

**MSCCS-08/MSCCS-202/
MSCCSC-202/MCA-202**

December – Examination 2022

MCA (IInd Year) Examination

**COMPUTER ARCHITECTURE AND
MICRO-PROCESSORS**

**Paper : MSCCS-08/MSCCS-202/
MSCCSC-202/MCA-202**

Time : 3 Hours]

[Maximum Marks : 80

Note :- The question paper is divided into three Sections A, B and C. Write answers as per the given instructions.

Section-A

8×2=16

(Very Short Answer Type Questions)

Note :- Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 2 marks.

1. (i) What is Null Macros ?

- (ii) What is Program Counter ?
- (iii) What do you mean by Mnemonics ?
- (iv) Define Microprocessor.
- (v) What do you mean by input-output ports in 8085 ?
- (vi) What is OPCODE ?
- (vii) What is the full form of RAID ?
- (viii) Define instruction cycle.

Section-B **4×8=32**

(Short Answer Type Questions)

Note :- Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 8 marks.

2. Write the differences between RISC and CISC.
3. Discuss the direct mapping method of cache memory.
4. Discuss the basic processor organization with neat diagram.
5. Explain the advantages and applications of microprogramming.

6. Explain internal organization of DMA controller.
7. Explain the signal group of 8086.
8. What is instruction cycle ? Explain different stages of instruction cycle.
9. Explain the basic structure of 8088.

Section-C **2×16=32**

(Long Answer Type Questions)

Note :- Answer any *two* questions. You have to delimit your each answer maximum up to **500** words. Each question carries 16 marks.

10. Explain addition method of fixed point arithmetic.
11. Explain the construction of combinational ALU.
12. Explain RISC pipelining with suitable example.
13. What is Assembler ? Explain the working of assembler in detail.