

Heaven's Light is Our Guide
Rajshahi University of Engineering & Technology
Department of Computer Science & Engineering

Lab Manual

Course Code: **CSE 1203 (Sec A)**
Course Title: Sessional based on CSE 1201
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CSE 1202 (Data Structure Lab)
Module 5 [Stacks]: (for Week 6)

Topic 1: [Queue Operations]

- i) Draw flowcharts for i) Enqueue() and ii) Dequeue() operations of a Circular Queue using array.
- ii) Fill up the Table-1 during execution
- iii) Write a Menu program using C++ to implement Queue operations and make it as user-friendly as possible.

Operation	Data	Rear	Front
Enqueue()	10	?	?
Enqueue()	30	?	?
Enqueue()	50	?	?
Dequeue()	?	?	?
Enqueue()	15	?	?
Dequeue()	?	?	?

***** Menu *****

- 1. Enqueue
- 2. Dequeue
- 3. Display
- 4. Exit

Enter your option[1-4]:

Topic 2: [Queue Operations]

Problem Statement: Repeat Topic-1 by implementing Linked list instead of array.

Topic 3: [Ackerman Function]

Problem Statement: Draw the flowchart of Ackerman Function $A(m,n)$ and implement it using C++ Program where m & n should be input from keyboard.

Topic 4: [Tower of Hanoi]

Problem Statement: Implement Tower of Hanoi problem using C++ Program where number of discs n should be input from keyboard.