



**KIBABII UNIVERSITY COLLEGE**

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**UNIVERSITY EXAMINATIONS  
2014/2015 ACADEMIC YEAR**

**1<sup>ST</sup> YEAR 1<sup>ST</sup> SEMESTER EXAMINATIONS**

FOR THE CERTIFICATE IN INFORMATION TECHNOLOGY

**COURSE CODE: ITC 017**  
**COURSE TITLE: Visual Basic Programming**

**DATE: May, 2014**

**TIME: 2 Hrs**

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**INSTRUCTIONS**

Answer Questions ONE and ANY OTHER TWO.

1.

a.)

i) Define the following terms as used in programming

1. Semantics

2. Syntax

3. Logic (6Marks)

ii) Describe any five importance of programming (5 Marks)

iii) Differentiate between the following as used in Programming

1. Parameter and Argument

2. A variable and an Array (4 Marks)

b.) Consider the following marks achieved in a Form One class at Kibabii Mixed School in a maths class : -

<b>Name</b>	<b>Mark</b>	<b>Name</b>	<b>Mark</b>
John	53	Augustine	71
Hillary	88	Mark	62
Rose	44	Lavine	34

If the grading system was as follows:-

0 – 19	E	45 – 49	C –	65 – 69	B
20 – 29	D –	50 – 54	C	70 – 79	B +
30 – 39	D	55 – 59	C +	80 – 84	A –
40 – 44	D +	60 – 64	B –	85 – 99	A

Write a program that would allocate grades to the students mark, capturing situations that fall below the 0 and above 99 mark respectively as “Not Applicable”. Use the select case decision making construct (5 Marks)

c.) Consider the following program:-

```
Private Sub Command1_Click()  
    Dim x As Integer  
    x=10  
    Do  
        debug.print x  
    Loop Until x>1  
End Sub
```

i) State the output of the above program (2 Marks)

ii) Identify and state the type of error committed in the above program.

Correct it so that it can print values from 10 to 1 in that order. (3 Marks)

d.) Write a program that implements a two dimensional array, to hold the values in the table below:-

45	87	45	28
34	56	84	71
65	43	23	96

Use the While ... loop iterative control construct. (5 Marks)

Q2)

a.)

i) Giving appropriate examples, define a Procedure as used in

programming (3 Marks)

ii) Differentiate between a Private and a Public Procedure (2 Marks)

iii) Write a procedure that would change the background of a textbox to blue color (2 Marks)

b.)

i) Define a function as used in programming (2 Marks)

ii) Differentiate between a Public and a Global Function (2 Marks)

iii) Write a simple function that would divide any two values requested from the user. (4 Marks)

Q3)

a.)

Basic

i) Differentiate between Integer and Double data types as used in visual (2 Marks)

ii) Briefly describe the three types of control structures used in visual basic programming. (9 Marks)

iii) Draw a flow chart diagram that shall implement the if ... elseif ... else control construct. (4 marks)

Q4)

- a.) Differentiate between the *Do while ... loop* and the *Do ... loop until* control constructs ( 4 marks)
- b.) Draw a flow chart diagram that would implement the *do ... loop until* control construct. (2 Marks)
- c.) Using the *for ... next* loop control construct, write a program that would print even numbers between 0 – 20 in descending order. (4 Marks)
- d.) State and explain the output of the following program. (5 Marks)

```
Private Sub Command1_Click()
```

```
    Dim x As Integer
```

```
    x=0
```

```
    while x<=10
```

```
        If x=8 then
```

```
            goto Ruka:
```

```
        end if
```

```
        x=x+2
```

```
        debug.print x
```

```
    wend
```

```
Ruka:
```

```
    While x<=20
```

```
        x=x+1
```

```
        debug.print x
```

```
    wend
```

```
End Sub
```

Q5)

a.) Define the term array as used in programming (2 Marks)

b.) Giving examples, describe any two types of arrays (4 Marks)

c.) Re-Write the following program using the for ... next iterative construct (5 Marks)

```
Private Sub Command1_Click()  
    Dim Array_values as Integer  
    Dim y As Integer  
    Dim z As Integer  
  
    y=0  
    z=0  
    while y<=2  
        while z<=4  
            select case y  
                case is =0  
                    x(y,z)=z+1  
                case else  
                    if z=0 then  
                        x(y,z)=y+1  
                    else  
                        x(y,z)=x(y,(z-1))+ (y+1)  
                    end if  
                end select  
            z=z+1  
        wend  
        y=y+1  
    wend  
End Sub
```

c) Write a program that implements the following two dimensional array, performing the

required operations to achieve values as shown below

(5 Marks)

1	2	3	4	5
2	4	6	8	10
3	6	9	12	15