## 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 Year: 2015

## **Instructions**

- 1. This paper consists of three questions
- 2. Answer two questions.



1. The following tables show books kept in a certain library. Read the tables carefully and answer the questions that follow:

Table 1: Library Books

| Code Number | Title | Author's Name | Book Returned (Br)/Book Borrowed (Bb) | Borrower Number | Date Due

		Dack
142	Kalulu   S. Tott   Bb	1230   20 Oct 2011
820	ICS Book One   S. Mburu   Bb	1420   6 Apr 2011
403	Comp. Science   T. Chemwa   Br	642   2 May 2011
500	B/Maths   TIE   Br	462   2 May 2011

Table 2: Borrowers

Borrower Number	Borrowers	Borrower Address	Borrowers' Phone Number	:
	-			-
1230	Leah Mud	P.O. Box 234, Lindi	065-437328	
1420	John Komgo	P.O. Box 56, Dar es sa	alaam   0772-267998	

Using a database management system program (Microsoft Office Access):

- (a) Create a table of books called Library Books. Use the information given in Table 1.
- (b) Create another table of borrowers called Library Borrowers. Use the information given in Table 2.
- (c) Sort the records in part (a) in ascending order of borrowers' numbers.
- (d) Create a query called greater than 1000 with fields: Code Number, Title, Name of Author, Book Returned and Date Due Back, showing borrowers' numbers that are above 1000.
- (e) Create a query showing only books returned (Br) and the names of the author. Save the query as Br Query.
- (f) Create a relationship between the tables created above.
- (g) Create a report of library borrowers in (b) above and name the report as Borrowers Report.
- (h) Insert the current date as the header of the report created in (g) above.
- (i) Create a form which includes the current time and date using the table created in part (a) above. Save your form as Books Form.
- (j) Save your database as Library Database.

- 2. Using HTML codes, design a four pages website about your personal information as shown below:
- (a) Create a home page for your personal information with navigation links to all other pages and a moving marquee heading.

WELCOME TO XXX'S WEBSITE, where XXX is your Examination number.

- (b) The other three pages should be as follows:
- (i) Page I: Bio-Data i.e. Date of birth, Nationality, and Languages spoken.

Other descriptions are:

- Use bullets to list the languages spoken.
- The heading shall be "Welcome to XXX's Bio-data."
- The link name shall be "Bio-data."
- Arrange your Bio-data in a proper order. For example:

My Examination number: S/0309/25

Date of Birth: 12/3/1989

(ii) Page II: Educational Background i.e. a table with border five (5) which shows a period of attendance and qualifications acquired.

Other descriptions are:

- The heading shall be "My educational background."
- Use "Educational" as the link name for this page.
- (iii) Page III: Responsibilities Held i.e. a bulleted list of two responsibilities held e.g. Monitor and Head prefect.

Other descriptions are:

- The heading shall be "Responsibilities held."
- Use the "Responsibilities" as the link name for this page.

## NB:

- Use "Form Four examinations" as the title for all pages.
- Use silver as the background color for all pages.
- Save your web folder as "XXX Website," and print out your codes.
- (c) Copy and paste in Microsoft office word, the educational background page. Save as background word.

```
1. Home Page
<!DOCTYPE html>
<html>
<head>
  <title>XXX's Website</title>
  <style>
    body {
      background-color: silver;
    }
    nav {
      margin: 20px 0;
    }
    nav a {
      margin-right: 20px;
      text-decoration: none;
      font-weight: bold;
  </style>
</head>
<body>
  <marquee>WELCOME TO XXX'S WEBSITE, where XXX is your Examination number</marquee>
  <h1>Home Page</h1>
  <nav>
    <a href="bio-data.html">Bio-data</a>
    <a href="educational.html">Educational</a>
    <a href="responsibilities.html">Responsibilities</a>
  </nav>
  Welcome to my personal website. Navigate through the pages to know more about me.
</body>
</html>
2. Bio-data Page
<!DOCTYPE html>
<html>
<head>
  <title>Bio-data</title>
  <style>
    body {
```

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```
background-color: silver;
    }
  </style>
</head>
<body>
  <h1>Welcome to XXX's Bio-data</h1>
  My Examination number: S/0309/25
  Date of Birth: 12/3/1989
  \langle ul \rangle
    Nationality: Tanzanian
    Languages Spoken:
      \langle ul \rangle
         English
         Swahili
      <a href="index.html">Back to Home</a>
</body>
</html>
3. Educational Background Page
<!DOCTYPE html>
<html>
<head>
  <title>Educational Background</title>
  <style>
    body {
      background-color: silver;
    }
    table {
      border: 5px solid black;
      border-collapse: collapse;
      width: 80%;
    }
    th, td {
      border: 1px solid black;
      padding: 10px;
      text-align: left;
  </style>
</head>
```

```
<body>
 <h1>My Educational Background</h1>
 Period
     Institution
     Qualifications
   2010-2013
     Bwiru Boys
     O-Level Certificate
   2014-2016
     Ilboru High School
     A-Level Certificate
   <a href="index.html">Back to Home</a>
</body>
</html>
4. Responsibilities Held Page
<!DOCTYPE html>
<html>
<head>
 <title>Responsibilities Held</title>
 <style>
   body {
     background-color: silver;
 </style>
</head>
<body>
 <h1>Responsibilities Held</h1>
 ul>
   Monitor
   Head Prefect
 <a href="index.html">Back to Home</a>
</body>
```

</html>

Instructions for Saving and Printing

- 1. Save all the files in a folder named "XXX Website."
- 2. Link the pages correctly by saving the files with the names: `index.html`, `bio-data.html`, `educational.html`, and `responsibilities.html`.
- 3. Open each file in a browser and print them if required. For the "Educational Background" page, copy the table content and paste it into Microsoft Word before saving it as "Educational Background."
- 3. A furniture shop sells furniture to customers on credit. The credit terms request the customer to make a deposit of 25% of the furniture value. The balance after the total deposit is paid in monthly installments over 24 months without interest.

The table below shows customers and furniture's credit values:

| S/N | Customer Name | Furniture Value | Deposit | Balance | Monthly Installments |

- (a) Create a spreadsheet of the data above and save it as "Furniture."
- (b) Make all titles bold and shade the cell background for titles in Tan color.
- (c) Format the monthly installments values to two decimal points.
- (d) Use formula to calculate values for Deposit, Balance, and Monthly Installments.
- (e) Sort the worksheet in alphabetical order of names, save as Furniture 2.
- (f) Using a sheet in (a) above, create a fully labeled:
- (i) Column chart of customers' names against monthly installments, with the heading "Monthly Installments."
- (ii) Line chart with the heading name "Balance" of customer names against customers' balances.
- (iii) Three-dimensional pie chart of customer names against furniture values. Write the "Customers Values" as the heading of the pie chart created.
- (g) Copy and paste in Microsoft Office PowerPoint, the three-dimensional pie chart created in part (f)(iii) above. Save as Webpage presentation.

### Solution

- (a) Create a Spreadsheet
- 1. Open Microsoft Excel and create a new spreadsheet.
- 2. Input the data as shown in the table:

S/I	N   Customer Name	Furniture Value	Deposit	Balance	Monthly Installments	
1	Amour	85000	[			
2	Halima	55000				
3	Hissen	90000				
4	John	63500				
5	Baby	97500				
6	Ali	65800				
7	Kwanjii	95900				

- 3. Save the spreadsheet as "Furniture."
- (b) Format Titles
- 1. Make all titles (S/N, Customer Name, Furniture Value, Deposit, Balance, Monthly Installments) bold.
- 2. Select the title row and set the background color to Tan (use Excel's "Fill Color" option to choose the Tan color).
- (c) Format Monthly Installments
- 1. Select the "Monthly Installments" column.
- 2. Use the "Format Cells" option in Excel to set the number format to two decimal places.
- (d) Formulas for Calculations
- 1. Deposit: This is 25% of the Furniture Value.

Formula: `=C2\*0.25` (drag this formula down the "Deposit" column).

2. Balance: This is calculated as the Furniture Value minus the Deposit.

Formula: `=C2-D2` (drag this formula down the "Balance" column).

3. Monthly Installments: This is the Balance divided by 24 months.

Formula: `=E2/24` (drag this formula down the "Monthly Installments" column).

After calculations, the table will look like this:

S/N   Customer Name   Furniture Value   Deposit   Balance   Monthly Installments				
1	Amour	85000	21250   63750   2656.25	
2	Halima	55000	13750   41250   1718.75	
3	Hissen	90000	22500   67500   2812.50	
4	John	63500	15875   47625   1984.38	
5	Baby	97500	24375   73125   3046.88	
6	Ali	65800	16450   49350   2056.25	
7	Kwanjii	95900	23975   71925   2996.88	

- (e) Sort Data Alphabetically
- 1. Select the "Customer Name" column.

- 2. Use the "Sort" feature in Excel and sort the names alphabetically (A-Z).
- 3. Save the sorted sheet as "Furniture 2."

## (f) Charts

## 1. Column Chart for Monthly Installments

Highlight the "Customer Name" and "Monthly Installments" columns.

Go to the "Insert" tab, select "Column Chart," and set the chart title as "Monthly Installments."

Add appropriate axis labels and save the chart.

#### 2. Line Chart for Balances

Highlight the "Customer Name" and "Balance" columns. Go to the "Insert" tab, select "Line Chart," and set the chart title as "Balance." Add appropriate axis labels and save the chart.

## 3. 3D Pie Chart for Furniture Values

Highlight the "Customer Name" and "Furniture Value" columns.

Go to the "Insert" tab, select "3D Pie Chart," and set the chart title as "Customers Values."

Add data labels to show the percentage contribution of each customer.

Save the chart.

## (g) Copy and Paste into PowerPoint

- 1. Open Microsoft PowerPoint.
- 2. Copy the 3D Pie Chart created in part (f)(iii) from Excel.
- 3. Paste it into a PowerPoint slide.
- 4. Save the PowerPoint presentation as "Webpage Presentation."