## **B.Sc (Computer Science) Syllabus**

## Rayalaseema University, Kurnool with effect from 2020-2021

## DATA STRUCTURES USING C LAB

Semester	<b>Course Code</b>	Course Title	Hours	Credits
II	C2-P	DATA STRUCTURES USING C LAB	30	2

- 1. Write a program to read 'N' numbers of elements into an array and also perform the following operation on an array
  - a. Add an element at the begging of an array
  - b. Insert an element at given index of array
  - c. Update a element using a values and index
  - d. Delete an existing element
- 2. Write a program using stacks to convert a given
  - a. infix expression to prefix
  - b. infix expression to postfix
- 3. Write Programs to implement the Stack operations using an array
- 4. Write Programs to implement the Stack operations using Linked List.
- 5. Write Programs to implement the Queue operations using an array.
- 6. Write Programs to implement the Queue operations using Linked List.
- 7. Write a program for arithmetic expression evaluation.
- 8. Write a program for Binary Search Tree Traversals
- 9. Write a program to search an item in a given list using Linear Search Algorithm.
- 10. Write a program to search an item in a given list using Binary Search Algorithm
- 11. Write a program for implementation of Bubble Sort Algorithm
- 12. Write a program for implementation of Quick Sort Algorithm
- 13. Write a program for implementation of Insertion Sort Algorithm
- 14. Write a program to implement Depth First Search graph traversals algorithm
- 15. Write a program to implement Breadth First Search graph traversals algorithm