



MURANG'A UNIVERSITY COLLEGE
 (A Constituent College of Jomo Kenyatta University of Agriculture and Technology)
 University Examinations 2015/2016
**SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
 BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

BIT 2323: APPLICATION PROGRAMMING II

COURSE: B.Sc. IT

TIME: 2HRS

DAY/TIME: 8.30-10.30 am

DATE: 18TH APRIL 2016

Instructions: Answer Question 1 and Any Other Two.

Question One (20 marks)

- (a) You have a textbox named **textbox1** and you want to be able to assign it background color to it using color common dialog. Write a program to select a color which is assigned to textbox1. (6 marks)
- (b) Write a program using a function procedure called **Commission** to calculate and return a salesperson's commission based on sales amount as indicated on the table below:

SALES (Kes)	SALES COMMISSION (%)
Less than 1000	0
1001-2000	5
2001-5000	8
5001-10000	10
10001 and above	15

(12 marks)

- (c) Using an array write a program to enter marks for ten students, using an inputbox, compute the totals and average and output via message box (9 marks)
- (d) Explain the purpose of the following tools (3 Marks)
- i. ToolStripContainer
 - ii. StatusStrip
 - iii. MenuStrip

Question Two (20 marks)

- (a) With use of a array of structure consider the following employee details:

FirstName, LastName, EmployeeNo, HireDate and Designation

Write a program that can input the details of ten (10) employees and output via listbox

(10 marks)

- (b) In relation to vb.net describe the following terms (5 marks)

- i. Abstraction
- ii. Encapsulation
- iii. Polymorphism
- iv. Constructor

- (c) Write a program that accepts two numbers via InputBox and adds those numbers and output results via MessageBox. (5 Marks)

Question Three (20 marks)

- (a) The System. Collections namespace provides classes for several types of collections. All of the collection classes have properties and methods. List five Examples of collection types (5 Marks)

- (b) You are provided with a MS-Access database (StudentsDatabse.mdb), which has one table (Student) and a Visual Basic form interface to allow adding, deleting and searching records. You are required to write code to allow linking to the database and provision of the above functions. (10 marks)

- (c) Explain the following terms as used in database applications (5 Marks)
- i. Binding source
 - ii. Table adapter
 - iii. Dataset
 - iv. ADO
 - v. Data Source

Question Four (20 marks)

- (a) Write a program that writes and reads the name of a student and his/her phone number from a file and displays them on the form, and each time the user clicks **Next** ,the program reads and displays the next record (10 Marks)

(b) Explain **five(5)** common dialog components provided with Visual Studio (5 Marks)

(c) Explain the use of the following controls (5 Marks)

- i. TreeView
- ii. ListView
- iii. TabControl
- iv. GroupBox
- v. ListBox