D3BCS2303

Reg. No................................

Name: ....

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2024
(Regular/Improvement/Supplementary)
COMPUTER SCIENCE
GBCS3B04T: DATA STRUCTURES USING C

Time: 2 Hours   **Maximum Marks: 60**

SECTION A: Answer the following questions. Each carries *two* marks.
(Ceiling 20 marks)

1. What is hashing?
2. Define space complexity of an algorithm.
3. Write algorithm for pop operation.
4. What are parallel arrays?
5. What are the applications of string?
6. Define binary tree.
7. What you mean by traversal?
8. Comment on circular queue.
9. Define two way linked list.
10. Give an account on in-order tree traversal with example.
11. List out the use of priority queue.
12. Define degree of tree.

SECTION B: Answer the following questions. Each carries *five* marks.
(Ceiling 30 Marks)

13. Explain bubble sort with example.
14. Write a note on array operations with examples.
15. Discuss data structure operations.
16. What is recursion? Explain with example.
17. Give an account on second pattern matching algorithm.
18. Write an algorithm for simple queue operations.
19. Explain representations of linked list in memory.

SECTION C: Answer any *one* question. The question carries *ten* marks.

20. Explain about BST and its operation.
21. What is graph? Describe its representation and types in detail.

(1 x 10 = 10 Marks)