

2024

COMPUTER SCIENCE — HONOURS — PRACTICAL

Paper : CC-3P

(Data Structure)

Full Marks : 30

SET - 1

Marks Distribution :

Algorithm	:	05
Source Code	:	10
Output	:	05
Laboratory Notebook	:	04
Viva voce	:	06

Answer *any one* question.

1. Write a menu-driven program in C to perform the following functions on an array, which is given as input by the user —
 - (a) Print the second largest number without sorting
 - (b) Display the array in reverse order.

2. Write a program in C to transpose a matrix, and print the smallest number (along with its row and column indices).

3. Write a program in C to create a singly-linked list, after taking the number of elements as an input from the user. Then perform the following operations using a menu —
 - (a) Search for a particular item and print its position (if found)
 - (b) Display the list.

(2)

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4. Write a program in C to perform merging of two singly-linked list. The two input lists need to be created after taking the necessary details from the user.

 5. Write a program in C to implement circular queue using array, and handle all possible error cases.

 6. Write a program in C to evaluate a postfix expression.

 7. Write a program in C to input a list of integers, and sort the list using Bubble Sort.

 8. Write a program in C to create a Binary Search Tree (BST) and perform in-order traversal in non-recursive manner.
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