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Name : ...

Reg. No: ...

SIXTH SEMESTER B.TECH DEGREE EXAMINATION, MAY 2012

EE 09 601 / PT EE 09 601 – MICROPROCESSORS AND MICROCONTROLLERS

Time : Three Hours

Maximum : 70 Marks

PART A (5 X 2 =10 MARKS)

1. What are the advantages of pipelining?
2. Define a macro
3. Write the control word format of 8255
4. List the features of serial communication interface
5. Differentiate between the three types of JUMPs in 8051

PART B (4 X 5 =20)

6. What are the advantages of using segment registers? How is physical address determined?
7. Brief on Pentium memory management
8. Define intrasegment direct, intrasegment indirect and intersegment direct address modes
9. List the various types of directives and their function
10. Name the 8237 operating modes and define each mode briefly
11. Explain the operation of 8051timer in autoreload mode to produce a square wave of frequency 1 kHz at PORT P 1.0

PART C (4 X 10 =40)

12 a. Explain the typical system bus architecture of 8086 with schematic

(or)

b. Describe with schematic the interrupt structure of 8086

13 a (i) Explain the 8086 stack operations

(ii) With example explain the use of procedure

(or)

b. Explain the BIOS interrupts in detail

14 a. Describe the features of 8259 interrupt controller

(or)

b. Explain how to interface seven segment LED to microprocessor using 8279

15 a (i) Discuss the memory organisation of 8051

(ii) Name any 4 special function registers and their functions

b. Describe the interfacing of ste pper motor to 8051 and explain. How is the motor operation controlled? Give the program.

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