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Roll No. :

BCA-11

Computer Organization

Bachelor of Computer Application (BCA-11/16/17)

4th Semester Examination June 2022

Time : 2 Hours

Max. Marks : 80

Note : This Paper is of Eighty (80) marks divided into two (02) Section A and B. Attempt the questions contained in these sections according to the detailed instructions given there in.

Section-A

(Long Answer-type questions)

Note: Section 'A' contains Five (05) Long-answer type questions of Twenty (20) marks each. Learners are required to answer any two (02) questions only.

(2 x 20 = 40)

Q.1. Write a program to evaluate the arithmetic statement
 $X = A * B + A * (B * D + C * F)$
USE THE ZERO-Address instruction and One-Address instruction.

P.T.O.

- Q.2 a. What is instruction cycle? With timing diagram explain instruction cycle.
- b. What do you mean by addressing mode? Discuss the different addressing mode of 8085 with example.
- Q.3 What is the basic advantage of using interrupt initiated data transfer over transfer under program control without a interrupt.
- Q.4 a. What are the methods for determining Which I/O device has requested an interrupt?
- b. What is the role of the DMA controller when there is a request for memory transfer?
- Q.5 Discuss construction and working of a magnetic disk.
Discuss various components of disk access time.

Section-B

(Short Answer-type questions)

Note: Section 'B' contains Eight (08) Short-answer type questions of ten (10) marks each. Learners are required to answer any four (04) questions.

(4 x 10 = 40)

P.T.O.

- Q.1 Design a Flip flop and explain its working.
- Q.2 What is register? Write the different types of register are user with symbols.
- Q.3 Design a 4bit adder with 1 half adder and three full adder. Also draw the truth table.
- Q.4 Design a adder and subtractor circuit. explain its working.
- Q.5 Design a 2 to 4 bit encoder and decoder.
- Q.6 Draw the circuit diagram of magnitude comparators.
- Q.7 What is multiplexer and de multiplexer?
- Q.8 Explain different type of memory.

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