Enrollment No:-_____ Exam Seat No:-_____

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code:5CS01APL1 Subject Name: Advanced Procedural Language & Data Concept

Course Name:M.Sc(IT). Date :4/5/2015

Semester:1 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.

SECTION-I

Q.1	(a)	Define Preprocessor. List any two names of preprocessor in C.	[02]
	(b)	Define term : recursion	[02]
	(c)	List out and Explain any one Data type in C	[03]
Q.2	(a)	Differentiate : Procedural language V/s Object Oriented language	[05]
	(b)	Explain For loop with Syntax and Example.	[05]
	(c)	Differentiate Entry Control V/s Exit Control loop	[04]
		OR	
Q.2	(a)	What is Command line argument? Explain with an example.	[05]
	(b)	What is an array? Explain two dimensional and multidimensional arrays with an example.	[05]
	(c)	Explain Recursion with example.	[04]
Q.3	(a)	Create a small Application with title " Simple Calculator" which performs following choice base operations. (1) Addition of N numbers (2) Subtraction of N numbers (3) Multiplication of N numbers (4) Exit	[07]
	(b)	Explain “call by value” and “call by reference” concept in C with an example.	[07]
		OR	
Q.3	(a)	Explain following String functions with Syntax and Example (1) strcat (2)strcmp(3)strlen(4)strcpy	[07]
	(b)	What is Pointer? Give the advantages of pointer. Explain how to initialize the pointer and how it is different from Array.	[07]

SECTION-II

Q.4	(a)	Define structure in C language.	[01]
	(b)	Differentiate Primitive V/S Non-primitive data structures.	[03]
	(c)	Explain following terms : link list, sorting, searching	[03]
Q.5	(a)	Differentiate between stack & queue. Also explain priority queue.	[05]
	(b)	Explain bubble sort with an example.	[05]
	(c)	Discuss advantages and disadvantages of linked list over an array.	[04]

OR

	(a)	What is Stack? Write down Program for performing POP and PEEP operations on a stack.	[05]
	(b)	Explain selection sort with an example.	[05]
	(c)	Write an advantages of doubly link list and circular link list.	[04]

Q.6	(a)	Explain brief note on : circular queue	[07]
	(b)	Explain doubly link list with example.	[07]

OR

Q.6	(a)	Write a C function to find maximum element from doubly linked list.	[07]
	(b)	Explain the algorithm of merge sort with an example.	[07]