**451/2**

**COMPUTER STUDIES**

**Paper 2**

**Practical**

**JUNE 2022**

**2 ½ hours**

**KASSU JET JOINT EXAMINATION**

 **Kenya Certificate of Secondary Education**

**COMPUTER STUDIES**

**Paper 2**

**PRACTICAL**

**2 ½ hours**

**Instructions To Candidates**

1. Write your name and index number in the spaces provided above
2. Sign and write the date of examination in the spaces provided above.
3. Write the name and the version of the software used for each questions attempted in the answer sheet
4. Answer all the questions
5. All questions carry equal marks
6. Passwords should not be used while saving in the diskette/removable media
7. All answers must be saved in your removable media
8. Make a print out and tie/staple them together
9. Hand in all the printout and the removable media
10. This paper consists of 7 printed pages. Candidates should check the question paper to

Ensure that all the pages are printed as indicated and no questions are missing.

1. (a) The table below shows records kept by Agriculture teacher in Makonge secondary school

 on issuing of farm tools to young farmers club members.

(b) Open a database program and create a database named **YF-CLUB**. (1 mark)

(c ) (i) Create three tables named **Class, Students and Items** in the database file created in (b) using the following details. (12 marks)

**Table 1: Students\_Table**

|  |  |
| --- | --- |
| **Field name** | **Data types and properties** |
| Student\_Id | Text (Size = 4, Required = Yes ) |
| Student Names | Text (Size = 15) |
| Gender | Text (size = 4), Lookup from list box with values **“M”, “F”**  |
| Class | Text (size = 2), Lookup from list box with values **“3W”, “3R”, “3S”, “3N”** |
| Project Name | Text (size = 15) |
| Date of Birth | Date and time, Short date |

**Table 2: Tools\_Table**

|  |  |
| --- | --- |
| **Field name** | **Data types and properties** |
| Tool\_Id | Text (Size = 4, Required = Yes ) |
| Tool Name | Text (Size = 8)  |
| Number issued | Number (Size = 2)  |
| Tool Category | Text (size = 6), Default value = Garden tools |

|  |  |
| --- | --- |
| **Field name** | **Data types and properties** |
| Issuing\_Id | Text (Size = 4, Required = Yes ) |
| Student\_Id | Text (Size = 4) |
| Tool\_Id | Text (Size = 10) |
| Date issued | Date and time, Medium date |
| Returned | Yes/No (Yes for Returned) |

**Table 3: Issuing\_Table**

(d) Create the relationship between the three tables and enforce referential integrity. (2 marks)

(e)Enter the following data into the database using the respective tables. (10 marks)

**Table 1: Students\_Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Student\_Id** | **Student Names** | **Gender**  | **Class** | **Project Name** |
| 900 | Monica Kerry  | F | 3W | Carrots |
| 230 | Lawi Tutu  | M | 3R | Kales |
| 450 | Maria Mutanu | F | 3S | Spinach |
| 600 | Odima Masau  | M | 3N | Cabbage |

**Table 2: Tools\_Table**

|  |  |  |
| --- | --- | --- |
| **Tool\_Id** | **Tool Name** | **Number issued**  |
| 320 | Jembe | 2 |
| 321 | Panga | 2 |
| 322 | Slasher | 3 |
| 323 | Rake  | 1 |

**Table 3: Issuing\_Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Issuing\_Id** | **Student\_Id** | **Tool\_Id** | **Date issued** | **Returned**  |
| 1 | 900 | 320 | 07/03/2019 | Yes |
| 2 | 600 | 321 | 09/04/2019 | No |
| 3 | 230 | 322 | 27/04/2019 | No |
| 4 | 900 | 320 | 17/04/2019 | Yes |
| 5 | 230 | 322 | 07/05/2019 | Yes |
| 6 | 450 | 321 | 25/05/2019 | No |
| 7 | 600 | 323 | 30/06/2019 | Yes |
| 8 | 230 | 322 | 13/07/2019 | No |
| 9 | 450 | 321 | 18/07/2019 | No |
| 10 | 600 | 323 | 07/04/2019 | Yes |

 (f) Modify the issuing table so as to capture the cost of each tool as shown below. (2 marks)

|  |  |
| --- | --- |
| **Tool\_Id** | **Tool Cost** |
| 320 | 600.00 |
| 321 | 450.00 |
| 322 | 520.00 |
| 323 | 320.00 |

(g) Create a query that would display the following:

 (i) Tool category, Student name, gender, class, tools name, project name and age. Save the query as **A\_query**. (3 marks)

(ii) Student name, gender, class, tools name, number of tools issued per student.

1. Compute total number of tools issued to students.
2. Save the query as **TL\_query**. (3 marks)

(iii) Student name, gender, class, tools name, number of tools issued, tool cost, date of issue and

 tool category.

1. Compute the total cost of the tools not returned.
2. Save the query as **NR\_query**. (3marks)

(h)(i)Create a report based on the query **NR** showing all the fields in the query and the following:

 (5marks)

1. Total number of of tools issued.
2. Total cost of tools not returned.
3. Group records per class.
4. Grand totals of cost of tools not returned.

 (ii) Modify the report to appear as follows:

1. To have a report tile **“YOUNG FARMERS REPORT 2022”**
2. Underline the report title.
3. save the report as **“YF\_REPT”** (3 marks)
4. Create a form for the student table and add a subform for the tools table using the format in figure 1. Save the form as **YF Entry Form.** (4 marks)

**YF-CLUB ENTRY FORM**

**Class**

**Project Name**

**Gender**

**Student Name**

**Tool\_Id**

**Tool Name**

**Number Issued**

 **Figure 1**

(i)Print out later each of the following: (2 marks)

* The three tables
* The three queries
* The report
* The form

2. The spreadsheet below shows Head boy contestants and votes obtained per class for **KASSUJET HIGH SCHOOL** in the year 2019**.**Use the worksheet to answer the questions that follows

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | B |  | C | D | E | F | G | H | I |
| 1 |  | **Contestant****Class** | **Reg.****Fee** | **Form 1****Votes** | **Form 2****Votes** | **Form 3****Votes** | **Form 4****Votes** | **Total****Votes** | **Average** |
| 2 | **ContestantName**  |  |  |  |  |  |  |  |  |
| 3 | Mandela Morpy | 4 Red | 200 | 42 | 40 | 45 | 79 |  |  |
| 4 | Simiyu Wanjala | 4 Blue |  | 24 | 20 | 18 | 4 |  |  |
| 5 | Kiptoo Rotich | 4 Blue | 200 | 24 | 25 | 11 | 30 |  |  |
| 6 | Rashid Said | 4Red | 200 | 20 | 23 | 26 | 1 |  |  |
| 7 | Patel Rishyan | 4 Blue | 200 | 45 | 10 | 1 | 36 |  |  |
| 8 | Brian Kombora | 4 Green |  | 0 | 30 | 15 | 76 |  |  |
| 9 | Ogolla Victor | 4 Red | 200 | 54 | 60 | 40 | 69 |  |  |
| 10 | Ole Tumboei | 4 Green |  | 49 | 10 | 11 | 0 |  |  |

(a)Enter the data to a spreadsheet as it appears and save it as **Election 1** (11 marks)

(b) (i) Type the title **“KASSUJET HIGH SCHOOL** in cell Al , Bold, font size 18 then Centre

 across the spreadsheet. (2marks)

 (ii) Insert a header reading “Kassu mock exam” and a footer indicating your name. (2marks)

 (iii) Format **Reg. fee** column to display **Ksh**. as currency with 2 decimal places. (2 mark)

 (iv) Validate all vote entries to accept values ranging from 0 to 100 and, the words “**Wrong**

 **Data entry**” to be displayed in case the rule is violated. (2 marks)

(c) (i) Compute the Total votes for Mandela Morpy and copy the formula down the list. (2 marks)

 (ii)Get the average votes for each contestant. (1marks)

 Save the worksheet as **Election 2**

 (d) Retrieve Election 2 worksheet and enter a formula in cell C14 which will help to count all the

 Contestants who paid registration fee. Type a label against it in cell B14 “Paid Registration”

 (2marks)

 (e) Registration fee was projected to be raised to 39%.

 (i) Insert a new blank column after Reg.Fee and enter the label % increment as column heading

 and a value 39 in cell C15 (2marks)

 (ii) In column D use an absolute cell referencing to predict the newly proposed Registration Fee

 for each contestant. (3marks)

(f) By using a suitable function determine the total amount of Reg. Fee collected per class and

 total Reg.Fee collection in the school (3marks)

 Save the worksheet as it as **Election 3** (1mark)

(g) (i) Enter a formula in column J which will remark votes as follows by basing on Average of

 votes for each contestant: (3marks)

 55 votes and above - “Head boy”

 Between 40-55 - “Prefect”

 Below 40 -“Unpopular”

 (ii) Filter out a list of prefects only having remark Head boy. Copy the filtered list to Sheet 2.

 Rename this sheet as ‘**prefects**’. (3marks)

 (iii) Sort your records in descending order of average votes for candidates. (1mark)

 Save the work as **Finalized Election** (1 mark)

 (h) (i) Using Election 2 plot a column graph on its own sheet showing the contestant name and

 the average votes only. (2marks)

 (ii) Rename this sheet as ‘**Graph’** (1 mark)

 (iii) Label:

The chart title as “Head Boy’s Election 2022” (1mark)

Y-axis and X-axis appropriately (1mark)

Legend position to the right. (1mark)

 Save the changes to your workbook.

 (j) Print **Election 1, Elections 3 and Graph.** (3marks)