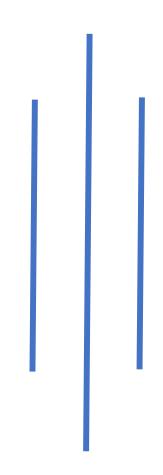


Thamel, Kathmandu



## Data Structure and Algorithm <u>Lab Report</u>

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Submission Date:	Signature

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S. No	Name of Experiment	Date of Submission	Signature	Remarks
1	Write a menu driven program to illustrate basic operations of stack using array.  a) Push b) Pop c) Traverse d) Exit			
2	Write a menu driven program to illustrate basic operations of stack using pointer.  a) Push b) Pop c) Traverse d) Exit			
3	Write a program to convert Infix Expression into Postfix Expression.			
4	Write a program to convert Infix Expression into Prefix Expression.			
5	Write a recursive program to find the factorial value of given number.			
6	Write a recursive program to find a Fibonacci sequence.			
7	Write a recursive program to find GCD of two integers.			
8	Write a recursive program to implement TOH problem. (Show the output for 3 disks)			
9	Write a menu driven program to illustrate basic operations of Linear queue using array implementation and pointer implementation.  a) Enqueue b) Dequeue c) Display all values d) Exit			
10	Write a menu driven program to illustrate basic operations of circular queue having following menu:  a) Enqueue b) Dequeue c) Traverse d) Exit			
11	Write a program that uses functions to perform the following operations on singly linked list  a) Creation b) Insertion 1) Insertion at beginning 2) Insertion at specified position 3) Insertion at end			

	<ol> <li>Deletion from the beginning</li> </ol>		
	<ol><li>Deletion from the specified position</li></ol>		
	3) Deletion from the end		
	d) Traversal.		
12	e) Exit Write a program that uses functions to perform the		
L <b>Z</b>	following operations on circular linked List		
	a) Creation		
	b) Insertion		
	<ul><li>1) Insertion at beginning</li><li>2) Insertion at specified position</li></ul>		
	3) Insertion at end		
	c) Deletion		
	Deletion from the beginning     Deletion from the appointed position		
	<ul><li>2) Deletion from the specified position</li><li>3) Deletion from the end</li></ul>		
	d) Traversal.		
	e) Exit		
13	Write a program to Implement binary tree and traverse tree with user's choice (Inorder, Preorder,		
	Postorder).		
14	Write a program to implement linear search.		
15	Write a program to implement binary search.		
16	Write a program to implement the hashing techniques.		
17	Write a program to enter n numbers and sort		
	according to		
	Bubble sort     Insertion sort		
	3. Selection sort		
	4. Quick sort		
	5. Merge sort		
18	6. Heap sort Write a program to implement Breadth First Search		
10	and Depth First Search in graph.		
19	Write a program to implement Kruskal's algorithm.		
20	Write a program to implement Dijkastra's algorithm.		