



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & IT

UNIVERSITY EXAMINATIONS 2012/2013
FOR THE DEGREE OF BACHELOR OF TECHNOLOGY IN INFORMATION COMMUNICATION
TECHNOLOGY
(BTIT/MAY 2011/J/ET)

EIT 4106: APPLICATION BUILDING

Year I Semester II SUPPLEMENTARY/SPECIAL EXAMINATIONS

SERIES: FEBRUARY 2013

TIME: 2 HOURS

INSTRUCTIONS:

- This paper consists of **FIVE** questions
- Answer questions **ONE** and any other **TWO** questions.

This paper consists of Four printed pages.

QUESTION 1

- a) What is the NET framework? As you explain, outline THREE properties that characterize the NET framework. **(4 marks)**
- b) i) What is the target machine when you compile source code in NET?
ii) Which compiler is necessary to execute an application in the NET framework? **(5 marks)**
- c) What do each of the following acronyms stand for? Outline:
i) ADO
ii) ODBC **(2 marks)**
- d) i) Describe what is required to make a menu option clickable or a clickbox functional.
ii) when is a RadioButton control preferred over a clickbox control? When is a combobox control preferred over a listBox control. **(6 marks)**
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- e) i) Describe at least FOUR ways window-based application is differs from console applications. **(4 marks)**
- f) Differentiate between accessor and unator methods. As you differentiate, give the general syntax of each. **(4 marks)**
- g) i) What is class member method? Discuss.
 ii) Which storage class modifier is used to define a class member method? Outline.
 iii) Give TWO class member methods that can be used with class console. **(5 marks)**

QUESTION 2

- a) i) Define the term property as used in a class definition. As you define give the general syntax of defining a property in Visual Basic.
 ii) Is there any member element you can compare with a property in C++? Discuss
 iii) The following is an expert of a course class.
 Class coruse
 // attributes
 Private string concede
 Private string conerTitle
 Private byte noufruits;

 Using the Code excerpt above
1. Define a construction for class, which has three parameter, whose values will be used to initialize the three instance variables.
 2. Define a property for each instance variable. **(18 marks)**
- b) How are member methods defined in VB.NET? Explain. **(2 marks)**

QUESTION 3

- a) i) What does the acrynym OLE DB stand for? Outline.
 ii) Briefly explain what is OLE DB and why is it important as a data access technology.
 iii) outline the factors that can be used to guide a programmer to choose a specific data access technology. (13 marks)
- b) i) Write a code segment that creates a connection object of a Microsoft Access database called student. Mdb and opens the connection object.
 ii) Briefly explain the function of each of the methods used with a command object.
 1. Executer Readerl)
 2. ExecuteNonavery) **(7 marks)**

QUESTION 4

- a) What is the implication of the common Type System (CTS) concept in the NET framework. **(3 marks)**
- b) Briefly explain each of the following as used in Visual Studio:
i) Interlligence
ii) Boiler plate code **(4 marks)**
- c) Identify which property could be set so that a form object would perform the following function:
i) Change the background color of a form
ii) Set the default font to courier for all controls that are added.
iii) Associate a name of designform with the form object.
iv) Position the window near the center of the screen. (5 marks)
- d) Explain the difference between an overloaded and an overridden method. Give an example of each. (4 marks)
- e) How do abstract classes differ from interface classes. (2 makrs)
- f) What do each of the following acryonyms stand for? Outline.
i) ADO
ii) ODBC (2 marks)

QUESTION 5

- a) The following is a windows form in VB.NET

The textboxes are named Extone and txtTwo respectively, while the command button is named cmdcompare. Using the windows from above write an event handler that will compare two strings entered in the textboxes if they are equal or not; and display an appropriate message. Before you compare check if there are string values entered or not. **(10 marks)**

- b) i) What is a control? Define.

ii) Give **TWO** controls that you know, as you give, outline **TWO** properties that these **TWO** controls share. **(5 marks)**

c) Give the tools used to include the following controls in a windows form:

i) A status bar

ii) A tool bar

iii) A menubar

State the common features of the controls above.

(5 marks)