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: 2008**

Instructions

1. This paper consists of three questions

2. Answer two questions.

1. Study the annual rainfall statistics recorded from four weather stations in a duration of six years.

Solution:

(a) Enter the data in a spreadsheet and wrap texts "Kijiwe Kikuu" and "Sabasaba Shauriyako".
   - Open Microsoft Excel.
   - Enter the data in a table format, ensuring to type site names in one column and the rainfall data for each year in subsequent columns.
   - Highlight the cells containing "Kijiwe Kikuu" and "Sabasaba Shauriyako".
   - Use the "Wrap Text" option in the Home tab to wrap the text in those cells.

(b) Determine the average amount of rainfall for the year 2004.
   - Use the formula `=AVERAGE(B6:E6)` (adjusting the range for the 2004 column).

(c) Create a chart to illustrate rainfall records for years 2004 and 2005.
   - Highlight the rainfall data for 2004 and 2005 along with site names.
   - Go to the Insert tab and choose a chart type (e.g., Bar Chart or Column Chart).

(d) Generate the formula to determine the maximum and minimum amount of rainfall in the spreadsheet.
   - Maximum: Use `=MAX(B2:F6)` for the entire data range.
   - Minimum: Use `=MIN(B2:F6)` for the same range.

(e) Rename your Worksheet as "Rainfall records".
   - Right-click on the worksheet tab at the bottom, choose "Rename", and type "Rainfall records".

(f) Orient all data at 45°.
   - Highlight the data.
   - Go to the Home tab, click on "Orientation", and select "Angle Counterclockwise".

(g) Use 25% grey color to fill cells with texts "Site name" and "Years".
   - Highlight the cells containing "Site name" and "Years".
   - Go to the Home tab, click on "Fill Color", and select 25% Grey.

(h) Create a column to the right of Site names and generate a formula to change case for:
   - Site names to title case.
     Use `=PROPER(A2)` where A2 is the first cell of the site name column.

(i) Change font for site names to Arial and labels to Arial Black.
   - Highlight site names and set the font to Arial.
   - Highlight column headers (labels) and set the font to Arial Black.

(j) Align all rainfall records to the center.
   - Highlight all rainfall data and choose "Center" alignment from the Home tab.

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(k) Write the cell reference for the Maximum score.
  - Use the formula `=ADDRESS(MATCH(MAX(B2:F6),B2:F6,0),MATCH(MAX(B2:F6),B1:F1,0))`.

(l) Write the cell reference for the Minimum score.
  - Use the formula `=ADDRESS(MATCH(MIN(B2:F6),B2:F6,0),MATCH(MIN(B2:F6),B1:F1,0))`.

1. Create a computerized database to hold the following information:

Solution:

(a) Set of input masks in the fields: title, and address.

To create input masks in Microsoft Access:
- Open the database and navigate to the "Design View" of the table.
- For the Title field, set the input mask to `>LLLLLLLLLLLLLLLL` (for uppercase letters).
- For the Address field, set the input mask to `>000\ \LLL` (e.g., for numeric parts followed by text).

(b) Set the correct data types and enter the records.

- Title: Set as Text.
- Year: Set as Number.
- Author: Set as Text.
- Female: Set as Yes/No.
- Publisher: Set as Text.
- Address: Set as Text.
- Book Number: Set as Number.

Enter the records in the table as shown in the image.

(c) Create a query (author) to display the book title, publisher, and a new field output that displays the author and his/her address.

Steps to create the query:
- Go to the "Create" tab and click "Query Design".
- Add the table and select the fields: Title, Publisher, Author, and Address.
- In the query design grid, create a new field named AuthorAddress by typing:
  `AuthorAddress: [Author] & " - " & [Address]`.
- Run the query to display the output.

(d) Maziwagi wants to search for a title called "Comp Studies". Give him/her a help for easy electronic searching in a database.

Find this and other free resources at: http://maktaba.tetea.org

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Steps to search for "Comp Studies":
- Open the table or query where the data is stored.
- Use the search box located at the bottom of the database window.
- Type "Comp Studies" into the search box and press Enter to locate the record.
Alternatively:
- Create a query with the condition:
  `Criteria: "Comp Studies"` in the Title field to filter results directly.

3. Halima is assigned by her teachers to create a computerized data information system for her terminal assessments.

Solution:

(a)
(i) Create a table and enter records (make marks of your own) for her, save the file as Halima assessment.

Steps to create the table:
- Open Microsoft Access or Excel and create a table with the following fields:
  - Subject (e.g., Computer Studies, Additional Mathematics, Physics, etc.)
  - Coursework Marks
  - Project Marks
  - Exam Marks
  - Test Marks
  - Total Marks

- Input data (e.g., marks) for each subject.
- Save the file as "Halima assessment".

(ii) Prepare a query to display the average score per subject.

Steps to create the query:
- Open the table in Microsoft Access.
- Go to the "Create" tab and select "Query Design".
- Add the table to the query.
- Add the subject field and create a calculated field for the average using the formula:
  Average Score: ([Coursework Marks] + [Project Marks] + [Exam Marks] + [Test Marks]) / 4
- Run the query to display the average score for each subject.

(b) Design her terminal report by indicating total and average scores per subject, name, gender. The school name is Shangazi Dada Secondary School, address P.O. Box 2077 Vokokonyoni, Tanzania. Make your work as presentable as possible by using paper size A5, portrait orientation with margins 0.5 inches or 1.3 cm both sides.

Steps to design the terminal report:
- Open Microsoft Word or a similar application.
- Set the paper size to A5 and orientation to portrait. Adjust the margins to 0.5 inches or 1.3 cm on all sides.
- Create a heading with the school name:
  Shangazi Dada Secondary School
  Address: P.O. Box 2077 Vokokonyoni, Tanzania

- Add student details:
  Name: Halima
  Gender: Female

- Create a table to display the following:
  - Subject
  - Coursework Marks
  - Project Marks
  - Exam Marks
  - Test Marks
  - Total Marks
  - Average Marks

- Use formatting to make the table presentable (e.g., bold headers, borders).
- Calculate totals and averages for each subject and include them in the respective columns.
- Save and print the document for submission.