

# KAPSABET HIGH SCHOOL

## 451/2 - COMPUTER STUDIES – Paper 2



MOCK 2023



NAME.....ADM NO.....CLASS:.....

SIGNATURE:.....

451/2  
COMPUTER STUDIES  
Paper 2  
(PRACTICAL)  
2 ½ hours

### Kenya Certificate of Secondary Education

#### Instructions to Candidates

1. Type your name and index number at the top right hand corner of each printout.
2. Sign and write the date of the examination below the name and index number on each printout.
3. Write your name and index number on the compact disks.
4. Write the name and version of the software used for each question attempted in the answer sheet.
5. Passwords should not be used while saving in the compact disks.
6. Answer all the questions.
7. All questions carry equal marks.
8. All answers must be saved in your compact disks.
9. Make a printout of the answers on the answer sheets provided.
10. Hand in all the printouts and the compact disks.
11. This paper consists of 4 printed pages.
12. Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.

1. (a) (i) Using a database management system, create a database file named **ANTIGUA\_ENT\_LTD** to store the data below. (1 mark)

**CommodityTable**

Commodity_ID	Commodity_Name	Retail_Cost
C10	Apple Vinegar Super	400
C20	Assorted Sandwich	300
C30	Sweetener Max	130
C40	Soda 1L	120
C50	UPS APC 2	5000
C60	Persil Detergent	130
C70	Minute maid	120
C80	Pizza XL	1000
C90	Sacho Springs water 5L	650
C100	UPS APC 1	3000

**SuppliersTable**

Supplier_ID	Supplier_Name	Town
S-11	Antigua Foods	Nakuru
S-12	Prime Fast Food	Nairobi
S-13	Gilanis Mart	Nakuru
S-14	Power Dynamics Ltd	Eldoret
S-15	Panda Energy	Nakuru
S-16	SAHICO	Kabarnet
S-17	Rio Beverages	Nakuru

**OrderTable**

Order_ID	Commodity_ID	Supplier_ID	Order_Date
101	C10	S-11	12/04/19
102	C20	S-12	22/04/19
103	C30	S-11	12/04/19
104	C40	S-11	02/05/19
105	C50	S-14	12/04/19
106	C60	S-16	22/08/18
107	C70	S-17	19/08/18
108	C80	S-12	12/04/18
109	C90	S-13	11/05/18
110	C100	S-15	15/04/18

- (ii) Create tables named: **Commodity\_Table, Suppliers\_Table and Order\_Table** in the database created in (a) to store the information above assigning appropriate data types for each field. (14 marks)

- (iii) Identify a field to be assigned as primary key for each table. ( $1\frac{1}{2}$  marks)

- (iv) Create relationships among the tables and enforce referential integrity. (3 marks)

(b) Capture the number of units for the Commodities as shown below in the Commodity Table. (3 marks)

Commodity_ID	No Of Units
C30	50
C10	20
C60	89
C40	18
C50	10
C20	16
C70	35
C80	5
C90	21
C100	17

- (c) Create a query named **RETAILCOST** to display Commodity name, retail price, number of units, suppliers' name and calculate the total retail price for each Commodity. (4 marks)
- (d) Create a query named **CUSTOM\_QR** to display name of each Commodity, retail price and number of units ordered. The query should contain Commodities whose suppliers name start with letter "P" and Total Retail Price is between Ksh.4000 and less than Ksh.50,000. (5 marks)
- (e) Create a report named **SUPPLIERS\_RPT** to display Commodity name, suppliers' name, total retail price and date of order. (4 marks)
- *Group records per suppliers' town*
  - *Title the report as "ANTIGUA SUPPLIERS DETAILS"*
  - *Show the Total Retail Prices per supplier.*
- (f) Create a report named **ORDERS\_2019** to display Commodity name, retail price, suppliers' name, town and items ordered in the year 2018 only. Show the number of suppliers. (3½ marks)
- (g) Create a pie chart to display Total Retail Prices and their respective Commodities. (2 marks)
- (h) Create a form named **COMMODITIES\_2018** used to enter data in the database to appear as shown below (5 marks)

### ANTIGUA LTD

CommodityName	<input type="text"/>	RetailPrice	<input type="text"/>
No. of Units	<input type="text"/>	SuppliersName	<input type="text"/>
Town	<input type="text"/>	OrderDate	<input type="text"/>

- (i) Print the following (4 marks)
- **Tables:** CommodityTable
  - **Queries:** RETAIL\_COST and CUSTOM\_QR
  - **Reports:** SUPPLIERS\_RPT

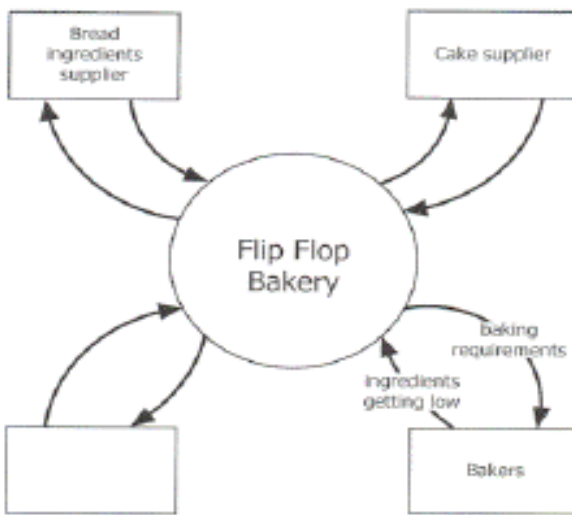
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**Question 2**

- a) Launch a Desktop publishing software and set the measurements to centimeters, margins 2cm all round and paper size A4 potrait. (1½ marks)

## Data flow diagram (DFD)

A **data flow diagram (DFD)** is a design tool to represent the flow of data through an information system. A "context level" DFD can be used to show the interaction between a system and outside entities; it can also show the internal data flows within a system. This version is also called a context diagram. It often shows the information system as a single circular shape with no details of its inner workings: what it shows is its relationships with the *external entities*.



I love data flow diagram (DFD)

**F**or a diagram to be called a DFD, it needs to show the inner workings of an information system. The different levels of a DFD indicate how detailed it is, e.g. a Level 0 DFD is a broad overview of a system, showing hardly any detail within the system. A level 2 DFD explodes more summarised processes and shows another level of complexity within them. A level 3 or 4 DFD shows even more components opened up to show their inner details. With a

dataflow diagram, developers can map how a system will operate, what the system will accomplish and how the system will be implemented. It's important to have a clear idea of where and how data is processed in a system to avoid double-handling and bottlenecks. A DFD also helps management organise and prioritise data handling procedures and staffing requirements

DATAFLOWDIAGRAM

- b) Design the publication above (in page 4) as it appears and save it as MOKASA\_2. (30 marks)
- c) Format the Title “ Data Flow Diagram (DFD)” as follows: (6 marks)
- (i)
- **Character spacing:** 300%
  - **Font style:** Times New Roman
  - **Font size:** 13.5
- (ii) Modify the shape containing the title as follows:
- **Background :** Gradient with 17% transparency, Shading style Horizontal
  - **Border line :** Double
- d) Apply a first line indent to the first paragraph of the document. (2 marks)
- e) Proofread your publication. (½ mark)
- f) Insert your full index number as a watermark of your publication. (2 marks)
- g) Insert your full name as the header, Class and admission number as the footer of your publication . (2 marks)
- h) Insert page number at the right bottom margin of your page. (2 marks)
- i) Insert the Date and time created for this document after the first paragraph. (2 marks)
- j) Print your publication (2 marks)