

Course: DATA STRUCTURES WITH C/C++ LABORATORY**Scheme:2010**

Course Code:(10CSL37)

Sem:3

	Course Outcome	POs/ PSOs	CL	Class Sessions (approximate)	Tutorial (Hrs)	Lab Sessions (Hrs)
CO1	Write C programs using structures, unions, dynamic memory allocation functions and command line arguments	PO1	C	NA	NA	12
CO2	Implement C/C++ linear data structures like stacks, queues, linked lists using static and dynamic allocation and their applications	PO1, PO3	AP	NA	NA	12
CO3	Implement C/C++ program for binary search tree using nonlinear data structure.	PO1, PO3	AP	NA	NA	08
CO4	Gain knowledge in concepts of C++ like classes, operator overloading, friend functions, constructor overloading.	PO1	AP	NA	NA	10
Total Hours of instruction						42

Course: DATA STRUCTURES WITH C/C++ LABORATORY**Scheme:2015**

Course Code:(10CSL38)

Sem:3

	Course Outcome	POs/ PSOs	CL	Class Sessions (approximate)	Tutorial (Hrs.)	Lab Sessions (Hrs.)
CO1	Write C programs using arrays, strings, dynamic memory allocation functions	PO1	AP	NA	NA	12
CO2	Implement C linear data structures like stacks, queues, linked lists using static and dynamic allocation and their applications	PO1, PO3	AP	NA	NA	12
CO3	Implement C program for binary search tree and Graphs using nonlinear data structure.	PO1, PO3	AP	NA	NA	08
CO4	Understand and choose the appropriate data structure for solving real world problems.	PO1	AP	NA	NA	08
Total Hours of instruction						40

Academic Year: 2016-17 (ODD)

Scheme: 2015

Course: Data Structures and Applications (15CS33)

Sem: 3

	Course Outcome	POs/ PSOs	CL	Class Sessions (approximate)	Tutorial (Hrs)	Lab Sessions (Hrs)
CO1	Understanding the linear and non-linear data structures, Sorting and searching operations, File structures.	PO1	U	10	NA	NA
CO2	Analyze the performance of - Stack, Queue, and Lists.	PO1 PO2	A	12	NA	NA
CO3	Analyze the performance of Trees, Graphs, Searching and Sorting techniques.	PO1 PO2	A	8	NA	NA
CO4	Implement all the applications of Data structures in a high-level language.	PO1	AP	10	NA	NA

CO5	Design and apply appropriate data structures for solving computing problems	PO1 PO2	AP	10	NA	NA
Total Hours of instruction				50		

Course: Data Structures using C (10CS35)

Scheme: 2010

Academic Year: 2015-2016

Sem: 3

	Course Outcome	POs/ PSOs	CL	Class Sessions (approximate)	Tutorial (Hrs)	Lab Sessions (Hrs)
CO1	Understand pointer usage, data abstraction, arrays, structures, unions, dynamic memory allocation and algorithms.	PO1	U	10	NA	NA
CO2	Analyze the operations of stacks, conversion of expressions, postfix evaluations and queues.	PO1	A	8	NA	NA
CO3	Analyze Singly, Doubly, Circular Singly linked lists and its operations.	PO1	A	9	NA	NA
CO4	Understand the concept of tree, binary tree					

	traversals, threaded binary tree, Selection Trees, Forests and graphs.	PO1	U	10	NA	NA
CO5	Understand the concept of Priority Queues, and types of Heaps	PO1	U	7	NA	NA
CO6	Understand the concept of Binary Search Trees, AVL Trees, Red-Black Trees, and Splay Trees.	PO1	U	8	NA	NA
Total Hours of instruction				52		