



TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:
BACHELOR OF TECHNOLOGY IN INFORMATION COMMUNICAITON
TECHNOLOGY
(BTICT)

EIT 4203: WINDOWS DESKTOP APPLICATION PROGRAMMING

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

Question One (Compulsory)

- a) Describe the following string functions giving the syntax in each case:
- | | |
|-----------------|-----------|
| (i) Str Reverse | (2 marks) |
| (ii) InstrRev | (2 marks) |
| (iii) MID \$ | (2 marks) |
| (iv) RTrim \$ | (2 marks) |
| (v) Len | (2 marks) |
- b) Distinguish between global and procedural variables. (6 marks)
- c) Define the term, Integrated Development Environment (2 marks)

- d) Describe any THREE items found in the Visual Basic Integrated Development Environment. (6 marks)
- e) Using an example, illustrate branching and looping statements (6 marks)

Question Two

- a) Describe the “ReDim” statement (2 marks)
- b) Distinguish between passing arguments by reference and passing arguments by value (6 marks)
- c) Describe TWO types of procedures in Visual Basic using example where necessary (6 marks)
- d) Outline the steps used to create menus in an MDI form (6 marks)

Question Three

- a) Dim Number 1, number 2, number 3, divisor as integer.
Dim total, average as variant
Private sub form_click ()
Number 1 = val (Text1.Text)
Number 2 = val(Text2.Text)
Number 3 = val(Text3.Text)
divisor =val(Text4.Text)
total = number 1 + number 2 + number 3
average = total/divisor
Label 1. caption = total
Label 2.caption = average
End sub

Using the above code do the following:

- (i) Introduce error handling to end the program gracefully in the event that the user enters zero as the divisor. (6 marks)
- (ii) Introduce validations to ensure that the user enters a value in the text boxes, Text 1, Text 2, Text 3 (6 marks)
- b) Distinguish between early and late binding (4 marks)
- c) Define the following terms:
(i) DQL
(ii) DML (4 marks)

Question Four

- a) Using an example where necessary, describe the use of any FOUR mathematical functions (4 marks)
- b) Give the format for the following:
(i) If...Then...Else statement (4 marks)
(ii) Select case....End select control structure (6 marks)
- c) Outline the steps that you would use to connect a data control to a database and display the contents of a field. (6 marks)

Question Five

- a) Define the following terms:
 (i) Command Builder
 (ii) Data Adapter
 (iii) Data Reader **(6 marks)**
- b) Distinguish between sequential and random file access **(6 marks)**
- c) Explain why ADO is preferred to data control when accessing databases **(4 marks)**
- d) Distinguish between Object Oriented and Procedural Programming **(4 marks)**