**C#**

**ASSIGNMENT - 1**

**i)Temperature check**

```
Using System;
Class Program
{
   Static void Main()
   {
      Float temperature = 36.6f;
      If (temperature > 37.0f)
         Console.WriteLine(“Fever”);
      Else
         Console.WriteLine(“Normal”);
   }
}
```

---

**ii). Age voting eligibility**

```
using System;
class Program
{
```

```
   Static void Main()
   {
      Int age = 18;
      If (age >= 18)
         Console.WriteLine(“Eligible to Vote”);
      Else
         Console.WriteLine(“Not Eligible”);
   }
}
```

---

**iii) Gender check**

```
using System;
class Program
{
   Static void Main()
   {
      Char gender = ‘M’;
      If (gender == ‘M’)
         Console.WriteLine(“Male”);
      Else if (gender == ‘F’)
         Console.WriteLine(“Female”);
      Else
         Console.WriteLine(“Other”);
   }
}
```

---

**iv) Price after discount**

```
using System;
class Program
{
   Static void Main()
   {
      Double price = 1000.0;
      Double discount = 10.0;
      Double finalPrice = price – (price * discount / 100);
      Console.WriteLine(“Final Price = “ + finalPrice);
   }
}
```

---

**v) Login success**

```
using System;
class Program
{
   Static void Main()
   {
      Bool loginSuccess = true;
      If (loginSuccess)
         Console.WriteLine(“Login successful”);
      Else
```

```
        Console.WriteLine(“Access denied”);
    }
}
```

---

**vi) Print literals with type**

```
using System;
class Program
{
    Static void Main()
    {
        Int age = 25;
        Float temperature = 98.6f;
        Char grade = ‘A’;
        Bool isPassed = true;

        Console.WriteLine($”Value: {age}, Type: {age.GetType()}”);
        Console.WriteLine($”Value: {temperature}, Type: {temperature.GetType()}”);
        Console.WriteLine($”Value: {grade}, Type: {grade.GetType()}”);
        Console.WriteLine($”Value: {isPassed}, Type: {isPassed.GetType()}”);
    }
}
```

---

**2)**

**i) Kids Calculator**

```
Using System;
Class Program
{
   Static void Main()
   {
      Int a = 10, b = 5;

      Console.WriteLine(“Total apples = “ + (a + b));
      Console.WriteLine(“Difference of pencils = “ + (a – b));
      Console.WriteLine(“Total pages copied = “ + (a * b));
      Console.WriteLine(“Chocolates per kid = “ + (a / b));
      Console.WriteLine(“Leftover candies = “ + (a % b));
   }
}
```

---

**ii.Game – Compare Scores**

```
Using System;
Class Program
{
   Static void Main()
   {
      Int playerA = 20, playerB = 15;
      Console.WriteLine(“Player A scored more than B? “ + (playerA > playerB));
```

```
    Console.WriteLine(“Scores are equal? “ + (playerA == playerB));
    Console.WriteLine(“Any player failed to beat the other? “ + (playerA <= playerB || playerB <= playerA));
  }
}
```

---

**iii)Login System (Logical Operators)**

```
Using System;
Class Program
{
  Static void Main()
  {
    String username = “admin”;
    String password = “1234”;
    Console.Write(“Enter username: “);
    String u = Console.ReadLine();
    Console.Write(“Enter password: “);
    String p = Console.ReadLine();
    // && operator
    If (u == username && p == password)
      Console.WriteLine(“Access Granted”);
    Else
      Console.WriteLine(“Access Denied”);
```

```
    Console.WriteLine(“Either username or password correct? “ + (u == username || p == password));
    // ! operator
    Console.WriteLine(“Opposite of Access: “ + !(u == username && p == password));
  }
}
```

---

**iv) Quiz Points Update**

```
Using System;
Class Program
{
  Static void Main()
  {
    Int score = 50;
    Console.WriteLine(“Starting score: “ + score);
    Score += 10; // correct answer
    Console.WriteLine(“After correct answer: “ + score);
    Score -= 5; // wrong answer
    Console.WriteLine(“After wrong answer: “ + score);
    Score *= 2; // bonus round
    Console.WriteLine(“After bonus round: “ + score);
    Score /= 5; // penalty
    Console.WriteLine(“After penalty: “ + score);
  }
```

```
}
```

---

**V) Election Booth (Loop for 5 people)**

```
Using System;
Class Program
{
   Static void Main()
   {
      For (int I = 1; I <= 5; i++)
      {
         Console.Write(“Enter age of person “ + I + “: “);
         Int age = int.Parse(Console.ReadLine());
         If (age >= 18)
            Console.WriteLine(“Eligible to Vote”);
         Else
            Console.WriteLine(“Not Eligible”);
      }
   }
}
```

---

**3)i)ATM PIN System (max 3 tries)**

```
Using System;
Class Program
```

```
{
   Static void Main()
   {
      Int correctPIN = 1234;
      Int attempts = 0;
      Bool access = false;

      While (attempts < 3)
      {
         Console.Write(“Enter PIN: “);
         Int pin = int.Parse(Console.ReadLine());
         If (pin == correctPIN)
         {
            Console.WriteLine(“Access Granted”);
            Access = true;
            Break;
         }
         Else
         {
            Console.WriteLine(“Wrong PIN. Try again.”);
            Attempts++;
         }
      }

      If (!access)
         Console.WriteLine(“Card Blocked”);
```

```
    }
}
```

---

**ii-a) Multiplication Table**

```
using System;

class Program
{
    Static void Main()
    {
        String choice;
        Do
        {
            Console.Write(“Enter a number: “);
            Int num = int.Parse(Console.ReadLine());

            Console.WriteLine(“Multiplication Table of “ + num);
            For (int I = 1; I <= 10; i++)
            {
                Console.WriteLine($”{num} x {i} = {num * i}”);
            }
            Console.Write(“Do you want another number? (Y/N): “);
            Choice = Console.ReadLine();
```

```
    } while (choice.ToUpper() == “Y”);
  }
}
```

---

**ii-b) Electricity Bill Calculation**

```
using System;
class Program
{
  Static void Main()
  {
    Console.Write(“Enter units consumed: “);
    Int units = int.Parse(Console.ReadLine());
    Int bill = 0;
    If (units <= 100)
      Bill = units * 2;
    Else if (units <= 200)
      Bill = (100 * 2) + ((units – 100) * 3);
    Else
      Bill = (100 * 2) + (100 * 3) + ((units – 200) * 5);
    Console.WriteLine(“Total Bill: ₹” + bill);
  }
}
```

**i) Student Average Marks**

```
Using System;
Class Program
{
   Static void Main()
   {
      Int[] marks = new int[5];
      Int total = 0;
      Console.WriteLine(“Enter 5 subject marks:”);
      For (int I = 0; I < 5; i++)
      {
         Marks[i] = int.Parse(Console.ReadLine());
         Total += marks[i];
      }
      Double average = total / 5.0;
      Console.WriteLine(“Average = “ + average);
      If (average >= 40)
         Console.WriteLine(“Result: Passed”);
      Else
         Console.WriteLine(“Result: Failed”);
   }
}
```

**ii) Name Validation (No digits/special chars)**

```
Using System;
Using System.Text.RegularExpressions;
Class Program
{
   Static bool IsValidName(string name)
   {
      // Regex: only alphabets allowed
      Return Regex.IsMatch(name, @"^[A-Za-z]+$");
   }
   Static void Main()
   {
      Console.Write("Enter your name: ");
      String name = Console.ReadLine();

      If (IsValidName(name))
         Console.WriteLine("Valid Name");
      Else
         Console.WriteLine("Invalid Name – contains digits/special characters");
   }
}
```