Code: EC6T2

III B.Tech-II Semester–Regular/Supplementary Examinations–March 2018

MICROPROCESSORS AND 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) List 16 bit registers of 8085 microprocessor.

   b) Explain flag register in 8085 microprocessor.

   c) Describe the difference between the instructions.

      MOV AX, 2437H and MOV AX, [2437H]

   d) List general purpose registers in 8086 microprocessor.

   e) Differentiate between BSR and I/O modes of 8255 PPI.

   f) Draw the ICW's of 8259 programmable Interrupt

      controller.

   g) Explain RESET mechanism in 8051.

   h) Explain features of 8051 microcontroller.

   i) List out the salient features of ARM processor.

   j) Explain i) RALU   ii) CPSR in ARM processor.

   k) What is stack pointer register in 8085?

PART – B

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

3 x 16 = 48 M

2. a) Draw and explain the functional block diagram of 8085 microprocessor. 8 M

   b) What is addressing mode? Explain different addressing modes of 8085 with examples. 8 M

3. a) How does one configure 8086 in maximum and minimum mode explain. 8 M

   b) List & Explain String Instructions of 8086 Microprocessor. 8 M

4. With a neat block diagram explain the 8255 programmable peripheral interface and its operating modes. 16 M

5. a) Draw the functional block diagram of 8051 microcontroller and explain. 8 M

   b) Explain different addressing modes used in 8051 with examples. 8 M

6.a) Describe implementation of branch, call and return instruction in ARM instruction set. Give Pseudo-instruction examples.   10 M

 b) Explain SWI and SWP instructions and its application.

                                                                          6 M