D 30968

FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION OCTOBER 2012

AI 09 501—ADVANCED MICROPROCESSORS AND MICROCONTROLLERS

(2009 Scheme)

Time : Three Hours   Maximum : 70 Marks

Part A

Answer all questions.

1. What is the purpose of queue ?
2. During what time period(s) of the bus cycle is DEN active ?
3. What is register starvation in pentium ?
4. What is the function of RSI and RSO bits of PSW of 8051.
5. Write a program to find the 2's complement of a member using 8051.

$(5 \times 2 = 10$ marks)

Part B

Answer any four questions.

6. Explain the Buffered bus system of 8086.
7. Write a program to find the maximum value of a 16 bit word.
8. Explain about the MMV of 80386.
9. Write a program to generate a delay of 20 msec using 8051.
10. Write a program to receive the data serially and send it to PO using interrupts.
11. Write a program to subtract a string of 8 bit data indicated by R_1 from a string of data indicated by R_0, The number of data in indicated by R_2.

$(4 \times 5 = 20$ marks)

Part C

Answer all questions.

12. Explain the minimum mode of configuration of 8086.

Or

13. Write briefly about : (a) assembler directives ; (b) memory interfacing.

14. Describe briefly about Pentium processor.

Or

15. Explain in detail the various descriptor tables of 80386.

16. Discuss the addressing modes of 8051 with an example.

Or

17. With the help of a block diagram, explain the working of 8051 microcontroller.

18. Describe how a keyboard in interfaced with 8051. Write a program to support it.

Or

19. Discuss how a speed of a stepper motor is controlled using 8051.

$(4 \times 10 = 40$ marks)