

B.Voc.– Information Technology
I Semester End Examination March/April-2022
DATA STRUCTURE

Course Code: BVIT1DSC03
Time: 2 Hours
Note: Answer all the sections.

QP Code: 1035
Max marks: 60

PART- A

Answer any TEN questions. Each question carries TWO marks.

10X2=20

1. What is data structure? Name any two non-linear data structures.
2. What are types of asymptotic notation?
3. Define sparse matrix.
4. Write any two differences between array and linked list.
5. Define circular linked list.
6. What is recursion?
7. What is linear queue? Mention any one disadvantage.
8. Define the terms Tree and AVL Tree.
9. Write any two applications of B-tree.
10. What is Breadth First Search?
11. Mention any two differences between tree and graph.
12. What is Quick sort?

PART- B

Answer any FIVE questions. Each question carries FOUR marks.

5X4=20

13. Explain four operations perform on non-primitive data structures.
14. Write algorithm to delete an element from array at the beginning.
15. Explain doubly linked list. Mention its advantages.
16. Write C program to find GCD of two numbers.
17. Write a short note on QUEUE.
18. Describe Depth First Search traversal method.
19. Explain linear search technique with an example.

PART- C

Answer any TWO questions. Each question carries TEN marks.

2x10=20

20. Explain classification of Data Structures in detail.
21. Write a c program to push 4, 8, 33, 16, 31 into stack and pop 3 times from the stack, also display the popped numbers.
22. Explain Binary Search Tree with an example.
23. Describe shell sort technique with an example.

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QUESTION PAPER

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