**NAME ……………………………………..… DATE …………………………………**

**INDEX NO. …………….……….CANDIDATE’S SIGNATURE …………..…..…**

**SCHOOL:…………………………………………….**

**451/2**

**COMPUTER STUDIES**

**PAPER 2**

**(THEORY)**

**TIME: 2 ½ hours**

**CHUGU BOYS SECONDARY SCHOOL**

**Kenya certificate of secondary education (K.C.S.E)**

**451/2**

**COMPUTER STUDIES**

**PAPER 2**

**(THEORY)**

**TIME: 2 ½ hours**

**OPENER EXAM**

**Instructions to Candidates**

1. Write your name and index number in the spaces provided above.
2. This Paper consists of two sections A and B.
3. Answer **ALL** the questions in section A.
4. Answer **question 16** (compulsory) and any other **THREE** questions from section B.
5. All answers should be written in the spaces provided.
6. This paper consists of 10 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing
7. A computer firm keeps its details in a computer database. The information below contains details obtained from two tables of the database. Study the tables and answer the questions that follow.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Employee ID | Employee\_Name | Department | Job\_Title | Salary |
| 1101 | John Kimani | Finance | Clerk | 75000 |
| 1102 | Lewis Maganga | I.T | Manager | 85000 |
| 1103 | James Tayo | Operations | Manager | 67000 |
| 1104 | Stephanie Czeda | Research | Manager | 80000 |
| 1105 | Ephraim Taiwo | Research | Manager | 72000 |
| 1106 | Emmanuel Mulei | Sales | Manager | 66000 |
| 1107 | John Kageche | Sales | Sales Man | 78000 |
| 1108 | Martin Kamau | Sales | Team leader | 80000 |

Department Table

|  |  |  |
| --- | --- | --- |
| Dept\_Code | Department | Location |
| 101 | Finance | Nairobi |
| 201 | Operations | Kisumu |
| 301 | Research | Mombasa |
| 401 | Sales | Nairobi |

Required:

1. Create a database that can be used to store the above information and save it as COMPANY in the Disk provided. **(10 Marks)**
2. Using appropriate primary and foreign keys create a relationship between the two tables. Enforce referential integrity between tables. **(4 Marks)**
3. Validate the primary key entry to exactly four and two characters for the Employee\_ID and four Characters for the Dept\_Code fileds respectively. **(4 Marks)**
4. Create a form for each table and use it to enter the records shown in the table above. Save the form as EmployForm and DepartForm respectively. **(6 Marks)**
5. It is required that the dates on which the employees were hired be included in the database. John Kimani was hired on 10/06/1998. Lewis Maganga on 16/03/1996, John Kageche on 09/03/2003 and the rest were hired on 13/03/2004. Insert a new field and name it **Date\_of \_Hire** in the **Employee\_Table**  and enter the data given. **(5 Marks)**
6. (a) Create a query to display the employees who were employed after the year 2000, save the query as Latest\_Employees. **(4 Marks)**
7. Create a report that displays the Employee\_Name, Job\_Title, Department and Salary and group according to location and save it as Employee\_Report.  **(4 Marks)**
8. i. Create a query to display the employees and their job description. And save it as EMPTYPE.

ii. Create a pie chart based on the query in H (i). Above to display the proportion of employees in various job description and save the report as CHART. **(4 Marks)**

1. Print: **(4 Marks)**

Employees and Department table designs.

Employees and Department forms

Latest\_Employees query

Employees Report

The Chart

1. The following data is an extract of data obtained from Limuru company records. Study the data and answer the question that follows.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Area | Producer iD | Name | Quantity(kg) | Gross Pay | Transport Cost | Deduction | Net pay |
| 101B | 115 | Simon | 4562 |  |  |  |  |
| 79A | 145 | Peter | 12554 |  |  |  |  |
| 79A | 012 | Griselda | 235 |  |  |  |  |
| 79A | 561 | Amalia | 8954 |  |  |  |  |
| 101B | 016 | Faraj | 9658 |  |  |  |  |
| 20Z | 123 | Tyron | 7895 |  |  |  |  |
| 20Z | 458 | Amon | 456 |  |  |  |  |
| 101B | 654 | Joe | 421 |  |  |  |  |
| 20Z | 758 | Robin | 7895 |  |  |  |  |

1. Enter the data shown above into a spreadsheet giving it an appropriate title center and bolded across the worksheet. Save the workbook as CHAT001. And rename the worksheet as December records. **(10 Marks)**
2. Copy the data to a new worksheet and add the details of producer James Czeda of area 101B, ID 452 with quantity of produce of 2,700kg in an appropriate row. **(1 Mark)**
3. Insert borders at every cell and every row. **(2 Marks)**
4. Use a function to calculate the gross pay for the producer with ID No. 115 given that the price per kg of the produce is Sh. 41.00 **(2 Marks)**
5. Use the formula for gross pay obtained for producer Simon to calculate the gross pay for all the farmers. **(2 Marks)**
6. Use the IF function to calculate transport cost for all the producers given the transport is charged per kg is as follows. **(5Marks)**

|  |  |
| --- | --- |
| Area | Price per kg |
| 101B | 5.00 |
| 20Z | 3.50 |
| 79A | 4.00 |

1. Insert the value 20% in cell E14. Using Absolute cell referencing calculate deductions given that the deduction is 20% of the cost.
2. Using a function calculate the net pay given that Net pay is Gross pay – Deductions and transport cost. **(5Marks)**
3. Format the columns containing currency values to currency with two decimal places and prefix Ksh. Rename the worksheet PRODUCE PAY and save it as CHAI 002. **(3Marks)**
4. Arrange the records in ascending order of produce id. **(2Marks)**
   1. By applying suitable filter condition, display records for all producers except for those form area 79A. Save it as CHAT 003 **(4Marks)**
5. Use sub-totals function to calculate subtotals for the quantity delivered, gross pay and net pay from each area. **(3Marks)**
6. Create an embedded pie chart showing the total quantity of produce delivered for each area. The chart should have the following details **(5Marks)**
7. Chart title area total area produce delivered
8. Legend position right.

Save it as CHAT 1

1. Print CHAT 001, CHAI 002, and CHAT 1 in landscape orientation.  **(3Marks)**