NAME

INDEX NO.

## CANDIDATE'S SIGNATURE

## SUKELEMO 2022

Kenya Certificate of Secondary Education
451/2
COMPUTER STUDIES
PAPER 2
(PRACTICAL)
TIME: 2½ HOURS

## INSTRUCTIONS TO CANDIDATES

(a) Type your name and index number at the top right hand corner of each print out
(b) Write your name and index number on the diskette/CD-R provided
(c) Write the name and version of software used in each question on the answer sheet
(d) Answer ALL the questions
(e) Passwords should not be used while saving in the diskette/CD-R
(f) All answers MUST be saved in the difiskette/CD-R
(g) Make print out of answers on the annswer sheet provided
(h) This paper consists of 5 prinfed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing
FOR EXAMINER'S USE ONLY.

| Question | Candidate's score |
| :---: | :---: |
| $\mathbf{1}$ |  |
| $\mathbf{2}$ |  |
| Total score |  |

## Question 1

The figure below shows an extract from Muhindi Mbingu secondary school fees income. The data titled 2022 school fee increment shows the percentage increment for the year 2022.

| 4 | A | B | C | D | E | F | G | H | 1 | J |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  | 2021 | SCHOOL FEE |  |  |  |
| 3 | CLASS | NO. OF STUDENTS | TUITION <br> FEE | $\begin{array}{\|l} \text { LUNCH } \\ \text { FEE } \end{array}$ | UNIFORM <br> FEE | CAUTION <br> FEE | REMEDIAL <br> FEE | BURSARY <br> RECEIVED | TOTAL FEES PER CLASS |  |
| 4 | FORM 1A | 35 | 45,000.00 | 18,000.00 | 10,000.00 | 12,000.00 | 2,000.00 | 180,000.00 |  |  |
| 5 | FORM 1B | 34 | 45,000.00 | 18,000.00 | 10,000.00 | 12,000.00 | 2,000.00 | 200,000.00 |  |  |
| 6 | FORM 1C | 25 | $45,000.00$ | 18,000.00 | 10,000.00 | 12,000.00 | 2,000.00 | 120,000.00 |  |  |
| 7 | FORM 2A | 33 | 65,000.00 | 18,000.00 | 10,000.00 | 3,000.00 | 2,400.00 | 340,000.00 |  |  |
| 8 | FORM 2B | 22 | 65,000.00 | 18,000.00 | 10,000.00 | 3,000.00 | 2,400.00 | 250,000.00 |  |  |
| 9 | FORM 2C | 26 | 65,000.00 | 18,000.00 | 10,000.00 | 3,000.00 | 2,400.00 | 320,500.00 |  |  |
| 10 | FORM 3A | 22 | 75,000.00 | 18,000.00 | 10,000.00 | 2,000.00 | 3,000.00 | 185,600.0Q |  |  |
| 11 | FORM 3B | 26 | 75,000.00 | 18,000.00 | 10,000.00 | 2,000.00 | 3,000.00 | 236,000-00 |  |  |
| 12 | FORM 3C | 25 | 75,000.00 | 18,000.00 | 10,000.00 | 2,000.00 | 3,000.00 | 136,350.00 |  |  |
| 13 | FORM 4A | 23 | 85,000.00 | 18,000.00 | 10,000.00 | 1,000.00 | 4,500.00 | , $500,000.00$ |  |  |
| 14 | FORM 4B | 27 | $85,000.00$ | 18,000.00 | 10,000.00 | 1,000.00 | 4,500.00 | 450,000.00 |  |  |
| 15 | FORM 4C | 20 | 85,000.00 | 18,000.00 | 10,000.00 | 1,000.00 | 4,500.00 | 300,500.00 |  |  |
| 16 |  |  |  |  |  |  | ${ }^{5}$ |  |  |  |
| 17 |  |  |  |  |  |  | 5 |  |  |  |
| 18 |  |  |  |  |  |  | $0^{5}$ |  |  |  |
| 19 |  | 2022 school fees icreament |  |  |  |  |  |  |  |  |
| 20 |  | TUITION <br> FEE | LUNCH <br> FEE | UNIFORM <br> FEE | CAUTION <br> FEE | $\begin{aligned} & \text { REMEDIAP } \\ & \text { FEE } \end{aligned}$ | $\begin{aligned} & \text { BURSARY } \\ & \text { PAID } \end{aligned}$ |  |  |  |
| 21 | Icrement in percentage | 10\% | 5\% | 2\% | 3\% | $5 \%$ | 0\% |  |  |  |
| 22 |  |  |  |  |  |  |  |  |  |  |
| 23 |  |  |  |  |  |  |  |  |  |  |

a) Create the worksheet as it appears in the figure in a spreadsheet package and save it as Incomestatement.
(9 marks)
b) Copy the content of incomestatement to a new sheet and name it as incomestatement1.
c) insert column in between the following labels TUITION FEE and UNIFORM FEE, UNIFORM FEE and CAUTION FEE, CAUTION FEE and REMEDIAL FEE, REMEDIAL FEE and BURSARY. Label the new columns using their predecessor column adding the text 'TOTAL' before.
(3 mark)
d) Use a function that references only to cells to calculate:

TOTAL TUITION FEE for each class not forgetting that the TUITION FEE indicated is for one student. apply the same concept to obtain the totals for other columns.
e) Format the Worksheet as follows:
(i) Resize the titles to font size 16 and apply bold.
(2 marks)
(ii) Apply outline border around data 2021 SCHOOL FEE. (1 mark)
(iii) Align to the right all the column headings in the worksheet. (1 mark)
(iv)Apply a grey background colour to all column headings. (1 mark)
f) (i)Copy the content of the current worksheet to a new worksheet and rename the new worksheet Modified.
(1 mark)
(ii) copy the data labeled ' 2021 SCHOOL FEE' and paste it below the data labeled '2022 school fees increment'. Delete the values of the newly copied work leaving the labels and the data on the columns named CLASS and NO. OF STUDENTS. Change the title to 2022 SCHOOL FEE.
(iii) Compute the school fee for the year 2022 using data titled '2022 school fees increment'. use absolute cell referencing to obtain the correct data where necessary.
(iv) using formulae compute the total fees collected in the year 2022. Clearly indicate the sub totals and finally the grand total. than 25 students only.
g) Create a well labeled pie chart to compare the total fees per class. (5 marks)
h) Print the following Worksheets:
(i) Incomestatement.
(ii) incomestatement1.
(iii) Modified
(iv) Chart

## Question 2

M/s Ann Momanyi, an ICT consultant with Makueni Distributors is in the process of developing a Management Information System (MIS) for the company. Currently, she is designing sales database using three tables namely: - customers, products and transactions. The details for each table are given below:-

| Customers | Products | Transactions |
| :--- | :--- | :--- |
| Customer ID | Product ID | TransID |
| CustomerName | ProductDescription | clientName |
| PostalAddress | Packaging | TransacDate |
| Town | unitPrice | Product |
| Phone | Stock | Quantity |

## Questions

a) Create a database named MIS and in it create three relations.
b) Identify the most appropriate field as the primary key in each table
c) Establish relationships among the three tables and enforce the referential integrity
(6marks)
d) Create a form for each table. Save the forms as Customer Form, Product Form and Transaction Form.
(9marks)
e) Use the respective forms to enter the following records in each table
(6marks)
CUSTOMER TABLE

| CustomerID | Customer Name | Postal Address | Town | Phone |
| :--- | :--- | :--- | :--- | :--- |
| H001 | Andrew diwove | 209 | Mutituni | 200870 |
| H002 | Erick@nsongo | 68 | Nyamira | 248567 |
| H003 | Brenda Nyabuti | 100 | Bomet | 789678 |
| H004 | Dydiah Winzaa | 250 | Mwingi | 778009 |
| H005 | Jeff Ogero | 330 | Keroka | 666790 |
| H006 jS | Maureen <br> Makuthu | 550 | Kakeani | 780906 |

PRODUCT TABLE

| ProductID | Product description | Packaging | Unit price | Stock |
| :--- | :--- | :--- | :--- | :--- |
| AA001 | Cooking oil | 20kg Gal | 16000 | 80 |
| AA003 | Rice | 50kg bags | 4500 | 60 |
| AB004 | Detergents | 5 litres | 11000 | 40 |
| AC006 | Fertilizer | 50kgs bags | 4700 | 30 |
| AA007 | Mineral water | 1.5litres | 8200 | 400 |

TRANSACTION TABLE

| CustomerID | Client Name | TranscDate | Products | Quantity |
| :--- | :--- | :--- | :--- | :--- |
| 1001 | Andrew Mwove | $06 / 04 / 2007$ | Cooking oil | 6 |
| 1002 |  | $26 / 4 / 2007$ | Mineral water | 8 |
| 1003 |  | Erick Onsongo | $23 / 04 / 2007$ | Detergents |
| 1004 |  | $14 / 4 / 2007$ | Cooking oil | 12 |
| 1005 | Maureen | Makuthu | $02 / 05 / 2007$ | Rice |
| 1006 |  | $08 / 05 / 2007$ | Fertilizer | 3 |
| 1007 | Erick Onsongo | $16 / 05 / 2007$ | Detergents | 25 |

e) Create a query that displays the customer Name, Product Description, Quantity, Unit price and calculates field total payable by each customer. Save the query as MISQuery
(5marks)
f) Generate a report from MISQuery. Save the report as MISReport
g) Print the Customers, Products, Transaction table's design, MISQuery and MISReport

