

Code: EC6T2

III B.Tech - II Semester – Regular Examinations – May 2017

**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) Why the data bus is bidirectional?
- b) What are the supply and clock frequencies of 8085.
- c) Mention the Advantages of 8086 over 8085.
- d) List any 2 addressing modes of 8086 with example.
- e) List any 2 features of 8259.
- f) What is SLAVE and MASTER during interfacing?
- g) What is interrupt priority control register and interrupt enable control register?
- h) What is the importance of register in microcontrollers?
- i) List any 2 addressing modes of 8051.
- j) What is the function of UART?
- k) What is the purpose of 8257?

PART – B

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

3 x 16 = 48 M

2. a) With the help of pin diagram of 8085 explain: 8 M

i) TRAP ii) HOLD

iii) READY iv) WAIT

b) Write an ALP program for addition of two 8-bit numbers in 8085. 8 M

3. a) Explain the following in 8086:

i) Rotate & Shift ii) Register pairs

iii) Interrupts 8 M

b) Explain about any six addressing modes in 8086 with examples. 8 M

4. a) With neat block diagram, explain the operation of 8257. 8 M

b) Explain modes of operation of 8254 with pin diagram. 8 M

5. a) Explain special function registers in 8051. 10 M

b) Compare microcontroller and microprocessor. 6 M

6. a) Explain bus terminology and hardware connections of I²C.

6 M

b) With neat block diagram, explain the architecture of ARM processor.

10 M