

Addis Ababa Science and Technology University
College of Mechanical and Electrical Engineering
Department of Software Engineering
Computer Architecture & Assembly Language Programming

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Assignment -1

1. State the different between Architecture & Organization? Explain Structures and Functions?
2. Compare CPU Architectures?
3. Explain the reasons for using Assembly Language and what are its disadvantages?
4. What are the various criteria to choose the microcontroller?
5. With neat sketch explain the architecture of an 8051 microcontroller.
6. List the alternate functions of Port3 in 8051
7. Explain structure of TCON, TMOD and PCON Registers
8. What are the different addressing modes of 8051 microcontrollers? explain each with suitable examples
9. Draw the Internal RAM memory organization in 8051 and explain?
10. What are the basic steps required to execute an instruction by the processor? How interrupts are handled?

Short Questions

1. What are the basic functional units of a computer?
2. Compare microprocessors and microcontrollers
3. List some of the 8051 microcontroller manufacturers?
4. List out some of the features of the 8051?
5. What are the various types of memories used in microcontroller/microprocessor?
6. What is instruction register (IR) and program counter(PC) used for?
7. What do u mean by memory address register (MAR) and memory data register (MDR)?
8. What is indexed addressing mode?
9. What is Instruction Cycle?
10. What is the function of Control Unit?