24230

B. Tech. 5th Semester (Electrical Engg.)
Examination, December–2012
MICROPROCESSING AND INTERFACING
Paper– EE–309-F

Time allowed : 3 hours]   [Maximum marks : 100

Note : *Attempt five questions in all, selecting **one** question from each unit. **Q. No. 1** is compulsory.*

1. (a) Identify the difference between the ASCII and the extended ASCII codes.   2

   (b) Calculate the number of memory chips needed to design 8K-byte memory if the memory chip size is 1024×1.   3

   (c) In the Opcode Fetch cycle, what are the control and status signals asserted by the 8085 to enable the memory buffle ?   3

   (d) What are NOP and HLT instructions.   2

   (e) What operation can be performed by using the instruction SUB A ? Specify the status of Z and CY.   3

   (f) Write the instructions to display digit '7' at the port .   2

   (g) Explain shift and rotate instructions.   2

   (h) What is programmable interval liner.   3

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Unit–II

2. (a) . What are control and status signals ? Explain them. 10

   (b) Describe the architecture of 8085 micro-processor. 10

3. (a) Define interrupts ? Explain 8085 interrupts. 10

   (b) Describe various Arithmetic instructions with examples in 8085 microprocessor. 10

Unit–II

4. (a) Define addressing modes. Explain various addressing modes in 8086 microprocessor. 10

   (b) Discuss the block diagram of 8086 micro-processor. 10

5. (a) Explain instruction formats of 8086 micro-processor in detail. 10

   (b) What are flag manipulation instructions ? Explain logical instructions in detail. 10

Unit–III

6. (a) Describe various branch instructions in 8086 microprocessor. 10

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(b) Explain NOP and HLT instructions in 8086 microprocessor in detail. 10

7. (a) Write short notes on directives and operators. 10

(b) Discuss 8237 DMA controller in detail. 10

Unit–IV

8. (a) Explain 8259 interrupt controller with the help of block diagram. 10

(b) What is direct memory access ? Explain DMA controller. 10

9. Explain interfacing of 8255 programmable peripheral device with keyboard and seven segment display with the help of a program. 20