

VPMP Polytechnic
Department of Computer Engineering
Computer Organization and Architecture (4350701)
Assignments

Assignment 1

1. Explain INTEL processor evolution from 4004 to i7.
2. Explain Basic CPU Structure.
3. Explain Various Registers used in CPU with its applications.
4. Differentiate: Serial Bus v/s Parallel Bus.

Assignment 2

1. Draw and explain the internal architecture of 8085.
2. Draw the PIN DIAGRAM of 8085 & explain the detail of each pin.
3. Explain how to demultiplex address from multiplex address/Data line.
4. Explain flag register of 8085.
5. Discuss the bus organization of 8085.
6. Explain registers organization of 8085.
7. Define following terms: Instruction, Machine Cycle, Opcode, Operand & Instruction Cycle.
8. Draw and explain the Timing Diagram for Opcode Fetch operation.
9. Explain memory read and Write operation with help of timing diagram.
10. Explain I/O read and I/O Write operation with help of timing diagram.

Assignment 3

1. Explain the instruction format and Opcode format of 8085 micro processor with example.
2. Explain the addressing mode of 8085.
3. Explain the classification of instructions of 8085 on the basis of their operation
4. Explain the Data transfer instructions of 8085 with example.
5. Explain the Arithmetic instructions of 8085 with example.
6. Explain the Logical instructions of 8085 with example.
7. Explain the Branching instructions of 8085 with example.
8. Explain the Machine Control instructions of 8085 with example.
9. What is stack? Explain stack related instruction with example.
10. Explain Subroutine with CALL and RET Instruction.
11. Describe the looping and counting techniques.
12. Write a short note on Software and hardware interrupt in 8085 based system.
13. Explain 8085 Vectored interrupts: TRAP, RST 7.5, RST 6.5, RST 5.5 and RST.

Assignment 4

1. Explain RAM, ROM, EPROM and EEPROM.
2. Explain Main Memory.
3. Explain Virtual Memory.
4. Explain cache memory with any one mapping technique.
5. Explain Associative Memory.
6. Explain Auxiliary Memory.

Assignment 5

1. Explain any two modes of Data Transfer.
2. Explain DMA.
3. Explain Method of Asynchronous Data Transfer.
4. Explain Asynchronous Serial Transfer.
5. Explain CPU-IOP Communication.