

BIBI ZAINAB

BSCS/1-18/M03005

Assignment 1:

Brief the computer level hierarchy of computer architecture.

Computer System Level Hierarchy:

is the combination of different levels that connects the computer with the user and that makes the use of computer. It also describes how the computational activities are performed on the computer and it shows all the elements used in different level of system.

Computer System Level Hierarchy consists of seven levels:

Level 6	User	Executable Programs
Level 5	High Level Language	C++ , Java
Level 4	Assembly Language	Assembly Code
Level 3	System Software	Operating System
Level 2	Machine	Instruction Set Architecture
Level 1	Control	Microcode
Level 0	Digital Logic	Circuits , Gates

- **Level-0:**

It is related to digital logic. Digital logic is the basis for digital computing and provides a fundamental understanding on how circuits and hardware communicate within a computer. It consists of various circuits and gates etc.

- **Level-1:**

This level is related to control. Control is the level where microcode is used in the system. Control units are included in this level of computer system.

- **Level-2:**

This level consists of machines. Different types of hardware are used in the computer system to perform different types of activities. It contains instruction set architecture

- **Level-3:**

System software is the part of this level. System software is of various types. System software mainly helps in operating the process and it establishes connection between hardware and user interface. It may consist operating system, library code etc.

- **Level-4:**

Assembly language is the next level of computer system. Machine understands only the assembly language and hence in order all the high level languages are changed in the assembly language. Assembly code is written for it.

- **Level-5:**

This level of system contains high level language. High level language consists of C++, Java, FORTRAN and many other languages. This is the language in which the user gives the command.

- **Level-6:**

This the last level of computer system hierarchy. This consists of users and executable programs.