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Total No. of Pages : 02

Total No. of Questions : 09

**M.Sc.(Computer Science) (2015 & Onwards) (Sem.-2)**

**COMPUTER ORGANISATION**

**Subject Code : MSC-202**

**M.Code : 71446**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTION TO CANDIDATES :**

1. **SECTIONS-A, B, C & D** contains **TWO** questions each carrying **TEN** marks each and students has to attempt any **ONE** question from each **SECTION**.
2. **SECTION-E** is **COMPULSORY** consisting of **TEN** questions carrying **TWENTY** marks in all.

**SECTION-A**

1. Discuss the role of micro operations. For what purpose, the arithmetic micro operations are used?
2. Describe the various aspects of basic computer organization and design.

**SECTION-B**

3. Discuss the principal advantages of using microprogramming to implement a control unit.
4. Diagrammatically represent the various components of BCD adder and explain their functioning.

**SECTION-C**

5. Discuss the daisy-chain priority interrupt in detail.
6. Write the basic steps for four-segment CPU pipeline.

**SECTION-D**

7. Define Auxiliary Memory. Differentiate between magnetic disk and magnetic tape.
8. Discuss the cache coherence problem. Give the solutions to cache coherence problem.

## SECTION-E

### 9. Short answer type questions :

- a. Define register transfer language.
- b. What is the purpose of hardwired control?
- c. Give example of LDA instruction.
- d. Write any two characteristics of pipeline register.
- e. List various conditional branch instructions.
- f. What is instruction pipeline?
- g. What does input-output processor provide?
- h. Discuss DMA controller.
- i. What is the need of bootstrap loader?
- j. What is virtual memory?

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**