

**THINGS TO KNOW:**

- 1. Lab report must contain following sections: (order must be maintained)**
  - a) Title /Question
  - b) Theory: The brief overview of the concept /techniques/technology used in the program
  - c) Code: The complete code
  - d) Output: Screenshot of the output
- 2. Output screen should be captured (use snipping tool), printed and attached in the report. Other contents must be handwritten.**
- 3. Every Source code must include the printing statements to print following information after your main output:**  
 Lab No.:  
 Name:  
 Roll No./Section :
- 4. Contents should be written on single side of A4 sized paper.**
- 5. The works must be submitted within deadline.**
- 6. Cover page and contents page should be attached in the report appropriately**

**Contents Page Format (can be printed)****List of Lab Works**

| <b>Lab<br/>No.</b> | <b>Title /Question</b> | <b>Submission<br/>Date</b> | <b>Signature</b> | <b>Remarks</b> |
|--------------------|------------------------|----------------------------|------------------|----------------|
| 1(a)               | This is sample title   | 2079/03/15                 |                  |                |
| 1(b)               | This is another title  | 2079/03/17                 |                  |                |
|                    |                        |                            |                  |                |
|                    |                        |                            |                  |                |
|                    |                        |                            |                  |                |

## Lab Works(part-1)

**[Create Project with the name “YourNameNCCLab” if your name is Gopal then your project name should be “GopalNCCLab”]**

1. Write a C# program to demonstrate five types of constructor in C#.
2. WAP in C# to demonstrate concept of auto Property and Read-Only Property.
3. WAP in C# to demonstrate jagged array.
4. WAP to demonstrate Indexer in C#:
  - a) When index is of int type
  - b) When index is of other than int type.
5. WAP to demonstrate:
  - a) The use of base keyword to access base class fields
  - b) The use of base keyword to call base class methods
  - c) The use of base keyword to call base class constructor
6. Program to show
  - a) method overriding and method hiding/shadowing in C#
  - b) dynamic polymorphism using method overriding.
7. WAP to illustrate the concept of
  - a) Abstract class
  - b) Interface
  - c) Multiple inheritance using interface in C#
8. WAP program that contains:
  - a) Structure (struct)
  - b) Enumeration (enum)
  - c) Partial class
9. WAP to illustrate the concept of:
  - a) Delegate
  - b) Multicast delegate
  - c) Func Delegate
  - d) Action Delegate
  - e) Anonymous Method
  - f) Event in C#.
10. WAP which use any
  - a) Non generic collection
  - b) Generic Collection
11. Program to demonstrate the use of Generic Class with Generic field and method.
12. WAP to take input from keyboard and write them to a file
13. WAP to demonstrate the concept of LINQ
14. WAP to
  - a) demonstrate Lamda Expressions in C#.
  - b) LINQ with Lamda Expression in C#
15. WAP to
  - a) demonstrate exception handling in C# using try, catch and finally blocks.
  - b) deal with throw keyword in exception handling
  - c) demonstrate custom exception handling
16. WAP
  - a) to use built-in attributes in C#.
  - b) to create and use custom attribute in C#.
17. WAP to demonstrate asynchronous programming in C# using async and await keywords.