



End Term Examinations (December 2018)

School : School of Engineering

Program: B.Tech Computer

Course: Computer Architecture & Organization

Course Code:CSC221

Semester: III

Max Marks: 50

Duration (mins) : 120

Q1. ATTEMPT ANY SIX. EACH QUESTION CARRIES 2 MARKS

(12)

- What is difference between computer architecture and computer organization?
- Define instruction. Give instruction format.
- What is Bus? State types of Bus.
- List different performance measures on CPU.
- What is accumulator? How is it different from register?
- Draw simple flow diagram of basic stages of pipelining.
- Draw memory hierarchy for computer organization.

Q2. ATTEMPT ANY FIVE. EACH QUESTION CARRIES 6 MARKS

(30)

- Explain four broad groups of computers given by M.J. Flynn.
- What is data transfer? What are different types of data transfer? Explain synchronous data transfer with diagram.
- How is parallel processing different from pipelining.
- Explain Bus Arbitration using independent request. Make use of pictorial representation of the architecture.
- What is cache memory? Why cache is important? How to calculate performance of cache memory?
- What is interrupt? Explain different types of computer interrupt with example.
- Give classification of addressing mode. Explain displacement addressing mode in detail.

Q3. ATTEMPT THE FOLLOWING (COMPULSARY)

(08)

Write a program to evaluate the following arithmetic statement

$$X = (A + B) * (C + D)$$

- Using an accumulator type computer with one address instruction
- Using two and three address instruction and
- Using stack organized computer with zero address instruction