## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1.   Answer the following short questions.                         (6x5=30)**

**Provide a brief description of each of the following concepts/tools/processes, limiting your response to maximum TWO pages each.**

**1)** What are identifiers in programming and why are they important?

**2)** What is a template in programming, and how is it used?

**3)** How are constants defined and used in programming?

**4)** Write the output produced by the following program.

```
Dim x As Decimal
Dim y As Decimal

x = 5.1
y = 2

Console.WriteLine("x \ y = " & x \ y)

Console.WriteLine("x Mod y = " & x Mod y)
```

**5)** Write the output produced by the following program.

```
Dim x As Integer = 4
Dim y As Integer = 6
Dim z As Integer = 1

If (x > y) And (x > z) Then
    Console.WriteLine("X")

ElseIf (y > z) Then
    Console.WriteLine("Y")

Else
    Console.WriteLine("Z")

End If
```

**6)** Write the output produced by the following program.

```
Dim size As Integer = 4

For i As Integer = 1 To size

    For k As Integer = 1 To i * 2 - 1
        Console.Write("*")
    Next

    For j As Integer = 1 To size - i
        Console.Write(" ")
    Next

    Console.WriteLine()

Next
```

**Q.2.   Answer the following questions                         (3x10=30)**

**1)** Write a program that prompts the user to enter two integers and displays "Odd" if the absolute difference between them is an odd number, and "Even" if the absolute difference between them is an even number.

**2)** Write a complete program that accepts or rejects applicants for seasonal jobs. To qualify for a job, an applicant must be at least 16 years old and have two-year work experience. Additionally, the applicant must either be able to lift at least 40 pounds or be able to type 50 words per minute. Accept all relevant data from a user and display an appropriate message (Accepted or Rejected).

**3)** Write a program that lets the user enter a series of integers. The user should enter —99 to signal the end of the series. After all the numbers have been entered, the program should display the smallest number entered by the user.