

Roll No.

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F-3798

B.Sc. (Part - III) Examination, 2022

(Old/New Course)

INFORMATION TECHNOLOGY

PAPER SECOND

(Fundamental Data Structure)

Time : Three Hours]

[Maximum Marks:50

**Note : Attempt any two parts from each questions.
Questions are giving unit wise. All questions
carry equal marks.**

Unit - 1

1. (A) What is infix and postfix notation? How do you write postfix notation?
- (B) What is queue? Explain dequeue in detail.

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- (C) Write brief note on multiple stacks.

Unit - 2

2. (A) What is linked list? Write applications of it.
- (B) Describe linked list of stacks.
- (C) Explain the concept of linked list of queues.

Unit - 3

3. (A) Discuss tree representations as array and linked list.
- (B) What are binary trees? Write applications of it.
- (C) Describe in order, preorder and post order of binary trees with example.

Unit - 4

4. (A) Discuss sequential search with example.
- (B) Write algorithm for insertion sort.
- (C) Compare different sorting methods.

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Unit - 5

5. (A) What are graphs? Discuss representation of graphs.
- (B) Write algorithm for Breadth First Search.
- (C) Discuss greedy strategy for computing algorithm of KWrushal and prime.