1 a). Create a simple Console Application Program to display a text message.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace lab1
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Everything Happens for a Reason");
            Console.ReadKey();
        }
    }
}
```

(b).Taking non numerical data from keyboard into Console Application.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace ConsoleApplication2
{
    class Program
    {
        static void Main(string[] args)
        {
            string name = "";
            Console.WriteLine("Please enter your name:");
            name = Console.ReadLine();
            Console.WriteLine("Name: " + name);
            Console.ReadKey();
        }
    }
}
```

(c).Taking numerical data in Console Application

```
using System;
using System.Collections.Generic;
using System.Linq;
```

```
using System.Text;

namespace ConsoleApplication3
{
    class Program
    {
        static void Main(string[] args)
        {
            int age = 0;
            Console.WriteLine("Please enter your age:");
            age = Convert.ToInt16(Console.ReadLine());
            Console.WriteLine("Age: " + age);
            Console.ReadKey();
        }
    }
}
```

2. (a) Calculate the quadrant for the coordinates using if..else ladder

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace ConsoleApplication4
{
    class Program
    {
        static void Main(string[] args)
        {
            int co1, co2;
            Console.Write("\n\n");
            Console.Write("Find the quadrant in which the coordinate
point lies: \n");
            Console.Write("_\t");
            Console.Write("\n\n");
            Console.Write("Input the value for X coordinate: ");
            co1 = Convert.ToInt32(Console.ReadLine());
            Console.Write("Input the value for Y coordinate: ");
            co2 = Convert.ToInt32(Console.ReadLine());
            if (co1 > 0 && co2 > 0)
                Console.Write("The coordinate point ({0}, {1}) lies in
the First quadrant. \n\n", co1, co2);
            else if (co1 < 0 && co2 > 0)
                Console.Write("The coordinate point ({0}, {1}) lies in
the Second quadrant. \n\n", co1, co2);
```

```
            else if (co1 < 0 && co2 < 0)
                Console.Write("The coordinate point ({0}, {1}) lies in
the Third quadrant. \n\n", co1, co2);
            else if (co1 > 0 && co2 < 0)
                Console.Write("The coordinate point ({0}, {1}) lies in
the Fourth quadrant.\n\n", co1, co2);
            else if (co1 == 0 && co2 == 0)
                Console.Write("The coordinate point ({0}, {1}) lies at
the origin. \n\n", co1, co2);
            Console.ReadKey();
        }
    }
}
```

(b) Check whether the alphabet is a vowel or not using switch..case.

```
using System;

using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace ConsoleApplication5
{
    class Program
    {
        static void Main(string[] args)
        {
            char ch;
            Console.Write("\n\n");
            Console.Write("Check whether the input alphabet is a vowel
or not:\n");
            Console.Write("_\t");
            Console.Write("\n\n");
            Console.Write("Input an alphabet (A-Z or a-z): ");
            ch = Convert.ToChar(Console.ReadLine().ToLower());
            int i = ch;
            if (i >= 48 && i <= 57)
            {
                Console.Write("You entered a number, please enter an
alphabet.");
            }
            else
            {
                switch (ch)
```

```
                {
                    case 'a':
                        Console.WriteLine("The alphabet is a vowel.");
                        break;
                    case 'i':
                        Console.WriteLine("The alphabet is a vowel.");
                        break;
                    case 'o':
                        Console.WriteLine("The alphabet is a vowel.");
                        break;
                    case 'u':
                        Console.WriteLine("The alphabet is a vowel.");
                        break;
                    case 'e':
                        Console.WriteLine("The alphabet is a vowel.");
                        break;
                    default:
                        Console.WriteLine("The alphabet is a
consonant.");
                        break;
                }
                Console.ReadKey();
            }
        }
    }
}
```

(c) To understand about for..each loop and strings.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace ConsoleApplication6
{
    class Program
    {
        static void Main(string[] args)
        {
            string str;
            int length = 0;
            Console.Write("\n\nFind the length of a string: ");
            Console.Write("_\t\n");
            Console.Write("Input the string: ");
            str = Console.ReadLine();
```

```
            foreach (char chr in str)
            {
                length += 1;
            }
            Console.Write("Length of the string is: {0}\n\n", length);
            Console.ReadKey();
        }
    }
}
```

3. Simple calculator program using C#.Net windows Application
b) USING CHECKBOX

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace WindowsFormsApplication1
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void checkBox1_CheckedChanged(object sender, EventArgs
e)
        {
            UpdateLabelFontStyle();
        }

        private void checkBox2_CheckedChanged(object sender, EventArgs
e)
        {
            UpdateLabelFontStyle();
        }

        private void UpdateLabelFontStyle()
```

```
        {
            FontStyle style = FontStyle.Regular;

            if (checkBox1.Checked)
                style |= FontStyle.Bold;

            if (checkBox2.Checked)
                style |= FontStyle.Italic;

            label1.Font = new Font(label1.Font, style);
        }
    }
}
```

4. **Working with various Controls such as timer, calendar, etc.,**

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace WindowsFormsApplication1
{
    public partial class Form1 : Form
    {
        private DateTimePicker timePicker;

        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {
            timePicker = new DateTimePicker();
            timePicker.Format = DateTimePickerFormat.Time;
            timePicker.ShowUpDown = true;
            timePicker.Width = 100;
            Controls.Add(timePicker);
        }

        [STAThread]
```

```
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.Run(new Form1());
        }
    }
}
```

5 AccessingDatawith ADO.NET

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Data.OleDb;

namespace ConsoleApplication19
{
    class Program
    {
        static void Main(string[] args)
        {
            string connectionString =
"Provider=Microsoft.ACE.OLEDB.12.0;Data
Source=C:\\Users\\S342\\Documents\\theciyasiva.accdb";
            OleDbConnection conn = new
OleDbConnection(connectionString);
            string sql = "SELECT name, address, salary FROM employee";
            OleDbCommand cmd = new OleDbCommand(sql, conn);

            Console.WriteLine("Person Name\tAddress\t\tSalary");

Console.WriteLine("=========================================");

            try
            {
                conn.Open();
                using (OleDbDataReader reader = cmd.ExecuteReader())
                {
                    while (reader.Read())
                    {
                        Console.WriteLine("{0}\t\t{1}\t\t{2}",
                            reader["name"].ToString(),
                            reader["address"].ToString(),
                            reader["salary"].ToString());
```

```
                    }
                }
            }
            catch (Exception ex)
            {
                Console.WriteLine(ex.Message);
            }
            finally
            {
                conn.Close();
            }

            Console.ReadKey();
        }
    }
}
```