

Code: EC6T2

III B.Tech-II Semester–Regular/Supplementary Examinations–March 2019

**MICROPROCESSORS & MICROCONTROLLERS
(ELECTRONICS & COMMUNICATION ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

- a) What is the function of Address Latch Enable in 8085?
- b) Define Pipelining concept.
- c) Write an ALP program to perform 8 bit Addition.
- d) What is a flag?
- e) Describe the modes of operation of 8254.
- f) Explain flag manipulation instructions of 8086.
- g) Explain control transfer instructions of 8086.
- h) What are the special function registers of 8051?
- i) Construct and explain thumb instruction set with its format.
- j) Categorize different development tools for ARM.
- k) Give the comparison of Microprocessor and Microcontroller.

PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Draw and explain different buses used in 8085 with suitable diagrams. 8 M
- b) What are the various registers in 8085? Explain each in detail. 8 M
3. a) Explain briefly about Interrupt handling process in 8086. 8 M
- b) Write a 8086 assembly language program to convert BCD data – Binary data. 8 M
4. a) Explain the interfacing programmable interrupt controller 8259, with suitable diagram. 8 M
- b) What are the different scan modes of 8279? 8 M
5. a) Write down the different operating modes for serial communication of 8051. 8 M
- b) Explain the operating mode 0 and mode 2 of 8051 serial ports? 8 M

6. a) Write about the Exception Handling in ARM processor.
What does the ARM Core do automatically for every
exception? 8 M

b) Explain about 'Single Data Transfer' and 'Multiple Data
Transfer' in ARM. 8 M