KCSE TRIAL 2021

COMPUTER STUDIES PAPER 2

 The extract below shows a spread sheet used to record books stored in the library. The books are borrowed by students under the plan of **Short** and **long** loan borrow type. A short loan borrow type attracts a fee of Ksh 7.50 per day while the Long loan borrow type attracts a fee of Ksh 5 per day.

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| 1 | | | | | LIBRARY BOOK | <u>(s</u> | | | | | |
| 2 | ADMNO | NAME | CLASS | BOOK_NO | TITLE | BORROW TYPE | DATE_BORROWED | DATE_RETURNED | Days Borrowed | Charge | |
| 3 | 123 | MIKE | 1A | B001 | COMPTER STUDIES BK 1 | SHORT | 27-1-2016 | 2-2-2016 | | | |
| 4 | 456 | JOHN | 1B | A002 | COMPREHENSIVE ENG BK 1 | LONG | 21-10-2016 | 28-10-2016 | | | |
| 5 | 789 | ADREW | 1C | B003 | KIE MATHEMATICS BK 1 | LONG | 1-3-2016 | 14-3-2016 | | | |
| 6 | 987 | JAMES | 2A | D004 | LONGHORN GEOGRAPHY BK2 | SHORT | 1-4-2016 | 5-4-2016 | | | |
| 7 | 654 | JACOB | 2B | K005 | KISWAHILI SHAIRI BK2 | SHORT | 1-5-2016 | 9-5-2016 | | | |
| 8 | 321 | NANCY | 2C | B006 | MATHEMATICS BK2 | SHORT | 2-3-2016 | 10-3-2016 | | | |
| 9 | 879 | MARY | 3A | C005 | HISTORY BK3 | LONG | 2-4-2016 | 7-4-2016 | | | |
| 10 | 564 | MERCY | 3B | коо9 | FOUNDATION CHEMISTRY BK 1 | LONG | 2-5-2016 | 8-5-2016 | | | |
| 11 | 213 | PETER | 3C | H001 | KISWAHILI LUGHA BK 2 | LONG | 1-4-2016 | 10-4-2016 | | | |
| 12 | 123 | MIKE | 1A | B001 | KIE MATHEMATICS BK 1 | SHORT | 1-5-2016 | 10-5-2016 | | | |
| 13 | 456 | JOHN | 1B | A002 | LONGHORN GEOGRAPHY BK2 | SHORT | 1-4-2016 | 5-4-2016 | | | |
| 14 | 789 | ADREW | 1C | B003 | KISWAHILI SHAIRI BK2 | SHORT | 1-4-2016 | 7-4-2016 | | | |
| 15 | 987 | JAMES | 2A | D004 | MATHEMATICS BK2 | LONG | 1-5-2016 | 8-5-2016 | | | |
| 16 | 654 | JACOB | 2B | K005 | HISTORY BK3 | LONG | 1-4-2016 | 12-4-2016 | | | |
| 17 | | | | | | | | | | | |
| 18 | | | | | | | | | | | |
| 19 | | | | short | 0 | | | | | | |
| 20 | | | | long | 0 | | | | | | |
| 21 | | | | | | | | | | | |

| (a)(i)Create a worksheet and save the spreadsheet as Library | (1 Mark) |
|--|---------------|
| (ii) Insert a label In the row 1 merge the cells center the label | (1 Mark) |
| (iii) Insert the data in the sheet as shown above | (19 Marks) |
| (iv) Name the worksheet as Charge | (1 Mark) |
| (b) (i) Using the formula or functions calculate the days borrowed and charge for even | ry Individual |
| student | (8 Marks) |
| (ii) Create a table showing the total charge for each category and use formula to c | alculate the |
| values | (8 Marks) |
| (iii). Create a Pie chart Based on b(ii) Above | (4 Marks) |
| (c) (i) Copy the Data in the worksheet charge to a new worksheet and rename the wo | rksheet as |
| category subtotal | (1Mark) |
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(ii) Sort the data in the worksheet in the part c(i) in ascending values of borrow type (2 Mark) (iii) Insert the subtotals in the sorted worksheet category subtotal based on Category and Charge (3 Mark) (3 Marks)

(d) Print charge worksheet, Category subtotal and the Chart

2. ABC cleaning services offers cleaning services to clients categorized as Small, Medium, Corporate and Big.

The table in figure 1 represents the charges to their clients and number of cleaners depending on the client. The Administrative Charge(Ksh)/Day and Consumable fee(Ksh)/day are the charges made to the clients

| Category | Administrative Charge(Ksh)/Day | Consumable fee(Ksh)/day | No of Cleaners |
|-----------|-----------------------------------|----------------------------|----------------|
| Small | 5000 | 1000 | 4 |
| Medium | 10000 | 1500 | 6 |
| Corporate | 15000 | 2000 | 8 |
| Big | 20000 | 2500 | 10 |

Figure 1

The cleaners are paid a fixed amount of 500 shilling per day on each cleaning day. Invoices are sent to Clients on monthly bases

The following tables shows data for the client and invoice table

| | | | | | | invoice | | | | |
|---|-------------|----------------------|------------|----------------|---------|---------|----------|------------------------|---------------|---------------|
| - | | | | | | Paymen | t_ld ≠ | Cleaning_Date 🔹 🗸 | CLIENT'S ID 👻 | Add New Field |
| | CLIENT | | | | | | 1 | 01-Jan-19 | | |
| | CLIENT ID 🔻 | CLIENT NAME 🔻 | CATEGORY - | TELEPHONE 🗸 | CITY | | 2 | 15-Mar-19 04-Jan-19 | | |
| | - | - | | | | | 3 | 04-Jan-19 06-Feb-19 | | |
| ŧ | c001 | PARAMOUNT COMPUTERS | medium | (534) 324-2353 | NAIROBI | | 5 | 14-Jan-19 | | |
| ŧ | c002 | MARAMU INCORPORATED | small | (224) 234-5364 | NAIROBI | | 6 | 03-Dec-18 | c009 | |
| | | | | | | | 7 | 12-Dec-18 | | |
| t | c003 | FARAWAY LIMITED | small | (336) 485-8568 | NAIROBI | | 8 | 02-Oct-18 07-Dec-18 | | |
| ŧ | c004 | BEYOND ENTERPRISES | corporate | (34) 546-7789 | NAIROBI | | 10 | 14-Nov-18 | | |
| | -005 | | | | MOMPACA | | 11 | 11-Apr-19 | c012 | |
| T | c005 | DRYMARK ENTERPRISES | medium | (234) 566-7898 | MOMBASA | | 12 | 16-Oct-18 | c011 | |
| ŧ | c007 | EQUITY BANK | corporate | (122) 334-4567 | KISUMU | | 13 | 12-Dec-18 | | |
| Ŧ | c008 | FERRYLAND | corporato | (223) 453-5678 | KISUMU | | 14 15 | 02-Aug-19 19-Jul-18 | | |
| | 0000 | FERNTLAIND | corporate | | NISUNIU | | 15 | 14-Jan-19 | | |
| ŧ | c009 | A.S.D. | medium | (123) 467-8890 | MOMBASA | | 17 | 21-Sep-18 | c009 | |
| Ŧ | c010 | TELCOMMUNICATIONS | medium | (123) 567-8899 | MOMBASA | | 18 | 15-May-19 | | |
| | | | | V 1 | | | 19 | 12-Dec-18 | | |
| ŧ | c011 | SAMCHI COMMUNICATONS | medium | (098) 787-6654 | NAIROBI | | 20 21 | 24-Apr-19 11-Dec-18 | | |
| ŧ | c012 | UUNET | corporate | (555) 012-7344 | NAIROBI | | 22 | 17-Jun-19 | | |
| | | | | | | | 23 | 23-Apr-18 | c002 | |
| t | c087 | UILO | big | (347) 348-3933 | NAIROBI | | 24 | 22-Mar-18 | c011 | |

| (a) (i) Create a database and save the database as cleaning | (1 Mark) |
|---|------------|
| (ii) Create the two tables Client and Invoice | (2 Marks) |
| (iii)Create the relationship between the two tables | (1 Mark) |
| (iv) Fill in the data in the two tables | (10 Marks) |

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(b) (i)Create a query to show Total charge made to the Clients with the following fields. CLIENT_ ID, CLIENT_NAME, CATEGORY, TELEPHONE, CITY, Cleaning Date, Month, Year, Administrative Charge (Ksh), Consumable Fee And Total Charge. Save the Query as invoice

(14 Marks)

(ii) Create a query Based on the query in Part b(i) above with the following fields CLIENT'S ID, CLIENT_NAME, CATEGORY, TELEPHONE, CITY, Cleaning, Date, Month, Year, Administrative Charge(Ksh), Consumable Fee And Total Charge. Save the Query as client invoice it should filter out the fields by criteria of CLIENT_ID, Month and year

(3 Marks)

(iii) Create a query Based on the query in Part b(i) above which should show total annual invoices with individual monthly totals save the query as annual summary

(5 Marks)

(c) (I) Create a report based on b(ii) Showing all the appropriate summaries Save the report as monthly invoice
(5 Marks)

| See sample below | | | | | | | | | | |
|------------------|----------------|---------------------|---------------|-------------------------|-------------------------------|--|--|--|--|--|
| MonthyInvoice | | 1 | 1 | | | | | | | |
| CLIENT_ID | Monthy I | nvoice | CATEGO | | nuary 20, 2019 11:00:44 AM | | | | | |
| CLIENT_NAM | IE SAMCHI COMN | NUNICATONS | TELEPHO | TELEPHONE (098) 787-665 | | | | | | |
| СІТҮ | NAIROBI | | Month | Month 10 | | | | | | |
| | | | YEAR | | 2018 | | | | | |
| | Date | AdminstrativeCharge | ConsumableFee | TotalCharge | | | | | | |
| | 02-Oct-18 | Ksh 10,000.00 | Ksh 1,500.00 | Ksh 11,500.00 | | | | | | |
| | 16-Oct-18 | Ksh 10,000.00 | Ksh 1,500.00 | Ksh 11,500.00 | | | | | | |
| | | | Total | Ksh 23,000.00 | | | | | | |
| | | | Page 1 of 1 | | | | | | | |

(ii) Create a report based on and b(ii) Showing all the appropriate summaries save the report as annualsummary (5 Marks)

See sample Below

| 🔄 Anr | AnnualSummary | | | | | | | | | | | | |
|-------|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|
| | AnnualSummary Sunday, January 20, 2019 11:03:57 AM | | | | | | | | | | | | |
| year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
| 2018 | | | Ksh 11,500.00 | Ksh 6,000.00 | | | Ksh 11,500.00 | | Ksh 11,500.00 | Ksh 23,000.00 | Ksh 23,000.00 | Ksh 93,000.00 | Ksh 179,500.00 |
| 2019 | Ksh 46,500.00 | Ksh 11,500.00 | Ksh 6,000.00 | Ksh 29,000.00 | Ksh 11,500.00 | Ksh 11,500.00 | | Ksh 11,500.00 | | | | | Ksh 127,500.00 |
| 2 | | | | | | | | | | | Ksh 307,000.00 | | |

(iii) Print

- Annual Summary report______(1Mark)
- Monthly Invoice report______(1 Mark)

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| • | Invoice Query | (1 Mark) |
|---|----------------|----------|
| • | Annual Summary | (1 Mark) |

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