

MSCCS-08/MSCCS-202/MCA-202

December - Examination 2019

MSCCS-Final/MCA-IIInd Year Examination**Computer Architecture and Micro Processors****Paper - MSCCS-08/MSCCS-202/MCA-202****Time : 3 Hours]****[Max. Marks :- 80**

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

Section - A**8 × 2 = 16****(Very Short Answer Questions)**

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

1.
 - i. Define the term Operand.
 - ii. What do you understand by instruction cycle?
 - iii. Write the classification of memory used in computer.
 - iv. Define the term control unit.
 - v. What are advantages of microprogramming?
 - vi. What do you understand by microcontroller?
 - vii. Define the term addressing modes.
 - viii. What is register?

Section - B $4 \times 8 = 32$ **(Short Answer Questions)**

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

2. What do you understand by subroutine? Explain with suitable example.
3. What do you understand by superscalar processing? Explain.
4. Write the differences between horizontal microprogramming and vertical microprogramming.
5. What do you understand by assembler? Also explain its working.
6. Explain the set associative mapping of cache memory.
7. Explain the architecture diagram of 8088 with suitable diagram.
8. Differentiate the synchronous and asynchronous data transfer scheme of 8085.
9. Explain the following interconnection structures with suitable diagram.
 - a. Supercube interconnection
 - b. PIC (Peripheral Component Interconnection)

Section - C $2 \times 16 = 32$ **(Long Answer Questions)**

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

10. Explain the hardwired design control unit with suitable diagram and how it differs from micro programmed design of control unit.
11. Define the term instruction. Explain various types of instructions in 8085 with suitable example.

12. Write a short notes on following:
 - a. Instruction Pipeline.
 - b. RISC and CISC architecture.
 13. What is the ALU? Explain the differences between combinational ALU and sequential ALU.
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