use digital video disks (DVDs), digital television and even watch normal TV programs on their PCs.

4:3 APPLICATION SOFTWARE

This consists of programs, which carry out a task for the user as opposed to programs which control the workings of a computer.

Whenever a computer is being used, it will be under the control of an application program, e.g. controlling stock, word processing, preparing accounts, etc.

Application Packages
These are ready-made programs written to perform a particular job.

a) Off- the-shelf application packages
These are ready-made packages distributed or sold by software vendors or manufacturers.

b) Tailor made application packages
These are programs made at the customers' request encompassing customers' desires. The customer normally gives a programmer his specifications and what he wants the program to do. The programmer studies the specification compares them with the available off-the-shelf packages and if there is none that can satisfy the customer needs, then he can write a new program for the customer.

General Purpose Package
These are off-the-shelf programs that can be needed for processing of a general type though the computer user can employ the package to a variety of users of his own choice.

Spreadsheets and Word processors are examples.

Application Suites
An application suite or soft ware suite is a collection of top-of the line application program from the same vendor.

A typical software suite will often include:-
a) A Word processor - word processing program
b) Spread sheet
c) Data base
d) Presentation graphics
e) Personal information manager

Examples of application suites
- Microsoft office
- Lotus Smart Suite
- Novell Perfect office
- Corel Draw (for graphics)

Microsoft Office	Lotus Smart Suite	Novell Perfect Office
1. Ms-Word	Word Pro	Word Perfect 6
2. Ms- Excel	Lotus 1-2-3	Presentation
3. Access	Approach	
4. Ms - Power Point	Freelance graphics	
5. Ms - Outlook	Lotus Organiser	

Word Processors: (Word Processing Programs)
A word processor makes your writing efforts look good. Master pages of a novel, grocery lists, etc. With the right paper you can use a word processor to create file folders, labels, brochures, business cards, greeting cards, letter heads etc. all types of professional documents i.e. letters, memorandum, invoices, etc.

Examples of Word processing programs,
- Word perfect for Windows
- Ms-word
- Word Pro
- Word Star, etc.

Spread Sheets
A spreadsheet program is much like a bookkeeper ledger sheet with rows and columns. You can use spreadsheets programs for all kinds of instant calculations such as finding the amount of interest you will pay on a loan.

You can change and update information instantly, correct mistakes without erasing and even process charts or graphics showing statistics within no time.

You use a spreadsheet program where you want columns and rows of numbers, financial calculations etc.

Examples of Spreadsheet programs
- Lotus 1-2-3
- Microsoft Excel
- Quattro Pro
- Consolidation

Data Base Programs
These help in management of lists of data with great ease e.g. a list of clients' addresses, items in stock, etc.

Examples of Data base programs include:
- Dbase IV
- Parodox for Windows
- Ms - Access
- Ms - Fox Pro
- Approach
- Oracle etc.

Presentation Graphic Programs
These kind of programs can help to come up with quality drawings.

They can also enable you create printed reports; handouts or notes to be used while you are speaking.

Enable you to create a self-running slide show-cartoons, that can play on any computer.

Enable you to create slides for business presentation including texts, graphs or clip art images e.g. a company logo.

Examples of presentation graphic programs

- Ms- Power point
- Freelance graphics
- Presentations
- Havard graphics
- Adobe persuasion
- Corel presents

4:4 PERSONAL INFORMATION MANAGERS (PIM)

These help you keep track of appointments, to list things you have to do and information on your contacts.

PIMs can do the following:

- List all phone calls you need to make in a day
- Check co-workers schedules, conflicts and automatically set up meetings that every one can attend
- Prioritise your daily tasks so that the most important work gets done first
- Track completed work so that you can tell some one exactly when you finished a certain report
- Let you check your workload for a day, week or month at a glance

Examples of PIMs include:

- Ms-Outlook
- Lotus organiser
- Schedule +
- Act!, etc.

4:5 INTEGRATED PACKAGES

An integrated package is a single program that modules such things as word processing, spread sheets, graphics, data base management and communications.

Accounting programs usually comprise modules integrated to form a large compile system or program. There may be a module for each of the sales ledger system, the purchase ledger, nominal ledger, trial balance, etc.

Popular integrated packages include:

- Ms Works
- Claris works
- Geo work pro

4:6 UTILITY PROGRAMS

These are programs or set of programs that enhance the work of an operating system.

Utility programs i.e. Norton's utilities can recover data, manipulate files, re-organise data on disks, check for and fix errors on disks, etc.

Vaccines and a virus guards are also utility programs intended to protect virus infection.

VIRUSES
A virus is a piece of soft ware which infects programs and data and possibly damages them, and which replicates itself.

Viruses need an opportunity to spread. The programmers of viruses therefore place viruses in the kind of software, which is most likely to be copied. This includes;

a) Free soft ware (e.g. from the internet)
b) Pirated software (cheaper than original versions)
c) Games software (wide appeal)

Types of Viruses

Trojans
A Trojan is a program that while visibly performing one function, it secretly carries out another e.g. as you can play a game, it secretly destroys data or files. Trojans don't copy themselves on target disks.

Worms
This normally survives by copying and replicating itself inside the computer system it has entered without necessarily altering that system.

Bombs (Logic and time bombs)

Time bombs
These are normally released at given dates in a year, say fools day, etc.

Logic bombs
These are normally triggered by certain events e.g. a disk utilised up to a certain percentage.

Identification of Viruses
Some viruses are detected before they do any damage while others are identified when they are activated.
Viruses may be controlled in the following ways;
1. Use of virus guards

These guard against virus infections. Unfortunately, new powerful viruses can attack and break through some virus guards.

2. Use of anti-virus software e.g. Doctor Solomon's took kit.

These are programs used to clear viruses from a system. They must always be upgraded to deal with new virus.

3. Organisations must have procedures to guard against the introduction of unauthorised software to their system.
4. Organisations, as a matter of routine, should ensure that any disk received from outside is virus free before the data on the disk is down loaded.
5. Firewalls
6. Any irregularities in a widely used program must be rectified as they come to light.

Transmission of Viruses

Viruses are transmitted in a number of ways

- Using infected disks in non-infected computers.
- Buying software from non certified vendors can result in buying infected software.
- Buying software, which are not well tested-say from the Internet.
- Getting connected to an infected network.

4:7 PROGRAMMING LANGUAGES

Computer programs are normally manufactured/written using programming languages. There are two recognised levels of programming languages.

- Low level language
- High-level language

a) Low Level Languages

(i) Machine Code (first generation language)

This program is as old as the computer itself. It was the 1st language used to Program Computers and indeed is the only language the computer recognises and understands.

Instructions in machine language are written or coded as Os and Is (Binary digits). Every program must be written in machine codes before the computer can do any thing with it. These languages are so hard to learn and complicated that is why the assembly language was subsequently developed.

(ii) Assembly Language (second generation language)

These are also machine specific, but the tasks of learning and writing the language is made easier than with machine language because they are written in 'symbolic' form.

Instead of using machine code, the programmer is able to use easily learned and understood operation mnemonics e.g. ADD, SUB and MULT.

b) High-level Languages

To over-come the low level language difficulty of machine dependency, high-Level languages were developed. Such programming languages, with an

extensive vocabulary of words and symbols, are used to instruct a computer to carry out the necessary procedures, regardless of the type of machine being used.

Advantages of high-level languages over low-level languages include:

♦The productivity of programmers is improved as program writing can take place in a very short time compared with low-level language.
♦The programs developed can be used on any types of computers without getting re-written.
♦They speed up testing and error correction.
♦ High - level languages are easier to understand and use.

A) Third generation languages
These are problems oriented programming languages, which have been created to deal with particular types of data processing problems. They include:

a) COBOL - is used for business data processing.
b) BASIC - Beginner al purpose symbolic instruction code) - designed for beginners, particularly on microcomputers.
c) FORTRAN is a scientific language
d) Pascal suitable for structured programming.
e) C- An advanced language originally used for programming in the UNIX, now also used to develop windows programs.

Other programming languages include C++, ALGOL, APL, PILOT, SNOBOL, etc.

Compilers and Interpreters
The high - level language program has to be translated into machine code before it can be used. This is done by **compiler programs**, by turning a source program into an object program.

An interpreter does the same sort of job as a compiler, but in a different way.
It takes a program written in a high level program language and executes it, statement by statement (i.e. instruction by instruction) directly during the running of the program.

B) Fourth Generation Language (4GL)
These are languages intended to help computer users or programmers develop their own application programs more quickly and cheaply.

♦A 4GL requires fewer lines of code to write and develop a program than a 3 G Language.
♦ A 4GL, by using a menu system for example, allows users to specify what they require, rather than describe the procedures by which these requirements are met.
The detail is done by the 4GL software.

LIST OF ABBREVIATIONS

ABBREVIATION	ABBREVIATION IN FULL
4.GL	Fourth Generation Language
ALU	Arithmetic Logic Unit
AOL	America on Line
AS II	America National Standard Code for Inform date Interchange
ATM	Automated Teller Machine
BASIC	Beginners All Purpose Symbolic Codes
BIOS	Basic Input – Output System
BIT	Binary Digit
BTM	Business Teller Machine
CD	Compact Disk
CIS	Computer Information System
CLS	Clear Screen
COBOL	Common Business Oriented Language
CPU	Central Processing Unit
CU	Control Unit
DBMS	Database Management System
DDL	Data Definition Language
DEEP BLUE	Computers are modern computers that are an IBM computer programmed to play Chess with the world class champion, Garry Kasorok. Programmed to make 1 million moves in a second, which defected the world chess champion in the world.
DEL	Delete
Dir	Directory
Disk Drives	Media where computer programme files reside e.g., Hard disks, floppy Disks, CD-ROM, Magnetic tapes etc.
DML	Data Manipulation Language
DOS	Disk Operating System
DPC	Desktop Personal Computer
Drives	External storage medium storage capacity more than floppy and less then hard disk drive, designed with letters D… E.
DTP	Desk top Publishing
DVD	Digital Video Disk
E-mail	Electronic Mail
EMF	Electronic Magnetic Fields
EPOS	Electronic Point of Scale
EWN	Enterprise Wide Network – Any Private Network connects all of organization CPS no matter what they run or where they are located.
Expansion Slots	are access slots on the C.P.U where new computer cards can be fixed when upgrading (expanding) a computer. When adding

	another floppy drive, adding a CD ROM Drive a higher memory chip.
Floppy Disks Drives.	External storage medium, less storage capacity than Hard disks drive designed with letters
FORTAN	Formula Transaction
GB	Byte
GUI	Graphical User Interface - medium through user interacts with a CP
Hard Disk Drive	Internal Storage mechanism stores most computer applications. Capacity 100MB designed work letters
HLL	High Level Language
IBM	International Business Machine
ILL	Intermediate Level Language
INTERNET	International Network
IRR	Internal Rate of Return
ISP	Internet Service Provider – Provides Internet to users who register at 15 P using other dial to dedicated access.
IT	Information Technology
KB	Kilo Bytes
KIPS	Kilo Instructions Per Second - its Speed
KISS	Keep it small Simple
LAN	Local Area Network
LLL	Low Level Language
MAN	Metropolitan Area Net - Work
MB	Mega Byte
MICR	Magnetic Ink Character Recognition
MIPS	Millions Instructions per Second
MODEM	Modulation Demolecular
MS DOS	Micro Soft Disk Operating System
Ms Excel	Micro soft Excel
MULT	Multiply
NPV	Net Present Value
NT	Net Work
OCR	Optical character Recognition
OS	Operating System
OUR	Optical Work Reading
PC	Personal Computer
PIN	Personal Identification Number
Ports	Are connections (sockets) on the C.P.U which a computer components (Device) like a printer, mouse, modern etc. Can be connected.
RAM	Random Access Memory
ROM	Read only Memory
SAN	Storage Area Network
SDLC	System Development Life Cycle
SSDM	Special Standard System Development management maintenance

SSM	Special Standard System Management/maintenance
SQL	Structured Query Language
SUB	Subtract
TCP/IP	Transmission Control Protocol/internet Protocol system used to transfer information from one computer to another.
UPS	Uninterrupted Power Supply
URL	Uniform Resource Locater
VAN	Value Added Network
VDU	Visual Display Unit
W.W.W	World Wide Website
Web Server	Software that delivers web pages and contains of web sites.

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Course Name	: Principales of management

Introduction to Management Concepts

Administration can be defined as the universal process of efficiently organizing people and resources so to direct activities toward common goals and objectives. Administration is both an art and a science (if an inexact one), and arguably a craft, as administrators are judged ultimately by their performance. Administration must incorporate both leadership and vision

Management is viewed as a subset of administration, specifically associated with the technical and mundane elements within an organization's operation. It stands distinct from executive or strategic work. Management is closer to the employees. Administration is over the management and more over the money of the organization and licensing of an organization.

The verb *manage* comes from the Italian *maneggiare* (to handle — especially a horse), which in turn derives from the Latin *manus* (hand). The French word *management* (later *ménagement*) influenced the development in meaning of the English word *management* in the 17th and 18th centuries.

Management in business and human organization activity, in simple terms means the act of getting people together to accomplish desired goals. Management comprises planning, organizing, resourcing, leading or directing, and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal. Resourcing encompasses the deployment and manipulation of human resources, financial resources, technological resources, and natural resources. Thus a good manager should be effective and efficient because may use the same resources and achieve the same target. Management can also refer to the person or people who perform the act(s) of management. Management operates through various functions, often classified as planning, organizing, leading/motivating and controlling.

Planning: deciding what needs to happen in the future (today, next week, next month, next year, over the next 5 years, etc.) and generating plans for action. (What to do?)

Organizing: (Implementation) making optimum use of the resources required to enable the successful carrying out of plans.

Staffing: Job analyzing, recruitment, and hiring individual for appropriate job.

Leading/Motivating: exhibiting skills in these areas for getting others to play an effective part in achieving plans.(To make individual work willingly in the organization)

Controlling/monitoring -- checking progress against plans, which may need modification based on feedback.

Factors for the differences between administration and management

Factors	*Administration*	*Management*
Nature of work	It is concerned about the determination of objectives and major policies of an organization.	It puts into action the policies and plans laid down by the administration.
Type of function	It is a determinative function.	It is an executive function.
Scope	It takes major decisions of an enterprise as a whole.	It takes decisions within the framework set by the administration.
Level of authority	It is a top-level activity.	It is a middle level activity.
Nature of status	It consists of owners who invest capital in and receive profits from an enterprise.	It is a group of managerial personnel who use their specialized knowledge to fulfill the objectives of an enterprise.
Nature of usage	It is popular with government, military, educational, and religious organizations.	It is used in business enterprises.
Decision making	Its decisions are influenced by public opinion, government policies, social, and religious factors.	Its decisions are influenced by the values, opinions, and beliefs of the managers.
Main functions	Planning and organizing functions are involved in it.	Motivating and controlling functions are involved in it.
Abilities	It needs administrative rather than technical abilities.	It requires technical activities

Managerial levels and hierarchy

Top-level management	• Require an extensive knowledge of management roles and skills. • They have to be very aware of external factors such as markets. • Their decisions are generally of a long-term nature • Their decisions are made using analytic, directive, conceptual and/or behavioral/participative processes • They are responsible for strategic decisions. • They have to chalk out the plan and see that plan may be effective in the future. • They are executive in nature.
Middle management	• Mid-level managers have a specialized understanding of certain managerial tasks. • They are responsible for carrying out the decisions made by top-level management.
Lower	• This level of management ensures that the decisions and plans taken by the other two are carried out.

management	• Lower-level managers' decisions are generally short-term ones
Foreman / lead hand	• They are people who have direct supervision over the working force in office factory, sales field or other workgroup or areas of activity.
Rank and File	• The responsibilities of the persons belonging to this group are even more restricted and more specific than those of the foreman

Leadership Styles

From Mahatma Gandhi to Jack Welch, and Martin Luther King to Rudolph Giuliani, there are as many leadership styles as there are leaders. Fortunately, business people and psychologists have developed useful, shorthand ways of describing the main leadership styles. This can help aspiring leaders to understand and adapt their own styles, so that they can improve their own leadership.

Whether you are managing a team at work, captaining your sports team or leading a major corporation, your leadership style is crucial to your success. Consciously, or subconsciously, you will no doubt use some of the leadership styles featured, at least some of the time. By understanding these leadership styles and their impact, you can become a more flexible, better leader.

Leadership style: is the manner and approach of providing direction, implementing plans, and motivating people. Kurt Lewin (1939) led a group of researchers to identify different styles of leadership.

The leadership styles we look at:

Autocratic Leadership

Autocratic leadership is an extreme form of transactional leadership, where a leader exerts high levels of power over his or her employees or team members. People within the team are given few opportunities for making suggestions, even if these would be in the team's or organization's interest. Most people tend to resent being treated like this. Because of this, autocratic leadership usually leads to high levels of absenteeism and staff turnover. Also, the team's output does not benefit from the creativity and experience of all team members, so many of the benefits of teamwork are lost. For some routine and unskilled jobs, however, this style can remain effective where the advantages of control outweigh the disadvantages.

Bureaucratic Leadership

Bureaucratic leaders work "by the book", ensuring that their staff follow procedures exactly. This is a very appropriate style for work involving serious safety risks (such as working with machinery, with toxic substances or at heights) or where large sums of

money are involved (such as cash-handling). In other situations, the inflexibility and high levels of control exerted can demoralize staff, and can diminish the organizations ability to react to changing external circumstances.

Charismatic Leadership

A charismatic leadership style can appear similar to a transformational leadership style, in that the leader injects huge doses of enthusiasm into his or her team, and is very energetic in driving others forward. However, a charismatic leader can tend to believe more in him or herself than in their team. This can create a risk that a project, or even an entire organization, might collapse if the leader were to leave: In the eyes of their followers, success is tied up with the presence of the charismatic leader. As such, charismatic leadership carries great responsibility, and needs long-term commitment from the leader.

Democratic Leadership or Participative Leadership

Although a democratic leader will make the final decision, he or she invites other members of the team to contribute to the decision-making process. This not only increases job satisfaction by involving employees or team members in what's going on, but it also helps to develop people's skills. Employees and team members feel in control of their own destiny, and so are motivated to work hard by more than just a financial reward. As participation takes time, this style can lead to things happening more slowly than an autocratic approach, but often the end result is better. It can be most suitable where team working is essential, and quality is more important than speed to market or productivity.

Laissez-Faire Leadership

This French phrase means "leave it be" and is used to describe a leader who leaves his or her colleagues to get on with their work. It can be effective if the leader monitors what is being achieved and communicates this back to his or her team regularly. Most often, laissez-faire leadership works for teams in which the individuals are very experienced and skilled self-starters. Unfortunately, it can also refer to situations where managers are not exerting sufficient control.

People-Oriented Leadership or Relations-Oriented Leadership

This style of leadership is the opposite of task-oriented leadership: the leader is totally focused on organizing, supporting and developing the people in the leader's team. A participative style, it tends to lead to good teamwork and creative collaboration. However, taken to extremes, it can lead to failure to achieve the team's goals. In practice, most leaders use both task-oriented and people-oriented styles of leadership.

Servant Leadership

This term, coined by Robert Greenleaf in the 1970s, describes a leader who is often not formally recognized as such. When someone, at any level within an organization, leads simply by virtue of meeting the needs of his or her team, he or she is described as a

"servant leader". In many ways, servant leadership is a form of democratic leadership, as the whole team tends to be involved in decision-making. Supporters of the servant leadership model suggest it is an important way ahead in a world where values are increasingly important, in which servant leaders achieve power on the basis of their values and ideals. Others believe that in competitive leadership situations, people practicing servant leadership will often find themselves left behind by leaders using other leadership styles.

Task-Oriented Leadership

A highly task-oriented leader focuses only on getting the job done, and can be quite autocratic. He or she will actively define the work and the roles required, put structures in place, plan, organize and monitor. However, as task-oriented leaders spare little thought for the well-being of their teams, this approach can suffer many of the flaws of autocratic leadership, with difficulties in motivating and retaining staff. Task-oriented leaders can benefit from an understanding of the Blake-Mouton Managerial Grid, which can help them identify specific areas for development that will help them involve people more.

Transactional Leadership

This style of leadership starts with the premise that team members agree to obey their leader totally when they take a job on: the "transaction" is (usually) that the organization pays the team members, in return for their effort and compliance. As such, the leader has the right to "punish" team members if their work doesn't meet the pre-determined standard.

Team members can do little to improve their job satisfaction under transactional leadership. The leader could give team members some control of their income/reward by using incentives that encourage even higher standards or greater productivity. Alternatively a transactional leader could practice "management by exception", whereby, rather than rewarding better work, he or she would take corrective action if the required standards were not met.

Transactional leadership is really just a way of managing rather a true leadership style, as the focus is on short-term tasks. It has serious limitations for knowledge-based or creative work, but remains a common style in many organizations.

Transformational Leadership

A person with this leadership style is a true leader who inspires his or her team with a shared vision of the future. Transformational leaders are highly visible, and spend a lot of time communicating. They don't necessarily lead from the front, as they tend to delegate responsibility amongst their teams. While their enthusiasm is often infectious, they can need to be supported by "detail people".

In many organizations, both transactional and transformational leadership are needed. The transactional leaders (or managers) ensure that routine work is done reliably, while the

transformational leaders look after initiatives that add value. The transformational leadership style is the dominant leadership style taught in the "How to Lead: Discover the Leader Within You" leadership program, although we do recommend that other styles are brought as the situation demands.

Using the Right Style – Situational Leadership

While the Transformation Leadership approach is often highly effective, there is no one "right" way to lead or manage that suits all situations. To choose the most effective approach for you, you must consider:

- The skill levels and experience of the members of your team.
- The work involved (routine or new and creative).
- The organizational environment (stable or radically changing, conservative or adventurous).
- You own preferred or natural style.
- Internal conflicts and Stress levels.
- How much time is available

A good leader will find him or herself switching instinctively between styles according to the people and work they are dealing with. This is often referred to as "situational leadership". For example, the manager of a small factory trains new machine operatives using a bureaucratic style to ensure operatives know the procedures that achieve the right standards of product quality and workplace safety. The same manager may adopt a more participative style of leadership when working on production line improvement with his or her team of supervisors. Although good leaders use all three styles, with one of them normally dominant, bad leaders tend to stick with one style.

How people work (Motivation theories)

McGregor sees Theory Y as the preferable model and management method, however he thought Theory Y was difficult to use in large-scale operations.

Theory Z - Ouchi

In 1981, William Ouchi came up with a variant that combined American and Japanese management practices together to form Theory Z, having the following characteristics: long-term employment - collective decision-making - individual responsibility - slow evaluation & promotion - implicit, informal control with explicit, formalized measures - moderately specialized career paths - and a holistic concern for the employee, including family.

Theory X and Y Description

Douglas McGregor, an American social psychologist, proposed his famous Theory X and Theory Y models in his book 'The Human Side Of Enterprise' (1960).

Theories	Theory X	Theory Y
Assumptions	Humans inherently dislike working and will try to avoid it if they can.	People view work as being as natural as play and rest. Humans expend the same amount of physical and mental effort in their work as in their private lives.
	Because people dislike work they have to be coerced or controlled by management and threatened so they work hard enough.	Provided people are motivated, they will be self-directing to the aims of the organization. Control and punishment are not the only mechanisms to let people perform.
	Average employees want to be directed.	Job satisfaction is key to engaging employees and ensuring their commitment.
	People don't like responsibility.	People learn to accept responsibility and seek responsibility. Average humans, under the proper conditions, will not only accept, but even naturally seek responsibility.
	Average humans are clear and unambiguous and want to feel secure at work.	People are imaginative and creative. Their ingenuity should be used to solve problems at work.
Application	Shop Floor, Mass Manufacturing. Production workers.	Professional Services, Knowledge Workers. Managers and Professionals.
Conducive to	Large scale efficient operations.	Management of Professionals, Participative Complex Problem Solving.
Management Style	Authoritarian, Hard Management.	Participative, Soft Management.

NB: Think how the above theories can be or not applied in a given situation

Scientific management

Scientific management (also called **Taylorism** or the **Taylor system**) is a theory of management that analyzes and synthesizes workflows, with the objective of improving labour

productivity. The core ideas of the theory were developed by Frederick Winslow Taylor in the 1880s and 1890s, and were first published in his monographs, *Shop Management* (1905)[1] and *The Principles of Scientific Management* (1911).[2] Taylor believed that decisions based upon tradition and rules of thumb should be replaced by precise procedures developed after careful study of an individual at work. Its application is contingent on a high level of managerial control over employee work practices.

Taylorism is a variation on the theme of efficiency; it is a late-19th-and-early-20th-century instance of the larger recurring theme in human life of increasing efficiency, decreasing waste, and using empirical methods to decide what matters, rather than uncritically accepting pre-existing ideas of what matters. Thus it is a chapter in the larger narrative that also includes, for example, the folk wisdom of thrift, time and motion study, Fordism, and lean manufacturing. It overlapped considerably with the Efficiency Movement, which was the broader cultural echo of scientific management's impact on business managers specifically.

In management literature today, the greatest use of the concept of Taylorism is as a contrast to a new, improved way of doing business. In political and sociological terms, Taylorism can be seen as the division of labour pushed to its logical extreme, with a consequent de-skilling of the worker and dehumanisation of the workplace, see 3D.

Overview

General approach

1. Shift in decision making from employees to managers
2. Develop a standard method for performing each job
3. Select workers with appropriate abilities for each job
4. Train workers in the standard method previously developed
5. Support workers by planning their work and eliminating interruptions.
6. Provide wage incentives to workers for increased output

Contributions

- Scientific approach to business management and process improvement
- Importance of compensation for performance
- Began the careful study of tasks and jobs
- Importance of selection criteria
- By management

Elements

- Labor is defined and authority/responsibility is legitimised/official
- Positions placed in hierarchy and under authority of higher level
- Selection is based upon technical competence, training or experience
- Actions and decisions are recorded to allow continuity and memory
- Management is different from ownership of the organization
- Managers follow rules/procedures to enable reliable/predictable behavior

Project management

Project management is the way one organizes and manages resources that are necessary to complete a project. A project is something other than a process or an operation, which are long ongoing functional work to create the same product or service over and over again. The management of a project is very different and requires other technical skills.

Technical skills must be used in project management.

The first thing which should be considered in project management is that the project is delivered within the existing limitations. The second thing is the best possible distribution of resources. Project management is the art of controlling both of these things during the length of the project, from when it is started until when it is finished

Mass production methods

Taylorism is often mentioned along with Fordism, because it was closely associated with mass production methods in manufacturing factories. Taylor's own name for his approach was **scientific management**. This sort of task-oriented optimization of work tasks is nearly ubiquitous today in industry, and has made most industrial work menial, repetitive and tedious; this can be noted, for instance, in assembly lines and fast-food restaurants. Taylor's methods began from his observation that, in general, workers forced to perform repetitive tasks work at the slowest rate that goes unpunished. This slow rate of work (which he called "soldiering", but might nowadays be termed by those in charge as "loafing" or "malingering" or by those on the assembly line as "getting through the day"), he opined, was based on the observation that, when paid the same amount, workers will tend to do the amount of work the slowest among them does: this reflects the idea that workers have a vested interest in their own well-being, and do not benefit from working above the defined rate of work when it will not increase their compensation. He therefore proposed that the work practice that had been developed in most work environments was crafted, intentionally or unintentionally, to be very inefficient in its execution. From this he posited that there was one best method for performing a particular task, and that if it were taught to workers, their productivity would go up.

Taylor introduced many concepts that were not widely accepted at the time. For example, by observing workers, he decided that labour should include rest breaks so that the worker has time to recover from fatigue. He proved this with the task of unloading ore: workers were taught to take rest during work and as a result production increased.

Today's armies employ scientific management. Of the key points listed, all but wage incentives for increased output are used by modern military organizations. Wage incentives rather appear in the form of skill bonuses for enlistments.

Division of labour

Unless people manage themselves, somebody has to take care of administration, and thus there is a division of work between workers and administrators. One of the tasks of administration is to select the right person for the right job:

the labour should include rest breaks so that the worker has time to recover from fatigue.Now one of the very first requirements for a man who is fit to handle pig iron as a regular occupation is that he shall be so stupid and so phlegmatic that he more nearly resembles in his mental make-up the ox than any other type. The man who is mentally alert and intelligent is for this very reason entirely unsuited to what would, for him, be the grinding monotony of work of this character. Therefore the workman who is best suited to handling pig iron is unable to understand the real science of doing this class of work. (Taylor 1911, 59)

This view – match the worker to the job – has resurfaced time and time again in management theories. many theories have been applied to the businesss.

Extension to "Sales Engineering"

Taylor believed scientific management could be extended to "the work of our salesmen." Shortly after his death, his acolyte Harlow S. Person began to lecture corporate audiences on the possibility of using Taylorism for "sales engineering." (Dawson 2005) This was a watershed insight in the history of corporate marketing.

Criticism

Applications of scientific management sometimes fail to account for two inherent difficulties:

- Individuals are different from each other: the most efficient way of working for one person may be inefficient for another;
- The economic interests of workers and management are rarely identical, so that both the measurement processes and the retraining required by Taylor's methods are frequently resented and sometimes sabotaged by the workforce.

Both difficulties were recognised by Taylor, but are generally not fully addressed by managers who only see the potential improvements to efficiency. Taylor believed that scientific management cannot work unless the worker benefits. In his view management should arrange the work in such a way that one is able to produce more and get paid more, by teaching and implementing more efficient procedures for producing a product.

Although Taylor did not compare workers with machines, some of his critics use this metaphor to explain how his approach makes work more efficient by removing unnecessary or wasted effort. However, some would say that this approach ignores the complications introduced because workers are necessarily human: personal needs, interpersonal difficulties and the very real difficulties introduced by making jobs so efficient that workers have no time to relax. As a result, workers worked harder, but became dissatisfied with the work

environment. Some have argued that this discounting of worker personalities led to the rise of labour unions.

It can also be said that the rise in labour unions is leading to a push on the part of industry to accelerate the process of automation, a process that is undergoing a renaissance with the invention of a host of new technologies starting with the computer and the Internet. This shift in production to machines was clearly one of the goals of Taylorism, and represents a victory for his theories.

It may not be adaptive to changing scenarios; it overemphasizes routine procedures, i.e strictly following a given set of rules and regulations, work procedures, production centredness etc.

However, tactfully choosing to ignore the still controversial process of automating human work is also politically expedient, so many still say that practical problems caused by Taylorism led to its replacement by the human relations school of management in 1930. Others (Braverman 1974) insisted that human relations did *not* replace Taylorism but that both approaches are rather complementary: Taylorism determining the actual organisation of the work process and human relations helping to adapt the workers to the new procedures.

However, Taylor's theories were clearly at the roots of a global revival in theories of scientific management in the last two decades of the 20th century, under the moniker of 'corporate reengineering'. As such, Taylor's ideas can be seen as the root of a very influential series of developments in the workplace, with the goal being the eventual elimination of industry's need for unskilled, and later perhaps, even most skilled labour in any form, directly following Taylor's recipe for deconstructing a process. This has come to be known as commodification, and no skilled profession, even medicine, has proven to be immune from the efforts of Taylor's followers, the 'reengineers', who are often called derogatory names such as 'bean counters'.

Legacy

Scientific management was an early attempt to systematically treat management and process improvement as a scientific problem. With the advancement of statistical methods, the approach was improved and referred to as quality control in 1920s and 1930s. During the 1940s and 1950s, the body of knowledge for doing scientific management evolved into Operations Research and management cybernetics. In the 1980s there was total quality management, in the 1990s reengineering. Today's Six Sigma and Lean manufacturing could be seen as new kinds of scientific management, though their principles vary so drastically that the comparison might be misleading. In particular, Shigeo Shingo, one of the originators of the Toyota Production System that this system and Japanese management culture in general should be seen as kind of scientific management.

Peter Drucker saw Frederick Taylor as the creator of knowledge management, as the aim of scientific management is to produce knowledge about how to improve work processes. Although some have questioned whether scientific management is suitable only for

manufacturing, Taylor himself advocated scientific management for all sorts of work, including the management of universities and government.

Scientific management has had an important influence in sports, where stop watches and motion studies rule the day. (Taylor himself enjoyed sports –especially tennis and golf – and he invented improved tennis racquets and improved golf clubs, although other players liked to tease him for his unorthodox designs, and they did not catch on as replacements for the mainstream implements.)

Scientific management and the Soviet Union

Taylorism in the Soviet Union was advocated by Aleksei Gastev and 'the movement for the scientific organisation of labour' or NOT (*nauchnaia organizatsia truda*). It found support in both Lenin and Trotsky. Gastev continued to promote this system of labour management until his arrest and execution in 1939.[3] Historian Thomas Hughes (Hughes 2004) has detailed the way in which the Soviet Union in the 1920s and 1930s enthusiastically embraced Fordism and Taylorism, importing American experts in both fields as well as American engineering firms to build parts of its new industrial infrastructure. The concepts of the Five Year Plan and the centrally planned economy can be traced directly to the influence of Taylorism on Soviet thinking. Hughes quotes Stalin:

> *American efficiency is that indomitable force which neither knows nor recognises obstacles; which continues on a task once started until it is finished, even if it is a minor task; and without which serious constructive work is impossible . . . The combination of the Russian revolutionary sweep with American efficiency is the essence of Leninism.* (Hughes 2004: 251 – quoting Stalin 1976: 115)

Hughes offers this equation to describe what happened:

> Taylorismus + Fordismus = Amerikanismus

Hughes describes how, as the Soviet Union developed and grew in power, both sides, the Soviets and the Americans, chose to ignore or deny the contribution that American ideas and expertise had had – the Soviets because they wished to portray themselves as creators of their own destiny and not indebted to a rival, and the Americans because they did not wish to acknowledge their part in creating a powerful rival.

Japanese management culture

The **culture of Japanese management** so famous in the West is generally limited to Japan's large corporations. These flagships of the Japanese economy provide their workers with excellent salaries and working conditions and secure employment. These companies and their employees are the business elite of Japan. Though not as much for the new generation still a career with such a company is the dream of many young people in Japan, but only a select few attain these jobs. Qualification for employment is limited to the few men and women who graduate from the top thirty colleges and universities in Japan.

Recruiting and Promotion

Placement and advancement of Japanese workers is heavily based on educational background. Students who do not gain admission to the most highly rated colleges only rarely have the chance to work for a large company. Instead, they have to seek positions in small and medium-sized firms that cannot offer comparable benefits and prestige. The quality of one's education and, more important, the college attended, play decisive roles in a person's career (see Higher education in Japan).

Few Japanese attend graduate school, and graduate training in business per se is rare. There are only a few business school programs in Japan. Companies provide their own training and show a strong preference for young men who can be trained in the company way. Interest in a person whose attitudes and work habits are shaped outside the company is low. When young men are preparing to graduate from college, they begin the search for a suitable employer. This process has been very difficult: there are only a few positions in the best government ministries, and quite often entry into a good firm is determined by competitive examination. The situation is becoming less competitive, with a gradual decrease in the number of candidates. New workers enter their companies as a group on April 1 each year.

One of the prominent features of Japanese management is the practice of permanent employment (*shūshin koyō* 終身雇用). Permanent employment covers the minority of the work force that work for the major companies. Management trainees, traditionally nearly all of whom were men, are recruited directly from colleges when they graduate in the late winter and, if they survive a six-month probationary period with the company, are expected to stay with the companies for their entire working careers. Employees are not dismissed thereafter on any grounds, except for serious breaches of ethics.

Permanent employees are hired as generalists, not as specialists for specific positions. A new worker is not hired because of any special skill or experience; rather, the individual's intelligence, educational background, and personal attitudes and attributes are closely examined. On entering a Japanese corporation, the new employee will train from six to twelve months in each of the firm's major offices or divisions. Thus, within a few years a young employee will know every facet of company operations, knowledge which allows companies to be more productive.

Another unique aspect of Japanese management is the system of promotion and reward. An important criterion is seniority. Seniority is determined by the year an employee's class enters the company. Career progression is highly predictable, regulated, and automatic. Compensation for young workers is quite low, but they accept low pay with the understanding that their pay will increase in regular increments and be quite high by retirement. Compensation consists of a wide range of tangible and intangible benefits, including housing assistance, inexpensive vacations, good recreational facilities, and above all the availability of low-cost loans for such expenses as housing and a new automobile. Regular pay is often augmented by generous semi-annual bonuses. Members of the same graduating class usually start with similar salaries, and salary increases and promotions each year are

generally uniform. The purpose is to maintain harmony and avoid stress and jealousy within the group.

Individual evaluation, however, does occur. Early in workers' careers, by age thirty, distinctions are made in pay and job assignments. During the latter part of worker's careers, another weeding takes place, as only the best workers are selected for accelerated advancement into upper management. Those employees who fail to advance are forced to retire from the company in their mid- to late fifties. Retirement does not necessarily mean a life of leisure. Poor pension benefits and modest social security means that many people have to continue working after retiring from a career. Many management retirees work for the smaller subsidiaries of the large companies, with another company, or with the large company itself at substantially lower salaries. (see Elderly people in Japan)

A few major corporations in the late 1980s were experimenting with variations of permanent employment and automatic promotion. Some rewarded harder work and higher production with higher raises and more rapid promotions, but most retained the more traditional forms of hiring and advancement. A few companies that experienced serious reverses laid off workers, but such instances were rare. This changed dramatically with the collapse of the Japanese asset price bubble, when several large Japanese companies went bankrupt and others merely survived struggling. Emergency measures, often only introduced after managers from western countries took over, included larger reductions in the work force of several companies. Since then, the Japanese unemployment rate has been on the rise, even though official figures are still low by international standards.

Japanese management studies in India

While Japanese management has always been a subject of great interest worldwide, particularly concepts and philosophies such as Just in Time, Kaizen and Total Quality Management, in recent times there has been considerable interest in India for Japanese management. This is mainly due to the growing bi-lateral economic co-operation [1] between Japan and India as more Japanese companies invest in India and an increasing number of Indian service companies are looking eastwards to Japan for business.

Many of the top IT companies in India are already handling large software projects [2] in Japan. The popularity for Japanese management studies in India has grown due to the demand for skilled professionals who can deal effectively with Japanese companies in Japan or implement the management culture of the Japanese company in India.

Currently, there is one full-time diploma program in Japanese Management[3] offered by the RV-Nihongo Bashi Centre of Japanese Management Studies in Bangalore. The Institution is a joint venture between the RV Group of Institutions from Karnataka, India and Singapore-based Nihongo Bashi.One of the key features of this program is the emphasis on preparing students to the "Asian" / Japanese way of doing business, with considerable importance to the development of Emotional Quotient (EQ).

Company unions

Another aspect of Japanese management is the company union, which most regular company employees are obliged to join (see Labor unions in Japan). The workers do not have a separate skill identification outside of the company. Despite federations of unions at the national level, the union does not exist as an entity separate from, or with an adversarial relationship to, the company. The linking of the company with the worker puts severe limits on independent union action, and the worker does not wish to harm the economic wellbeing of the company. Strikes are rare and usually brief.

Japanese managerial style and decision making in large companies emphasizes the flow of information and initiative from the bottom up, making top management a facilitator rather than the source of authority, while middle management is both the impetus for and the shaper of policy. Consensus is stressed as a way of arriving at decisions, and close attention is paid to workers' well-being. Rather than serve as an important decision maker, the ranking officer of a company has the responsibility of maintaining harmony so that employees can work together. A Japanese chief executive officer is a consensus builder.

Smaller Companies

In smaller companies, an entirely different corporate culture developed. Similar to the *Meister* system of Germany, new recruits are placed under skilled senior specialists and spend years learning every technique that they have. They are trained to develop deeper understanding of specific areas of skills instead of the broader and less deep training that those in a larger corporation receive. They learn to produce work of higher quality using few simple tools and few or no advanced industrial tools.

Generalized Critique

By reputation, Japanese management and business in general enjoys a widespread positive outlook. In all likelihood, this is due to foreigners' fascination and misconception of Japanese culture, coupled with the Japanese tendency to avoid criticism of deemed superiors. Probabalistically, the end result is a picture that is rosier than reality.

Division of labour

Division of labour or **specialization** is the specialization of cooperative labour in specific, circumscribed tasks and roles, intended to increase the productivity of labour. Historically the growth of a more and more complex division of labour is closely associated with the growth of total output and trade, the rise of capitalism, and of the complexity of industrialization processes.

Trade and Economic Interdependence

The division of labor makes trade necessary and is the source of economic interdependence.

Global Division of Labour

There exist as yet few comprehensive studies of the global division of labour (an intellectual challenge for researchers), although the ILO and national statistical offices can provide plenty of data on request for those who wish to try.

In one study, Deon Filmer estimated that 2,474 million people participated in the global non-domestic labour force in the mid-1990s. Of these,

- around 15%, or 379 million people, worked in industry,
- a third, or 800 million worked in services, and
- over 40%, or 1,074 million, in agriculture.

The majority of workers in industry and services were wage & salary earners - 58 percent of the industrial workforce and 65 percent of the services workforce. But a big portion were self-employed or involved in family labor. Filmer suggests the total of employees worldwide in the 1990s was about 880 million, compared with around a billion working on own account on the land (mainly peasants), and some 480 million working on own account in industry and services. "ILO Global Employment Trends report" indicates that services have surpassed agriculture for the first time in human history: "In 2006 the service sector's share of global employment overtook agriculture for the first time, increasing from 39.5 per cent to 40 per cent. Agriculture decreased from 39.7 per cent to 38.7 per cent. The industry sector accounted for 21.3 per cent of total employment."

Types of Specialization

Geographical Specialization: land use is naturally suited to specific situation.

Labor Specialization: achieved when the production process is broken into tiny tasks. The idea is referred to as the division of labor.

Advantages

This section **may contain original research or unverified claims**. Please improve the article by adding references. See the talk page for details. *(March 2009)*

The productivity gains of the division of labour are important within any type of production process, ranging from pin manufacture to legal practice and medical care. The productivity gains are a result of a number of mechanisms, as follows:

1. Frees workers to focus on tasks that they are best at
2. Learning Curve efficiencies (see Experience curve effects for exact definition)
    - More repetitions leads into learning faster ways to perform the task, causing
        - More efficient in terms of time, which is equal to
        - Increases productivity because training time is reduced and the worker is productive in a short amount of time.

        - Concentration on one repetitive task makes workers more skilled at performing that task.
    - Might also cause Steepening of the Learning Curve
        - Reduces the time needed for training because the task is simplified
        - Increase in meta-capabilities like ability to learn further new tasks
3. Little time is spent moving between tasks so overall time wasted is reduced.
4. The overall quality of the product will increasingly bring welfare gains to the consumer
5. It becomes possible to influence how production takes place[1]

Disadvantages

This section **may contain original research or unverified claims**. Please improve the article by adding references. See the talk page for details. *(March 2009)*

1. Disconnection from effects of actions—the worker may not feel responsible for the end result of the process in which he/she contributes to.
2. Lack of motivation

Productivity of labour may decrease while absenteeism may rise.

1. Repetitive motion disorder: can be a factor in many manual jobs.
2. Growing dependency: a break in production may cause problems to the entire process.
3. Loss of flexibility: workers may have limited knowledge while not many jobs opportunities are available.
4. Higher start-up costs: high initial costs necessary to buy the specialist machinery lead to a higher break-even point.

Early Theorists

Plato

In Plato's *Republic* we are instructed that the origin of the state lies in that "natural" inequality of humanity that is embodied in the division of labour.

'"Well then, how will our state supply these needs? It will need a farmer, a builder, and a weaver, and also, I think, a shoemaker and one or two others to provide for our bodily needs. So that the minimum state would consist of four or five men...." (*The Republic*, Page 103, Penguin Classics edition.)

Xenophon

Xenophon, writing in the fourth century BC makes a passing reference to division of labour in his 'Cyropaedia' (aka Education of Cyrus).

"Just as the various trades are most highly developed in large cities, in the same way food at the palace is prepared in a far superior manner. In small towns the same man makes couches, doors, ploughs and tables, and often he even builds houses, and still he is thankful if only he

can find enough work to support himself. And it is impossible for a man of many trades to do all of them well. In large cities, however, because many make demands on each trade, one alone is enough to support a man, and often less than one: for instance one man makes shoes for men, another for women, there are places even where one man earns a living just by mending shoes, another by cutting them out, another just by sewing the uppers together, while there is another who performs none of these operations but assembles the parts, Of necessity, he who pursues a very specialised task will do it best." (Book VIII, ch, ii, 4[]-6, cited in *The Ancient Economy* by M. I. Finley. Penguin books 1992, p 135.)

William Petty

Sir William Petty was the first modern writer to take note of division of labour, showing its existence and usefulness in Dutch shipyards. Classically the workers in a shipyard would build ships as units, finishing one before starting another. But the Dutch had it organised with several teams each doing the same tasks for successive ships. People with a particular task to do must have discovered new methods that were only later observed and justified by writers on political economy.

Petty also applied the principle to his survey of Ireland. His breakthrough was to divide up the work so that large parts of it could be done by people with no extensive training.

Bernard de Mandeville

Bernard de Mandeville discusses the matter in the second volume of The Fable of the Bees. This elaborates many matters raised by the original poem about a 'Grumbling Hive'. He says:

> But if one will wholly apply himself to the making of Bows and Arrows, whilst another provides Food, a third builds Huts, a fourth makes Garments, and a fifth Utensils, they not only become useful to one another, but the Callings and Employments themselves will in the same Number of Years receive much greater Improvements, than if all had been promiscuously followed by every one of the Five.

David Hume

David Hume talks about "partition of employments" in "A Treatise of Human Nature" (1739):

> When every individual person labours a-part, and only for himself, his force is too small to execute any considerable work; his labour being employ'd in supplying all his different necessities, he never attains a perfection in any particular art; and as his force and success are not at all times equal, the least failure in either of these particulars must be attended with inevitable ruin and misery. Society provides a remedy for these three inconveniences. By the conjunction of forces, our power is augmented: By the partition of employments, our ability encreases: And by mutual succour we are less expos'd to fortune and accidents. 'Tis by this additional force, ability, and security, that society becomes advantageous.

Henri-Louis Duhamel du Monceau

In his introduction to l'"Art de l'Épinglier" - The Art of the Pin-Maker - (1761), Henri-Louis Duhamel du Monceau writes about the "division of this work":

> There is nobody who is not surprised of the small price of pins; but we shall be even more surprised, when we know how many different operations, most of them very delicate, are mandatory to make a good pin. We are going to go through these operations in a few words to stimulate the curiosity to know their detail; this enumeration will supply as many articles which will make the division of this work. [...] The first operation is to have brass go through the drawing plate to calibrate it. [...]

By "division of this work", Duhamel du Monceau is referring to the subdivisions of the text describing the various trades involved in the pin making activity. Adam Smith has most likely misunderstood the text in French, and thought that Duhamel du Monceau was talking about the "division of labour"[4].

Adam Smith

In the first sentence of *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776), Adam Smith foresaw the essence of industrialism by determining that division of labor represents a qualitative increase in productivity. His example was the making of pins. Unlike Plato, Smith famously argued that the difference between a street porter and a philosopher was as much a consequence of the division of labour as its cause. Therefore, while for Plato the level of specialization determined by the division of labor was externally determined, for Smith it was the dynamic engine of economic progress. However, in a further chapter of the same book Smith criticises the division of labour saying it leads to a 'mental mutilation' in workers; they become ignorant and insular as their working lives are confined to a single repetitive task. The contradiction has led to some debate over Smith's opinion of the division of labour.

The specialization and concentration of the workers on their single subtasks often leads to greater skill and greater productivity on their particular subtasks than would be achieved by the same number of workers each carrying out the original broad task.

Smith saw the importance of matching skills with equipment - usually in the context of an organisation. For example, pin makers were organised with one making the head, another the body, each using different equipment. Similarly he emphasised a large number of skills, used in cooperation and with suitable equipment, were required to build a ship.

In modern economic discussion the term human capital would be used. Smith's insight suggests that the huge increases in productivity obtainable from technology or technological progress are possible because human and physical capital are matched, usually in an organisation. See also a short discussion of Adam Smith's theory in the context of business processes.

Karl Marx

Increasing the specialization may also lead to workers with poorer overall skills and a lack of enthusiasm for their work. This viewpoint was extended and refined by Karl Marx. He described the process as alienation; workers become more and more specialised and work repetitious which eventually leads to complete alienation. Marx wrote that "with this division of labor", the worker is "depressed spiritually and physically to the condition of a machine". He believed that the fullness of production is essential to human liberation and accepted the idea of a strict division of labour only as a temporary *necessary evil*.

Marx's most important theoretical contribution is his sharp distinction between the *social* division and the *technical* or economic division of labour. That is, some forms of labor co-operation are due purely to *technical necessity*, but others are purely a result of a *social control* function related to a class and status hierarchy. If these two divisions are conflated, it might appear as though the existing division of labour is technically inevitable and immutable, rather than (in good part) socially constructed and influenced by power relationships.

It may be, for example, that it is technically necessary that both pleasant and unpleasant jobs must be done by a group of people. But from that fact alone, it does not follow that any particular person must do any particular (pleasant or unpleasant) job. If particular people get to do the unpleasant jobs and others the pleasant jobs, this cannot be explained by technical necessity; it is a socially made decision, which could be made using a variety of different criteria. The tasks could be rotated, or a person could be assigned to a task permanently, and so on.

Marx also suggests that the capitalist division of labour will evolve over time such that the maximum amount of labour is productive labor, where productive labour is defined as labour which creates surplus value.

In Marx's imagined communist society, the division of labour is transcended, meaning that balanced human development occurs where people fully express their nature in the variety of creative work that they do.

Henry David Thoreau

Thoreau criticized the division of labour in Walden (published in 1854), on the basis that it removes people from a sense of connectedness with society and with the world at large, including nature. He claimed that the average man in a civilized society is less wealthy, in practice, than one in a "savage" society. The answer he gave was that self-sufficiency was enough to cover one's basic needs.

Thoreau's friend and mentor, Ralph Waldo Emerson, criticized the division of labor in "The American Scholar"; a widely-informed, holistic citizenry is vital for the spiritual and physical health of the country.

Émile Durkheim

Émile Durkheim wrote about a fractionated, unequal world by dividing it along the lines of "human solidarity," its essential moral value is division of labour. In 1893 he published "The Division of Labour in Society", his fundamental statement of the nature of human society and its social development. According to Franz Borkenau it was a great increase in division of labour occurring in the 1800s after the Industrial Revolution that introduced the abstract category of work, which may be said to underlie, in turn, the whole modern, Cartesian notion that our bodily existence is merely an object of our (abstract) consciousness.

Ludwig von Mises

On the other hand, Marx's theories, including the negative claims regarding the division of labor have been criticized by the Austrian economists, such as Ludwig von Mises.

The main argument here is the gains accruing from the division of labor far outweigh the costs; it is fully possible to achieve balanced human development within capitalism, and alienation is more a romantic fiction. After all, work is not all there is; there is also leisure time.

Globalization

The issue reaches its broadest scope in the controversies about globalization, which is often interpreted as a euphemism for the expansion of world trade based on comparative advantage. This would mean that countries specialise in the work they can do at the lowest opportunity cost. Critics however allege that international specialisation cannot be explained sufficiently in terms of "the work nations do best", rather this specialisation is guided more by commercial criteria, which favour some countries over others.

The OECD recently advised (28 June 2005) that:

"Efficient policies to encourage employment and combat unemployment are essential if countries are to reap the full benefits of globalisation and avoid a backlash against open trade... Job losses in some sectors, along with new job opportunities in other sectors, are an inevitable accompaniment of the process of globalisation... The challenge is to ensure that the adjustment process involved in matching available workers with new job openings works as smoothly as possible."

Modern debates

In the modern world, those specialists most preoccupied in their work with theorising about the division of labour are those involved in management and organisation. In view of the global extremities of the division of labour, the question is often raised about what division of labour would be most ideal, beautiful, efficient and just.

It is widely accepted that the division of labour is to a great extent inevitable, simply because no one can do all tasks at once. Labour hierarchy is a very common feature of the modern

workplace structure, but of course the way these hierarchies are structured can be influenced by a variety of different factors.

It is often agreed that the most equitable principle in allocating people within hierarchies is that of true (or proven) competency or ability. This important Western concept of meritocracy could be read as an explanation or as a justification of why a division of labour is the way it is.

In general, in capitalist economies, such things are not decided consciously. Different people try different things, and that which is most effective (produces the most and best output with the least input) will generally be adopted. Often techniques that work in one place or time do not work as well in another. This does not present a problem, as the only requirement of a capitalist system is that you turn a profit.

Sexual division of labour

The clearest exposition of the principles of sexual division of labour across the full range of human societies can be summarised by a large number of logically complementary implicational constraints of the following form: if women of childbearing ages in a given community tend to do X (e.g., preparing soil for planting) they will also do Y (e.g., the planting) while for men the logical reversal in this example would be that if men plant they will prepare the soil. The 'Cross Cultural Analysis of the *Sexual Division of Labor* by White, Brudner and Burton (1977, public domain), using statistical entailment analysis, shows that tasks more frequently chosen by women in these order relations are those more convenient in relation to childrearing. This type of finding has been replicated in a variety of studies, including modern industrial economies. These entailments do not restrict how much work for any given task could be done by men (e.g., in cooking) or by women (e.g., in clearing forests) but are only least-effort or role-consistent tendencies. To the extent that women clear forests for agriculture, for example, they tend to do the entire agricultural sequence of tasks on those clearings. In theory, these types of constraints could be removed by provisions of child care, but ethnographic examples are lacking.

Secondary literature

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Course Name	: Business Ethics & Code of Conduct

Course description

The course explores the definition of ethics and integrity, constitutional provisions of ethics and integrity, the code of conduct and ethics for the business environment. Among others, it looks at the financial credibility, impartiality, professionalism, diligence, discipline and work ethics. Attendance to duty, time management, manifestation of unethical behavior, cases in ethics. The nature of ethics; good versus evil, right versus wrong, normative ethics and meta ethics; key concepts in ethics, freedom and responsibility, justice and equality. The nature of morality based and morality based on community, morality and conventions. The nature and characteristics of a profession, personal versus professional ethics, the nature and characteristics of the code of conduct and their relationship to the ethics

Course objectives

- To help students learn the basic characteristics of ethics in the business sector.
- To enable students get acquitted with the general theories of business ethics.
- To assist students identify factors that affect a business setting, moral climate and strategies that may improve organizational ethics.
- To ensure students' capacity in employing, assessing the usefulness and limitations of empirical case studies relating to business ethics and accountability.

Course content

Introduction

- Definition of ethics and integrity
- Constitutional provisions of ethics

Concepts and Philosophy of ethics

- Scope and braches of ethics
- The philosophy of ethics
- The evolution towards ethical thinking in general
- Rational of ethical thinking
- Freedom and responsibility
- Justice equality and duty
- Good versus evil
- Right versus wrong
- Normative ethics and meta ethics

The shift to ethics in business

- Events leading to ethics thinking in business; accountability, integrity, transparency, work ethics, conflict of interest and confidentiality
- The controversies in business practice; financial credibility, impartiality, professionalism, intelligence, discipline and work ethics, peddling, overcharging, poor quality.

Principles in Business ethics

- Decision making, rights, corporate social responsibility, moral rules, business codes, policies, marked dealings, market controls etc
- Ethics according to different function units

Levels of ethics in business

- Individual levels; attendance to duty, time management, sexual harassment, manifest ions of unethical behavior, cases in ethics
- Organizational level; the corporation as an ethical agent, ethical environment for management decision making
- Societal level, country level and global level

Tools of ethics

- Value systems,
- Rights and duties
- Moral rules
- Human relation ships
- Common morality

The nature of morality based on;

- Reason
- Community
- Conventions

Institutionalizing ethics

- The nature and characteristics of a profession
- Personal versus professional ethics
- Ethical issues in the business industry
- Ethics training programs, socio-audits

Challenges of ethics

- Relativism, changing business environment , field of ethical behavior

Method of delivery Face to face lectures

Assessment
Course Work 40%
Exams 60%
Total Mark 100%

INTEGRITY

Integrity is a concept of consistency of actions, values, methods, measures, principles, expectations, and outcomes. In ethics, integrity is regarded as the honesty and truthfulness or accuracy of one's actions. Integrity can be regarded as the opposite of hypocrisy,[1] in that it regards internal consistency as a virtue, and suggests that parties holding apparently conflicting values should account for the discrepancy or alter their beliefs.

The word "integrity" stems from the Latin adjective *integer* (whole, complete). In this context, integrity is the inner sense of "wholeness" deriving from qualities such as honesty and consistency of character. As such, one may judge that others "have integrity" to the extent that they act according to the values, beliefs and principles they claim to hold.

A value system's abstraction depth and range of applicable interaction may also function as significant factors in identifying integrity due to their congruence or lack of congruence with observation. A value system may evolve over time while retaining integrity if those who espouse the values account for and resolve inconsistencies.

Integrity in ethics

In discussions on behavior and morality, one view of the property of integrity sees it as the virtue of basing actions on an internally consistent framework of principles. This scenario may emphasize depth of principles and adherence of each level of postulates or axioms to those it logically relies upon. One can describe a person as having ethical integrity to the extent that everything that that person does or believes: actions, methods, measures and principles — all of these derive from a single core group of values.

One essential aspect of a consistent framework is its avoidance of any unwarranted (arbitrary) exceptions for a particular person or group — especially the person or group that holds the framework. In law, this principle of universal application requires that even those in positions of official power be subject to the same laws as pertain to their fellow citizens. In personal ethics, this principle requires that one should not act according to any rule that one would not wish to see universally followed. For example, one should not steal unless one would want to live in a world in which everyone was a thief. This was formally described by the philosopher Immanuel Kant in his categorical imperative.

In the context of accountability, integrity serves as a measure of willingness to adjust a value system to maintain or improve its consistency, when an expected result appears incongruent with observed outcome. Some regard integrity as a virtue in that they see accountability and moral responsibility as necessary tools for maintaining such consistency.

In the context of value theory, integrity provides the expected causation from a base value to its extrapolated implementation or other values. A *value system* emerges as a set of values and measures that one can observe as consistent with expectations.

Some commentators stress the idea of *integrity* as personal honesty: acting according to one's beliefs and values at all times. Speaking about integrity can emphasize the "wholeness" or "intactness" of a moral stance or attitude. Some views of wholeness may also emphasize commitment and authenticity. Ayn Rand considered that integrity "does not consist of loyalty to one's subjective whims, but of loyalty to rational principles".

Integrity in modern ethics

In a formal study of the term "integrity" and its meaning in modern ethics, law professor Stephen L. Carter sees integrity not only as a refusal to engage in behavior that evades responsibility but also as an understanding of different modes or styles in which discourse attempts to uncover a particular truth.

Carter writes that integrity requires three steps: "*discerning* what is right and what is wrong; *acting* on what you have discerned, even at personal cost; and *saying openly* that you are acting on your understanding of right from wrong." He regards integrity as being distinct from

honesty.

ETHICS

Ethics, also known as **moral philosophy**, is a branch of philosophy that involves systematizing, defending, and recommending concepts of right and wrong behavior.[1]
Major areas of study in ethi cs include:[1]

- Meta-ethics, about the theoretical meaning and reference of moral propositions and how their truth values (if any) may be determined;
- Normative ethics, about the practical means of determining a moral course of action;
- Applied ethics, about how moral outcomes can be achieved in specific situations;

The discipline of ethics has three branches: normative ethics, meta-ethics and applied ethics.

Normative Ethics: -

Normative ethics is the branch of ethics that asks general questions about the morality of behavior; it attempts to provide general moral norms of behavior.
Normative: - A normative statement, or question, or theory, concerns how things should be, how they ought to be, rather than how they actually are. [The opposite of "normative" is **descriptive:** A descriptive statement, or question, or theory, concerns how things actually are, not how they ought to be.
So normative ethics is the branch of ethics that tries to answer general questions about how we should behave, how we ought to act**.** In other words, it attempts to discover general rules or principles of moral behavior. In this area of ethics, you'll find claims like the following:

- If doing x will benefit someone without harming anyone else, then it is morally right for you to do x.

This is a claim about what sort of behavior is morally right in general. It's also a rule you can use to help you decide what is the right thing to do in any given situation.

Meta-Ethics: -

Meta-ethics is the branch of ethics that tries to answer questions about **the nature of morality itself.** It doesn't ask or make judgment about what types of action are moral and immoral; rather, it asks questions like:

- Does morality depend on what we believe about it, or is it independent of our beliefs?
- Does morality depend on what God commands?
- Are moral judgments (statements attributing morality or immorality to a given act, .g. "Murder is immoral"; "Charity is morally good") capable of being true or false? Or are they simply expressions of emotion? Or something else?
- How can we justify moral claims? How should we justify them?

You can think of meta-ethics as trying to take a position above normative ethics, looking down on it and trying to explain where it comes from.("meta" means above or about)

Applied Ethics: -

Applied ethics is the branch of ethics that asks relatively concrete questions about the morality of specific actions and policies. The following branches focus on various issues of applied ethics:

- **Medical ethics** (euthanasia, abortion, human cloning, genetic engineering, fair

distribution of prescription drugs and medical treatment etc. For example, it's wrong for doctors to deceive their patients; passive euthanasia is sometimes permissible)

- **Business ethics** (corporate responsibility; rights and obligations of employees; diversity and discrimination etc. For example, lying and deception is permissible in business contexts)
- **Legal ethics** (responsibilities of individuals working in the criminal justice system)
- **Environmental ethics** (it's morally wrong to exterminate rare species of animals and plants; raising animals in factory farms is morally wrong)

Ethics in education (teachers ought to provide their students with the access to information)

The Evolution towards ethical thinking

There are several important ideas linked to the emergence of ethical systems: first, that ethical systems evolve in response to the human need to survive in an environment where they are competing with many other organisms for scarce resources; second, that humans survive and flourish by efficiently using their resources and energies; and third, that the evolution of ethical systems is a function of an ongoing cybernetic process involving all humans, animals, and organisms.

Human experiences accumulate as a reservoir of knowledge, which influences the societal perception of which behaviors benefit people and which act counterproductive to their health and welfare. When people deviate from behaviors that are known to be productive, feedback arises that affects their lives in both subtle and obvious ways. Thus, the way in which people write laws and attach moral significance to certain behaviors is linked to a cybernetic process that maximizes human survival, minimizes social conflicts, and increases the meaningfulness of the human experience. Feedback that inspires change enhances the human ability to survive and to compete with other animals and organisms. This is important in the sense that some biologists believe that ninety-nine percent of all species that have ever existed are now extinct.

In order to build a bridge between the biological world of organic struggles for survival and the moral world of right and wrong, a simplified explanation of the evolutionary process is presented. This is necessary to illustrate how survival inspires a cybernetic process leading to the rise of ethical systems. The resulting theory sounds similar to some of the ideas of Thomas Hobbes. Where the two systems differ greatly is that the evolution of ethical systems here is viewed as an extension of a biological process, grounded in cybernetic principles, whereas Hobbes ian philosophy derives from traditional ethical thinking touching on linguistic and meta-ethical aspects of reasoning.

What is important to note is how conflicts and potential conflicts act as a form of cybernetic feedback to society that alerts people to make changes in the way they behave. Feedback is an essential ingredient in evolutionary growth. Traffic laws vividly illustrate how the forces of human survival and the need for the synchronization of many parts work.

While the ideas of individual philosophers are not discussed directly, their relevance is implicit in the writing. Biological perspectives likewise do not address biological theory directly on a technical level. Books such as *Living Systems*, by James Grier Miller; *The Selfish*

Gene, by Richard Dawkins; and *Mankind Evolving,* by Theodosius Dobzhansky are more appropriate sources, in a field of many good books, for understanding biological phenomena. These three books illuminate the complexity of biological systems in a way that ultimately leads to ethical questions. For instance, the idea of incorporating the notion of organization and efficiency in ethical theory has its analog in Miller's living systems theory. Here it seems evident that successful organic strategies for survival have created extremely complex and efficient hierarchies of order in nature. The principles governing the evolution and survival of lower organisms seem much the same as the forces driving the development of moral systems. Living systems theory invites the question that if organic systems are so incredibly diverse and complex, why would the nature of moral systems be any different, suggesting that philosophical conundrums of the past regarding the nature of morality stem from underestimating the complexity of moral science.

In Richard Dawkins' writings there are illustrations of how pervasive the struggle for survival is. Such struggle involves not only humans but lower organisms, all competing with each other for scarce resources. Dawkins' ideas are important in realizing that humans, after all, still act involuntarily on a biological level. Like it or not, struggles manifest in elegant and concealed forms have endured and proliferated to this day in human societies. Both Miller's and Dawkins' writings lend visual texture to the sense of complex systems uniting in cooperative strategies to further their mutual survival. The rise of ethical systems in this sense is a cooperative effort of humanity that has the effect of optimizing its energies and resources in an ever increasing dynamic of survival guided by cybernetic principles.

Dobzhansky's work is crucial to understanding how human beings adapt to a hostile environment by changing the way their cultures are structured. The idea that human culture is an instrument of biological adaptation is central to perceiving how Dobzhansky, and those who followed him, were perhaps unknowingly the first to establish credible bridge points linking ethics with biology.

Rationale of ethical thinking

Personal Ethics Philosophy

Early ethics philosophers, through their thoughts, understanding, and knowledge, influence and offer guidance regarding questions and practical concerns of individuals today, enabling them to form the best decisions possible (Beckner, 2004). There are three major theories concerning philosophical and ethical theory, deontology, teleology, and virtue ethics. There are also many historical ethics philosophers that give rise to current ethical thinking; however, a single collection of ethical principles upon which to base decisions in an education setting does not exist (Beckner, 2004). Consequently, educational leaders ought to base decisions on their own personal ethics philosophy but bear in mind the moral responsibility to provide for the well being of students and faculty as they endeavor to facilitate student development and learning (Beckner, 2004). Since there is no single collection of ethical principles, a compilation from theories and philosophers into one best personal philosophy will be better apt to guide decisions and actions in an educational setting.

In aligning with Plato, the personal ethics philosophy of this author also contends that eternal life was something that is given in return for good and the notion that the capability to

evaluate other individuals exists in the wise and good individual who, by means of pedagogy and knowledge, has come to realize and formulate the best decision (Beckner, 2004). Plato wanted to identify the attributes of an action or group of actions, which indicates that the action is just. His desire was not to have a record of action, but decisive factors for including or not including an action (Beckner, 2004). Furthermore, Plato suggested that in justice all men obtain equal proportions of what he generates, and will complete the purpose for which he is best suited. According to Plato, "A just man is a man in just the right place, doing his best, and giving the full equivalent of what he receives" (Beckner, 2004, p. 36). A society with just men is a well-balanced and effective society, suitable for survival.

This author's personal ethics philosophy also aligns with Aristotle who believed that ethics is joined to the circumstance of being happy or the universal welfare of humankind. Aristotle believed that happiness is an individual's supreme good, the objective to which all human activities add to when correctly completed (Beckner, 2004). Happiness is attained through being occupied with proper activities and by displaying virtues in all facets of life. Aristotle contended that other elements come together to promote goodness, one virture does not stand alone. Individuals are not guaranteed happiness by living good but by striving for good in all aspects of life (Kemerling, 2007). The result of living a good life will be happiness, although, there will be some instances of chance but also instances that are subject to an individual's control. Aristotle accentuates the significance of values or virtues and how each is an element in making right choices (Beckner, 2004). Aristotle believed in four basic virtues that are included in this personal ethics philosophy: prudence, justice, fortitude, and temperance. Prudence is the realistic skill to recognize and formulate the right choice in particular conditions. Justice consists of fairness, honesty and promise keeping. Fortitude is the courage to take the right action in problematic situations. Temperance possesses the willpower to manage all human obsessions and physical pleasures (Beckner, 2004; Vassallo, 2004). Like Plato, Aristotle contended that the competency to judge is a feature of the wise and good individual who, during the course of teaching and knowledge, has learned to make optimal decisions. Aristotle viewed contemplation as a divine pursuit through which an individual may achieve happiness (Beckner, 2004).

To some degree this personal ethics philosophy aligns with Locke who considered senses and reason suggesting that individuals are born with a "blank slate" for a mind (Beckner, 2004, p. 13). Locke contended that individuals could only understand what they have experienced and that individuals come into the world as good (Nosotro, 2007). Locke also implied the existence of three types of moral law: divine law, civil law, and the law of opinion. Divine law is identified by natural reason or by revelation and reveals an individual's responsibilities and sins. Civil law is arranged by political societies to establish guilt or innocence pertaining to civic concerns. Law of opinion determines goodness and evil by the rules and practices of a specific time, place, and society. Locke contemplated that an individual's notions of good and evil are a product of both sensory and rational encounters. Individuals learn from these encounters and establish the morality of particular events using associations and deductions (Beckner, 2004).

In consideration of specific ethic theories and this personal ethic philosophy, one should use deontology to guiding decisions dependent to what is obviously right and wrong. A list of

regulations or code of ethics might be appropriate for this type of circumstance, where there is no justifiable dilemma. A variation of deontology is rule-deontology of which Kant is a proponent and contends that good deeds by individuals do not make them good people unless good will is a supplement of the good deed. In addition, the good will is motivated by an individual's commitment to obligation. Consequently, a deed is good because an individual performs the deed out of a sense of obligation to do what is right (Beckner, 2004).
One should employ teleology thinking to guide decisions where right and wrong is not apparent. In this circumstance, one should reflect on the consequences of action with respect to what will generate the most good and the lowest amount of harm. Teological thinking occasionally necessitates problematical and challenging efforts to contemplate the consequences of actions, making ethical decisions through rationale and opinion. Thomas Hobbes is a proponent of a variation of teleology; individuals enter into an agreement with a supreme authority to preserve peace and success. This agreement indicates that which is and is not just or ethical (Beckner, 2004).

One should use virtue ethics to concentrate on the interests of other individuals, to develop behavior and qualities of a good person. Caring for other individuals commences to be the fundamental guide to ethical decision-making. One must carefully consider the particular circumstances and correspond decisions accordingly (Beckner, 2004). Plato and Aristotle gave rise to this type of ethical thinking going further than nominal standards for ethical behavior, which place full confidence on a set of essential rules to guide behavior. Individuals should continually aspire to attain a greater moral understanding of ethical behavior where the benefit to other individuals is a requirement, as opposed to avoiding harm to other individuals (Beckner, 2004).

Personal Ethics Philosophy Rationale and Facilitating Decision making in Education
Ethics will aid educational leaders to formulate better decisions and discover methods that are effective, sufficient, and justifiable. Effective and competent decisions in educational settings are those, which guide leaders toward the attainment of educational goals. Consequently, educational leaders must determine equilibrium between students, parents, faculty, and administration. In an education setting, the principle goal is student learning, success in proceeding throughout the educational system, and training for future opportunities and obligations. In order to manage the questions and tasks in education, leaders must possess an effective set of principles and beliefs from which to act (Beckner, 2004).

Educational institutions must maintain faculty and administrators who consent to ethical principles. Perceptions of justice, equity, freedom, rights, responsibility, and duty must be collective and present the basis for policies and daily operating decisions. When a conclusion or choice requires an answer, the ethical behavior will result in trust, confidence, and honesty in relationships. Ethical behavior will facilitate collaboration and improve confidence, eluding the barriers produced by mistrust, doubt, and misunderstanding (Beckner, 2004).
Conclusion

Ethics is the study of moral obligations and the examination of ethical dilemmas (Furman, 2004; Stefkovich & O'Brien, 2004). This personal ethics philosophy will allow this author to be an example to others and follow an ethics philosophy that is consistent with both social and

personal beliefs. This personal ethics philosophy will also utilize the beliefs of ethics philosophers such as Plato, Aristotle, Hobbes, Locke, and Kant in order to provide a framework of ethical thinking. A personal ethics philosophy should guide one's actions, although one should always assess and evaluate this philosophy in terms of historical and current thinking, ethical guidelines, professional practice, and personal convictions (Beckner, 2004). The beliefs of ethical philosophers and ethical theory may provide a guide and present standards for ethical behavior, but only personal resolution and daily thought can ensure success in attaining higher levels of ethical behavior (Beckner, 2004).

The shift to Ethics in Business

The events leading to ethics thinking in business include;

1.Accountability

Accountability is a concept in ethics and governance with several meanings. It is often used synonymously with such concepts as answerability, blameworthiness, liability, and other terms associated with the expectation of account-giving. As an aspect of governance, it has been central to discussions related to problems in the public sector, nonprofit and private (corporate) worlds. In leadership roles, accountability is the acknowledgment and assumption of responsibility for actions, products, decisions, and policies including the administration, governance, and implementation within the scope of the role or employment position and encompassing the obligation to report, explain and be answerable for resulting consequences. As a term related to governance, accountability has been difficult to define. It is frequently described as an account-giving relationship between individuals, e.g. "A is accountable to B when A is obliged to inform B about A's (past or future) actions and decisions, to justify them, and to suffer punishment in the case of eventual misconduct". Accountability cannot exist without proper accounting practices; in other words, an absence of accounting means an absence of accountability.

Types of accountability

Bruce Stone, O.P. Dwivedi, and Joseph G. Jabbra list 8 types of accountability, namely: moral, administrative, political, managerial, market, legal/judicial, constituency relation, and professional. Leadership accountability cross cuts many of these distinctions.

Political accountability

Political accountability is the accountability of the government, civil servants and politicians to the public and to legislative bodies such as a congress or a parliament.

In a few cases, recall elections can be used to revoke the office of an elected official. Generally, however, voters do not have any direct way of holding elected representatives to account during the term for which they have been elected. Additionally, some officials and legislators may be appointed rather than elected. Constitution, or statute, can empower a legislative body to hold their own members, the government, and government bodies to account. This can be through holding an internal or independent inquiry. Inquiries are usually held in response to an allegation of misconduct or corruption. The powers, procedures and sanctions vary from country to country. The legislature may have the power to impeach the individual, remove them, or suspend them from office for a period of time. The accused person might

also decide to resign before trial. Impeachment in the United States has been used both for elected representatives and other civil offices, such as district court judges.
In parliamentary systems, the government relies on the support or parliament, which gives parliament power to hold the government to account. For example, some parliaments can pass a vote of no confidence in the government.

Researchers at the Overseas Development Institute found that empowering citizens in developing countries to be able to hold their domestic government's to account was incredibly complex in practice. However, by developing explicit processes that generate change from individuals, groups or communities (Theories of Change), and by fusing political economy analysis and outcome mapping tools, the complex state-citizen dynamics can be better understood. As such, more effective ways to achieve outcomes can hence be generated.

Ethical accountability
Within an organization, the principles and practices of ethical accountability aim to improve both the internal standard of individual and group conduct as well as external factors, such as sustainable economic and ecologic strategies. Also, ethical accountability plays a progressively important role in academic fields, such as laboratory experiments and field research. Debates around the practice of ethical accountability on the part of researchers in the social field - whether professional or others - have been thoroughly explored by Norma Romm in her work on Accountability in Social Research, including her book on New Racism: Revisiting Researcher Accountabilities, reviewed by Carole Truman in the journal Sociological Research Online. Here it is suggested that researcher accountability implies that researchers are cognisant of, and take some responsibility for, the potential impact of their ways of doing research - and of writing it up - on the social fields of which the research is part. That is, accountability is linked to considering carefully, and being open to challenge in relation to, one's choices concerning how research agendas are framed and the styles in which write-ups of research "results" are created.

Administrative accountability
Internal rules and norms as well as some independent commission are mechanisms to hold civil servant within the administration of government accountable. Within department or ministry, firstly, behavior is bounded by rules and regulations; secondly, civil servants are subordinates in a hierarchy and accountable to superiors. Nonetheless, there are independent “watchdog” units to scrutinize and hold departments accountable; legitimacy of these commissions is built upon their independence, as it avoids any conflicts of interests.

Market accountability
Under voices for decentralization and privatization of the government, services provided are nowadays more “customer-driven” and should aim to provide convenience and various choices to citizens; with this perspective, there are comparisons and competition between public and private services and this, ideally, improves quality of service. As mentioned by Bruce Stone, the standard of assessment for accountability is therefore “responsiveness of service providers to a body of ‘sovereign’ customers and produce quality service. Outsourcing service is one means to adopt market accountability. Government can choose among a

shortlist of companies for outsourced service; within the contracting period, government can hold the company by rewriting contracts or by choosing another company.

Constituency relations

Within this perspective, a particular agency or the government is accountable if voices from agencies, groups or institutions, which is outside the public sector and representing citizens' interests in a particular constituency or field, are heard. Moreover, the government is obliged to empower members of agencies with political rights to run for elections and be elected; or, appoint them into the public sector as a way to hold the government representative and ensure voices from all constituencies are included in policy-making process.

Public/private overlap

With the increase over the last several decades in public service provision by private entities, especially in Britain and the United States, some have called for increased political accountability mechanisms to be applied to otherwise non-political entities. Legal scholar Anne Davies, for instance, argues that the line between public institutions and private entities like corporations is becoming blurred in certain areas of public service provision in the United Kingdom and that this can compromise political accountability in those areas. She and others argue that some administrative law reforms are necessary to address this accountability gap.

With respect to the public/private overlap in the United States, public concern over the contracting out of government (including military) services and the resulting accountability gap has been highlighted recently following the shooting incident involving the Blackwater security firm in Iraq.

2. Transparency

Transparency, as used in science, engineering, business, the humanities and in a social context more generally, implies openness, communication, and accountability. Transparency is operating in such a way that it is easy for others to see what actions are performed. For example, a cashier making change at a point of sale by segregating a customer's large bills, counting up from the sale amount, and placing the change on the counter in such a way as to invite the customer to verify the amount of change demonstrates transparency.

3. **Conflict of Interest**

A conflict of interest (COI) occurs when an individual or organization is involved in multiple interests, one of which could *possibly* corrupt the motivation for an act in the other. The presence of a conflict of interest is independent from the execution of impropriety. Therefore, a conflict of interest can be discovered and voluntarily defused before any corruption occurs.

Ways to mitigate conflicts of interests

Removal

The best way to handle conflicts of interests is to avoid them entirely. For example, someone elected to political office might sell all corporate stocks that they own before taking office, and resign from all corporate boards. Or that person could move their corporate stocks to a special trust, which would be authorized to buy and sell without disclosure to the owner. (This is

referred to as a "blind trust".) With such a trust, since the politician does not know in which companies they have investments, there should be no temptation to act to their advantage.

Disclosure

Commonly, politicians and high-ranking government officials are required to disclose financial information - assets such as stock, debts such as loans, and/or corporate positions held, typically annually. To protect privacy (to some extent), financial figures are often disclosed in ranges such as "$100,000 to $500,000" and "over $2,000,000".

Certain professionals are required either by rules related to their professional organization, or by statute, to disclose any actual or potential conflicts of interest. In some instances, the failure to provide full disclosure is a crime.

Recusal

Those with a conflict of interest are expected to recuse themselves from (i.e., abstain from) decisions where such a conflict exists. The imperative for recusal varies depending upon the circumstance and profession, either as common sense ethics, codified ethics, or by statute. For example, if the governing board of a government agency is considering hiring a consulting firm for some task, and one firm being considered has, as a partner, a close relative of one of the board's members, then that board member should not vote on which firm is to be selected. In fact, to minimize any conflict, the board member should not participate in any way in the decision, including discussions.

Judges are supposed to recuse themselves from cases when personal conflicts of interest may arise. For example, if a judge has participated in a case previously in some other judicial role he/she is not allowed to try that case. Recusal is also expected when one of the lawyers in a case might be a close personal friend, or when the outcome of the case might affect the judge directly, such as whether a car maker is obliged to recall a model that a judge drives. This is required by law under Continental civil law systems and by the Rome Statute, organic law of the International Criminal Court.

Third-party evaluations

Consider a situation where the owner of a majority of a publicly held corporation decides to buy out the minority shareholders and take the corporation private. What is a fair price? Obviously it is improper (and, typically, illegal) for the majority owner to simply state a price and then have the (majority-controlled) board of directors approve that price. What is typically done is to hire an independent firm (a third party), well-qualified to evaluate such matters, to calculate a "fair price", which is then voted on by the minority shareholders.

Third-party evaluations may also be used as proof that transactions were, in fact, fair ("arm's-length"). For example, a corporation that leases an office building that is owned by the CEO might get an independent evaluation showing what the market rate is for such leases in the locale, to address the conflict of interest that exists between the fiduciary duty of the CEO (to the stockholders, by getting the lowest rent possible) and the personal interest of that CEO (to maximize the income that the CEO gets from owning that office building by getting the highest rent possible). conclusion Generally, forbid conflicts of interests. Often, however, the specifics can be controversial. Should therapists, such as psychiatrists, be allowed to have extra-professional relations with patients, or ex-patients? Should a faculty member be allowed

to have an extra-professional relationship with a student, and should that depend on whether the student is in a class of, or being advised by, the faculty member?
Codes of ethics help to minimize problems with conflicts of interests because they can spell out the extent to which such conflicts should be avoided, and what the parties should do where such conflicts are permitted by a code of ethics (disclosure, recusal, etc.). Thus, professionals cannot claim that they were unaware that their improper behavior was unethical. As importantly, the threat of disciplinary action (for example, a lawyer being disbarred) helps to minimize unacceptable conflicts or improper acts when a conflict is unavoidable.

As codes of ethics cannot cover all situations, some governments have established an office of the ethics commissioner. Ethics commissioner should be appointed by the legislature and should report to the legislature.

4. **Secrecy and confidentiality**
Confidentiality is an ethical principle associated with several professions (e.g., medicine, law, psychotherapy). In ethics, and (in some places) in law and alternative forms of legal resolution such as mediation, some types of communication between a person and one of these professionals are "privileged" and may not be discussed or divulged to third parties.
Confidentiality of information, enforced in an adaptation of the military's classic "need to know" principle, forms the cornerstone of information security in today's corporations. The so called 'confidentiality bubble' restricts information flows, with both positive and negative consequences.

5. **Work Ethics**
Work ethic is a set of values based on hard work and diligence. It is also a belief in the moral benefit of work and its ability to enhance character. An example would be the Protestant work ethic. A work ethic may include being reliable, having initiative, or pursuing new skills.
Workers exhibiting a good work ethic in theory should be selected for better positions, more responsibility and ultimately promotion. Workers who fail to exhibit a good work ethic may be regarded as failing to provide fair value for the wage the employer is paying them and should not be promoted or placed in positions of greater responsibility.

Criticisms of work Ethics
Slacker and hippie cultures, as well as hackers, have challenged these values in recent times, characterizing them as submissive to authority and convention, and not valuable in and of themselves, but only if it brings a positive result. An alternative perspective has arisen in recent years, suggesting that the work ethic is being subverted in a broader, more mainstream and more readily marketed-to proportion of society. This perspective has given rise to the phrase "work smart".

In the 19th century, the Arts and Crafts movement of William Morris in the UK and Elbert Hubbard in the US noted how "alienation" of workers from ownership of the tools of production and their work product was destructive of the work ethic because in the expanding firms of that era, the workers saw no point in doing more than the minimum.

The industrial engineer Frederick Winslow Taylor revised the notion of work ethic to include giving up control over the work process to management so that the latter could study and "rationalize" the work process, and the notion of work ethic thereafter included acknowledgment of management control.

Marxists, and some non-Marxist sociologists, think "work ethic" is not a useful sociological concept. They argue having a "work ethic" in excess of management's control doesn't appear rational in any mature industry where the employee can't rationally hope to become more than a manager whose fate still depends on the owner's decisions.

Principles in Business Ethics

Business ethics (also **corporate ethics**) is a form of applied ethics or professional ethics that examines ethical principles and moral or ethical problems that arise in a business environment. It applies to all aspects of business conduct and is relevant to the conduct of individuals and entire organizations.

Business ethics has both normative and descriptive dimensions. As a corporate practice and a career specialization, the field is primarily normative. Academics attempting to understand business behavior employ descriptive methods. The range and quantity of business ethical issues reflects the interaction of profit-maximizing behavior with non-economic concerns. Interest in business ethics accelerated dramatically during the 1980s and 1990s, both within major corporations and within academia. For example, today most major corporations promote their commitment to non-economic values under headings such as ethics codes and social responsibility charters. Adam Smith said, "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."[1] Governments use laws and regulations to point business behavior in what they perceive to be beneficial directions. Ethics implicitly regulates areas and details of behavior that lie beyond governmental control. The emergence of large corporations with limited relationships and sensitivity to the communities in which they operate accelerated the development of formal ethics regimes.

Twelve Ethical Principles for Business Executives

Ethical values, translated into active language establishing standards or rules describing the kind of behavior an ethical person should and should not engage in, are ethical principles. The following list of principles incorporates the characteristics and values that most people associate with ethical behavior. Ethical decision making systematically considers these principles.

HONESTY. Ethical executives are honest and truthful in all their dealings and they do not deliberately mislead or deceive others by misrepresentations, overstatements, partial truths, selective omissions, or any other means.

INTEGRITY. Ethical executives demonstrate personal integrity and the courage of their convictions by doing what they think is right even when there is great pressure to do otherwise; they are principled, honorable and upright; they will fight for their beliefs. They will not sacrifice principle for expediency, be hypocritical, or unscrupulous.

PROMISE-KEEPING & TRUSTWORTHINESS. Ethical executives are worthy of trust. They are candid and forthcoming in supplying relevant information and correcting misapprehensions of fact, and they make every reasonable effort to fulfill the letter and spirit of their promises and commitments. They do not interpret agreements in an unreasonably technical or legalistic manner in order to rationalize non-compliance or create justifications for escaping their commitments.

LOYALTY. Ethical executives are worthy of trust, demonstrate fidelity and loyalty to persons and institutions by friendship in adversity, support and devotion to duty; they do not use or disclose information learned in confidence for personal advantage. They safeguard the ability to make independent professional judgments by scrupulously avoiding undue influences and conflicts of interest. They are loyal to their companies and colleagues and if they decide to accept other employment, they provide reasonable notice, respect the proprietary information of their former employer, and refuse to engage in any activities that take undue advantage of their previous positions.

FAIRNESS. Ethical executives and fair and just in all dealings; they do not exercise power arbitrarily, and do not use overreaching nor indecent means to gain or maintain any advantage nor take undue advantage of another's mistakes or difficulties. Fair persons manifest a commitment to justice, the equal treatment of individuals, tolerance for and acceptance of diversity, the they are open-minded; they are willing to admit they are wrong and, where appropriate, change their positions and beliefs.

CONCERN FOR OTHERS. Ethical executives are caring, compassionate, benevolent and kind; they like the Golden Rule, help those in need, and seek to accomplish their business objectives in a manner that causes the least harm and the greatest positive good.

RESPECT FOR OTHERS. Ethical executives demonstrate respect for the human dignity, autonomy, privacy, rights, and interests of all those who have a stake in their decisions; they are courteous and treat all people with equal respect and dignity regardless of sex, race or national origin.

LAW ABIDING. Ethical executives abide by laws, rules and regulations relating to their business activities.

COMMITMENT TO EXCELLENCE. Ethical executives pursue excellence in performing their duties, are well informed and prepared, and constantly endeavor to increase their proficiency in all areas of responsibility.

LEADERSHIP. Ethical executives are conscious of the responsibilities and opportunities of their position of leadership and seek to be positive ethical role models by their own conduct and by helping to create an environment in which principled reasoning and ethical decision making are highly prized.

REPUTATION AND MORALE. Ethical executives seek to protect and build the company's good reputation and the morale of it's employees by engaging in no conduct that might undermine respect and by taking whatever actions are necessary to correct or prevent inappropriate conduct of others.

ACCOUNTABILITY. Ethical executives acknowledge and accept personal accountability for the ethical quality of their decisions and omissions to themselves, their colleagues, their companies, and their communities.

Tools of Ethics

1. **value system** is a set of consistent ethic values (more specifically the personal and cultural values) and measures used for the purpose of ethical or ideological integrity. A well-defined *value system* is a moral code.

2. **Morality** (from the Latin *moralitas* "manner, character, proper behavior") is the differentiation of intentions, decisions, and actions between those that are good (or right) and those that are bad (or wrong). A *moral code* is a system of morality (for example, according to a particular philosophy, religion, culture, etc.) and a *moral* is any one practice or teaching within a moral code. The adjective *moral* is synonymous with "good" or "right." *Immorality* is the active opposition to morality (i.e. good or right), while *amorality* is variously defined as an unawareness of, indifference toward, or disbelief in any set of moral standards or principles.

3. An **interpersonal relationship** is an association between two or more people that may range from fleeting to enduring. This association may be based on inference, love, solidarity, regular business interactions, or some other type of social commitment. Interpersonal relationships are formed in the context of social, cultural and other influences. The context can vary from family or kinship relations, friendship, marriage, relations with associates, work, clubs, neighborhoods, and places of worship. They may be regulated by law, custom, or mutual agreement, and are the basis of social groups and society as a whole.A relationship is normally viewed as a connection between two individuals, such as a romantic or intimate relationship, or a parent–child relationship. Individuals can also have relationships with groups of people, such as the relation between a pastor and his congregation, an uncle and a family, or a mayor and a town. Finally, groups or even nations may have relations with each other, though this is a much broader domain than that covered under the topic of interpersonal relationships. See such articles as international relations for more information on associations between groups. Most scholarly work on relationships focuses on the small subset of interpersonal relationships involving romantic partners in pairs or dyads.

WHY THE ETHICS CHALLENGE?

The newspapers (and our blog) are full of unethical politicians; the sports pages full of rule-breaking players and parents; the business news full of sleazy companies and greedy CEOs; the education pages full of students who cheat on exams. Perhaps you

really do have to cheat to win. Perhaps you need to shade the truth to get ahead. Good people hear that "everybody does it," and wonder.

Read *THE ETHICS CHALLENGE: Strengthening Your Integrity in a Greedy World* and wonder no more. This breezy, story-filled guide to becoming a more ethical person explains why ethical behavior is a winning strategy, then lays out six things everyone can do to keep strong and to follow their good intentions:

Embrace your purpose: Clarity of purpose leads to clarity of conduct. If you're not clear about your non-negotiable values you'll be unclear when faced with ethical uncertainty.

Test your excuses: "It's not my fault." "I didn't have time." Everybody else was doing it." It is human nature to make excuses, but our excuses deprive us of the opportunity to learn from our mistakes. Two minutes of brutal honesty can save months of regret.

Harness your moods: It's easy, especially in pressure situations, to let our moods master us. The more pressure we are under, the more likely we are to violate our own sense of what's right. First be aware of our moods, especially under pressure. Then harness them.

Insist on integrity: Everyone has an integrity gap—the distance between what we say we believe and how we actually behave. The key is to continually be growing in integrity so that the gap lessens and our beliefs and our behaviors come closer to alignment. The successful person is intentional about closing the integrity gap. ***C***ultivate trust: Act in a trustworthy way and trust others to do the same—until you have a good reason not to. The Golden Rule applies in the area of trust as well. ***S***elf-differentiate: Self-differentiation is clarity about who you are as distinct from those to whom you're connected. Failure to self-differentiate promotes group-think, the careless willingness to let the group do your thinking for you. Don't ignore the group, but be aware enough to know where the group ends and we begin.

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FUNDAMENTALS OF ACCOUNTING

PAPER CODES: **APD(PA 101, LPS 103, BA 101, HR 102, PM 101, FA 101)**

QN.1. (a) With a relevant example and an illustration, explain the accounting Equation

(b) Discuss the various fundamental accounting principles.

c) Discuss the different roles/purposes of accounting

QN.2. a) Describe the stages in the accounting cycle/ process

b) With a relevant example and an illustration, explain the accounting Equation

c) Discuss the different accountability methods

QN.3. a) Clearly discuss the users of accounting information showing the purpose for which they need it.

b) From the following accounting information;

Okwanga and Sons co Ltd made the following purchases and sales of stock item C12 during May 2017:

May 10th Purchased 300 units at SSP.5,000/= each
May 15th Sold 250 units at SSP.10,000/= each
May 17th Purchased 100 units at SSP. 6000/= each
May 27th Sold 90 units at SSP. 11,000/= each
The opening stock was 25 Units at SSP. 4,000/= each

Required : (a) Compute the gross profit using FIFO, LIFO and AVCO bases

(c) Suppose that a physical check on item C12 at end of May revealed 830 Units. What factors might account for the difference?

ECONOMICS THEORY

PAPER CODES: **APD(PA 103, SW 102, LPS 102, IR 102, BA 102, HR 103, PM 102, FA 102)**

1. a) Economics is both an art and science .Discuss this statement by giving relevant examples.
   b) With examples explain the basic principles of Economics.
   c) Scarcity, choice and opportunity cost go hand in hand simultaneously. Discuss.

2. a) Explain with a well labelled diagram the term price mechanism
   b) Discuss different economic systems that you are well vast with.
   c) What are advantages and disadvantages socialistic economy.

3. a) With a well labelled diagram distinguish between change in quantity supplied and change in supply.
   b) Discuss the factors that affect the supply of a product.
   c) Discuss some of the factors that affect the production process.

COMPUTER THEORY

PAPER CODES: **APD(PA 103, SW 104, LPS 104, IR 104, BA 104, HR 104, PM 103, FA 104)**

1. a) Discuss the merits and demerits of using computer systems.
   c) Discuss the features of good information.

2. a) Discuss different components of a computer.
   b) Discuss some of the forms of data communication.
   c) Explain the good qualities good data communication.

5. a) With examples explain different types of net working.
   b) Discuss the functions of operating systems.
   c) Discuss different types of net works you know.

PRINCIPLES OF MANAGEMENT

PAPER CODES: **APD PA105 PM 104**

1. a) Identify and explain the functions of a manager.
   b) Discuss the differences between management and administration.
   c) Describe the different managerial levels and hierarchy giving the characteristics / functions of each.

2. (a) Management is both Art and science discuss.
   (b) Explain the leadership styles, show how each of them is applicable to an organisation?
   (c) Outline and explain the qualities of a good manager

3. a) With examples, what are resources?
   b) Discuss different type of resources needed by managers in the organisation
   (c) How can labour productivity be improved?

BUSINESS ETHICS

PAPER CODES: **APDLPS 105, APDBA 105, APDHR 105, APDPM 105, APDFA 105**

1. a) " The principles of the principal affects the organization". Explain the above statement in regards to professional ethics)
   c) Why do you think it is very important to study professional ethics as a course unit?

3. a) How has integrity affected business?
   b) With examples outline and discuss the branches of business ethics.

5. a) Mention some of the areas in your society where professionalism should be paramount
   b) What are some of the factors that cause moral decadence in the society?
   c) What are some of the effects of moral decay?