



COMSATS University Islamabad, Vehari
Department of Computer Science

Course Title:	Data Structure and Algorithm			Course Code:	CSC211	Credit Hours:	4
Course Instructor:	Sundas Amin			Programme	BSSE		
Semester:	3 rd	Batch	B10	Section:	A	Date:	29-04-2019
Time Allowed:	90 minutes			Maximum Marks:	30		
Student's Name:	Ahmer Iqbal			Reg. No.	CIIT/SPI8-BSE-002/VHR		
Important Instructions / Guidelines:							
Read the question paper carefully and answer the questions according to their statements.							
Mobile phones are not allowed. Calculators must not have any data/equations etc. in their memory.							

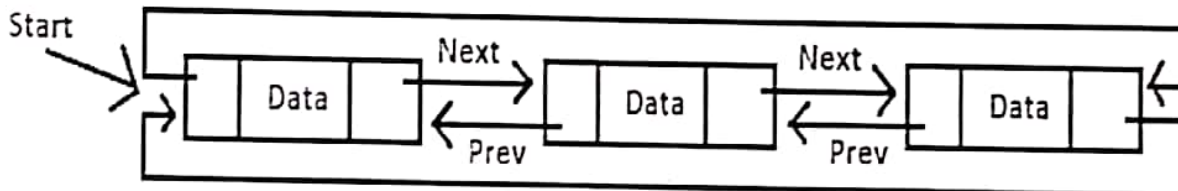
Sessional II Examination Spring 2019

Q# 1. Answer the short questions, each question carry equal marks. (10)

- I. Differentiate between stack and queue.
- II. How to represent the double ended queue.
- III. Differentiate between prefix and postfix expression.
- IV. Write down the applications of circular queue.
- V. What do you mean by going round and round?

Q#3. Write down the algorithm for infix to prefix conversion using stack data structure. (3)

Q# 3. Write a program in C++ to delete all odd positioned nodes from doubly circular Linked List. For example: (5)



Q#4. Write down the functions for double ended queue which can perform following operations. (5)

- a. Insert an item from front end
- b. Delete an item from rear end
- c. Display the contents of queue

Q#5. Write a program in C++ to reverse a linked list using stack. (7)

- a. Traverse the list and push all of its nodes onto a stack.
- b. Traverse the list from the head node again and pop a value from the stack top and connect them in reverse order.
- c. Input : 9 -> 7 -> 4 -> 2
- d. Output : 2 -> 4 -> 7 -> 9

_____The End_____