THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

CERTIFICATE IN INFORMATION TECHNOLOGY (CIT 10A)

EIT 1109: DATABASES

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) State any **FIVE** limitations of file based systems   (5 marks)

b) Explain the following terms: (8 marks)
    (i)   Database
    (ii)   DBMS
    (iii)   Primary Key Field
    (iv)   Record

c) List any **FOUR** advantages of Databases   (4 marks)

d) List and explain any **FOUR** Ms Access data objects   (8 marks)

e) List any data types used in Ms Access   (5 marks)

SECTION B – Answer any TWO questions

Question 2

The following tables in Ms Word display information about employees of a company

Employee Table

Employee No.	Employee Name	Job	Salary (Ksh)	Department
7369	Tirop	CL	8,000	20
7499	Mwema	SP	16,000	30
7521	Ali	SP	12,500	30
7566	Simiyu	MG	39,750	20
7698	Kamau	MG	38,500	40
7782	Oe Masaai	MG	34,500	10
7788	Onyango	AN	30,000	210
7821	Shah	AN	25,500	40

Department Table

Department	Department Name	Department Location
10	Accounting	Nairobi
20	Research	Nakuru
30	Sales	Mombasa
40	Operations	Kisumu

Jobs table

JOB CODE	CL	SP	MG	AN	DR
JOB TITLE	Clerk	Salesman	Manager	Analyst	Driver

a) Create a database that can be used to store the above data. Save your database as BAMBA. Save the employees table as HITECH_1, save department table as DIPATO and save Jobs table as KAZI   (8 marks)

b) Create appropriate primary keys and relationships   (2 marks)

c) Enter the data into the database (2 marks)

d) Create a report that displays the employee name, department and salary (8 marks)

Question 3

You work for a private employment agency as an administrative assistant. As part of your responsibilities, you create and maintain a client database that contains the job candidates, basic contact information: name, address and phone number, job applied for, date of birth, expected salary, level of education, achievement, the date they were placed with an employer, and the employer's name. The office manager has asked you to create a new database that contains all fields (basic contact information) of the job candidates who applied at your office and sort them by the date each candidate applied, in descending order.

Required:
(i) Create a database to store company's data and choose the appropriate primary key
(ii) Create a form to input data (20 marks)

Question 4

The information below is on products, suppliers and orders for a department store.

Table 1 (product table0 contains four fields representing product ID, the name of the product, the retail price of a unit of the product and the number of units of the product in stock respectively. The unique identifier of a product is its "Product ID"

Table 2 (supplier table) contains five fields representing supplier ID, the name of the supplier, the suppliers contact address, town and telephone number respectively. The unique identifier of a supplier is the "Supplier ID"

Table 3 (order table) contains seven fields representing order ID, product ID, supplier ID, the wholesale price of a unit of the product ordered from the supplier, the number of units of the product, the date product was ordered and the date the ordered product was received respectively. The unique identifier of product is its order ID.

Tabe 1 Product Table

1	Kimbo	100	300
2	Cow Boy 1 kg	120	180
3	Batteries AAA	50	200
4	Salt 1 kg	25	45
5	Sprite 300ml	20	87
6	Dasani 500ml	30	65
7	Baking floor 2kg	89	89
8	Batteries D	60	32
9	Layersmash 70kg	1,050	54
10	Omo 200g	35	21

Table 2 Supplier Table

1001	Eveready	54839	Kitale	77777
1002	Uniliver	2361	Thika	256782
1003	Bidco	3345	Nairobi	345671
1004	Cocacola	45621	Nairobi	456781
1005	Unga Ltd	52428	Nakuru	26314
1006	Kay Salt	64365	Mombasa	332233

Table 3 Order Table

10001	1	1002	23	20	12/04/07	13/04/07
10002	5	1003	16	40	11/11/06	
10004	2	1002	25	400	08/08/06	23/09/06
10005	4	1002	18	45	04/04/07	
10006	8	1006	24	50	12/12/06	
10008	7	1005	56	100	02/02/06	
10010	6	1003	20	20	14/03/07	
10013	5	1002	16	100	04/05/07	06/05/07

a) Use the information to create a Database named FINAL and enter the date in the tables 1, 2 and 3. (8 marks)

b) (i) Create the relationship between tables (4 marks)

(ii) Create a query to show the names of each product ordered, the retail price, the number of units ordered and the wholesale price. The query should contain products whose retail price is below Kshs. 50. Save as Cheap (4 marks)

c) Create a form to allow the entering of the products details and add an appropriate form title. Save as Product Form (4 marks)

Question 5

You have been hired as an intern by the Football Kenya Ltd. They currently maintain a player database in Excel, but they would like to use Access to organize the equipment inventory and the coaches information. Create a new blank database and neme it FKL.mdb. Import the Excel file FKL and save the table as Players. Create a new table named Coaches for the coaches information. Include the fields First name, Last Name, Title, Team Name, HomePhone and Email Address. Create a lookup field for the Title field using the values Coach, Assistant Coach, Manager and Team Parent. Make the Team Name field a required property. Apply an input mask to the HomePhone field.

(20 marks)