**Roll No.** | | | | | | | | | | | | | **Total No. of Pages : 02**

**Total No. of Questions : 09**

**M.Sc.(Computer Science) (2019 & 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.**