WEEK 1 **Revision of last term's work**

WEEK 2

TOPIC: INFORMATION EVOLUTION

OBJECTIVES

At the end of the topic, students should be able to:

- List stages of information evolution;
- Describe what happens during each stage.

SUBTOPIC 1: DEFINITION

Information passes through different stages of development. These stages of development of information are called information evolution.

SUB-TOPIC 2: Stages of Information Evolution:

The various stages of information evolution are:

1. Invention of language;
2. Invention of writing;
3. Invention of printing;
4. Invention of mass media;
5. Invention of computer;
6. Link-up of computers with communication.

Invention of Language:

The earliest form of communication of information was facilitated by the invention of human languages through vocal expressions. Man could express his ideas or intentions in words.

Invention of Writing:

The earliest form of writing is attributed to the Sumerians who lived in Mesopotamia about 3000BC. Their writing was embossed in clay tablets using special pens. Later civilizations began to record their ideas in writing on special paper made from reed called papyrus, also on specially dried animal skins called parchments and finally on papers we have today.

Invention of Printing:

Printing involves the use of machine to impress on paper specially made ink. Before the advent of printing machine, all documents were written in long hand. Even books were hand written by commercial writers called scribes. This was not only cumbersome but prone to errors.

Even getting simple duplicate of a document involved writing the whole document all over again. These problems led to the invention of a printing machine (by **Johannes Gutenberg)** which reduced the problem of multiple reproductions of documents and labour expended long hand.

Invention of Mass Media:

This has made radio and television stations to broadcast through radio waves, large volumes of information to reach a wider audience.

Invention of the Computer

The invention of the computer has brought a complete overhaul of the information processing system. A computer is capable of accepting large volumes of information, process the information and even store it permanently until it is needed, it has the capacity to handle complex information.

Link-up of computer with communication:

This is the age of information evolution. Several computers are linked with communication equipment to handle massive volumes of information transmission. The link-up of computer with communication to share resources is called Information and Communication Technology (ICT).

WEEK 3

TOPIC: DATA PROCESSING:

Introduction: For data to serve any useful purpose, it has to undergo some processes. These processes are considered in this module.

Aim and Objectives:

At the end of this topic students should be able to:

- Define data processing;
- State the stages of data processing;
- Describe what each stage entails.

SUBTOPIC 1: Definition of Data Processing:

Data Processing is a series of operations performed especially by a computer on data to transform, classify and retrieve information. It can also be defined as a series of operations that are carried out on data, especially by computers, in order to present, interpret or retrieve information.

SUBTOPIC 2: Data Processing Cycle:

Data Processing Cycle can be likened to a manufacturing process; in manufacturing process, raw materials are processed or made into finished product. We may consider the raw materials as the 'input' to the processing machine, while the finished product is considered as the 'output'. In data processing, data are raw materials we input in the computer while the output is usually a printed report or an updated file containing data that have been processed or manipulated in some way.

The cycle of data processing are:

- Data gathering;
- Data collation;
- Input;
- Processing;
- Storage;
- Output.

Data gathering: involves collecting data in its raw form.

Data collation: involves assembling that in its proper numerical or logical sequence. This stage also involves checking whether the data being processed are in their exact and complete form.

Input: is the stage where by data are entered into the computer through the keyboard, the mouse, the scanner or digitiser.

Processing: in the processing stage data are manipulated and transformed into a desirable form through execution of programs or instructions given to the computer. Many software programs are available for processing large volumes of data within very short periods.

Storage: is a stage in the processing cycle where by data instructions and information are held for future use. This allows quick access and retrieval of the processed information allowing it to be passed on the next stage directly when needed.

Output: is the stage is the stage where processed information is transmitted to the user. Output is usually presented to the user in various report formats like printed report, audio, video or monitor. Output needs to be analysed and interpreted so as to provide meaningful information that will guide future decision makers.