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

Assignment 1

1. Explain Basic CPU Structure with diagram.
2. List out various 8bit, 16 bit, 32 bit intel microprocessor
3. Explain Various Registers used in CPU with its applications.
4. Differentiate: Serial Bus v/s Parallel Bus.

Assignment 2

1. Draw and Describe 8085 Microprocessor Architecture.
2. Draw the PIN DIAGRAM of 8085 & explain the detail of each pin.
3. Explain flag register of 8085.
4. Explain registers organization of 8085.
5. Define following terms: Instruction, Machine Cycle, T- State &Instruction Cycle.
6. Draw and explain the Timing Diagram for Opcode Fetch operation.

Assignment 3

1. Define 1-Byte, 2-Byte and 3-Byte Instruction format.
2. Explain the addressing mode of 8085.
3. List and Define Data Transfer Instructions of 8085 microprocessor.
4. Explain the Arithmetic instructions of 8085 with example.
5. Define following Logical Instructions of 8085 microprocessor.
   i) ORA ii) ORI iii) XRI iv) RLC
6. Define following Jump Instructions of 8085 microprocessor.
   i) JC
   ii) JNZ
   iii) JPE
   iv) JP
7. Explain the Machine Control instructions of 8085 with example.
8. What is stack? Explain stack related instruction with example.
9. Explain 8085 Vectored interrupts: TRAP, RST 7.5, RST 6.5, RST 5.5 and RST.
10. Write an assembly language program to add two numbers stored at memory locations 2040h and 2050h and also store the result into memory location 2060h.

Assignment 4

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

Assignment 5

1. List and Define Modes of Data Transfer with I/O.
2. Explain I/O interface unit with proper diagram.
3. Explain Method of Asynchronous Data Transfer.
4. Explain CPU-IOP Communication.