



NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
JUNE/JULY EXAMINATION

COURSE CODE: CIT351

COURSE TITLE: C# Programming **(2 units)**

TIME ALLOWED: 3hrs

INSTRUCTION: Answer any **four (4)** questions.

QUESTIONS

1. Study the source code in the window below carefully and answer the questions that follow:

```
using System.Windows.Forms;
using System.Drawing;

class MyForm:Form{
    public static void Main(){
        Application.Run(new MyForm());
    }

    protected override void OnPaint(PaintEventArgs e){
        e.Graphics.DrawString("Hello World!", new Font("Arial", 35),
            Brushes.Blue, 10, 100);
    }
}
```

- 1a. What is the main purpose of defining the 'MyForm' class? (7 $\frac{1}{2}$ marks)
- 1b. State the common way of deriving naming standards in C# programming. (5 marks)
- 1c. What is the significance of employing the right standard in naming objects in C# programming? (5 marks)

[Total = 17 $\frac{1}{2}$ marks]

- 2a. Describe how memory leaks are handled in C# programming? (7 $\frac{1}{2}$ marks)
- 2b. State the guiding principle for accomplishing the following:
- i. Designating an end statement (5 marks)
 - ii. Enhancing a source code legibility (5 marks)

[Total = 17 $\frac{1}{2}$ marks]

3a. In the event where an application is saved as Learning.cs, state the procedure required to produce and run this application. (10 marks)

3b. Specify the categories of Static Properties commonly employed in C# programming. (7_{1/2} marks)

[Total = 17_{1/2} marks]

4. Go through the FibObj.cs source code below carefully, before answering the questions that follow:

```
using System;

public class Fib{
    Decimal current;
    Decimal last;
    public Fib(){
        current = 1;
        last = 0;
    }

    private Fib(Decimal last, Decimal secondToLast){
        current = last+secondToLast;
        this.last = last;
    }

    public Fib GetNext(){
        return new Fib(current, last);
    }

    public Decimal Value{
        get{return current;}
    }
}
```

4a. What does the source code describe and how is it used? (7_{1/2} marks)

4b. State the key steps required to build a code library using the source code above. (10 marks)

[Total = 17_{1/2} marks]

5a. Write 3 standard programming tasks carried out in VisualStudio.NET. (12 marks)

5b. State the key role of the Solution Explorer in C# programming. (5_{1/2} marks)

[Total = 17_{1/2} marks]