

Roll No.

22142

**M. E. 1st Semester Electronics &
Communication Engg.**

Examination – December, 2014

**ADVANCED MICROPROCESSOR & MICRO
CONTROLLERS**

Paper : MEEC-501

Time : Three Hours]

[Maximum 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 examination.

*Note : Attempt any **five** questions out of given **eight**.*

1. (a) Explain the GPR's control logic & internal data bus structure. 10
- (b) How microprocessor Architecture & speed of operation is related to each other ? 5
- (c) Differentiate between 8088 & 8086. 5

2. (a) Write a program in 8085 to arrange a array of ten numbers stored at 4000 H in ascending order. Store the sorted array at 5200 H. 10
- (b) Draw and explain the architecture of 8086. 10
3. (a) Why Havard architecture used in microcontrollers ? 5
- (b) Why do we need a powerful interrupt structure in 8051 ? 5
- (c) Discuss how we can set priority to different interrupts in 8051. 5
- (d) Explain (i) SWAP (ii) CJNE. 5
4. (a) Is it possible to copy the contents of R_2 into R_1 using single instruction ? Justify. 5
- (b) Which part of the memory can be accessed using direct addressing ? 5
- (c) Write a program to search a number from a given list of numbers, using binary search approach. The numbers are stored in consecutives memory locations starting from 30 H. The number to be search is "05". 10
5. (a) Explain the architecture of 68000. 10
- (b) Explain different addressing modes of 8085. 10
6. (a) Explain any D/A converter alongwith its features. 10
- (b) Explain structure and operation of serial interface and UART modems. 10

7. (a) Explain the design process involved in development of microprocessor based products. 10
- (b) What is the design tool for microprocessor development? 10
8. Write short notes on : 20
- (a) Instruction word format in 8086.
- (b) Maximum & Minimum Mode of 8086.
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