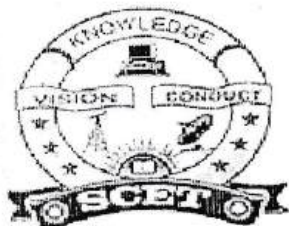


LAB SCHEDULE PLAN

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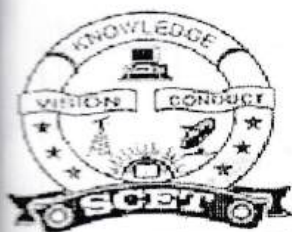
SWARNANDHRA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

Accredited by National Board of Accreditation, AICTE, New Delhi, Accredited by NAAC with "A" Grade – 3.32 CGPA, Recognized under 2(f) & 12(B) of UGC Act, 1956. Approved by AICTE, New Delhi, Permanent Affiliation to JNTUK, Kakinada Seetharampuram, W.G.D.T., Narsapur-534280, (Andhra Pradesh)

DEPARTMENT OF INFORMATION TECHNOLOGY TEACHING PLAN

Course Code	Course Title	Semester	Branch	Contact Periods /Week	Academic Year	Date of commencement of Semester
20CS3L01	Data Structures Lab	III	IT	3 Periods	2023-24	07-08-2023
COURSE OUTCOMES						
1	Implement stack and queue using arrays and linked lists.					
2	Demonstrate applications of stack.					
3	Demonstrate the implementation of linked lists.					
4	Demonstrate the implementation of binary search trees.					
5	Implement different searching and sorting algorithms.					
Experiment Number	Experiment					Contact Hours
1	Implement a menu driven program in C for the following operations on stack of integers using arrays. i) PUSH() ii) POP() iii) PEEK() iv) Display of stack elements					3
2	Implement C program to demonstrate how stack can be used to check whether the given string is palindrome or not.					1
3	Implement a C Program for converting an infix expression to postfix expression.					2
4	Implement a C Program to evaluate postfix expression.					1
5	Implement a menu driven program in C for the following operations on queue of integers using arrays. i) Insertion ii) Deletion iii) Queue overflow and underflow conditions iv) Display of queue elements					2
6	Implement a C program for the queue operations by using stacks.					3
7	Implement a C program for the following (i) Create a singly linked list. (ii) Insert an element into a singly linked list. (iii) Delete an element from a singly linked list.					3
8	Implement a C program for stack operations using Linked list.					1
9	Implement a C program for queue operations using linked list.					1

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10	Implement a C program to reverse elements of a single linked list.	1
11	Implement a C program for the following (i) Create a circular linked list. (ii) Insert an element into a circular linked list. (iii) Delete an element from a circular linked list.	2
12	Implement a C program for the following (i) Create a Doubly linked list. (ii) Insert an element into a doubly linked list. (iii) Delete an element from a doubly linked list.	1
13	Implement a C program to create a Binary Search Tree of integers, insert, delete and search integers into (from) Binary search tree.	2
14	Implement a C program by using recursive functions to traverse a binary search tree in preorder, in-order and post-order.	1
15	Implement C programs for recursive and iterative functions to perform Linear search for a Key value in the given list.	1
16	Implement C programs for recursive and iterative functions to perform Binary search for a Key value in the given list.	2
17	Implement following techniques to sort a given list of integers in ascending order. (i) Insertion sort (ii) Bubble sort (iii) Selection sort	3
18	Implement a C program that read any string and sort in alphabetical order using Bubble sort.	1
19	Implement following techniques to sort a given list of integers in ascending order. (i) Quick sort (ii) Merge sort	2
CUMULATIVE PROPOSED PERIODS		33

	Name	Signature with date
i. Faculty	Mr. Ch R K Raju	<i>Ch R K Raju</i> 7/8/23
ii. Module Coordinator	Mr. Ch R K Raju	<i>Ch R K Raju</i> 7/8/23
iii. Programme Coordinator	Dr. RVSV Prasad	<i>Dr. RVSV Prasad</i> 7/8/23

Principal
Principal