Printed pages: 02 **Sub Code: EEE404**

Paper Id: **120407** **Roll No:** | | | | | | | | | | |

B.TECH
(SEM IV) THEORY EXAMINATION 2017-18
MICROPROCESSORS

Time: 3 Hours **Total Marks: 100**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.
2. Any special paper specific instruction.

SECTION A

1. Attempt all questions in brief. **2 x10 = 20**

a. What do you mean by microprocessor?
b. What are higher level languages?
c. What do you mean by interrupts?
d. Identify two main purposes of ROM & RAM in microprocessors.
e. What are the higher level languages?
f. Explain the function of following instructions (i) LDA (ii) MVI
g. What is the need of memory segmentation in 8086?
h. Explain hardware and software interrupts.
i. What is the function of accumulator?
j. What are the various applications of 8255A?

SECTION B

2. Attempt any three of the following: **10 x 3 = 30**

a) What do you mean by digital computer? Explain its architecture and components in brief.
b) Draw internal structure of 8085 microprocessor and explain its each component.
c) Explain register organization of 8086.
d) What do you mean by assembly language? Give brief description of basic elements of assembly languages.
e) What do you understand by DMA ? Discuss the internal block diagram of 8237A.

SECTION C

3. Attempt any one part of the following: **10 x 1 = 10**

(a) Write a detailed description about the evolution of microprocessor.
(b) Explain data transfer scheme in microprocessor with the help of block diagram.

4. Attempt any one part of the following: 10 x 1 = 10

(a) Explain different types of addressing modes available in 8085 microprocessor.

(b) write an assembly program to find the greatest between to numbers.

5. Attempt any one part of the following: 10 x 1 = 10

(a) Give brief description of different types of instructions available in 8086 microprocessor..

(b) What are interrupts? Explain different types of interrupts in 8086.

6. Attempt any one part of the following: 10 x 1 = 10

(a) Describe the flow charts explaining the structure for programming.

(b) Write an assembly program to sort the set of six numbers in ascending order.

7. Attempt any one part of the following: 10 x 1 = 10

(a) Draw the block diagram of 8254 and explain all its features.

(b) Explain 8259A programmable interrupt controller with the help of block diagrams.