red are not uploaded

purple are uploaded

blue is repeated , not uploaded reference given

Q.1. Data Structure

A) Write menu driven program using ‘C’ for Binary Search Tree. The menu includes

* Create a Binary Search Tree
* Insert element in a Binary Search Tree
* Display

[20 M]

B) Write a ‘C’ program to evaluate a given polynomial using function. (Use array).

[10 M]

Q.2. Data Structure

A) Write a ‘C’ program to accept a string from user and reverse it using Static implementation of Stack.

[20 M]

B) Write a ‘C’ program to create Circularly Doubly Linked list and display it.

[10 M]

Q.3. Data Structure

A)Write a program to create two singly linked list of elements of type integer and find the union of the linked lists. (Accept elements in the sorted order)

[20 M]

B) Write a ‘C’ program to read the adjacency matrix of directed graph and convert it into adjacency list.

[10 M]

Q.4 Data Structure

A) Write menu driven program using ‘C’ for Binary Search Tree. The menu includes

* Create a Binary Search Tree
* Traverse it by using Inorder and Postorder traversing technique

[20 M]

B) Write a ‘C’ program to accept two polynomial and find the addition of accepted polynomials.(use array)

[10 M]

Q.5 Data Structure

A)Write menu driven program using ‘C’ for Binary Search Tree. The menu includes

* Create a Binary Search Tree
* Traverse it by using Inorder and Preorder traversing technique

[20 M]

B) Write a ‘C’ program to create linked list with given number in which data part of each node contains individual digit of the number.

(Ex. Suppose the number is 368 then the nodes of linked list should contain 3, 6, 8)

[10 M]

Q.6 Data Structure

A) Write menu driven program using ‘C’ for Binary Search Tree. The menu includes

* Create a Binary Search Tree
* Traverse it by using Preorder and Postorder traversing technique

[20 M]

B) Write a ‘C’ program to accept and sort n elements in ascending order by using bubble sort.

Q.7 Data Structure

A) Write menu driven program using ‘C’ for Binary Search Tree. The menu includes

* Create a Binary Search Tree
* Display
* Delete a given element from Binary Search Tree

[20 M]

B) Write a ‘C’ program to create a singly linked list and count total number of nodes in it and display the list and total number of Nodes.

Q.8 Data Structure

A) Write menu driven program using ‘C’ for Binary Search Tree. The menu includes

* Create a Binary Search Tree
* Display
* Search the element in Binary Search Tree

[20 M]

B) Write a ‘C’ program to accept and sort n elements in ascending order by using insertion sort.

[10 M]

Q.9Data Structure

A) Write a menu driven program using ‘C’ for singly linked list-

* To create linked list.
* To display linked list
* To search node in linked list.
* Insert at last position

[20 M]

B) Write a menu driven program using ‘C’ for Dynamic implementation of Queue for integers. The menu includes

* Insert
* Delete
* Display
* Exit

Q.10 Data Structure

A)Write a C program that accepts the graph as an adjacency matrix and checks ifthe graph is undirected. The matrix for undirected graph is symmetric. Also calculate in degree of all vertices

* Read a graph as adjacency Matrix
* Check the matrix is symmetric or not
* Calculate indegree of all vertices

[20 M]

B) Write a ‘C’ program to accept and sort n elements in ascending order using Selection sort method.

[10 M]

Q.11 Data Structure

A) Write a C program to accept an infix expression and convert it into postfix form.(Use Static Implementation of Stack)

Example: - A \* B + C as AB\*C+

[20 M]

B) Write a ‘C’ program to create doubly link list and display nodes having odd value

[10 M]

Q. 12. Data Structure

A) Write a ‘C’ program to accept an infix expression, convert it into its equivalent postfix expression and display the result.(Use Dynamic Implementation of Stack)

[20 M]

B)Write menu driven program using ‘C’ for Dynamic implementation of Stack. The menu includes following operations:

* Push
* Pop
* Display
* Exit

Q.13 Data Structure

* A) Write a ‘C’ program which accept the string and reverse each word of the string using Static implementation of stack.
* Example: Input - This is an input string
* Output - sihTsinatupnignirts
* [20 M]
* B) Write a ‘C’ program to create to a Singly linked list. Accept the number from user, search the number in the list.If the number is present display the Position of node .If number not present print the message “Number not Found”. [10 M]

Q. 14 Data Structure

A) Write a ‘C’ program to read ‘n’ integers and store them in a binary Search tree structure and count the following and display it.

* Number of nodes
* Degree of tree
* Leaf nodes

[20 M]

B) Write a ‘C’ program to accept and sort n elements in ascending order using Merge sort method. [10 M]

Q. 15 Data Structure

A) Write a ‘C’ program which accept the string and reverse each word of the string using Dynamic implementation of stack.

Example: Input - This is an input string

Output - sihTsinatupnignirts

[20 M]

B) Write a ‘C’ program to create a singly Link list and display its alternative nodes. (start displaying from first node)

Q. 16 Data Structure

A) Write a ‘C’ program to read an adjacency matrix of a directed graph and traverse using BFS.

[20 M]

B) Write a ‘C’ program Accept n elements from user store it in an array. Accept a value from the user and use linear/Sequential search method to check whether the value is present in array or not. Display proper message.

.Q. 17 Data Structure

A)Implement Dynamic implementation of circular queue of integers with following operation:

- Initialize(),insert(), delete(), isempty(), isfull(), display()

[20 M]

B) Write a ‘C’ program to sort elements of a singly linked list in ascending order and display the sorted List.

[10 M]

Q. 18 Data Structure

A) Write a menu driven program using ‘C’ for singly linked list-

* To create linked list.
* To display linked list
* To insert node at last position of linked list.
* To delete node from specific position of linked list.

(blue part repeated in Q9A, last part only function uploaded)

[20 M]

B) Write a ‘C’ program to create a random array of n integers. Accept a value x from user and use Binary search algorithm to check whether the number is present in array or not.

(Students can accept sorted array or can use any sorting method to sort the array)

[10 M]

Q. 19 Data Structure

A) Write a ‘C’ program to read an adjacency matrix of a directed graph and traverse it using DFS.

[20 M]

B) Write a menu driven program using ‘C’ for singly linked list-

* To create linked list.
* To display linked list

(blue part repeated in Q9A,Q18A)

[10 M]

Q. 20 Data Structure

A)Implement Static implementation of circular queue of integers with following operation:

- Initialize(),insert(), delete(), isempty(), isfull(), display()

[20 M]

B) Write a ‘C’ program to create Doubly Link list and display it.

[10 M]