



TECHNICAL UNIVERISTY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:  
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY (BSIT 12J)

**BIT 2206: APPLICATION PROGRAMMING II**

END OF SEMESTER EXAMINATION

**SERIES: DECEMBER 2013**

**TIME: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Attempt question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

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**Question One (Compulsory)**

- a) Describe the various Data Access Objects supported by Visual Basic. **(10 marks)**
- b) Discuss the following standard controls used in visual basic:
- (i) MSHFlexGrid
  - (ii) DataGrid
  - (iii) ADODC
  - (iv) ListView
  - (v) CommonDialogBox **(10 marks)**
- c) A database name PROPETY.MDB in drive C:\ is contained in a directory name SYSTEM. Use ADO component to:
- (i) Declare, initiate and open the connection and Recordset objects
  - (ii) A table named ASSET is used and all the fields are selected. **(10 marks)**

## Question Two

- a) Describe the Application/program Development Life-cycle (AMM A/PDLC). Clearly state the phases, pay activities of each phase and the outcome/achievable of each phase. **(8 marks)**
- b) Write an embedded SQL script to create a stable named customers with the following field details:
- Customer ID Number (5)
  - Customer Name Text (30)
  - Contact Person Text (20)
  - Address Text (20)
  - Location Text (15)
  - Telephone Number Number (12) **(4 marks)**
- b) Draw/sketch VB Application GUI which can be used to capture CUSTOMER information in (b) above. **(4 marks)**
- c) Write ADO code to facilitate the functionalities of the above (c) VB Application GUI. **(4 Marks)**

## Question Three

- a) Briefly discuss the difference between and ActiveX control modules, their functionalities and advantages in application programming using VB. **(8 marks)**
- b) The dialog boxes are important in interacting with users
- (i) Write a general syntax of the input box function **(3 marks)**
- (ii) Draw/sketch an inputbox produced by the following code/statement
- Input BOX “Type the Product Code”  
“Search product record”  
“PD-0500-1000-PE” **(3 marks)**
- c) Briefly discuss the role of the following 4GL|prototyping development tools:
- (i) Application/code generators
  - (ii) Report Generators/Writers
  - (iii) Screen/Form Generators **(6 marks)**

## Question Four

- a) Explain the term “ActiveX control” outline the steps you would take follows add and ActiveX control to the tool box **(6 marks)**
- b) (i) State the importance of an MDI forms in VB application **(4 marks)**  
(ii) Mention the properties you would set to make a form a child form in an MDI application **(4 marks)**
- c) (i) Differentiate between an ActiveX control and a DLL **(2 marks)**  
(ii) Give an advantage and a disadvantage of each. **(4 marks)**

### Question Five

- a) Discuss at least THREE advantages of dynamic linking **(6 marks)**
- b) Differentiate between In-Process-Server (IPS) and Out-Of Process Server (OPS) **(4 marks)**
- c) (i) Explain how one can create an ActiveX In-process Server (DLL) which has the following properties:  
**(i)** Student Name  
**(ii)** Admission Number  
**(iii)** Average Mark **(6 marks)**
- (ii) The server has a method to determine if the student passed or not. Student is concerned to have passed if the average mark  $\geq 40$  **(4 marks)**