



K16P 0103

Reg. No. :

Name :

I Semester M.C.A. Degree (Reg./Sup./Imp.) Examination, February 2016
(2013 and Earlier Admn.)

MCAC 1.1 : COMPUTER ORGANISATION

Time : 3 Hours

Max. Marks : 80

Instructions : 1) Answer **any five** questions.

2) **All** questions carry **equal** marks.

1. a) What are the significant of data types and respective complements with suitable examples ? 8
- b) Define a micro operation. Explain the micro operations involved in a fetch cycle. 8
2. a) What are interrupts ? Explain different classes of interrupts. 8
- b) Explain the characteristics of a large register file and Cache. 8
3. a) Describe various types of addressing modes. 8
- b) Discuss the general characteristics of a CISC machine. 8
4. a) Explain the arithmetic operations on floating point numbers. 8
- b) Discuss basic instruction cycle with neat state diagram. 8
5. a) With neat diagram how I/O bus and interface modules are connected. 8
- b) Explain associate mapping method in cache memory. 8
6. a) Explain the processor initiated conditional and unconditional data transfers. 8
- b) Explain micro programmed control unit with its functioning along with a neat diagram. 8

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7. a) Explain neatly synchronous and asynchronous bus structure with timing diagrams. 8
- b) What is arbitration ? Why is it required ? What are the different methods of arbitration ? 8
8. Write short notes on (any four) : (4x4)
- a) Virtual memory.
 - b) Priority interrupt.
 - c) Vector processor.
 - d) Decimal arithmetic operations.
 - e) RISC processor.

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