

UNIT - II

COMPUTER IN ACCOUNTANCY

Meaning of Computers : A computer is an electronic device, which is capable of performing a variety of operations as directed by a set of instructions. This set of instructions is called a computer programme.

Elements of Computer System

A computer system is a combination of six elements :

1. Hardware
2. Software
3. People
4. Procedure
5. Data
6. Connectivity.

1. Hardware : Hardware of computers consists of physical components such as keyboard, mouse, monitor, processor etc. These are electronic and electromechanical components.

2. Software : In order to solve a particular problem with the help of computers, a sequence of instructions written in proper language will have to be feed into the computers. A set of such instructions is called a 'Program' and the set of programs is called 'Software'.

For example, a computer by feeding a particular software can be used to prepare pay-roll, whereas by feeding a second software it can be used to prepare accounts, by feeding a third software it can be used for inventory control and so on.

3. People : People are basically those individuals who use hardware and software to develop, maintain and use the information system residing in the computer memory. They constitute the most important part of the Computer System. The main categories of people involved with the computer system are :

- (a) System Analysis
- (b) Operators
- (c) Programmers.

4. Procedures : The Procedure means a series of operations in a certain order or manner to achieve desired results. These are of three types :

- (a) **Software-oriented**— provides a set of instructions required for using the software of a computer system.

(b) **Hardware - Oriented** – Provides details about the components and their methods of operations.

(c) **Internal Procedure** – Helps to ensure smooth flow of data to computers sequencing the operations of each sub-system of over all computer system.

5. Data : These are the facts (may consist of numbers, text etc) gathered and entered into a computer system. The computer system in turn stores, retrieves, classifies, organises and synthesises the data to produce information when desired.

Examples – (1) Bio-data of various applicants when the computer is used for recruitment of staff.

(2) Marks obtained by various students in various subjects when the computer is used to prepare results.

6. Connectivity : The manner in which a particular computer system is connected to others (say through telephone lines, microwave transmission-satellite link etc) is called element of connectivity.

Features or Advantages of Computer System

A Computer system possesses the following advantages in comparison of human beings:

1. High Speed – Computers are known for their lightning speed of operations and require less time in comparison to human beings in performing a task. Most of modern computers perform millions of operations in one second.

2. Accuracy – Computers are extremely accurate. Their operations are error-free and as such the information obtained from it is highly reliable. But sometimes errors occur due to bad programming or inaccurate data feeding. In computer terminology, it is referred to as Garbage in, garbage out (GIGO).

3. Reliability – Its reliability refers to the ability with which a computer remains functional to serve the user. Unlike human beings, these are immune to tiredness, boredom or fatigue, and can perform jobs of repetitive nature any number of times.

4. Versatility – It refers to the ability of computers to perform a variety of tasks. It can switch over from one programme to another. The same computer can be used for accounting work, stock control, sales analysis and even for playing games by the use of different softwares.

5. Storage – Memory or Storage capacity of a computer is so large that it can store any volume of information or data. Such data can be stored in it on magnetic discs, Floppy discs, punched cards or microfilms etc. The information stored can be recalled at any time and also correction can be done within no time.

Limitations – In spite of so many qualities, computers suffer from the following limitations.

- (1) **Lack of Common sense** – Since computer work according to the stored programmes, they simply lack of common sense.
- (2) **Zero I.Q** – Computers are dumb devices with zero Intelligence Quotient (IQ). They can't visualize and think what exactly to do under a particular situation unless they are programmed to tackle that situation.
- (3) **Lack of Feeling** – Computers lack feelings like human beings because they are machines. No computer passes the equivalent of a human heart and soul.
- (4) **Lack of Decision-making** – Decision making is a complex process involving information, knowledge, intelligence, wisdom & ability to judge, Computers cannot make decisions of their own.

Some more limitations related to computerised System in Accounting

(1) **High cost of Training** – Besides the high cost of computer system, huge money is required to get the trained specialised staff to ensure efficient and effective use of computerised systems.

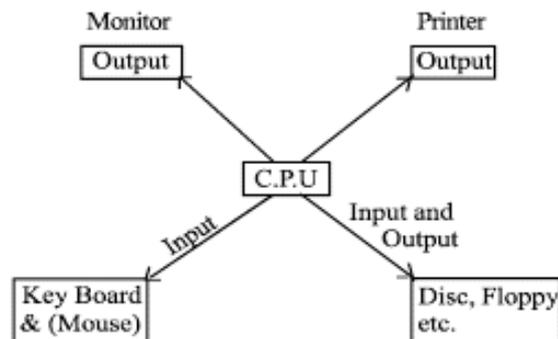
(2) **Danger of System Failure** – The danger of system crashing due to hardware failures and the subsequent loss of work is a serious limitation of this system.

(3) **Staff opposition** – Whenever the Accounting System is computerised, there is a significant degree of resistance from the existing staff because of the fear that they shall be less important to the organisation.

(4) **Disruption** – The accounting process suffer a significant loss of work and time when an organisation switches over to this system. This is due to the changes in the working environment that requires accounting staff to adapt to new system and procedures.

COMPONENTS OF COMPUTERS

The functional components consists of Input Unit, Central Processing Unit (CPU) and the out Unit related as follows :



(1) **Input Unit** : It is for entering the data into the computer system. Keyboard and Mouse are the most commonly used input devices. Other such devices are magnetic tapes, disc, light pen, optical scanner, smart card reader etc. Besides there are some devices which respond to voice and physical touch.

(2) **Central Processing Unit (CPU)** : It is the main part of computer hardware that actually processes the data according to the instructions it receives. It has three units :

(a) **Arithmetic and Logic Unit (ALU)** : Responsible for performing all the arithmetic calculations such as addition, subtraction etc and logical operations involving comparison among variables.

(b) **Memory Unit** : For storing the data.

(c) **Control Unit** : Responsible for controlling and co-ordinating the activities of all other units of the computer system.

(3) **Output Unit** : After processing the data, the information produced is required in human readable and understandable form. Output devices perform this function. The commonly used devices are monitor, printer, graphic plotter (external) and magnetic stage devices (internal). A new device which is capable of producing verbal output that sound in human speech is also developed.

Features of Computerised Accounting System

Computerised accounting system is based on the concept of database. This system offers the following features :

- (1) Online input and storage of accounting data.
- (2) Printout of purchase and sales invoices.
- (3) Every account and transaction is assigned a unique code.
- (4) Grouping of accounts is done from the beginning.
- (5) Instant reports for management, for example : Stock statement, Trial Balance, Income Statement, Balance Sheet, Payroll Reports, Tax Reports etc.

DATA BASE MANAGEMENT SYSTEM (DBMS)

Meaning of Data Base : A data base is a collection of related data that is stored in a system. This data is stored in such a way that it can be updated, modified or retrieved as and when required.

Meaning of DBMS : It is a computerized Record keeping system (software) that allows access to data contained in a database. The DBMS makes possible to share the data in the database among multiple users.

Advantages of DBMS – Following are some of the advantages of DBMS :

1. It helps in effective and efficient management of data.
2. Better data provided by DBMS help to generate better information and reports.
3. It ensures rapid access to all stored data needed at any time which is updated from time to time ensuring better decision making.
4. It is easy to understand and user friendly.
5. It helps in quick answering of queries.
6. It helps in ensuring data security and integrity.

Uses or Functions of DBMS in Accounting System

Some of the functions of DBMS in a Business are :

- (1) **Data Storage Management :** It stores a variety of data, reports, etc. related to accounting system.

- (2) **Data Dictionary Management** : The data dictionary is automatically updated in case of any modification the data base. Hence there is no need to modify all the programs.
- (3) **Security Management** : Since many people uses the same data base, the DBMS ensures Security and privacy within the data base by the establishment of security rules.
- (4) **Backup and Recovery Management** : DBMS ensures the data safety and integrity by providing adequate backup and data recovery procedures.
- (5) **Data base Communication Interfaces** : It provides the facility of faster communication by the use of internet. The users can publish their reports on internet, can send e-mails and find answers to their queries by exploring the websites.

Accounting Softwares

(1) Readymade Softwares :

Readymade Software are the software that are developed not for any specific user but for the users in general. Some of the readymade softwares available are Tally, Ex, Busy, Such softwares are economical and ready to use. such softwares do not fulfill the requirement of very user.

(2) Customised Software :

Customised software means **modifying the readymade softwares to suit the specific requirements of the user.** Readymade softwares are modified according to the need of the business. Cost of installation, maintenance and training is relatively higher than that of readymade user. There packages are used by those medium or large business enterprises in which financial transactions are some what peculiar in nature.

(3) Tailor-made Software :

The softwares that are developed to meet the requirement of the user on the basis of discussion between the user and developers. Such softwares help in maintaining effective management information system. The cost of these softwares in very high and specific training for using these packages is also required.