

Roll No

EX-502

B.E. V Semester

Examination, December 2016

Microprocessor And Microcontroller

Time : Three Hours

Maximum Marks : 70

Note: i) Total number of questions eight. Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain the architecture of 8086 microprocessor with diagram. 7
b) How does 8086 microprocessor is differ from 80286 and 80386? Show the comparative study. 7
2. a) Write an assembly language program using 8086 instructions set to add following series up to seven terms:
 $1^2 + 3^2 + 5^2 + \dots$ 7
b) Draw and explain flag register and stack structure of 8086 microprocessor. 7
3. a) Explain DMA controller 8257. What are the requirements to interface it with 8086 microprocessor? 7
b) Write a program to generate square wave using programmable peripheral interface chip. 7

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4. a) Explain, how you will interface DAC chip to 8086 microprocessor. 7
b) Explain control word for serial communication interface chip. 7
5. a) Explain the addressing modes of 8051 microcontroller with example. 7
b) Discuss the interrupt structure and their priorities in case of 8051 microcontroller. 7
6. a) Draw and explain the architecture of 8051 microcontroller. 7
b) Discuss the memory map of a 8051 microcontroller. 7
7. a) Explain the interfacing of stepper motor with 8051 microcontroller. 7
b) Explain how a timer is programmed in 8051. 7
8. a) How you will connect 8051 microcontroller to RS 232? Explain. 7
b) Describe the basics of serial communication programming for 8051 microcontroller. 7

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