



*(Knowledge for development)*

**KIBABII UNIVERSITY**

**(KIBU)**

**UNIVERSITY EXAMINATIONS**

**2020/2021 ACADEMIC YEAR**

**SPECIAL/SUPPLEMENTARY EXAMINATIONS**

**YEAR ONE SEMESTER ONE EXAMINATIONS**

**FOR THE DIPLOMA IN**

**(INFORMATION TECHNOLOGY)**

**COURSE CODE : DIT052**

**COURSE TITLE : RAPID APPLICATION  
DEVELOPMENT**

**DATE: 27/09/2021      TIME: 8.00 A.M. -10.00 A.M.**

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**INSTRUCTIONS TO CANDIDATE**

**ANSWER QUESTION ONE AND ANY OTHER TWO**

**QUESTION ONE [COMPULSARY] (24 MARKS)**

- a) What is Visual Basic (VB)? [2 Marks]
- b) Compare visual basic program with other popular programming languages [6 Marks]
- c) You can use the + or the & operator to join two or more texts (string) together. Write a code to output the following. "Madam Emily likes to teach" using either + or & operator. [5 Marks]
- d) Define the following terms as used in VB.Net [6 Marks]
- i. Object
  - ii. Class
  - iii. Methods
  - iv. Instance variables
- e) List and explain the main components of a .NET framework architecture? [5 Marks]

**QUESTION TWO (18 MARKS)**

- a) Why is visual Basic VB known as an object oriented programming language? [2 Marks]
- b) Outline six features of Visual Basic (VB) [6 Marks]
- c) Study the vb program below and give the output as they are arranged. [4 Marks]

```
Private Sub Form_Activate ( )
```

```
Print 20 + 10  
Print 20 - 10  
Print 20 * 10  
Print 20 / 10  
End Sub
```

- d) Using examples, differentiate global and local variables [6 Marks]

**QUESTION THREE (18 MARKS)**

- a) Define a data type. [2 Marks]
- b) List and explain five types of loops available in VB.NET: [5 Marks]

- c) + or the & operator is used to Concat two or more string in Visual basic. Below is the code to Concat two string in visual basic. Which contains 3 strings str1, str2, str3. What is the meaning of concatenation? Give the output of the code below. **[5 Marks]**

Module Module1

```
Sub Main( )
```

```
Dim str1, str2, str3 As String
```

```
str1 = "Visual"
```

```
str2 = "Basic"
```

```
str3 = "Program"
```

```
Console.WriteLine(str1 + " " + str2 + " " + str3)
```

```
Console.ReadLine()
```

```
End Sub
```

```
End Module
```

- d) List and explain different types of operators in visual basic **[6 Marks]**

#### **QUESTION FOUR (18 MARKS)**

- a) Explain in brief i) data adapter and ii) dataset **[4 Marks]**
- b) Differentiate btw ADO. AND ADO.NET on basis of objects, client application and transactions. **[6 Marks]**
- c) Outline two types of arrays **[4 Marks]**
- d) In VB.Net, Every Control has its own properties which describe the control. Properties are divided into two types. Name and explain the properties. **[4 Marks]**

#### **QUESTION FIVE (18 MARKS)**

- a)
- i. What is .NET Framework? **[2 Marks]**
- ii. Suppose a variable is passed by value to a parameter of a Sub procedure, and the parameter has its value changed inside the Sub procedure. What will the value of the variable be after the Sub procedure has executed? **[2 Marks]**
- iii. What does the divide-and-conquer-method of problem solving do? **[2 Marks]**
- iv. What is the role of Properties window in development of VB applications? **[2 Marks]**
- v) What is a Pseudo code? **[2 Marks]**

- b) In VB.Net, We can access properties in two ways. By using Properties Window or by using code. Discuss briefly these two scenarios. **[4 Marks]**
- c) Study the nested loop below and give its output. **[4 Marks]**

```
Private Sub Form_Activate ()  
For firstCounter= 1 to 5  
Print "Hello"  
For secondCounter=1 to 4  
Print "Welcome to .Net frameworks"  
Next secondCounter  
Next firstCounter  
Print "Thank you"  
End Sub
```