Enrollment No:-_____ Exam Seat No:-_____

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4CO02IDS1 **Subject Name: Advance C & Data Structure**

Course Name: B.Sc. (IT) Date: 18/5/2015

Semester:II Marks:70

Time:10:30 TO 01:30

Instructions:

1) Attempt all Questions of both sections in same answer book/Supplementary.
2) Use of Programmable calculator & any other electronic instrument prohibited.
3) Instructions written on main answer book are strictly to be obeyed.
4) Draw neat diagrams & figures (if necessary) at right places.
5) Assume suitable & perfect data if needed.

Q.-1 Answer the following.

	a)	What is array ? Explain 1D array initialization	3
	b)	What is UDF ? Explain with example.	3
	c)	What is pointer ? Write its advantages.	3
	d)	Explain malloc( ).	3
	e)	Define stack and queue.	2

Attempt any four questions from Q.-2 to Q.-8

Q.-2	a)	Explain linear search.	5
	b)	Describe bubble sort.	5
	c)	Write short note on structure with member accessing.	4
Q.-3	a)	Explain selection sort.	5
	b)	Explain binary search.	5
	c)	Write short note on pointer with member accessing.	4
Q.-4	a)	What is algorithm? Explain algorithm complexity in brief.	5
	b)	Explain primitive and non-primitive data structure.	5
	c)	Discuss stack with push & pop operations.	4

Q.-5	a)	Explain Queue with insert and delete operations.	5
	b)	Explain Linear and non-linear data structures.	5
	c)	Describe circular queue.	4
Q.-6	a)	Explain singly linked list with insert operation.	5
	b)	Explain deletion process of node from doubly linked list.	5
	c)	What is graph? Explain adjacency matrix.	4
Q.-7	a)	Write a C program to perform binary search.	7
	b)	Write a C Program to perform insertion sort.	7
Q.-8	a)	Write a C program of binary tree with any one traversal method.	7
	b)	Write a C Program to create and display doubly linked list.	7