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: 2011**

Instructions

1. This paper consists of three questions

2. Answer two questions.

1. Use HTML codes to generate a four-row, six-column table with the headers "span 1-2" and "span 3-4." These headers should span columns 1 through 3 and 4 through 6, respectively. The content of the table should be as follows:

(i) The first row has two items called "one-three" and "four-six," which span columns 1 through 3 and columns 4 through 6, respectively.
(ii) The second row has the single item "one-six," and it spans all six columns.
(iii) The third row has three items named "one-two," "three-four," and "five-six," which span columns 1 and 2, 3 and 4, and 5 and 6, respectively.
(iv) The fourth row has six items, each of which is a placeholder.

Solution:

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML Table</title>
  <style>
    table {
      border-collapse: collapse;
      width: 100%;
    }
    table, th, td {
      border: 1px solid black;
      text-align: center;
      padding: 8px;
    }
  </style>
</head>
<body>
  <table>
    <tr>
      <th colspan="3">Span 1-2</th>
      <th colspan="3">Span 3-4</th>
    </tr>
    <tr>
      <td colspan="3">One-Three</td>
      <td colspan="3">Four-Six</td>
    </tr>
    <tr>
      <td colspan="6">One-Six</td>
    </tr>
    <tr>
```

```
        <td colspan="2">One-Two</td>
        <td colspan="2">Three-Four</td>
        <td colspan="2">Five-Six</td>
      </tr>
      <tr>
        <td>Item 1</td>
        <td>Item 2</td>
        <td>Item 3</td>
        <td>Item 4</td>
        <td>Item 5</td>
        <td>Item 6</td>
      </tr>
    </table>
</body>
</html>
```

2. Mr. Marwa is a wholesaler. He sells computer hardware and other accessories. As an expert in Database Management Systems, use the following details to develop a system for his business. Save your work as Business Information System in the folder named "your examination number" you created on the desktop.

Customer Details
- Customer No
- Customer Name
- Customer Address
- Customer Telephone Number
- Customer Email

Orders
- Order Number
- Item Number
- Item Name
- Item Price
- Date of Order
- Date of Delivery
- Status (Delivered/Not Delivered)

Solution:

(a) Create two tables using Microsoft Access and name them as "Customer Details" and "Orders" respectively.

Steps:
- Open Microsoft Access and create a new database.

- Create the first table with fields:
  - Customer No (Primary Key)
  - Customer Name
  - Customer Address
  - Customer Telephone Number
  - Customer Email

- Create the second table with fields:
  - Order Number (Primary Key)
  - Item Number
  - Item Name
  - Item Price
  - Date of Order
  - Date of Delivery
  - Status

(b) Create a relationship for the two tables so that the information of each customer is linked.

Steps:
- Go to the "Database Tools" tab and click on "Relationships."
- Add both tables to the relationship window.
- Link "Customer No" from the "Customer Details" table to "Customer No" in the "Orders" table.

(c) Create a form for entering the above data.

Steps:
- Go to the "Create" tab and click on "Form Wizard."
- Select the fields you want to include in the form and follow the wizard steps.

(d) Create one query which will display customers whose orders exceed 10,000 Tshs.

Steps:
- Go to the "Create" tab and select "Query Design."
- Add the "Orders" table.
- Select fields such as Customer No, Item Name, and Item Price.
- In the criteria row of the "Item Price" field, enter `>10000`.

(e) Create a report containing the following information:
(i) Customer Name
(ii) Customer Address
(iii) Date of Order

(iv) Item Name and Price
(v) Date of Delivery

Steps:
- Go to the "Create" tab and click on "Report Wizard."
- Select the fields from both tables (using the relationship).
- Follow the wizard to design and format the report.
- Save the report as "Customer Orders Report."

3. Amani Development Company deals with fishing products. Use Microsoft Excel to develop a payroll for the company's employees containing the following information.

Solution:

Steps to Create the Payroll System in Excel

1. Set up the layout:
  - Create columns for the following:
    - Basic Pay
    - House Allowance
    - Transport Allowance
    - PAYE
    - NSSF
    - NHIF
    - Gross Pay
    - Total Deductions
    - Net Pay

2. Input the formulas:
  - Gross Pay:
    Formula: `=Basic Pay + House Allowance + Transport Allowance`
    Example: `=B6+B7+B8`
  - PAYE:
    Use the following conditions:
    - No PAYE deduction if Basic Pay is less than or equal to 100,000: `=IF(B6<=100000, 0, ...)`
    - 10% PAYE deduction if Basic Pay is between 100,000 and 250,000: `=IF(AND(B6>100000, B6<=250000), B6*10%, ...)`
    - 20% PAYE deduction if Basic Pay is between 250,000 and 500,000: `=IF(AND(B6>250000, B6<=500000), B6*20%, ...)`
    - 30% PAYE deduction if Basic Pay is greater than 500,000: `=IF(B6>500000, B6*30%, 0)`
    Combine these conditions using nested IF functions.
  - NSSF:
    Formula: `=B6*10%`

- NHIF:
  Formula: `=B6*2%`
- Total Deductions:
  Formula: `=PAYE + NSSF + NHIF`
  Example: `=C6+C7+C8`
- Net Pay:
  Formula: `=Gross Pay - Total Deductions`
  Example: `=D6-E6`

3. Customize the format:
   - Add headings as shown in the table (Earnings and Deductions).
   - Format currency cells to show amounts in Tshs.

4. Save the worksheet:
   - Name the worksheet as "Salary Slip."
   - Save the file in the folder named "your examination number" created on the desktop.

Formulas Summary:
- Gross Pay: `=B6+B7+B8`
- PAYE: `=IF(B6<=100000, 0, IF(AND(B6>100000, B6<=250000), B6*10%, IF(AND(B6>250000, B6<=500000), B6*20%, B6*30%)))`
- NSSF: `=B6*10%`
- NHIF: `=B6*2%`
- Total Deductions: `=C6+C7+C8`
- Net Pay: `=D6-E6`

Save and Test:
- Ensure all values in the calculated fields update automatically based on the input values.