23257

M.Tech 1st Semester
(Electrical Engg.) Specialization :
Electrical Power Systems
Examination–May, 2014

MICRO PROCESSOR AND MICRO CONTROLLER

Paper MTEPS-101

Time : 3 hours   **Max. Marks : 100**

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

Note : Attempt any **five** questions out of eight questions. Each question carries equal marks.

1. Explain resister organisation and segmentation used 8086 micro processor with diagram ?   20

2. Explain instruction set and describe in detail about data transfer instructions, arithmetic instructions and Bit manipulation instruction used in 8086/8088 Microprocessor. 20

3. Draw and explain memory structure of 8086 ? Describe how pipelined architecture is implemented in 8086 ? 20

4. Explain the need of DMA controller ? Also describe about overheads associated interrupt driven input-output controlled via DMA. 20

5. Explain interrupts used in 8086, their priority and routine. 20

6. Interface stepper motor with 8086 and write a program to control any device with motor using above hardware 20

7. (a) Explain 8251 and its mode of operation with diagram ? 10

(b) Explain need of Intel 8259-A programmable interrupt controller. 10

8. Draw and compare the block diagram of 8031/510 micro controllers. 20

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