22142

M.Tech. 1st Sem. Electronics and Communication Engg. Examination-May, 2015

ADVANCED MICROPROCESSOR AND MICRO CONTROLLERS

Paper: MEEC-501

Time: 3 hours

Max. Marks: 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note: Attempt any **five** questions, all questions carry equal marks.

1. Explain the following terms:

 (4×5)

- (a) Memory Segmentation
- (b) ALU and CU
- (c) Pipelining technique

- (d) Co processing
- (e) Addressing Architecture
- 2. (a) Explain the initial motion command words and operational command words of 8259.

(14)

- (b) Discuss basic instruction types of a 16 bit microprocessor. (6)
- **3.** (a) Discuss in detail about various special function registers of 8051. (14)
 - (b) Discuss in brief about interrupts of 8051.
- **4.** (a) Draw and explain pin diagram of 80486.
 - (b) Discuss the flag register of Pentium processor. (6)

- 5. (a) Draw pin diagram for 68XXX processors and explain the role of each and every pin used. (15)
 - (b) Draw and discuss status register of 68XXX. (5)
- 6. (a) Write a program for 8051 micro controller to transfer block of data in external data memory stored in memory location 3000H to 3050H. Number of bytes to be transferred is mentioned in RO. (10)
 - (b) Write an ALP using 8086 to display a string (10)
 - (i) Using MACROS
 - (ii) Without MACRO

- **7.** Write short notes on : (10, 10)
 - (a) MUDEMS
 - (b) UART
- 8. (a) Write in detail about design tools used for microprocessor. (14)
 - (b) Write in brief about regulatory compliance testing. (6)

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