Printed Pages : 1 **Roll No.** | | | | | | | | | | | **EEC406**

B.TECH.

THEORY EXAMINATION (SEM–IV) 2016-17

INTRODUTION TO MICROPROCESSOR

Time : 3 Hours ***Max. Marks : 100***

Note : *Be precise in your answer. In case of numerical problem assume data wherever not provided.*

SECTION – A

1. Explain the following: **10 x 2 = 20**

(a) What is a microprocessor? What is the technology used in microprocessors?

(b) What are the different buses and what jobs they do in a microprocessor?

(c) Draw the basic block diagram of microprocessors and discuss the same.

(d) The address capability of 8085 is 64 KB. Explain.

(e) How many instructions 8085 can support?

(f) Mention the addressing modes of 8085.

(g) Explain the concept of Memory segmentation in 8086 microprocessor.

(h) How many hardware interrupts 8085 supports?

(i) How many I/O ports can 8085 access?

(j) Why the lower byte addresses bus (A0 – A7) and data bus (D0 – D7) are multiplexed?

SECTION – B

2. Attempt any five of the following questions: **5 x 10 = 50**

(a) Draw the architecture of 8085 and mention its various functional blocks.

(b) Explain different types of interrupts in 8085 Microprocessors.

(c) Draw the pin diagram and functional block diagram of 8254.

(d) Explain the difference between IO mapped IO and Memory Mapped IO interfacing technique.

(e) Explain PPI (8255) with its block diagrams. Also explain its operating modes.

(f) Ten number 8-bit data are stored starting from memory location 2100 H. Transfer this entire block of data to memory location starting from 3100 H.

(g) Explain different types of software and hardware interrupts of 8085.

(h) What is addressing mode? Explain the types of the addressing modes of 8085.

SECTION – C

Attempt any two of the following questions: **2 x 15 = 30**

3. Explain the features and architecture of 8086 Microprocessors. Mention the jobs performed by BIU and EU.

4. Draw the block diagram of 8251 USART and explain each block. Also draw its interfacing with 8086.

5. With the help of a functional block diagram and working of 8257 DMA controller.