MSCCS–08/MSCCS–202/ MSCCSC–202/MCA–202

December – Examination 2023

MCA (IInd Year) Examination

COMPUTER SCIENCE

(Computer Architecture and Microprocessor)

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) Define datapath in processor.

(ii) Define Microprocessor.

(iii) What is stack pointer ?

(iv) What is the assembler ?

(v) What is I/O ports ?

(vi) What is Null Macro ?

(vii) What is program computer ?

(viii) What do you mean by Mnemonics ?

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. Explain the cross bar switch with suitable example.

3. Discuss about the sequential ALU.

4. Explain internal organization of DMA controller.

5. What is instruction cycle ? Explain different stages of instruction cycle.

6. What is cache ? Explain its feature.

7. What is the use of flags ? Explain different types of flags in 8086.

8. Write short note on Cache Coherence.

9. Discuss the advantage of assembly language.

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 the basic architecture of 8088 with neat diagram.

11. Explain RISC pipelining with suitable example.

12. Define addressing mode. Explain various addressing modes used in processor.

13. Explain the various types of internal memory.