

**(DEE 322)**

**B.Tech. DEGREE EXAMINATION, MAY - 2015**

**(Examination at the End of Third Year)**

**ELECTRICALS AND ELECTRONICS**

**Paper - II : Microprocessors & Interfacing**

**Time : 3 Hours**

**Maximum Marks : 75**

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*Answer question No.1 compulsory*

*(15)*

*Answer ONE question from each unit*

*(4 × 15 = 60)*

- 1) a) What is Microcomputer?
- b) What is Bus?
- c) What is Instruction?
- d) What is Addressing Mode?
- e) What does the Instruction XLAT?
- f) Explain MOV instruction.
- g) List out the Flags in 8086.
- h) What is PROCEDURE?
- i) What is Interrupt Vector Address?
- j) What is meant by minimum mode?
- k) List out the Registers in 8086.
- l) What is DMA?
- m) List out Program Development Tools.

- n) What is Assembler?
- o) Distinguish between CMP and SUB instruction.

### UNIT - I

- 2) a) Explain the Register organization of 8086.
- b) List out the features of 8086.

OR

- 3) a) Explain the functions of Minimum Mode Signals of 8086.
- b) With example, Explain the following Assembler Directives.
  - i) ASSUME
  - ii) DB
  - iii) ORG
  - iv) PROC

### UNIT - II

- 4) a) Explain program development tools.
- b) Write an ALP to add two 8-bit numbers.

OR

- 5) a) Write an ALP to Divide 32-bit number by 16-bit number.
- b) Write an Assembly Language Program to arrange a series of Hexa decimal bytes in ascending order.

### UNIT - III

- 6) a) Explain Minimum Mode of operation of 8086.
- b) Draw and explain the interfacing diagram of ADC to 8086.

OR

- 7) a) Explain Interrupt sequence of 8086.
- b) Draw and explain Interrupt Vector Table of 8086.

#### UNIT - IV

- 8) a) Draw and explain the internal architecture of 8253.  
b) Explain the significance of different bits of the control word register format of 8253.

OR

- 9) a) Explain the Mode Instruction Control Word Format of 8251.  
b) Draw and discuss the status word format of 8251.

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