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Code No: EC1507

GEC-R14

III B. Tech I Semester Regular Examinations, November 2016

MICROPROCESSORS AND INTERFACING

(Information Technology)

Time: 3 Hours

Max. Marks: 60

Note: All Questions from **PART-A** are to be answered at one place.

Answer any **FOUR** questions from **Part-B**. All Questions carry equal Marks.

PART-A

6 × 2 = 12M

1. List out features of 8086 Microprocessor.
2. Define an instruction, opcode and operands.
3. Define assembler directive. Give any two examples.
4. Write the applications of D/A converter.
5. Write the specifications of RS232C.
6. What is Paging mechanism?

PART-B

4 × 12 = 48M

1. a) Explain general purpose and special purpose registers of 8086. (6M)
b) Explain the Read and Write timing diagrams for maximum mode configuration. (6M)
2. a) Explain the various addressing modes of 8086 with examples. (6M)
b) Explain the following instructions.
i) WAIT ii) HLT iii) ESC iv) NOP (6M)
3. a) Write an ALP in 8086 to move block of N bytes of data from source to destination. (6M)
b) Write an ALP in 8086 to add 5 bytes of data in an array. (6M)
4. a) Explain briefly about memory interfacing with 8086 Microprocessor. (6M)
b) Explain how a stepper motor is interfaced with 8086 Microprocessor. (6M)
5. a) Draw the architecture of 8251(USART) and explain. (6M)
b) Write short notes on interrupt service routine. (6M)
6. a) How is an 80386 switched into virtual 8086 mode during task switch. (6M)
b) Explain the addressing modes and data types of 80386. (6M)
