

Roll No. ....

**24165**

**B. Tech. 4th Semester Information  
Technology/C. E. E. (Common to these  
branches) Examination – May, 2011**

**COMPUTER ARCHITECTURE AND ORGANIZATIONS**

**Paper : CSE-210-F**

***Time : Three hours ]***

***[ Maximum Marks : 100***

*Before answering the question, 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 :** First Question is **compulsory**. Attempt **five** questions in all selecting at least **one** question from each unit. All questions carry equal marks.

1. Write short notes on following : 20

(a) Flip Flop

(b) SISD

- (c) MSAM
- (d) RAM
- (e) ROM
- (f) Interrupt
- (g) Micro instruction
- (h) Instruction Set.

### UNIT - I

2. Explain half adder and full adder circuit in detail. 20
3. (a) Explain Flynn's classifications of computers in detail. 10
- (b) Explain why operating system is essential for computers ? 10

### UNIT - II

4. (a) Differentiate RISC and CISC classification ? 10
- (b) Define addressing mode ? Define types of addressing modes with suitable examples. 10
5. Explain microinstruction format also explain how the field of micro operation is decoded ? 20

### UNIT – III

6. Explain CPU architecture types with examples. 20
7. How many 128 X 8 RAM chips needed to provide memory capacity of 2048 Bytes. how many lines of address must be used to access 2048 bytes of memory. How many of these lines will be common to all chips? How many lines must be decoded for line select?

### UNIT – IV

8. (a) Explain direct mapped cache organization. 10  
(b) Explain processor level parallelism with example. 10
9. Explain with examples various types of instructions in 8086. 20
-