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Assignment - 1

Fundamentals of Computing

1. Difference between Analog computer and Digital Computer

Analog computer	Digital Computer
1) A computer that works on continous time Signals	1) A computer that works on device time signals
2) The speed of such computers is less than of digital computers	2) The speed of digital computer is more in analog computer
3) It has very less memory and can Solve limited amount of data.	3) It has more memory hence Stores large amoud of data
4) It doesn't provide good performance	4) It provide great performance.
5) It have a computer architecture	5) It doesn't have a complex architecture.
6) It consumes more power	6) It consumes less power.

2. List the generation of computers developed in the history.

A) First generation (1946-1959)

First generation computers are made up of Vacuum tubes and their memory size is 10,000 to 20,000 characters. Its operation speed is milli seconds. They are also very big in size.

Second generation (1959-1965)

Second generation computers are made up of Transistors and their memory size is 64000 characters. and their operation speed is Micro-sec they are small in size. Better reliable.

Third generation (1965-1971)

Third generation computers are made up of Integrated chip and its memory size is upto 4 million characters. operating system is speed is nano second. These are also known as general purpose computers.

Fourth Generation (1971 - 1980)

Fourth generation computers are made up of micro processors their memory is Semi conducting memory and it Operational speed is 1 to 10 Nano second

They consume less power

Fifth generation (1980 to present)

Fifth generation computers are made up of Artificial intelligence and its memory is CMOS its operational speed is 1 to 100 Nano second

They are much more smaller than other generation computers. Very fastest computers. and very user friendly

3. Enumerate classification of Computers

A i) Based on operating Principles

Analog Computers → Functions on continously varying quantity

Applications: Electronic weighing scale, heart beat

Digital Computers → Functions on discrete numbers

Applications: Business

Hybrid Computers → Combin qualiti of both anlo g and digital computers

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2) Based on applications

→ General Purpose: Used for variety of task

→ Special Purpose: Used for particular task

3) Based on Size Capability

Micro computer : Microprocesson

Application: office, home, school

Mini computer: Multiprocessors

Applications: For storage purpose

Main Frame computers : Faster & larger

Application: Large industrie, tash

Super Computers : Powerfull.

Application: Atomic Resarch.