

E-3917

B. C. A. (Part - III) EXAMINATION : 2021

(New Course)

Paper Fifth

Data Structure

(305)

Time : Three Hours]

[Maximum Marks : 80

Note :-All questions are compulsory. Attempt **any two (2)** questions from each unit. All questions carry equal marks.

UNIT -1

1. Explain the basic terminologies of Data Structures.
2. Explain the concept of complexity and time-space tradeoff of algorithms.
3. Explain Data Structure operations.

UNIT -2

1. What are records? When we use records explain with example.
2. Explain concept or Multi dimensional arrays.
3. Explain pointers in Data Structures & How and why they are used.

UNIT -3

1. What is linked list? How can we search an element in a linked list explain with an example.
2. What do you understand by a stack? Describe Stack operations.
3. What are Queues? Explain how queues are processed using a simple example.

UNIT -4

1. What are Binary Trees? Explain the terminologies related with Binary Trees.
2. Explain Threading in Trees with examples.
3. What is a Binary Search Tree? Explain with an example.

UNIT -5

1. Describe selection sort.
2. Define Binary Search. Explain how Binary search works with suitable example.
3. Describe the concept of hashing.
