



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

Faculty of Engineering & Technology

DEPARTMENT COMPUTER SCIENCE & INFORMATION TECHNOLOGY

BACHELOR OF TECHNOLOGY IN INFORMATION COMMUNICATION TECHNOLOGY- BTECH ICT
11M

EIT 4106: APPLICATION BUILDING

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: FEBRUARY/MARCH 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions in **TWO** sections **A & B**

Answer 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

SECTION A (COMPULSORY)

Question 1 30 marks

- (a.) Give **SIX** database objects that Access provides for every database you create in Access. (6 marks)
- (b.) Define the term data type. As you define give three data types used when defining attributes in a table. (4 marks)
- (c.) What is a Database Management System (DBMS)? Give four examples of a DBMS in use. (4 marks)
- (d.) Differentiate between a primary key and a foreign key. Why do we use a primary key in a table? Explain. (6 marks)
- (e.) (i.) What is a module
(ii.) Why is VBA important? (3 marks)

- (f.) When, you click on the ellipses (...) next to an event, in the event tab of the properties window, you will be given the following builders:
- i. Code Builder
 - ii. Expression Builder
 - iii. Macro Builder

Briefly explain what each builder does in VBA (7 marks)

SECTION B

Question 2 20 marks

- (a.) Explain, each of the following terms as used in an object:
- (i.) Property
 - (ii.) Method
 - (iii.) Event
- (6 marks)

- (b.) (i.) What is a collection? As you explain, give four collections that you know.
- (ii.) Give the general syntax for each of the four ways one can reference an object in a collection in VBA. (7 marks)

- (c.) Name at least two ways that you can view properties, methods and events available for a given object. (2 marks)

Question 3 20 marks

- (a.) (i.) Describe the three elements make up HCI.
- (ii.) Why do you think its important to do a good user interface design? Outline. (8 marks)
- (b.) (i.) Define the term usability.
- (ii.) As you explain in (i.) briefly describe the three properties of usability. (4 marks)
- (c.) (i.) Why do you think user interfaces are bad?
- (ii.) Briefly describe the problems of poor or bad user interfaces. (8 marks)

Question 4 20 marks

- (a.) What is a field property? Explain. Give three field properties that can be used in defining an attribute. (4 marks)

- (b.) Distinguish between the three controls namely combo box, list box and textbox when use in a form object. (3 marks)
- (c.) (i.) Why is the property control source important in both forms and report, and when do we specify this property? Discuss.
- (ii.) Give the default sections of a new report in design view. (6 marks)
- (d.) Explain the term input mask and hence describe the three sections used to define an input mask of a specific field. (4 marks)
- (e.) Briefly outline the objective of a Form object in Access and give the default section(s) of a new Form in design view. (3 marks)

Question 5 20 marks

- (a.) One of the properties of the relational database model is enforcing integrity constraints on its database namely entity constraint, domain constraint and referential integrity constraint. With aid of an example explain each of the constraints. (6 marks)
- (b.) Define the query and outline the two major types of queries that you can create in Access. (3 marks)
- (c.) Define each of the following terms as used in queries:
- (i.) dynaset
- (ii.) parameter query
- (iii.) criteria (3 marks)
- (d.) What can you achieve with a totals query? Explain. (2 marks)
- (e.) Briefly explain the term select query and its importance. (3 marks)
- (f.) Define the term calculated field. As you define give its general syntax. (3 marks)