2023

Full Marks : 60

Time : 3 hours

Answer from **both** the Groups as directed.

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP—A

All questions from this group are compulsory.

1. Define in few words: 1 × 5

   (a) Data

   (b) Data structure

   (c) Array

   (d) Deque

[handwritten: Array link list stack spacke tree traps]

(e) Sorting

2. Define & Differentiate between Stack and Queue.   5

3. Write different types of data structure. 5

GROUP—B

Answer any *three* questions from the following.   15 × 3

4. What do you understand by searching ? Define. Write algorithm for Binary Search.

5. Write a program/algorithm to perform bubble sort.

6. What is link list ? Differentiate between link list and array.
Write functions to perform:

(a) Insertion,

(b) Deletion of a node

7. What is Stack ? Write PUSH & POP functions. Discuss underflow & overflow situations.

8. What do you understand by Binary Tree ? With a neat diagram discuss its different components. Write different properties of a binary tree.