

III B. Tech II Semester Supplementary Examinations, November - 2019**MICROPROCESSORS AND MICROCONTROLLERS**

(Common to Electronics and Communication Engineering, Electronics and Instrumentation Engineering, Electronics and Computer Engineering)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)

2. Answer **ALL** the question in **Part-A**

3. Answer any **FOUR** Questions from **Part-B**

PART –A**(14 Marks)**

1. a) What is a microprocessor? State its importance. [2M]
- b) List the steps in developing an assembly language program. [2M]
- c) Define semiconductor memory. [2M]
- d) List out the registers of 80386. [3M]
- e) What is the significance of EA pin? [3M]
- f) Draw the pin diagram of PIC16F877. [2M]

PART –B**(56 Marks)**

2. a) What is an interrupt? Explain the classification of interrupts of 8086. [7M]
- b) Draw and discuss the maximum mode of 8086 system with relevant read and write cycle timing diagram. [7M]
3. a) Explain the different logical instructions of 8086 microprocessor. [7M]
- b) Write a short note on assembler directives. [7M]
4. a) Explain the important features of 8259 interrupts controller. [7M]
- b) Explain the interface of LCD with 8086. [7M]
5. a) Draw and explain the register set of 80386. [7M]
- b) Compare the features of 80386 and 80486 processors. [7M]
6. a) Draw and explain the capacities of internal and external program memory and internal data memory. [7M]
- b) Write the process of assembling and running an 8051 program. [7M]
7. a) Explain about the memory organization of PIC microcontroller. [7M]
- b) Explain about the interrupts in PIC 16F877. [7M]
