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School of Engineering**B.TECH Electronics and Communication Engineering
Mid Term Examination - May 2024****Duration : 90 Minutes
Max Marks : 50****Sem IV - G2UA401C - Microcontrollers and Embedded System**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Explain the function of the Instruction Pointer (IP) register in the execution of instructions by the 8086 microprocessor. K2 (2)
- 2) Define Physical Address and explain its relationship with Logical Address in the memory organization of the 8086 microprocessor. K1 (3)
- 3) Explain the concept of segment register in 8086 microprocessor. K2 (4)
- 4) Explain how status of the accumulator in 8086 processor can be analyzed? K2 (6)
- 5) Illustrate about i) ALU ii) Instruction Queue iii) Timing and Control K3 (6)
- 6) Illustrate briefly the necessary functional blocks of a microprocessors. Illustrate the Address conversion mechanism in 8086 with an example. K3 (9)
- 7) Analyze different types of logical instructions used in 8086 programming. K4 (8)
- 8) Analyze the organization of registers in the 8086 microprocessor. K4 (12)

OR

- Analyze about the physical memory organization of 8086 microprocessor. K4 (12)