Computer Organization & Architecture

15B11CI313

**Tutorial-1: Introduction[CO1]**

1. Define Computer Organization and Computer Architecture? Give examples to show that a machine may have same architecture but different organization or vice versa.
2. Consider a multilevel computer in which all the levels are different. Each level has instructions that are m times as powerful as those of the level below it; that is, one level r instruction can do the work of m level r − 1 instructions. If a level 1 program requires k seconds to run, how long would equivalent programs take at levels 2, 3, and 4, assuming n level r instructions are required to interpret a single r + 1 instruction?
3. What are the four basic operations performed by any computer system? Draw a block diagram to illustrate the basic organization of computer system and explain the function of various units.
4. Describe the functions performed by each of the following components of a computer system: CPU; Cache; Main Memory (Primary Memory); Secondary Memory; IO Processor; Operating System; Compiler.
5. What is the difference between interpretation and translation?
6. What is Virtual Machine? Define “Levels in Architecture?