



MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

P.O. Box 972-60200 Meru - Kenya. Tel: 020-2092048, 020 2069349
Fax: 020-8027449

University Examinations 2010/2011

SECOND YEAR, SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN
INFORMATION TECHNOLOGY

BIT 2206: APPLICATION PROGRAMMING II

DATE: DECEMBER 2010

TIME: 2 HOURS

INSTRUCTIONS: Answer Questions *One* in Section A and any other *Two* Questions from
Section B

SECTION A

QUESTION ONE – (30 MARKS)

- (a) Explain the following terms as applied to Application programming:
- (i) Object. (2 Marks)
 - (ii) Class (2 Marks)
 - (iii) Macro (2 Marks)
 - (iv) Active X component (2 Marks)
 - (v) Prototyping (2 Marks)
- (b) (i) Explain what a 4GL is (2 Marks)
- (ii) Outline four features of a 4GL (2 Marks)
- (iii) Describe four benefits of a 4GL (4 Marks)
- (c) Explain the following SQL statements:
- (i) `SELECT * FROM Persons WHERE
LastName='Wekesa'
AND (FirstName='Bernard' OR FirstName='Jotham')` (4 Marks)
 - (ii) `SELECT * FROM Persons
WHERE FirstName='Bernard'
OR FirstName='Jotham'` (2 Marks)
 - (iii) `SELECT * FROM Persons
WHERE FirstName='Bernard'`

AND LastName =Jotham (2 Marks)

(iv) SELECT * FROM Persons WHERE Year=1965 (2 Marks)

(v) SELECT * FROM Persons
WHERE City='Nairobi' (2 Marks)

SECTION B (Attempt any TWO Questions from this Section)

QUESTION TWO – (20 MARKS)

- (a) Explain the Rapid Application Development (RAD) Methodology. (2 Marks)
- (b) Outline the five approaches proposed by RAD in order to develop products faster and of high quality. (5 Marks)
- (c) Discuss role of mobile computing in application development (8 Marks)
- (d) Describe the concept of common object model (COM) (5 Marks)

QUESTION THREE – (20 MARKS)

- (a) Explain the concept of dynamic data exchange. (4 Marks)
- (b) Explain the following terms as applied to Object Oriented Programming:
 - (i) Collection (2 Marks)
 - (ii) Method (2 Marks)
- (c) The most important step in creating effective word macros is careful planning. Outline what to include in the planning (5 Marks)
- (d) Explain why it is necessary to join an Internet discussion group if you are in a software developer. (7 Marks)

QUESTION FOUR – (20 MARKS)

- (a) Write a macro code that will generate the following screen dump when run. (10 Marks)

	A	B	C	D	E	F
1			ABC UNIVERSITY			
2						
3		EXAM RESULTS: 2009/2010				
4						

5	No	Surname	Score/30	Exam/70	Total Score/100	
6	1	Kamau	14	34	48	
7	2	Mulanda	16	38	54	
8	3	Opiyo	23	43	66	
9	4	Manwari	25	45	70	
10	5	Wekesa	19	46	65	
11	6	Omondi	22	52	74	
12	7	Kinuthia	25	45	70	
13	8	Odhiambo	21	55	76	
14	9	Mukhwana	18	48	66	
15	10	Kalonzo	24	55	79	
16						

(b) Discuss five advantages of (COM)

(10 Marks)

QUESTION FIVE – (20 MARKS)

(a) You can use macros to automate many tasks in Microsoft Access, such as opening and closing forms or printing reports. Generally speaking, you should use macros if you have simple tasks you want to have to learn to program in Visual Basic. There are also some situations that either require macros or where macros may be a better choice than Visual Basic code. Discuss three such situations: (6 Marks)

(b) Distinguish between a procedural language and a non-procedural language (4GL). (6 Marks)

(c) Distinguish between the SQL SELECT and SQL SELECT DISTINCT statements, giving one example in each case. (8 Marks)