Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (ECE)   (Sem.–3)
MICROPROCESSOR AND ITS APPLICATION
Subject Code : EC-307
Paper ID : [A0314]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. **Write briefly :**

    a. What is pipelining in 8086?

    b. Write the control word register of 8259.

    c. What is ALU?

    d. What is the concept of vectored and non vectored interrupts in 8086?

    e. Explain the instruction to load and store the data in stack of 8085.

    f. What are the tasks of execution unit (EU) in 8086?

    g. Explain status flag used in 8086 in detail.

    h. What is memory segmentation?

    i. Explain any two examples of direct addressing mode instructions in 8085.

    j. What is timing diagram?

SECTION-B

2. Describe the functional block diagram of 8085 with neat diagram.

3. Explain the function of the following pins of 8085 :

   a) Hold

   b) S_0, S_1 and $IO/\overline{M}$

4. Write down the function of following assembler directives used in assembly language programming of µp 8086 with suitable example :

   a) DUP

   b) EVEN

5. Write the various modes of 8255 and explain any two of them in detail.

6. Explain the importance of subroutine in programming with an example.

SECTION-C

7. What is 8254 IC? Explain the different mode of operation of 8254 with their neat waveforms.

8. Differentiate minimum and maximum mode of 8086 with neat sketch of pin diagram.

9. What is the main function of USART 8251? Explain the different mode of operation of 8251 with control word register.