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NA—313—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(New/CBCS Pattern)

COMPUTER SCIENCE

Paper-III

(Introduction to Data Structure)

(Saturday, 23-12-2023)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (1) Attempt *all* questions.

(2) Draw neat labelled diagram wherever necessary.

1. What is linked list ? Explain memory representation of linked list. Write an algorithm for searching an element in unsorted linked list. 15

Or

(a) What is data structure ? Explain operations on data structure. 8

(b) Explain control structures. 7

2. What is binary tree ? Explain traversing a binary tree in 'POST ORDER' traversal with algorithm. 15

Or

(a) Explain delete operation in 'Queue' with suitable algorithm. 8

(b) Explain 'PUSH' and 'POP' operation on 'Stack'. 7

P.T.O.

WT

(2)

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3. Write short notes on (any *two*) :

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- (a) Elementary data organization
- (b) Overflow and Underflow
- (c) Representation of Graphs
- (d) Memory representation of stack.

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