Dot Net Technology BCA 5th Semester

Lab Sheet – 1

1. Write a C# program to calculate factorial of a number using value type.
2. Write a C# program to calculate sum of array using reference type.
3. Write a C# program to illustrate call by value and call by reference.
4. Write a C# program to illustrate different parameters like ref, out, params, optional, etc.
5. Write a C# program to input 10 numbers in array and find largest number.
6. Write a C# program to calculate sum of all elements of rectangular array.
7. Write a C# program to calculate product of each row of jagged array.
8. Write a C# program to create and use namespace.
9. Write a C# program to find sum and product of two numbers using **delegate**.
10. Write a C# program to calculate factorial of a number using delegate.
11. Write a C# program to demonstrate **multicasting of delegates**.
12. Write a C# program to check whether a number is odd or even using function delegate.
13. Write a C# program to check whether a number is prime or composite usingaction delegate.
14. Write a C# program to demonstrate **statement lambda**.
15. Write a C# program to demonstrate **expression lambda**.
16. Write a C# program to demonstrate exception handling using try, catch and finally block.
17. Write a C# program to handle index out of range exception.
18. Write a C# program to handle IOException.
19. Write a C# program to handle NullReferenceException.
20. Write a C# program to input two numbers. If both numbers are equal then throw your own custom exception. Otherwise calculate sum of two numbers.
21. Write a C# program for rethrowing of exception.
22. Write a program in C# Sharp to create a list of numbers and display the numbers greater than 80 as output using **LINQ**. Also display all selected numbers in descending order.
23. Write a C# program to demonstrate aggregate functions using **LINQ**.
24. Write a C# program to store id, name, age, address and salary of 5 employees in a **list**. Now write LINQ query for the following:
    - Select name and age of employees whose salary is greater than 20000 and age is less than 35.
    - Select all records of employees whose name starts with letter ‘R’ and age greater than 25 in descending order based on age.
    - Select all records of employee whose salary is maximum.
    - Select id and name of employee whose salary is between 20000 and 30000.
    - Select id and name of employees whose address is Btm and salary is greater than average salary of employees.
    - Select records of employee group by address in ascending order based on age.
25. Write a C# program to demonstrate **Join** using LINQ.