



**GOVERNMENT COLLEGE (AUTONOMOUS), RAJAHMUNDRY**

(Accredited by NAAC “A+” Grade)

**DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS**

II B.Sc.

Semester-III

**Data Structures Using C**

MODEL QUESTION PAPER (W.E.F 2023-2024)

**Time: 2 ½ Hrs.**

**Max Marks: 50 M**

---

**SECTION - I**

**Answer any FIVE questions**

**5 X 3= 15M**

1. Write a short note on Asymptotic notation.
2. Write a short note on space complexity and time complexities with examples.
3. Write the differences between Arrays and Linked List.
4. Explain applications of Linked List.
5. Explain about recursion, advantages and disadvantages of recursion.
6. Explain about applications of stack.
7. Explain about Bubble sort with example.
8. Explain about Linear search with example.

**SECTION - II**

**Answer the following questions**

**5 X 7 = 35M**

9. Explain about types of data structures with examples.

(OR)

10. Explain about operations of an Array with examples.

11. Explain about double Linked List and its operations.

# Government College (Autonomous) Rajahmundry

Curriculum 2023-24



Version: 1.0

(OR)

12. Explain Circular Linked List with example.

13. Explain about Towers of Hanoi algorithm with example.

(OR)

14. Explain about Queue data structure and its operations.

15. Explain about Quick sort algorithm with example.

(OR)

16. Explain about Indexed Sequential search with example.

17. Explain about Binary Tree Traversal algorithms.

(OR)

18. Explain Breadth First Search and Depth First Search algorithms with examples.