FACULTY OF ENGINEERING

B.E. (I.T) IV - Semester (AICTE) (Main & Backlog) (New) Examination, August / September 2024

Subject: Computer Organization & Microprocessor

Time: 3 Hours   Max. Marks: 70

Note: (i) First question is compulsory and answer any four questions from the remaining six questions. Each question carries 14 Marks.

(ii) Answer to each question must be written at one place only and in the same order as they occur in the question paper.

(iii) Missing data, if any, may be suitably assumed.

1. a) Explain maskable and non-maskable interrupts.

   b) Write two limitations of 8085 processor.

   c) Define Stack. Give any two examples of stack instruction.

   d) Write about memory hierarchy.

   e) Define Virtual memory.

   f) What is purpose of 8279?

   g) Draw the flag register in 8085? Describe it.

2. a) Interpret the types of computer with example.

   b) Compare in between multiprocessor and multicomputer.

3. a) Explain cache memory? What is the role of cache memory?

   b) What are the different mapping functions to be used in cache memory?

4. a) With necessary diagram explain the architecture of 8085. Explain 8085 pins in Detail.

   b) Explain with all ways of timing diagram.

5. a) Write about addressing modes in 8085 with examples.

   b) Explain different instructions in 8085 with examples.

6. a) Explain about DMA controller (Intel 8257) in detail with Block and PIN diagram.

   b) Write in detail about Digital to Analog converters with interfacing 8085.

7. a) Write advantages and disadvantages of RS232 standard for serial communication.

   b) Discuss about programmable interrupt controller (8254 A).

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