12. Explain the data transfer instructions of 8085 in detail.

13. Draw and explain the pin diagram of 8086.

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

June – Examination 2024

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 the address bus ?

(ii) Define the term instruction format.

(iii) What is the function of arithmetic and logical unit ?

(iv) Define the term instruction cycle.

(v) What is the pipelining ?

(vi) What do you understand by interrupt in 8085 ?

(vii) What is the control word of 8086 ?

(viii) Define marco.

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 fixed-point data representation in processor with suitable example.

3. State the differences between RISC and CISC architecture.

4. Explain the direct mapping address translation method of cache memory.

5. What is machine language ? State the differences between machine language and assembly language.

6. Draw and explain the flag register of 8085.

7. Explain peripheral component interconnect (PCI) structure.

8. Define subroutine. Explain, how data can be transferred to subroutine in 8085 ?

9. State differences between 8085 processor and 8086 processor.

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. What is control unit ? Explain the hardwired design of control unit.

11. What is DMA (Direct Memory Access) ? Explain the working of DMA controller with suitable diagram.