

DATABASE MANAGEMENT SYSTEMS (DBMS)

QUESTION ONE:

- (a) Load Database management software and create a database called HAMZAN COIN. (01mk).
- (b) Design a data table basing on the guidelines given in the table below and save the table as CAR TABLE 1 (05mks).

Name of the field	Properties of the field	Field description
(i) Brand Name	- Will contain only alphabetic characters - Must not exceed 15	Brand name of the car
(ii) Manufacturer Name	- Will contain only alphabetic characters - Must not exceed 15	Name of the manufacturing company
(iii) Car ID	- A unique identification number. - It comprises of only 5 characters	Unique number assigned to the car.
(iv) Body colour	- The field should be set up to enable database users choose from one of these colours (Red, Army green, Silver grey, White and Blue)	Colour of the body of the car.
(v) 4-wheel drive	- This field will have Boolean data entries, - Yes for those which are 4-wheel drive cars and No for those that are not	Whether the car is a 4-wheel drive or not
(vi) Date out	-The field will have entries in form of dates.	The date when the car left the depot
(vii)Customer	-Will contain only alphabetical characters. - Must not exceed 25.	Name of the customer who bought the car.

- (c) (i) Create a Form for the above table showing all the fields. (03mks).
- (ii) Include a form header of 2 lines (one below the other) reading as follows.

Line 1: HAMZAN CAR DEPOT

LINE 2: Car Details form

(01mk)

- (d) Enter the records below using the form which you created in (c) above.

(04mks)

Brand name	Manufacturer name	Car ID	Body Colour	4-wheel drive	Date Out	Client name
NADIA	TOYOTA	HZ010	WHITE	YES	03/06/2010	KHAN SHREE
DATSUN	NISSAN	HZ002	BLUE	NO	06/04/2011	ODONG TOM
PATROL	NISSANI	HZ013	SILVER GREY	YES	04/06/2012	GEERA TITIANA
HILUX	TOYOTA	HZ001	ARMY GREEN	NO	01/04/2010	MUGISHA HOPE
HONDA	HONDA	HZ004	RED	NO	05/08/2010	LEMA SHEM
PRADO	TOYOTA	HZ011	ARMY GREEN	YES	14/09/2011	DDUMBA PAUL

- (e) (i) create a report for the table and save it as **TABLE 1 REPORT**.
- (ii) Group the records according to **manufacturer name**. (2mks)
- (f) Include a report footer of your name and personal number (1mk)
- (g) Create a Query showing all fields for the those cars manufactured by TOYOTA and they are 4-wheel drive cars and save it as **Toyota cars** (2mks)
- (h) Print your work (01mk)

QUESTION TWO:

As a student of ICT you have been appointed as a Database Assistant and assigned the following:

- (a) Create a Database called **Estate Agency** in a single table using appropriate data types.
- (b) Create a table in design view and name it **Estate**.

Field Name	Field Type	Field size
REF	Reference number	(04)
ESTATE AGENT	Agent	(15)
AREA	Area of Location	(15)
NO. OF BED ROOMS	No. of Bedrooms	(02)
TYPE	Type of house	(08)
GARDEN	Type of Garden	(06)
VALUE	Cost of the house (UShs.)	(15) no decimals

Ref	Estate Agent	Area	No. of Bedrooms	Type	Garden	Value (Shs.)
1001	GA Property	Kololo	3	Semi	Large	53,000,000
1002	GA property	Kyambogo	3	Detached	Small	76,000,000
1003	Trust property	Ntinda	4	Detached	Large	145,000,000
1004	Trust Property	Ntinda	2	Terraced	Small	52,000,000
1005	Mazima	Kireka	2	Flat	None	39,000,000
1006	Watsons	Bukoto	4	Semi	Medium	65,000,000
1007	Watsons	Kololo	2	Terraced	Small	54,000,000
1008	Watsons	Bukoto	3	Semi	Medium	91,000,000
1009	Hozzana	Naalya	2	Flat	None	26,000,000
1010	Hozzana	Kyambogo	3	Detached	Medium	76,000,000
1011	Landmasters	Ntinda	3	Semi	Large	79,000,000
1012	Landmasters	Kololo	3	Detached	Medium	62,000,000

Required:

- (i) In the Estate table, Set Ref as a Primary Key
- (ii) Design a Data Entry Form based on the Estate Table and name it **Estates Data Entry Form**
- (iii) Using the Data Entry form created, enter the records in the ruled table above.
- (iv) Create a Query to filter out all houses with small gardens, name it **Small Query**.
- (v) Create another query to filter out houses costing above 70M and name it **High Cost Houses**
- (vi) Create a report grouped by Area. Name it **Estate Report**.

QUESTION THREE:

- (a) A survey made on Uganda’s social media has revealed that Uganda has a number of Local TV Stations with quite a number of viewers basing on the programmes people like on these Stations. Create a Database under your personal folder and name it **Television**.
- (b) Design a table with the following information and set **Station No.** as the Primary Key. Name the table **Station**.

Field Name	Field Type	Field Size
Station No.	Auto number	(3)
Programme Name	Text	(30)
Station Name	Text	(15)
Decoder Type	Text	(10)
Key Character	Text	(15)
Number of viewers	Number	Long Integer

Station No.	Programme Name	Station Name	Decoder Type	Key Character	No. of Viewers
S01	Badhe Achee	Bukedde	Star Times	Priyah	8,000,000
S02	Deception	NTV	DSTV	Monica	3,000,000
S03	The Favourite	UBC	Zuku TV	Florence	2,000,000
S04	Don’t Mess with an Angel	NTV	Star Times	Maria Dehesus	13,000,000
S05	Choti Bakhu	Bukedde	DSTV	Radika	13,000,000
S06	The Gardener’s Daughter	UBC	Zuku TV	Pedro	7,000,000
S07	Catalina & Sebastian	WBS	Star Times	Sebastian	9,000,000
S08	Woman of my Life	WBS	DSTV	Babarita	15,000,000
S09	Cuado Seas Mia	UBC	Zuku TV	Paloma	13,000,000
S10	Second Chance	NTV	DSTV	Salvador	20,000,000
S11	Legacy	SPARK TV	Star Times	Natasha	12,000,000
S12	I will never say Goodbye	SPARK TV	DSTV	Waldo	10,000,000

- (c) Use a form to populate the table and name the Form **Stars**.
- (d) Design a query called **Decoder** to show stations viewed on Star Times.
- (e) Create a query that shows programmes on UBC Station whose viewers are less than 10,000,000. Save the query as **Viewers**.

- (f) Create a query to display programmes shown on NTV and Bukedde only. Name it **TV**.
- (g) Generate a report using fields; **Programme Name, Key Character** and **Decoder Type** and name it **Station Report**.
- (h) Generate another report from the Station Table with all fields with grouping Levels based on Station Name and name it **Final Report**.

QUESTION FOUR

The Table below shows the medical records of a certain clinic.

PID	F Name	District	DoB	Diagnosis	Treat Fee
P01	Omondi	Busia	03/02/66	Malaria	10,000
P04	Katiba	Kampala	06/09/77	Typhoid	100,000
P05	Waiswa	Busia	03/05/81	Tuberculosis	20,000
P06	Nambi	Busia	02/08/89	Dysentery	120,000
P09	Lumu	Kampala	04/05/90	Malaria	30,000
P11	Nafula	Busia	05/11/89	Tuberculosis	20,000
P15	Waiswa	Jinja	10/11/78	Malaria	60,000

- (a) Create a database called patients (01mk)
- (b) Design a table with appropriate data types in design view called **Patients** (04mks)
- (c) Enter the given data in the table (02mks)
- (d) Create a Query to display all details of patients who come from either Jinja or Busia. Save it as **Eastern Patients**. (02mks)
- (e) Create a Query to display all details of the patients who were not diagnosed with malaria. Save it as **No malaria**. (02mks)
- (f) If the Government pays 40% of the treat fee for all the patients, create a Query to calculate discounted fee. Put only **Fname, DoB, Diagnosis** and **Discounted fee** (03mks)
- (g) Create a **Report** to display the information in the discounted fee query (3mks)
- (h) Create a form from the discounted fee query showing all details and save it as **Patients Form**. (02mks).

QUESTION FIVE

Your country is about to hold a referendum and the electoral Commission is looking for a good database administrator. You have contacted to design and test your database with the following records.

Voter	Name	Sex	Date of Birth	Constituency	Salary
U001	Mafabi	M	19-Nov-80	Katikamu North	560,000/=
U002	Mufulusi	M	02-Apr-72	Kyegwgwa	760,000/=
U003	Kikami	M	13-Jul-84	Masaka Central	990,000/=
U004	Fulasi	F	01-Jun-69	Kampala Central	450,000/=
U005	Pikipiki	M	11-Dec-81	Mbale East	390,000/=
U006	Serica	F	12-Jan-79	Katikamu South	685,000/=
U007	Bada	M	15-Feb-60	Wobulenzi	845,000/=

- Create a database and name it Electoral commission *(01mk)*
- Create a table above in design view and name it EC Table *(03mks)*
- Create a simple form and use it to enter the records shown in the above table
Use it to calculate the **PAYE** which is deducted from salary at a rate of 5%, name it EC FORM. *(04mks)*
- Create a query displaying all fields. Use it to calculate **the net Pay**. Name it Net Pay. *(04mks)*
- Create another query displaying only female Voters, name it females only. *(2mks)*
- Create a query for all male voters born before 1980. Name it Aged Males. *(3mks)*
- Create a report displaying all fields from the table above. Name it all voters. *(2mks)*

Save your work in a folder of yours names on the desktop.

QUESTION SIX

The table below represents SD employee Payroll. Study it and answer the questions that follow.

ID NUMBER	EMPLOYEE NAME	SEX	AGE	DEPARTMENT	BASIC SALARY	ALLOWANCES
U12	ASIIMWE RUTH	F	52	COMPUTER	300000	20000
U13	TUGUME LEONARD	M	41	HISTORY	620000	32000
U14	TUSHABE ROBERT	M	43	CONOMICS	320000	50000
U15	NAMBI TRACE	F	36	MATHS	450000	62000

- (a) Use a database Management software to create a database for SD Employees. Save it as **SD database**. *(01mk)*
- (b) Design a table and enter the given data. Save it as **Employee Table** *(08mks)*
- (c) Use a query to filter out all female employees with their details. Save it **Female Query**. *(03mks)*
- (d) (i) Generate a report from the employee table and save it as **Employee Report**. *(02mks)*
- (ii) Add a header to the Report as **SD EMPLOYEE PAYROLL** and footer as your name and personal number. *(02mks)*
- (c) Use a Query to filter out employees who are between 40 and 50 years of age. Save it as **Aged**. *(03mk)*
- (f) Save and print all your work *(01mk)*