



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION
TECHNOLOGY**

**DIPLOMA IN INFORMATION TECHNOLOGY (DIT 10M)
YR 2 SEM I**

ECS 2203 : DBASE FOXPRO/4GL PROGRAMMING

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST/SEPTEMBER 2011

TIME: 2 HOURS

Instructions to Candidates:

Answers **MUST** be written clearly within the answer booklets provided with the exam paper
Answer question **ONE (COMPULSORY)** and any other **TWO** questions from the list of questions below

This paper consists of **FOUR** printed pages

SECTION A (30 MARKS) – Answer all Questions in this section

Question 1 (Compulsory)

- a) With aid of suitable examples, explain the following Visual FoxPro set commands:
- (i) Set
 - (ii) Set Alternate
 - (iii) Set Path
 - (iv) Seek
 - (v) Pack
- (10 marks)
- b) Distinguish between Message() and MessageBox() as used in Visual FoxPro (4 marks)
- c) Using the operator “\$” write a procedure that will accept a character, test if it is Vowel or not and output appropriate message (4 marks)
- d) Explain the effect of “%” operator (2 marks)
- e) State Visual FoxPro command that will display the month for the current date (1 mark)
- f) Write code that will create a table called SalesMan with the following fields:

<u>Field Name</u>	<u>Data Type</u>	<u>Width</u>
Sale Id	Character	9
Name	Character	15
BirthDate	Date	
Sales	Numeric	

Making SalesId as the primary key (5 marks)

- g) Explain the **TWO** modes in which a data file can be opened, give an example of each (4 marks)

SECTION B

Question 2

- a) Twenty students in a school sat for their final examination which consisted of three main subjects: Maths, Physics and Chemistry. Write a FoxPro program that will capture the student's name each of the subject's marks, compute average marks and display the grade of each student according to the following criteria. Your program should include a function to find grade.

<u>Average marks</u>	<u>Grade</u>
Less than 40	F
Less than 50	D
Less than 60	C
Less than 70	B
70 and above	A

Use DO While and Do Case control structures (9 marks)

- b) Explain advantages of indexing over sorting commands (2 marks)

c) Explain the function of each of the following commands

- (i) End transaction
- (ii) Rollback

(4 marks)

Question 3

a) Explain the following concepts:

- (i) Entity integrity
- (ii) Referential integrity
- (iii) Foreign key

(6 marks)

b) List any **THREE** data Definition Language (DDL) and any **FOUR** Data Manipulation Language statements used by SQL

(7 marks)

c) List any **TWO** aggregate SQL functions

(2 marks)

Question 4

The table tbsales below shows the sales made by individual salesman in different cities. Using the information, write SQL statements to:

EMPNO	NAME	LNAME	CITY	UNITS
K2101	Weddy	Wasi	Kisumu	46
K 1641	Timama	Neza	Nairobi	38
D 2341	Kilito	Mali	Nairobi	67
D 1202	Wema	Onyi	Kampala	29
D 1903	Ann	Kariuki	Mombasa	53
E 0465	Hammed	Soo	Dar	71
U 9099	Ali	Kiko	Kisumu	92
B 1209	Stefano	Kamau	Dar	39
D 1292	Soguea	Waya	Mombasa	58
T 3142	Kulao	Onchoti	Kampala	72

Note: Units column shows total number of units sold by the employee

- (i) Select Fname, Lname and EmpNo for every salesman based in Dar city
- (ii) Select all details for all salesmen whose Fname ends with "a"
- (iii) Select all details for salesmen based in Kisumu city
- (iv) Select all and display the total number of salesmen in each city
- (v) Calculate and display the sum of the total units sold in each city
- (vi) Add a column to record gender of employees
- (vii) Add a new employee whose details are as shown below:

EmpNo: T 41420
Fname: Juma
Lname: Mwangi
City: Mombasa

(viii) Delete records of all employees based in Kisumu

(ix) To update sales figures of Employee 'T 3142' from 72 to 79

(15 marks)

Question 5

a) Data is stored in file called 'stock.dbf' whose structure is as below:

<u>Field</u>	<u>Data Type</u>
StockId	Character
Description	Character
QtyHand	Numeric
UnitCost	Numeric

Design a form that will enable input of data in the file. Write a click even procedure that will allow the data entered to be save in the file.

Indicate the names of all controls on the form (8 marks)

b) Write a program that will read all the records and display the total cost of each item from the data file mentioned in question 5a above. The program should also output the total value of the stock on the screen. (Total cost of item = QtyHand* UnitCost) (7 marks)