Assignment -1   Foc

1) The Apple Macintosh, introduced in 1984, indeed had a significant impact in sec. computer industry and was considered a game - change for several ressons, when compared to computers of earlier vesans.

* Graphical user Interface (GUI):

The Macintosh was one of the first computers to introduce a graphical user interface, which revolutionized how users interacted with computers.

* WYSIWYG (What You See Is What You Get):

The Macintosh introduced WYSIWYG editing, allowing users to see on the screen exactly how the printed output would look.

* Ease to use:

The macintosh aimed to be user - friendly and accessible to wider audience. It offered features like drag-and-drop functionality, pull-down menus, and

contextual menus.

* Mouse Input :

The macintosh popularized the use of a mouse as a standard input device. This allowed users to point, click, and interact with graphical elements on the screen, providing element on the screen, providing a more intuitive and efficient way to navigate.

* All - in - One design :

The Macintosh featured an all-in-one design, integrating the monitor, keyboard and computer components into a single unit. The compact design made it more accessible and convenient for users compared to earlier systems.

(2) Computers can be classified based on functionality and computing power into several categories.

1. **Supercomputers:**

They are the most super computers powerful able to do massive calculations.

Uses:
* Scientific research
* weather forecasting
* nuclear simulations
* intensive tasks

2. **Mainframe computers:**

→ Powerfull computers designed to handle large scale data.

Applications banking, finance, healthcare

data analysis, data storage

3. **Microcomputers**

→ have moderate computing power, falling between mainframes and personal computer

Applications: small-scale business applications.

* educational institutions   * Process control

4. Microcomputers

→ They are known as personal computers (PC)

→ Provide a wide range of computing power depending on the specific configuration.

Applications: * business   * education   * entertainment

* research   * programming   * gaming.

5. Workstations:

→ high-performance computers designed for specialized professional applications.

Applications: * Graphic design   * Video editing

* animation   * editing

* scientific research.

③

Control Unit (CU):

→ The control unit manages and coordinates the activities of the CPU.

* It interprets and decodes instructions, determines the sequence of operations, and control data flow between different CPU components.

Arithmetic Logic Unit (ALU):

→ The ALU performs arithmetic operations eg. addition, subtraction

→ Also logical operations eg. AND, OR, on data.

* Operates on binary data, manipulating bits and performing calculations based on the instructions provided by the control unit.

Registers:

→ They are small, high-speed memory locations used for temporary storage within the CPU

→ They hold data, instructions and intermediate results during processing.

Cache memory:

* It is a small but fast memory located within the CPU.

* It stores frequently accessed data and instructions to reduce the time needed to access information from the main memory.

* It operates at a higher speed that the main memory, helping to improve overall CPU performance.