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Sixth Semester B.E. Degree Examination, June/July 2016
Microprocessors

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

- 1
 - a. With a neat diagram explain the internal architecture of 8086. (08 Marks)
 - b. Explain about segment registers and its advantages. (06 Marks)
 - c. Explain about instruction execution time dependency parameters. (06 Marks)
- 2
 - a. Explain the following instruction function with an example:
(i) LOOP (ii) IMUL (iii) XLAT (iv) AAM (06 Marks)
 - b. What is assembler directive? Explain the following assembler directives:
(i) ASSUME (ii) PUBLIC (iii) ALIGN (08 Marks)
 - c. Write an ALP to perform GCD of two 16-bit integers and comments. (06 Marks)
- 3
 - a. Write an ALP to perform reversing string along with flow chart. (08 Marks)
 - b. List out two differences between MACRO and PROCEDURE. (06 Marks)
 - c. List and briefly explain String instruction. (06 Marks)
- 4
 - a. What is interrupt? Explain about dedicated interrupts with respect to 8086. (08 Marks)
 - b. Briefly explain about hardware and software interrupt applications. (06 Marks)
 - c. What are the steps involve during the interrupt response. (06 Marks)

PART – B

- 5
 - a. What is interfacing? Explain about $m \times n$ matrix keyboard interface diagram along with program and flow chart. (14 Marks)
 - b. Briefly explain about 8255 control word format. (06 Marks)
- 6
 - a. Explain about control register of 8087. (06 Marks)
 - b. Explain about various data types with respect to 8087. (06 Marks)
 - c. What is co-processor? Why it is called so? Give the significance of 8087 NDP. (08 Marks)
- 7
 - a. Explain maximum mode operation of 8086 with relevant block diagram. (10 Marks)
 - b. Write a short note on PCI and USB. (10 Marks)
- 8
 - a. Write the salient features of 80486. (06 Marks)
 - b. Briefly explain about 80386 special registers. (10 Marks)
 - c. Write a note on Pentium processor. (04 Marks)

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