FACULTY OF ENGINEERING

B.E. (CSE) IV – Semester (AICTE) (Main& Backlog) (New) Examinations,
September/October 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 questions 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 functional units of a Computer.
   (b) What is Latency?
   (c) Differentiate between Microprocessors and Microcontrollers.
   (d) Explain the Rotate instructions of 8085 Microprocessor.
   (e) Write a short note on ADC.
   (f) Define IEEE 488.
   (g) Explain the Exception types.

2. (a) Discuss the Bus Arbitration Techniques with neat diagrams.
   (b) What is basic Performance Equation of a processor?

3. (a) Explain the cache memory mapping techniques.
   (b) Draw and explain the memory hierarchy organization.

4. (a) Explain the architecture of 8085 Microprocessor with a neat diagram.
   (b) List and describe the 8085 addressing modes with examples.

5. (a) Discuss the 8257 DMA Controller with a neat diagram.
   (b) Write a short note on interrupts and its types.

6. (a) Explain the 8279 Keyboard/Display interface with a neat diagram.
   (b) Describe the modes of 8254 Interval Timer.

7. (a) Explain how to interface input keyboards and output displays.
   (b) Write a program to find the sum of N numbers using 8085 Microprocessor.

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