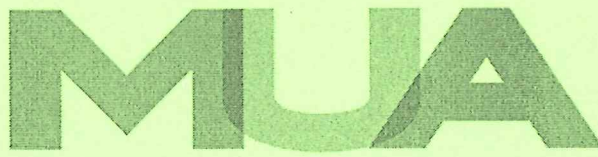


The
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CERTIFICATE UNIVERSITY EXAMINATIONS
SCHOOL OF MANAGEMENT AND LEADERSHIP
CERTIFICATE IN INFORMATION TECHNOLOGY

**CIT 102/CBT 102 : INTRODUCTION TO DATABASE MANAGEMENT
SYSTEMS**

DATE: 18TH JULY 2022

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **FOUR** questions.
6. Question **ONE** carries **30 MARKS** and the rest carry **10 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided.**

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

You work in a small supermarket as an Information Technology (IT) officer. You are charged with all tasks pertaining IT.

The supermarket keeps a record of all goods and services they offer. These are categorized into their various types from edible, home appliances, kitchen ware, etc. The supermarket tasked you with the duty of maintaining the data and information of these items.

Required:

- a) Identify FOUR of the single-valued attributes for the items in the Supermarket.
[4 Marks]
- b) Name FOUR types of users who would interact with your Data Base Management System.
[4 Marks]
- c) Name THREE examples of Database Management Systems you would use.
[6 Marks]
- d) Discuss the FIVE advantages of using a database in this supermarket as opposed to use the file-based method
[10 Marks]
- e) Identify TWO reasons why you might consider not using a DBMS in the supermarket.
[2 Marks]
- f) Give FOUR of your roles as a Database Administrator in the supermarket.
[4 Marks]

QUESTION TWO:

- a) Define a database
[2 Marks]
- b) Describe the FOUR components of a Data Base Management System
[4 Marks]
- c) Explain the FOUR types of normal forms
[4 Marks]

QUESTION THREE:

- a) List any FIVE applications of databases [5 Marks]
- b) Name the THREE anomalies in databases [3 Marks]
- c) Define data independence as used in Database Management Systems [2 Marks]

QUESTION FOUR:

- a) Explain the THREE levels of Data Base Management System architecture [3 Marks]
- b) Define a database management system [2 Marks]
- c) Define is Structured Query Language [2 Marks]
- d) Enlist the THREE types of relationships used in disadvantages of using file-based approach instead of databases [3 Marks]

QUESTION FIVE:

- a) Name THREE examples of commands of Data Definition Language [3 Marks]
- b) List FIVE types of attributes [5 Marks]
- c) Explain the concept of a primary key [2 Marks]

QUESTION SIX:

- a) List THREE building blocks of any database [6 Marks]
- b) Name the FOUR types of Structured Query Language joins. [4 Marks]

