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

June – 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) What is Non-maskable Interrupts ?

(ii) Give *two* examples of zero address instructors.

(iii) What is a Stack Pointer ?

(iv) Define Assembly Language.

(v) What are the various types of instruction in 8085 ?

(vi) Write the applications of Micro-programming.

(vii) What do you mean by Accumulator ?

(viii) What do you understand by DMA ?

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 one hot method of designing control unit.

3. Discuss the various types of external memories.

4. What is Bus ? Explain address, Data and control bus with suitable example.

5. What is Interrupt ? How to write a interrupt subroutine ? Explain with suitable example.

6. Discuss the set associative mapping method of cache memory.

7. Discuss the advantage of assembly language.

8. Write short note on cache coherence.

9. Discuss the difference between subroutine and macros.

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 pin configuration of 8086.

11. Explain the architecture diagram of 8085.

12. Explain Booth multiplication method of fixed point arithmetic.

13. Explain instruction pipelining with suitable diagram and also find the pipeline performance.