III B. Tech II Semester Examination – June 2017

**MICROPROCESSORS AND INTERFACING**

Time: **3** hours (CSE) Max. Marks: 60

# SECTION – A

(Short Answer Questions)

**Answer all ten questions 10×1M=10M**

1. 8086 has\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bit address bus.
2. The different ways in which a processor can access the data are referred as \_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Static RAM uses \_\_\_\_\_\_\_\_\_\_\_\_ for storage.
4. EEPROM stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. In 8255A, port A can be used for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ data transfer in mode 2.
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ register maintains a mask of the current interrupts that are pending acknowledgement.
7. In DMA, \_\_\_\_\_\_\_\_\_ mode transfer only one byte at a time.
8. 8251 is used for \_\_\_\_\_\_\_\_\_\_\_ communication.
9. 8051 has \_\_\_\_\_\_\_\_\_\_ number of external interrupt pins.
10. \_\_\_\_\_\_\_\_\_\_\_ Instruction shifts the bit of accumulator to the right in 8051.

**SECTION – B**

**Answer all five questions 5×2M= 10M**

1. Mention the priorities of DMA requests.
2. Mention the advantages of DMA.
3. Draw 8051 asynchronous mode instruction format.
4. Compare microprocessor and microcontroller.
5. Write some of the features of 8051.

**SECTION – C**

**Answer all four questions 4×5M = 20M**

1. Explain 8086 architecture.

**(OR)**

1. Illustrate addressing modes with example.
2. Write an assembly language program to perform 16 bit multiplication.

**(OR)**

1. Write short notes on 8086 interrupts.
2. Describe the architecture of 8251.

**(OR)**

1. Discuss about various DMA transfer modes.
2. Draw and narrate 8051 architecture.

**(OR)**

1. Write about various 8051 addressing modes.

**SECTION – D**

**Answer all two questions 2×10M= 20M**

1. Explain the pin diagram of 8086.

**(OR)**

1. Discuss about the memory organization of 8086.
2. Summarize 8255.

**(OR)**

1. Summarize 8259.