6. (a) How is 8259 interfaced with 8086 in min. mode ? **5**

(b) Explain the following in terms of 8259 : **10**

(i) EOI

(ii) Automatic EOI

(iii) Polling

(iv) Specific Rotation

Unit IV

7. (a) What is PCI bus ? Discuss its features and usage. **7**

(b) Compare PCI and USB interface. **8**

8. (a) How can a PCI be replaced in Mother Board ? **5**

(b) What are steps involved for removal of mother board from computer ? **5**

(c) Explain concept and implementation of memory DIMM. **5**

E-25

B. Tech EXAMINATION, Dec. 2017

(Fifth Semester)

(B. Scheme) (Main & Re-appear)

(CSE, BME, AEI AND ECE)

ECE-309-B

MICROPROCESSORS AND INTERFACING

Time : 3 Hours] [*Maximum Marks :* 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) Draw 8086 pin diagram and explain function of the following signals :   **8**
    (i) MN/$\overline{MX}$
    (ii) NMI
    (iii) HLDA
    (iv) INTR.

   (b) Draw discuss read and write cycle timing diagram of 8086 in max. mode.   **7**

2. (a) Write assembly language code to arrange a given series of hexadecimal bytes in ascending order.   **5**

   (b) Give examples to explain the following commands/instructions :   **10**
    (i) AAA
    (ii) SCAS
    (iii) JBE
    (iv) INTO
    (v) STOS.

Unit II

3. (a) With the help of examples, discuss various addressing modes. supported in 8086.   **8**

   (b) Write a assembly language code to generate 7 min. delay.   **7**

4. (a) Explain function of unit used to implement multiple branch prediction in pentium-Pro.   **7**

   (b) Discuss features of pentium series of microprocessor.   **8**

Unit III

5. (a) Show interfacing scheme for connecting 13 interrupt devices to 8086 using 8259.   **8**

   (b) Draw and explain block diagram of 8255 chip. How is 8255 configured if its control register contains 9Bh ?   **7**