

END TERM EXAMINATION

SIXTH SEMESTER [B.TECH] JULY 2023

Paper Code: ETEE-310

Subject: Microprocessors & Microcontrollers

Time: 3 Hours

Maximum Marks: 75

Note: Attempt five questions in all including Q.No1 which is compulsory. Select one question from each unit.

- Q1 Attempt all questions: [5x5=25]
- a) Write any five features of 8085.
 - b) Explain MVI, LDA, XCHG, STA, LEA instructions.
 - c) Explain flag register of 8086.
 - d) What are the SFRs in 8051?
 - e) What is instruction cycle & machine cycle?

UNIT-I

- Q2 a) Explain how interrupts are executed in 8085. [6]
b) Explain how data buses & address buses are de-multiplexed with the help of diagram? [6.5]
- Q3 Draw & explain architecture of 8085 in detail. [12.5]

UNIT-II

- Q4 Describe all pins of 8086 (maximum mode as well as minimum mode) with the help of diagram. [12.5]
- Q5 a) Explain why it is always better to locate the word data at an even address in 8086? [6]
b) Describe how physical address is computed in 8086 with a suitable example. [6.5]

UNIT-III

- Q6 Explain block diagram of PPI (8255) in detail? [12.5]
- Q7 a) Interface DAC with 8086 microprocessor with a clock frequency of 5MHz. [6]
b) Explain block diagram of programmable interrupt controller in detail. [6.5]

UNIT-IV

- Q8 a) Explain program status word of 8051. [6]
b) Describe memory organization of 8051. [6.5]
- Q9 Explain programming model of 8051 in detail with proper diagram. [12.5]
