

091906T4HRI
HEALTH RECORDS AND INFORMATION TECHNOLOGY LEVEL 6
HE/OS/HR/CR/01/6/A
MANAGE HEALTH RECORDS DATABASE
NOV /DEC 2023



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

Time: 3 hours

INSTRUCTIONS TO CANDIDATES

1. This paper has two sections **A** and **B**.
2. You are provided with a separate answer booklet.
3. Marks for each question are as indicated.
4. Do not write on the question paper.

This paper consists of FOUR printed pages
Candidates should check the question paper to ascertain that all pages are printed as
indicated and that no questions are missing.

SECTION A: (40 Marks)

Answer ALL questions in this section.

1. Define the following terms as used in database management systems;
 - a) Database. (1 Mark)
 - b) Record (1 Mark)
2. As a database expert, explain the meaning of the following abbreviations:
 - a) DBMS (1 Mark)
 - b) SQL (1 Mark)
3. As a database expert, recall any FOUR advantages of a database management system (DBMS). (4 Marks)
4. During a database presentation, a participant asked Mr. John to explain to her the different types of databases. List any FOUR types of databases he should have mentioned. (4 Marks)
5. List FOUR examples of information captured in a typical health records database (4 Marks)
6. Database has been embraced in the health care sector. Its benefits outweigh its disadvantages. List FOUR advantages of using database to store patient information. (4 Marks)
7. Outline any FOUR database models (4 Marks)
8. Database systems have currently been beneficial and essential in various areas. Identify FOUR application areas of database systems. (4 Marks)
9. Distinguish between Primary key and foreign key. (4 Marks)
10. Database Systems have created more employment opportunities in the current world. State FOUR functions of a database administrator. (4 Marks)
11. Explain THREE security measures for health record database that will ensure safe storage and sharing of health-related data. (4 Marks)

SECTION B: (60 Marks)

Answer any **THREE** questions in this section.

12. Use the following table named *patients* to answer the questions that follow:

Patient Name	Patient ID	Date of Birth	Ward	Mobile No
Victor	001	12/3/2001	Surgical	072284561
John	002	14/7/2021	Pead	075643292
Cynthia	003	11/12/1994	Surgical	078666541
Denis	004	1/10/2021	Pead	076754801
Tom	005	18/4/2020	Pead	078965432
Ken	006	16/4/1997	General	076547809
Lydia	007	28/9/2004	Surgical	073412999

- a) Write a SQL query to perform the following task;
- i. Extract all patients who are in Surgical Ward. (2 Marks)
 - ii. Display the patient with mobile No. 078666541. (3 Marks)
 - iii. Insert a new record with the following value: James, 008, 14/9/1992, 070764419. (3 Marks)
 - iv. Delete the table patients (2 Marks)

b) Explain FIVE uses of health information (10 Marks)

13. As a database expert, discuss FIVE database security threats (20 Marks)

14. Database Table below was extracted from a database known as Hospital.

Table Name: Patient

	Patient_id	Name	Sex	Residence	Aqe
▶	1	Shadrack Kiprot...	Male	Ruiru	26
	2	Naomi Ngina	Female	Waithaka	22
	3	Patricia Chenge	Female	Bamburi	25
	4	Maximilla Speci...	Female	Hirax	23
	5	Lauryn Akinyi	Female	Bondo	22
	6	Joyce Njeri	Female	Kutus	20
	7	Emmanuel Kibet	Male	Kitengela	32
	8	Amos Kipkorir	Male	Kitengela	28
	9	Enock Kipkoech	Male	Kericho	20
	10	Faith Chepkirui	Female	Kabianga	17
	11	Isaack Kipsigei	Male	Kabianga	14
	12	Miriam Chepc...	Female	Kabianga	12
*	NULL	NULL	NULL	NULL	NULL

- Write an SQL query that database developer used to create the database. (4 Marks).
- Write an SQL query that database developer used to create the table (6 Marks).
- Write an SQL query that was used to insert records into the database table above (6Marks).
- Write an SQL query that will fetch all the records from the database table above. (4 Marks).

15. Explain TEN possible reasons why most hospitals have not adopted effective health records database management. (20 Marks)

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