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, Oprand &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.

Prepared By: Department of Computer Engineering

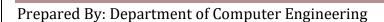
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Assignment 4

- 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.



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