

# **COMPUTER APPLICATION - LECTURE NOTES**

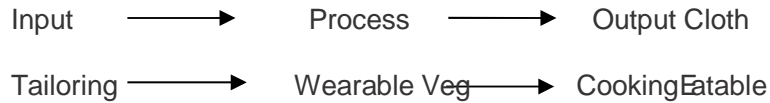
**BBA/B.COM (II SEM-1 YEAR)**

**PROFESSIONAL COMMUNICATION SKILLS  
(FACULTY OF COMMERCE AND MANAGEMENT)**

### Q.1 What is Computer? Explain its Characteristics and Limitations?

**Ans. Definition:** – A computer is a fast electronic device, processing the Input data according to the Instructions given by the Programmer/User and provides the desired information as an output.

The word 'Computer' is basically derived from the word 'computer', which means to calculate something. But in today's scenario if we told that computer is just a calculation machine, it is not true. We can do a lot more than calculation. Let's take few examples — Your Bio-Data, Examination Records, Admission Register, Airlines and Rail Reservation etc. In all these cases you will find apart from just calculation the computer is managing information and data. So, Computer is electronic devices (Machine) which accept our data, process them and gave output.



#### Terminology used in Definition of Computer: –

- Ø Data:– Collection of facts or figures.
- Ø Information:– Processed data is known Information. Data and instructions given to computer. Manipulation of data.
- Ø Input:–
- Ø Process:–
- Ø Output:– Information obtained after processing of data

## Characteristics of Computer: -

(1) **Speed:** - A computer is very fast device. It can perform large amount of work in a few seconds. Where human being worked a particular work for whole day, computer does the same in very short time. Today, computers can perform 100 million computations in one second. The speed of computers are measured in terms of microseconds, Nano seconds and even in Pico seconds.

Where 1 second= $10^6$  micro second

= $10^9$  nano second

= $10^{12}$  Pico second

- (2) **Accuracy:** – The computer is 100% accurate and capable to perform arithmetical calculation and logic operations with the same accuracy. It can never make mistakes. All mistakes are done by users. The cause of errors may be due to inaccurate feeding data or due to wrong setting of the programmer. The accuracy of a computer is Illustrated well by the term GIGO; i.e. Garbage In Garbage Out, which means if faulty instruction are provided for processing the data, obviously wrong answer will be given.
- (3) **Diligence:** – A computer can operate twenty-four hours continuously without taking any rest. It has no feelings or no emotions, if you work continuously for 3 hours, you feel lack of concentrate but a computer is free from these and you will get the result you want with the same speed and same accuracy.
- (4) **Versatility:** – Versatility is one of the most wonderful features about the computer. One moment, it is preparing the results of a particular examination, the next moment it is busy in preparing electricity bills, and in between it may be helping an office secretary to trace an important letter in seconds. It can do multiple works at a same time. It also used in data processing jobs, weather fore casting, ticket reservation purpose, multimedia designing, animations, accountancy etc.
- (5) **High Memory:** – computer has made more memory or storage capacity than human beings. It can store millions of data and instructions, which can be retrieved and recalled even after a number of years. This is not possible in case of human brain.
- (6) **Automation:** – Computers are automatic in operation. It means once the data and instructions are fed to a computer, human interventions are not required. The computers manipulate the data according to the instructions and continue doing so till the last instruction is executed.
- (7) **Superiority of Manufacture:** – Computer hardware is manufactured with the best materials by the most sophisticated processor. It has superiority of manufacture as compared to other machines.
- (8) **Reduce the Paper Work:** – Computer solved the problem of using excess paper. It simplifies the statement “Save Paper, Save Tree”.
- (9) **Solve Complete Problems:** – Computer solved those problems which are not solved by human being computer solved the computer solved the problems in seconds.

## Limitations of Computer: -

The main limitations of computers are as follows: –

**Dependency:** – Fully Dependent upon human beings.

**Lack of Intelligence:** – Computers do not have their own Intelligence and hence cannot think for example, a computer can create music but cannot tell its quality. In other words, computer has no brain.

**Lack of Detecting Errors:** – Computer can detect only syntax error; it cannot detect flaw or error in logic.

**Lack of Capability** :– It has no Capability to take any decision by itself, like a human being, it cannot judge by itself for any valid or non-valid data.

**No I.Q. :-** A computer is not a magical device. It can only perform tasks that a human being can. The difference is that it performs these tasks with unthinkable speed and accuracy. It possesses no intelligence of its own. Its I.Q. is zero, at least today. A computer cannot take its own decision in this regard.

**No Feelings** :– Computers have no feelings and no emotion because they are machine.

**Lack of Creativity and imagination:** – It does not have intuition and cannot draw

conclusion without going through all the intermediate steps.

**Experience** :– Computers don't learn from experience.

**Q.2 What is Computer? What are various Applications of Computer?**

Or

**What is Computer? What is the scope or impact of computer in business application?**

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## **Application of Computer in Business**

Computers have completely altered the structure of business. Large volumes of accounting and record keeping data can be manipulated, organized, stored, retrieved and used for specific purposes. Bills and statements can be processed and sent to customers in much less time and much less effort than would be required for doing the same process manually. Financial projections are made with greater ease. Planning and decision making thus become more efficient and accurate.

In manufacturing industries, computers direct production, guide machine tools, control quality design parts and monitor inventory levels. Modern banking would be impossible without computers. In modern offices, word processing saves time for people at all levels in organization and helps ensure more accurate letters, reports and memos.

### **Scope of Computers in Business offices : – (1) Personal**

#### **Management**

- Manpower Planning
- Human Resource Development
- Selection and Recruitment
- Compensation and benefits
- Skill Inventory Management
- Establishment and Personnel records
- Placement Modules
- Training and development
- Career Planning/Promotion

#### **(2) Financial Management**

- Invoicing, Sales Ledgers and Statements
- Stock Control and Evaluations
- Payroll, Pay slips, Tax Statement
- Purchase Ledger
- Credit Control
- Sales and Purchase Ledger Analysis
- Budgetary Control
- Cost accounting, Job costs, Standard costs, Work in Progress, Labors registers
- Asset Registers
- Hire Purchase Records

#### **(3) Office Management**

- Budget
- Annual Reports
- Production Schedules
- Loan Analysis
- Graphic Trends
- Managing Reports, Directories, Catalog's, Bulletins, Letters, Memos

**(4) Material Management**

- To Minimize Inventories
- Material Planning/Specifications

**(5) Purchasing Management**

- Calling Tenders
- Comparing Tenders
- Supplies Evaluation
- Placing Orders/Recorders

**(6) Marketing Management**

- Demand forecasting
- Sales Management
- Consumer behavior
- Channels of Distribution
- Pricing decisions
- Market Research
- Transport Analysis
- Advertising Strategies
- Product Mix
- Planning and Control of sales

**Q.3 What is Computer? Describe the functioning of computer with its block diagram?**

**Ans. Definition :-** A computer is a fast electronic device, processing the Input data according to the Instructions given by the Programmer/User and provides the desired information as an output.

Or

The word 'Computer' is basically derived from the word 'compute', which means to calculate something. But in today's scenario if we told that computer is just a calculation machine, it is not true. We can do a lot more than calculation. Let's take few examples – Your Bio-Data, Examination Records, Admission Register, Airlines and Rail Reservation etc. In all these cases you will find apart from just calculation the computer is managing information and data. So, Computer is electronic devices (machine) which accept our data, process them and gave output.

A computer System is defined as a set of interacting elements, responding to inputs so as to produce outputs. The computer system also consists of the following elements.

√ Hardware

- Ø C.P.U (Central Processing Unit)
- Ø Input Devices
- Ø Output Devices
- Ø Storage Devices

√ Software

- Ø System Software
- Ø Application Software
- Ø Utility Software

√ Human ware

- Ø Trained Computer Professionals

**Hardware:-** Hardware refers to all the physical parts and components of the computer.

Ø **Central Processing Unit :-** The Central Processing Unit (CPU) or Microprocessor is the heart of the computer, where all the processing of the data is carried out. The data and instructions that are entered into the computer system are fed into the CPU before the final results are displayed on the Output Unit. The CPU stores the data and instructions, does all the calculations and problem solving, and also controls the

functions of all other units.

The components of the CPU are as follows:

- (1) **Memory Unit or Storage Unit**
- (2) **Arithmetic & Logical Unit (ALU)** (3) **Control Unit**

- (1) **Memory Unit or Storage Unit :-** The data and instructions that are entered into the computer system through input units have to be stored inside the computer before the actual processing starts. Similarly, the results produced by the computer after processing must also be kept somewhere inside the computer system before being passed on to the output units. It provides space for storing data and instructions, space for intermediate results, and also space for the final results.

**In short, the specific functions of the storage unit are hold (store) :**

1. All the data to be processed and the instructions required for processing (received from input devices).
2. Intermediate results of processing.
3. Final result of processing these results are released to an output device.

- (2) **Arithmetic Logic Unit (A.L.U) :-** This unit performs all the basic arithmetic operations like addition, subtraction, multiplication, division and also logical operations such as comparison of numbers etc. The ALU is responsible for actual execution of instructions during processing operation. The data and instructions that are stored in memory unit are transferred into ALU for processing when needed and transferred back to memory when processing is over. After the completion of processing, the final results are stored in memory before sent to the output unit. ALU also consist a number of small storage locations termed as registers. This register is of very small capacity and contains the data and instructions which are to be executed next.

**Following are the main functions of ALU :-**

- (1) It operates on data available in main memory.
- (2) It carries out all arithmetic operations like addition, subtraction, multiplication and division.
- (3) It carries out all logic operations like comparison, selection and merging of data
- (4) After processing the data, it sends back the processed data to main memory.

- (3) **Control Unit :-** The control Unit in every computer is the supervising element. It does not perform any processing but acts as a central control system for all other components of a computer system. This unit maintains the exact sequence in which the instructions are to be executed and directs the operations of the entire computer system. It co-ordinates all the activities of various elements of computer system skill. It is termed as heart of computer as in controls all hardware operation.

**Functions of Control Unit are :-**

- (1) It gives command to transfer data from the input device to memory and from memory to arithmetic & Logical Unit.
- (2) It transfers the results from memory to Output Unit.
- (3) It stores the program in memory, takes instruction one by one, interprets them and issue appropriate signals to the other units of computer to the other units of computer to execute them.