FACULTY OF ENGINEERING

B.E. (IoT) III-Semester (AICTE) (Main & Backlog) Examination, February/ March 2023

Subject: Computer Organization

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) Define the functions of CPU.
   b) Define status bits.
   c) Define a strobe.
   d) What is DMA Controller?
   e) Differentiate between RAM and ROM.
   f) List specific purpose registers.
   g) What is the function of Call in assembly language?

2. a) Explain Addressing modes with examples.
   b) Define an Interrupt. Give types of Interrupts with examples.

3. a) What is Asynchronous transfer? Discuss different types of asynchronous transfers with examples.
   b) Differentiate between Programmed I/O and Interrupt initiated I/O.

4. a) Draw memory hierarchy diagram and explain in detail.
   b) Explain the functioning of Cache in detail.

5. a) What is a register? Discuss the functions of different general purpose registers
   b) Discuss addressing modes of 8086.

6. a) What is a branch instruction? Explain different types with examples.
   b) Discuss about 8086 Flag register.

7. a) Write an assembly language program to implement call instruction.
   b) Perform infix to postfix conversion of the following expression:
      (a+{b*c)/(d-e)}

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