



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: DATABASE MANAGEMENT SYSTEMS

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER 2011

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer booklet*

Answer question **ONE (COMPULSORY)** in section A and any other **TWO** questions from section B

This paper consists of **FOUR** printed pages

Maximum marks for each part of a question are clearly shown.

SECTION A (30 marks)

Question 1 (Compulsory)

- a) Explain the term Database (2 marks)
- b) Explain the component of standard database (12 marks)
- c) Explain any **FOUR** data types in MS-ACCESS (8 marks)
- d) Explain the following database terminologies (8 marks)
 - (i) Data item
 - (ii) Field
 - (iii) Record
 - (iv) Database Structure

SECTION B (40 marks)

Question 2 (20 marks)

- a) Explain any **FIVE** advantages of computerized database (10 marks)
- b) State any **THREE** database packages (3 marks)

Question 3 (20 marks)

- a) Create a Database called Salary.mdb having the following records. Save the records in a table called salary table 1. (8 marks)

Last Name	First Name	Department	Hours	Rate
Adams	Nathan	Sales	20	700
Baman	Sanday	Sales	60	800
Cohen	Larry	Executive	100	1000
Dean	Lena	Executive	30	2000
London	Eric	Sales	40	400
Lucas	John	Sales	70	1500
Long	Chuck	Sales	90	700
Newman	Robert	Executive	30	1000
Keegan	Keith	Sales	110	500

- b) Create a form called EMPLOYEEFORM from the above table as follows. (4 marks)

EMPLOYEE DATABASE							
LAST NAME	<input style="width: 90%;" type="text"/>	FIRSTNAME	<input style="width: 90%;" type="text"/>				
DEPARTMENT	<input style="width: 90%;" type="text"/>	HOURS	<input style="width: 90%;" type="text"/>				
RATE	<input style="width: 90%;" type="text"/>						
GROSS SALARY	<input style="width: 90%;" type="text"/>	NETPAY	<input style="width: 90%;" type="text"/>				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center; padding: 5px;">ADD RECORD</td> <td style="width: 25%; text-align: center; padding: 5px;">DELETE</td> <td style="width: 25%; text-align: center; padding: 5px;">PRINT</td> <td style="width: 25%; text-align: center; padding: 5px;">CLOSE</td> </tr> </table>				ADD RECORD	DELETE	PRINT	CLOSE
ADD RECORD	DELETE	PRINT	CLOSE				

- c) Explain the term ‘FORM’ as used in MS-ACCESS (3 marks)
- d) List any **FIVE** advantages of computerized database (5 marks)

Question 4 (20 marks)

- a) Explain the term ‘Query’ as used in Database management system (3 marks)
- b) Create a database called POLY.MDB having the following records. (10 marks)

CATEGORY	STORE	QUANTITY	COST
CD	Disc city	8	12.50
CD	Disk city	34	13.50
CD	Book Mart	23	50.00
BOOK	Book Mart	6	1000.00
BOOK	Book Mart	456	400.00
PAINTING	Computer city	20	100.00
PAINTING	Computer city	100	60.00
BOOK	Computer city	34	700.00
BOOK	Auction Art	200	400.00
CD	Auction Art	300	800.00

- c) Create Query files that meet the following conditions:-
- (i) Have all CATEGORY CD, call it category cd.
 - (ii) Have all records whose COST is greater than 600, call it cost more than 600.
 - (iii) Have all records whose STORE is Computer city and QUANTITY less than 100. Call it quantity less than 100. (10 marks)

Question 5 (20 marks)

a) Create a database called SALARY.MDB having the following records

EMP NO	NAME	HOUSE - ALL	MED- ALL	COMM - ALL	PAYE	UNION - DUES	RISK- FUND	NSSF	HOURS	RATE
001	MARY	10000	7000	5000	8000	200	150	300	20	1000
002	JOHN	15000	5000	5000	6000	200	150	300	30	9000

b) Create a form called Salary form from the above table as shown below.

$SALARY = HOURS * RATE$

$TOTAL\ EARNINGS = SALARY + HOUSE\ ALL + MEDICAL\ ALL + COMM\ ALL$

$TOTAL\ DEDUCTIONS = PAYE + UNION\ DUES + RISK\ FUND + NSSF$

$NETPAY = TOTAL\ EARNINGS - TOTAL\ DEDUCTIONS$

(13 marks)

EMP NO	<input type="text"/>		
NAME	<input type="text"/>		
HOUSE ALL	<input type="text"/>		
MEDICAL ALL	<input type="text"/>		
TOTAL EARNINGS	<input type="text"/>		
DEDUCTIONS			
PAYE	<input type="text"/>		
UNION DUES	<input type="text"/>		
RISK FUND	<input type="text"/>		
NSSF	<input type="text"/>		
TOTAL DEDUCTIONS	<input type="text"/>		
NETPAY SALARY	<input type="text"/>		
	<input type="text"/>		
<input type="button" value="ADD RECORD"/>	<input type="button" value="DELETE"/>	<input type="button" value="PRINT"/>	<input type="button" value="CLOSE"/>