D 70297 (Pages : 2) Name.....

Reg. No.....

FIFTH SEMESTER B.TECH (ENGINEERING) [09 SCHEME] DEGREE EXAMINATION, NOVEMBER 2014

AI 09 501—ADVANCED MICROPROCESSORS AND MICROCONTROLLERS

Time : Three Hours Maximum : 70 Marks

Part A

Answer all questions.

1. What does the Assembler directive EQU and EXTRN do ?
2. What is logical address and physical address ?
3. What is real mode of operater of 80386 ?
4. What is the function of the TMOD register ?
5. When an interrupt is activated, what is the first step taken by the 8051 ?

(5 × 2= 10 marks)

Part B

Answer any **four** *quetions.*

6. Explain about the segment registers of 8086.
7. Explain about TSS of 80386.
8. Explain about LOOP, AJMP and LJMP instructions.
9. Write a program to find the average of 10 numbers.
10. Explain about memory decoding.
11. Write program to generate a pulse train of 2 seconds on Pin 2.4. use timer in mode 1. Assume cystal frequency of 22 MHZ.

(4 × 5 = 20 marks)

Part C

12. Explain the maximum mode of operation of 8086.

Or

13. Describe the architecture of 8087.
14. Explain about pentium architecture.

Or

15. Describe the modules of 80386.

Turn over

16. Discuss the architecture of 8051.

Or

17. Write a program to find $Y = x^2 + 2x + 5$ and x in between 0 to 9.

18. Design a counter for counting the pulses of an input signal connected to pin p.3.4.

Or

19. Write a program to interface a stepper motor to 8051.

(4 × 10 = 40 marks)