Lesson Plan

Name of Faculty   : Ms Madhu Madhan
Discipline   : Computer Engg
   Semester   :   4TH
   Subject   :   Data Structure Using C
   Lesson Plan Duration :   16 Weeks
   Work Load (Lec./Prac): Lecture -3 Practical- 6

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/test)	Pra. Day	Topic
1st	1st	Problem solving concept, top down and bottom updesign	1	The factorial of a given number usingrecursion
	2nd	structured programming Concept of data types,variablesand constants		
	3rd	Concept of pointer variables and constants,Introduction to data Structure	2	The factorial of a given number using recursion
2nd	4th	Array, Linked List, Stack,	3	Inserting elementsin array
	5th	Queue, Trees, graphs	4	Inserting elementsin array
	6th	Revision		
3rd	7th	Concept of Arrays,	5	deleting elementsin array
	8th	Single dimensional array		
	9th	Two dimensional array	6	deleting elements inarray
4th	10th	Representation of Two dimensional Array(Base Address, LB, UB)	7	The addition of twomatrices using functions

	11th	searching,		
	12th	traversing, ,	8	The addition of two matrices using functions
5th	13th	Inserting	9	Insertion of elementsin linked list
	14th	Inserting		
	15th	deleting	10	Deletion of elements in linked list
6th	16th	Revision	11	Insertion of elementsin doubly linked list Deletion of elementsin doubly linked list
	17th	**Test**		
	18th	Introduction to linked list and doublelinked list Representation of linked lists in Memory	12	Insertion of elementsin doubly linked list Deletion of elementsin doubly linked list
7th	19th	Comparison between Linked Listand Array Traversing alinked list Searching linked list	13	Viva-Voce
	20th	Insertion, deletion into linked list (At first Node, Specified Position, Last)	14	Viva-Voce
	21st	Application of linked lists		
8th	22nd	Doubly linked lists	15	Push and pop operation in stack Push and pop operation in stack
	23rd	Traversing a doubly linked lists		

Week	No.	Topic	No.	Practical
	24th	Insertion and deletion into doubly linked lists	16	Conversion from in-fix notation
9th	25th	Introduction to stacks, Representation of stacks with array and Linked List	17	Conversion from in-fix notation
	26th	Implementation of stacks	18	Insertion and Deletion of elements in queue using pointers
	27th	Application of stacks: Polish Notations		
10th	28th	Converting Infix to Post Fix Notation	19	Insertion and Deletion of elements in queue using pointers
	29th	**Test**		
	30th	Evaluation of Post Fix Notation, Tower of Hanoi Recursion: Concept and Comparison between recursion and Iteration	20	Insertion of elements in circular queue using pointer
11th	31st	Introduction to queues, Implementation of queues using array algorithm	21	Deletion of elements in circular queue using pointers
	32nd	Implementation of queues using Linked List with algorithm		
	33rd	Circular Queues , De-queues	22	Traversing of tree
12th	34th	Concept of Binary Trees, Concept of representation of Binary Tree	23	Traversing of tree
	35th	Concept of balanced Binary Tree		
	36th	Traversing Binary Trees (Pre order, Post order and In order)	24	The linear search procedures to search an element in given list
13th	37th	Searching,	25	The binary search procedures to search an element in a given list
	38th	inserting in binary search trees, deleting in binary search trees		
	39th	Linear Search algorithm, Binary Search algorithm	26	The bubble sort techniques
14th	40th	Concept of sorting , Bubble Sort	27	The selection sort techniques
	41st	Insertion Sort		
	42nd	Selection Sort	28	Viva voce
15th	43th	Merge Sort, Radix Sort	29	Viva voce
	44th	Heap Sort		
	45th	Test	30	Revision
16th	46th	Revision		Revision
	47th	Revision		Revision
	48th	Revision		