Lab Task 3 (1D Array)

Time: 2.00 Hrs **Mark: 20 Marks**

Loop:

1. **Initialising byte array with decimal, octal and hexadecimal numbers in C++**
   Here, we are going to learn how to declare a byte array and initialize an array with decimal, octal and hexadecimal numbers in C++language.
2. **C++program to count Array elements by using sizeof() operator**
   In this C++program, we will learn how to count the total number of elements in a one-dimensional array using sizeof() operator?
3. **C++program to swap the first element with last, second to second last, and so on (reversing elements)**
   In this C++program, we are going to swap array elements (like the first element with last, a second element with second last, and so on... i.e. reversing the array elements).
4. **C++program to find a nearest lesser and greater element in an array**
   In this C++program, we are going to learn how to find the nearest lesser and greater element in an array? Here, the given array has N elements.
5. **C++program to merge two arrays in the third array which is created dynamically**
   In this C++program, we are merging two one-dimensional arrays in the third array, where the size of the first and second arrays are different and the size of the third array will be the size of the first array + the second array.
6. **C++program to calculate the median of an array**
   In this C++program, we are going to learn how to find the median of an array? Here, we are reading N elements and finding their median element.
7. **C++program to delete prime numbers from an array**
   In this C++program, we are going to learn how can we check and delete prime numbers from an array? We are declaring an array with some prime and nonprime numbers and deleting prime numbers and then printing array elements with the numbers which are not prime.
8. **C++program to check prime numbers in an array**
   In this C++program, we are going to learn to check prime numbers in an array. We will declare an array with some prime and nonprime numbers, and then print the elements with “prime” and “Not Prime” message.
9. **C++program to create array with reverse elements of one dimensional array**
   In this C++program, we are going to learn how to create an array with reverse elements of given array? Here, we have an array with some integer elements and we have to create another array by assigning elements of first array in reverse order.
10. **C++program to count total number of elements divisible by a specifiC++number in an array**
    Here, we are implementing a C++program that will count total number of elements divisible by a specifiC++number in an array.

11. **C++program to create a new array from a given array with the elements divisible by a specifiC++number**
    Here, we are implementing a C++program that will create a new array from a given array with the elements divisible by a specifiC++number in an array.
12. **C++program to find second largest elements in a one dimensional array**
    In this article, we are going to write a C++program to find the second maximum element from one dimensional array.
13. **C++program to find two largest elements in a one dimensional array**
    Here, we are implementing a C++program that finds the two largest numbers from a one dimensional array.
14. **C++program to find second smallest element in a one dimensional array**
    Here, we are implementing a C++program that will read a one dimensional array of integers and find the second smallest element it.
15. **C++program to find two smallest elements in a one dimensional array**
    In this article we are going to implement a C++program to find two smallest elements in a one dimensional array.
16. **C++Program to Cyclically Permute the Elements of an Array**
    Here, we are implementing a C++program, which will cyclically permute the elements of an array.
17. **C++program to accept Sorted Array and do Search using Binary Search**
    Here, we are going to learn how to perform binary search on a sorted array: Here, a sorted array is given and we have to perform binary search on it.
18. **C++Program to find the Biggest Number in an Array of Numbers using Recursion**
    Here, we are going to implement a C++program to find the biggest number in an array of numbers using recursion.
19. **C++program to print the number of subset whose elements have difference 0 or 1**
    Here, we are going to learn how to print the number of subset whose elements have difference 0 or 1 using C++program?
20. **C++program to read and print One Dimensional Array of integer elements**
    This program will read and print 10 elements of integer type using One Dimensional Array. To read and print 10 elements we will run loop from index 0 to 9 because first elements stores at index 0 and this index is called base index of the array.
21. **C++program to calculate Sum, Product of all elements**
    This program will read N One Dimensional Array Elements, and calculate the Sum and Product of all elements and print the sum and product.
22. **C++program to find Smallest and Largest elements from One Dimensional Array Elements**
    This program will read 10 elements and find the smallest and largest elements from inputted One Dimensional Array Elements.
23. **C++program to replace all EVEN elements by 0 and Odd by 1 in One Dimensional Array**
    This program will read 10 elements of integer type using One Dimensional Array and replace all EVEN elements by 0 and ODD by 1.

24. **C++program to merge Two One Dimensional Arrays elements**
    This program will read Two One Dimensional Array of same data type (integer type) and merge them into another One Dimensional Array of same type.
25. **C++program to Add and Subtract of Two One Dimensional Array elements**
    This program will read two One Dimensional Array and create third One Dimensional Array by adding and subtracting elements of inputted two One Dimensional Array elements.
26. **C++program to find a number from array elements**
    In this program, we are reading an array of integers and a number to find it from the given array elements.
27. **C++program to sort array elements in ascending order**
    In this program, we are reading an array of integers and sorting array elements in ascending order.
28. **C++program to reverse array element**
    This C++program will read N array elements and reverse them, this will print reversed array elements.
29. **C++program to swap adjacent elements of a one dimensional array**
    Given N array elements and we have to swap adjacent elements using C++program.
30. **C++program to find the occurrence of an element in one dimensional array**
    Here, we are going to learn how to find occurrence of an element in one dimensional array in C++programming language?
31. **C++program to sort an one dimensional array in ascending order**
    Given an array with N integer elements and we have sort them in ascending order.
32. **C++program to sort an one dimensional array in descending order**
    Given an array with N integer elements and we have sort them in descending order.
33. **C++program to delete given element from one dimensional array**
    Given an array with N integer elements and we have to delete given element from the array using C++program.
34. **C++program to find the first repeated element in an array**
    This program will read 5 integer numbers and find first repeated element, program will print the element and its index on which repeated element found.
35. **C++program to calculate the sum of array elements using pointers as an argument**
    Here, we are going to learn how to calculate the sum of array elements using pointers as an argument in C++programming language?
36. **C++program to add two dynamic arrays**
    Here, we are going to learn how to add two dynamiC++arrays in C++programming language?
37. **C++program to find the sum of the largest contiguous subarray**
    Here, we are going to learn how to find the sum of the largest contiguous subarray in C++programming language?
38. **C++program to split an array and add the first half after the second half of the array**
    Here, we are going to learn how to split an array and add the first half after the second half of the array in C++programming language?

39. **C++program to generate pascal triangle using the array**
    Here, we are going to learn how to generate Pascal Triangle using the array in C++programming language?
40. **C++program to access array element out of bounds**
    Here, we are going to learn how to access array element out of bounds in C++programming language?
41. **C++program to print alternate elements of the array**
    Here, we are going to learn how to print alternate elements of the array in C++programming language?
42. **C++program to print the non-repeated elements of an array**
    Here, we are going to learn how to print the non-repeated elements of an array in C++programming language?
43. **C++program to find the total of non-repeated elements of an array**
    Here, we are going to learn how to find the total of non-repeated elements of an array in C++programming language?
44. **C++program to find the missing number in the array**
    Here, we are going to learn how to find the missing number in the array in C++programming language?
45. **C++program to find the missing number in the array using the bitwise XOR operator**
    Here, we are going to learn how to find the missing number in the array using the bitwise XOR operator in C++programming language?
46. **C++program to segregate 1's and 0's in the array**
    Here, we are going to learn how to segregate 1's and 0's in the array in C++programming language?
47. **C++program to find the difference between the largest and smallest element in the array**
    Here, we are going to learn how to find the difference between the largest and smallest element in the array in C++programming language?
48. **C++program to print the square of array elements**
    Here, we are going to learn how to print the square of array elements in C++programming language?
49. **C++program to find two elements whose sum is closest to zero**
    Here, we are going to learn how to find two elements whose sum is closest to zero in C++programming language?
50. **C++program to check a given number appears more than N/2 times in a sorted array of N integers**
    Here, we are going to learn how to check a given number appears more than N/2 times in a sorted array of N integers in C++programming language?
51. **C++program to find the median of two sorted arrays with same using simple merge-based O(n) solution**
    Here, we are going to learn how to find the median of two sorted arrays with same using simple merge-based O(n) solution in C++programming language?

52. **C++program to find the median of two arrays using a divide and conquer-based efficient solution**

    Here, we are going to learn how to find the median of two arrays using a divide and conquer-based efficient solution in C++programming language?

53. **C++program to find the intersection of two arrays**

    Here, we are going to learn how to find the intersection of two arrays in C++programming language?

54. **C++program to find the union of two arrays**

    Given two integer arrays, we have to find the union using C++program.

55. **C++program to find the size of the array using macro**

    Given an array, we have to create a macro to find the size of the given array using C++program.

56. **C++program to find the ceiling element of the given number in the sorted array**

    Given a sorted array arr[] and a number item, the ceiling of the item is the smallest element in array arr[] greater than or equal to item. We have to find the ceiling value of the given number in the sorted array using C++program.

57. **C++program to find the floor element of the given number in the sorted array**

    Given a sorted array arr[] and a number item, the floor of the item is the greatest element smaller than or equal to the item. We have to find the floor value of the given number in the sorted array using C++program.

58. **C++program to create an integer array and store the EVEN and ODD elements in a different array**

    Here, we will create an integer array then find and store EVEN and ODD elements in two different separate arrays and print them.