Code: 13A04601 **R13**

B.Tech III Year II Semester (R13) Supplementary Examinations December 2016

MICROPROCESSORS & MICROCONTROLLERS

(Common to EEE, ECE and EIE)

Time: 3 hours Max. Marks: 70

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) What is the function of Address Latch Enable in 8085?
(b) Explain the operation of DAD instruction.
(c) What are the advantages of memory segmentation?
(d) Define pipelining.
(e) What are assembler directives? Give example.
(f) Write an ALP program to perform 16 bit addition.
(g) What are the various modes of operation of 8279 controller?
(h) Describe the features of 8255 PPI.
(i) Give the comparison of Microprocessor and Microcontroller.
(j) What is the use of flags in 8051 microcontroller?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2 Explain the architecture of 8085 microprocessor with a neat diagram.

OR

3 Discuss about 8085 instruction set with an example.

UNIT – II

4 Illustrate with diagram and explain the Pin configuration of 8086 microprocessor.

OR

5 Explain about minimum mode configuration of 8086 in detail.

UNIT – III

6 Discuss about various Addressing Modes of 8086 microprocessor.

OR

7 Write an Assembly language program to sort ‘N’ numbers in ascending order using 8086 instructions.

UNIT – IV

8 Illustrate with block diagram and discuss various modes of operation of 8255PPI.

OR

9 What is the need for DMA controller? Describe the internal architecture and signal description for the same.

UNIT – V

10 Describe the architecture of 8051 microcontroller with neat diagram.

OR

11 Explain the Addressing modes of 8051 microcontroller with an example.

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