THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

036/2 INFORMATION AND COMPUTER STUDIES 2

(For Both School and Private Candidates)

Time: 3 Hours **ANSWERS** **Year: 2009**

Instructions

1. This paper consists of three questions

2. Answer two questions.

1. The table below shows part of Terminal Results of Changanyikeni Academy for the seven core subjects at the school. Study it carefully and answer the questions that follow.

Solution:

(a) Enter all the marks in a spreadsheet and add three more rows in which you will add the following left-out students and their corresponding scores respectively:

Juma Salum - M - 36, 55, 57, 63, 57, 60, 62
Kilia Barazuri - M - 45, 65, 63, 52, 59, 51, 58
Bila Kaputi - F - 56, 41, 42, 53, 52, 51, 50

Steps:
- Open Microsoft Excel.
- Enter all the data as shown in the table, including the additional rows for the new students and their scores.
- Save the file.

(b) Use formula to find the following:
(i) Sum of the total marks for each student:
  Use the formula `=SUM(C2:I2)` for each student.
(ii) Average for each student:
  Use the formula `=AVERAGE(C2:I2)` for each student.
(iii) Mean for each subject:
  Use the formula `=AVERAGE(C2:C11)` for the subject column and apply it to all columns.
(iv) If the student passed or failed ("PASS" if the Average >= 50, and "FAIL" if Average < 50):
  Use the formula `=IF(J2>=50, "PASS", "FAIL")` in a new column.

(c) Sort the names in ascending order:
- Highlight the names and all associated data.
- Go to the "Data" tab and select "Sort".
- Choose "Name" as the sort criterion and sort in ascending order.

(d) Create a clustered column chart with a 3-D visual effect chart based on names and average score (Make sure that each name of the student is visible under the respective column):
- Highlight the names and their average scores.
- Go to the "Insert" tab, choose "Column Chart," and select a 3-D clustered column chart.
- Ensure the names are clearly visible below each column in the chart.
- Add chart title and axis labels for clarity.

2. Below are two tables in a relational database for a local bank. The field with an asterisk (*) for each table implies that it is a primary key for that particular table. The suggested data type for each field is enclosed in a bracket.

Solution:

(a) Create a computerized database called BANK.

(i) Within BANK database above, create the two tables by ensuring that the field names and their corresponding data types are the same as those indicated in the above tables.

Steps:
- Open Microsoft Access and create a new database named "BANK".
- Create the Customer Table with the following fields:
  - Customer ID (Number)
  - Name (Text)
  - Address (Text)
  - Municipal (Text)
- Set "Customer ID" as the primary key.
- Enter the data as shown in the Customer Table.

- Create the Account Table with the following fields:
  - Customer ID (Number)
  - Account Number (Number)
  - Account Type (Lookup Wizard: [Checking, Savings, Current])
  - Date Opened (Date/Time)
  - Balance (Number)
- Set "Account Number" as the primary key.
- Enter the data as shown in the Account Table.
- Establish a relationship between "Customer ID" in the Customer Table and "Customer ID" in the Account Table.

(ii) Design forms for both tables. The name of the form should bear the name of the table.

Steps:
- Open the database and go to the "Create" tab.
- Click on "Form Wizard".
- Select the fields from the Customer Table and create a form. Name the form "Customer Table".
- Repeat the same process for the Account Table and name the form "Account Table".

(b) Create a query called Customer Accounts. This query should be able to search the following information: Name, Address, City, Account Number, Account Type, and Balance.

Steps:
- Go to the "Create" tab and select "Query Design".
- Add both the Customer Table and the Account Table.
- Select the following fields:

  - Name (from Customer Table)
  - Address (from Customer Table)
  - Municipal (City) (from Customer Table)
  - Account Number (from Account Table)
  - Account Type (from Account Table)
  - Balance (from Account Table)
- Save the query as "Customer Accounts".
- To search for specific data, use the query criteria box (e.g., [Enter Name] to search by name).

3. The Regional Commissioner for Dar Es Salaam has asked you to prepare a computerized database to be used by the Kariakoo Market authority.

Solution:

(i) Create a database and name it Kariakoo Market.

Steps:
- Open Microsoft Access or a similar database application.
- Create a new database and save it with the name "Kariakoo Market".

(ii) Create a table using the following information.

Steps:
- Create a table with the following fields:
  - Product (Text)
  - Unit (Text)
  - Quantity (Number)
  - Unit Price (Currency)
- Enter the data provided in the question into the table.
- Save the table with the name "Products".

(iii) Create a query that will sort the unit price in descending order and save it as Unit Price.

Steps:
- Go to the "Create" tab and select "Query Design".
- Add the "Products" table to the query.
- Select all fields (Product, Unit, Quantity, Unit Price).
- Sort the "Unit Price" field in descending order.
- Save the query as "Unit Price".

(iv) Create a query for the Product whose first name starts with G through T and save it as Product.

Steps:

- Go to the "Create" tab and select "Query Design".
- Add the "Products" table to the query.
- Select all fields (Product, Unit, Quantity, Unit Price).
- In the criteria row of the "Product" field, enter:
  `Like "[G-T]*"`
- Save the query as "Product".