Tutorial Sheet : 1-D Array

Q1. **Write a program in C++ to find the index of the element in an array.**
Sample Input :
5
10 5 7 18 6
5
Sample Output :
1

Q2. **Write a program in C++ to find the elements in the array which are greater than its neighbours.**
Sample Input :
5
10 5 7 18 6
Sample Output :
18

Q3. **Write a program in C++ to find the no of elements which are greater than mean of the array .**
Sample Input :
5
2 4 6 8 10
Sample Output :
2

Q4. **Write a program in C++ to find the no. of elements within a given range.**
Sample Input :
5
10 5 7 18 6
2
7
Sample Output :
3

Q5. **Write a program in C++ to find maximum element in an array.**
Sample Input :
5
10 5 7 18 6
Sample Output :
18

Q6. **Write a program in C++ to find the elements which are present in first array and not in second array.**
Sample Input :
5
10 5 7 18 6
5 7 8 4 6
Sample Output :
10 18

Q7. **Write a program in C++ to find reverse of an array.**
Sample Input :
5
10 5 7 18 6
Sample Output :
6 18 7 5 10

Q8. **Write a program in C++ to find hamming distance between two binary numbers.**
Sample Input :
5
1 1 0 1 0
1 1 1 0 1
Sample Output :
3

Q9. **Write a program in C++ to find out he highest strike rate of the batsman.**
Sample Input :
5
10 5 7 18 6
4 2 3 17 2
Sample Output :
300
Input Description :
First line denotes an integer N, the number of elements in the array .
Second line denotes the runs scored by each batsman.
Third line denotes the balls faced by each batsman.

Q10. **Write a program in C++ to find xor of two binary numbers.**
Sample Input :
4
1 0 1 1
1 1 1 1
Sample Output :
0 1 0 0

Q11. **Write a program in C++ to find all the leaders in an array .**(A leader is an element which is greater than all the elements present towards its right.)
Sample Input :
5
10 5 7 18 6
Sample Output :
18 6

Q12. **Write a program in C++ to merge two sorted array.**
Sample Input :
2
10 12
11 13
Sample Output :
10 11 12 13

Q13. **Write a program in C++ to modify the array as per the following rules .**

- If both the elements of the array is even, then modifies the element of the first array by the sum of element of both the array.
- If both the element of the array is odd, then it modifies the element of the first array by the product of element of both the array.
- Otherwise do nothing.

Sample Input :
5
10 5 7 18 6
2 3 4 5 8
Sample Output :
12 15 7 18 14

Q14. **Write a program in C++ to find whether an array is palindrome or not.**
Sample Input :
5
1 2 3 2 1
Sample Output :
Palindrome

Q15. **Write a program in C++ to modify the array such that all negative no. are followed by positive no.**
Sample Input :
5
-10 5 -7 18 6
Sample Output :
-10 -7 5 18 6

Q16. **Write a program in C++ to perform subtraction of two binary numbers stored in an array.**
Sample Input :
4 4
1 0 1 0
1 0 0 0
Sample Output :
2

Q17. **Write a program in C++ to find decimal equivalent of a given binary array.**
Sample Input :
5
1 0 0 0 0
Sample Output :
16

Q18. **Write a program in C++ to convert a decimal number to its binary equivalent (store the bits in array).**
Sample Input :
5
Sample Output :
1 0 1

Q19. **Write a program in C++ to delete second largest from an array. Assume duplicate elements are not allowed in array.**
Sample Input :
5
1 2 3 7 8
Sample Output :
1 2 3 8

Q20. **Write a program in C++ to delete the kth index of the array .**
Sample Input :
5
10 5 7 18 6
2
Sample Output :
10 5 18 6

Q21. **Write a program in C++ to find parity bits of given set of binary numbers by even parity method.**
Sample Input :
5
1 0 0 1 0
Sample Output :
0

Q22. **Write a program in C++ to left rotate an array by 1**
Sample Input :
5
10 5 7 18 6
Sample Output :
5 7 18 6 10

Q23. **Write a program in C++ to shift the 0's at even position and 1's at odd position in a binary array. If there are more 0's than 1's or vice versa put them at the end of array.**
Sample Input :
5
1 0 0 0 1
Sample Output :
0 1 0 1 0

Q 24. **Study how to allocate an array dynamically and try it.**

Q 25. **Study about different methods of passing an array to a function and try them.**
