**ICT READING ASSIGNMNT 02**

Computer process read and write the data according to given instruction and the instruction executed by computer is called computer program. **Computer Architecture** is describe how a machine is logically organized and how the instruction and program are implemented or loaded to the computer. Basically A Hardwired computer is directly connected to the computer’s terminal without any switch network. **Evolution Of Computer** according to technology era:

**Generation Zero**: Mechanical Calculating Machines (1642 -1945),

**The First Generation**: Vacuum Tube Computers (1945 - 1953),

**The Second Generation**: Transistorized Computers (1954 - 1965),

**The Third Generation**: Integrated Circuit Computers (1965 - 1980),

**The Fourth** **Generation**: VLSI Computers (1980’s),

**The Fifth Generation**: (1985 – Present) Some computer types of this generation are; **Desktop, Laptop, Note Book** etc.

**Types Of Computer Architecture:**

**Von Neumann Architecture:** The stored program inventions is ascribed by **John Von Nuemann.** The 3 address busses (Address Bus, data Bus, Control Bus) are used for data code and instruction execution.

**Harvard Architecture:** HarvardArchitecture is used when data and code is in different memory block. Data access by one memory location and code access by different memory locations.

**The Computer Level Hierarchy:** The machines at each level execute its own particular instructions, machines at lower levels to perform tasks as required.

**Level 6: The User Level** (Program execution and user interface level.) **Level 5: High-Level Language Level** (The level with which we interact when we write programs in languages such as C, Pascal, Lisp, and Java.) **Level 4: Assembly Language Level** (Acts upon assembly language produced from Level 5, as well as instructions programmed directly at this level.) **Level 3: System Software Level** (Controls executing processes on the system.) **Level 2: Machine Level** (Also known as the Instruction Set Architecture (ISA) Level.) **Level 1: Control Level** (Control units can be micro programmed or hardwired.) **Level 0: Digital Logic Level** (Digital circuits consist of gates and wires.)

**Basic system architecture:** The processor alone is insufficient to perform any task successfully .it requires memory for program to store data INPUT AN OUTPUT DEVICES PLAY THEIR role for transfers the data between user and system

**Processor:** The processor is considered as supreme body of computer it plays it roles as centre in which all the tasks are performed .it is also known as the containing part of computer. A processor is an electronic device which perform several operations of manipulating data provided by the user. The instructions are also known as machine code.

**Memory:** Memory is used to hold data an software for the processor. They are certain types of memories an have differ functions several types of memories will be described below.

**RAM:** Random accesses memory is generally volatile. It losses it contents when the system losses power.

**SRAM:** Sram uses fair of logic gates to hold computer data but there are certain coast prices issues.

**DRAM:** Dram are the highest capacity memory most process with large address spaces include supporter for drams.

**ROM:** Rom is non volatile memory chip that can be read only.

**ERROM:** Errom is non-volatile chip that can be read only.

**PROM:** Prom is manufactory empty set.

**EEPROM**: The letter can be erased an written by computer system it is installed in.

**Input:** Mostly input is the set of instructions given to the computer to perform specific task. We have many devices by which we give input command to the computer Devices such that Keyboard, Mouse, Joystick, Scanner.

**Output:** Output is basically the result of input command the command/instruction that we give to computer so after the command we receive a result that is called Output. Some of output devices are: Monitor, Printer, Speaker.

**The End**