



GRETSA UNIVERSITY - THIKA

UNIVERSITY EXAMINATIONS JANUARY-APRIL 2021 SEMESTER

DIPLOMA IN LIBRARY AND INFORMATION SCIENCE

COURSE CODE: DIRM 019

COURSE TITLE: DATABASE MANAGEMENT

DATE:

TIME:

INSTRUCTIONS TO CANDIDATES

1. SECTION A IS **COMPULSORY**.
2. SECTION B: ANSWER ANY OTHER **THREE** QUESTIONS.
3. **DO NOT** WRITE ANYTHING ON THIS QUESTION PAPER AS IT WILL BE AN EXAM IRREGULARITY.
4. ALL ROUGH WORK SHOULD BE AT THE BACK OF YOUR ANSWER BOOKLET AND CROSSED OUT.

CAUTION: *All exam rooms are under CCTV surveillance during the examination period.*

SECTION A: COMPULSORY

Question One

- a) The concept of database has been employed in the library for centuries even before the discovery of modern day database systems. Discuss the application of modern Database management System (DBMS) in the library both in terms of use and implementation /design. **[15 marks]**
- b) Discuss three considerations to put in place when designing a Library Database Management System **[15 marks]**
- c) Explain the role of structured Query Language (SQL) in Database Management Systems **[10 marks]**

SECTION B: ANSWER ANY THREE QUESTIONS

Question Two

- a) Discuss **five** key modules of a Library Database Management System **[10 marks]**
- b) Discuss **five** components of a database? **[10 marks]**
- c)

Question three

- a) . Discuss **five** roles of a database administrator. **[10 marks]**
- b) Suppose you have retrieved some information from the internet, discuss **five** factors that you would consider when evaluating this information **[10 marks]**

Question Four

- a) In today's information landscape characterized by cyber-attacks. Identify five security threats that database face **[5 marks]**
- b) Discuss **three** security steps you would put in place to protect the integrity of data in the database **[15 marks]**

Question five

a) Suppose you have been selected develop a database system for the University hostels.

Identify the database language you would adopt and why **[10 marks]**

b) Identify and discuss the users of the database? **[10 marks]**

Question six

a) Giving examples explain the levels of database normalization. **[10 marks]**

b) Explain the benefits of database normalization **[10 marks]**