(Knowledge for Development)

KIBABII UNIVERSITY
(KIBU)
UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS
YEAR ONE SEMESTER ONE EXAMINATIONS

FOR THE DIPLOMA IN
(INFORMATION TECHNOLOGY)

COURSE CODE : DIT 052

COURSE TITLE : RAPID APPLICATION PROGRAMMING

DATE: 16/01/2018 **TIME:** 9.00-11.00 AM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE [24 MARKS]

a. Giving examples where necessary, describe the following as used in Computer Programming Languages:-

i.	Semantics	iv.	Function
ii.	Code	v.	Variable
iii.	Do While … Loop		

[10 Marks]

b. Giving examples where necessary, describe the following terms as used in Visual Basic Programming:-

i)	Global variable	iii)	Private Procedure
ii)	Public Function	iv)	Do … Loop Until [8 Marks]

QUESTION TWO [18 MARKS]

a. Draw a flowchart diagram that represents the flow of:-

i)	Select case	iii)	For … Next
ii)	While … loop	iv)	Do while …loop [8 Marks]

b. Write a program that implements:-

i) Do …Loop Until control construct to count odd numbers from 20 to 0 [5 Marks]

ii) Do While …Loop control construct to count odd numbers from 20 to 0 [5 Marks]

QUESTION THREE [18 MARKS]

Discuss the six stages of system analysis and design [18 Marks]

QUESTION FOUR [18 MARKS]

a. There are various ways in which one can connect to a database with Visual Basic only as the interface. Giving an advantage and a disadvantage in each case, identify these ways [6 Marks]

b. Explain the step by step execution of the following program:

```
Private Sub Command3_Click()
Dim ArrayValues(5, 10) As Integer
Dim X,Y As Integer
```

```
X = 5
While X >= 0
   Y = 0
   While Y < 10
      ArrayValues(X, Y) = Y - X
      Y = Y + 1
   Wend
   X = X - 1
Wend
End Sub                                                          [6 Marks]
```

   c. Identify any six controls in the Visual Basic Toolbox   [3 Marks]

   d. Give the nomenclature for each of the control identified above   [3 Marks]

QUESTION FIVE [18 MARKS]

The Director of studies St Anthony's Primary School Kibabii has requested you to automate the student information so that it is easy for the management to analyze student performance in various activities undertaken in the school. He/She gives you the following information:-

During admissions, a student is assigned a registration number, class and dormitory in which they shall reside while at school. However, they are required to give the admissions desk their surnames, other names, guardian names, guardian contacts, date of admission class they are joining and marks attained at the previous level i.e. KCPE.

The student is then directed to a class as per the information given, which would Form 1, Form 2, Form 3 or Form 4.

But just before settling in class, they are directed to their dormitories where they shall stay for the rest of the term they are in school. The dormitories are Lion, Elephant, Buffalo, Leopard, Cheetah, Tiger, Peacock and Eagle.

Required:-
   i.)   Model the respective database fields and tables   [6 Marks]
   ii.)   Using diagrammatic illustrations, define a suitable interface for the database you have modelled in (ii) above   [6 Marks]
   iii.) Describe the features of a good interface   [6 Marks]