D 90154 (Pages : 2) Name.....

Reg. No.....

FIFTH SEMESTER B.TECH. [ENGINEERING] (09 SCHEME) DEGREE EXAMINATION, NOVEMBER 2015

AI 09 501 – ADVANCED MICROPROCESSORS AND MICROCONTROLLERS

Time : Three Hours Maximum : 70 Marks

Part A

Answer **all** *questions.*

1. Draw the pin diagram of 8086.
2. What is a macro?
3. Explain LOCK signal.
4. What is the size of internal RAM in 8051?
5. OR the contents of Port 1 and 2 and put the result in external RAM location 0100h.

(5 × 2 = 10 marks)

Part B

Answer any **four** *questions.*

6. Tabulate the common signals, minimum mode signals, maximum mode signals. Also mention their functions and types.
7. Explain the assembler directives CODE, ASSUME and ALIGN.
8. Discuss the status register of 8086.
9. Give a typical program format using assemble directives.
10. Describe the registers that can do division.
11. Double the number in register R2 and put the result in register R3 (High Bit) and R4 (Low Bit).

(4 × 5 = 20 marks)

Part C

Answer Section (a) **or** *Section (b) of each question.*

12. (a) Discuss Type 0 Interrupt to Type 4 Interrupt.

Or

(b) Explain in detail the external hardware interrupt sequence.

13. (a) Describe Real and protected mode.

Or

(b) Explain memory paging of 80386.

Turn over

14. (a) Explain stack pointer for 8051 registers.

Or

(b) Describe the function of basib registers.

15. (a) Describe Byte level and logical operations.

Or

(b) Explain the function of SCON, PCON, IE, IP-SFR.

(4 × 10 = 40 marks)