15215

B. Tech 6th Semester Examination

Advance Microprocessor and Microcontrollers (OS)

EC-6012

Time : 3 Hours   Max. Marks : 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, selecting one question each from section A, B, C & D. Section-E is compulsory.

SECTION - A

1. What is multitasking? Classify higher order processor on the basis of multitasking.   (20)

2. Explain the various type of interrupt of 8086 and classify them on the basis of highest and lowest priority.   (20)

SECTION - B

3. Explain the pin diagram of 8086 microprocessor briefly. What is role of active low pins in microprocessors?   (20)

4. Write a program for multiplication of two binary numbers using 8086 microprocessor.   (20)

SECTION - C

5. What is the need of microcontrollers? Describe and explain architecture of 8051 micro-controller.   (20)

6. Write a program and a circuit for toggling an LED at a frequency of 1 Hz using 8051 micro-controller.   (20)

[P.T.O.]

SECTION - D

7. What are programmable logic controllers? Differentiate PLCs from microcontrollers.   (20)

8. What are industrial applications of PLCs. Take one example and explain.   (20)

SECTION - E

9. (a)   What is segmented memory?

   (b)   What are string instructions in 8086?

   (c)   What is a priority interrupt?

   (d)   Write short note on catche memory.

   (e)   What is the function of accumulator?

   (f)   What is the meaning of micro in micro-controller and microprocessors?

   (g)   Write important features of 80386.

   (h)   Differentiate 80386 and 80486.

   (i)   What kind of transistors nowadays used in the processors?

   (j)   What are core 2 dual processors?   (2×10=20)