

061006T4ICT

ICT TECHNICIAN LEVEL 6

IT/OS/ICT/CR/7/6

MANAGE DATABASE SYSTEMS

JULY/AUGUST 2023



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

WRITTEN ASSESSMENT

TIME: 3 HOURS

CANDIDATE INSTRUCTIONS

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

This paper consists of SIX (6) 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)

Attempt ALL questions in this section.

1. Describe each of the following components of a database
 - a) Stored procedures (2 Marks)
 - b) Tables (2Marks)
 - c) Triggers (2 Marks)
2. Explain the functions of the following in a database management system.
 - a) Data Manipulation Language (2 Marks)
 - b) Data Definition Language (2 Marks)
3. Outline FOUR components of a database management system. (4 Marks)
4. State the meaning of ACID in database management system (2 Marks)
5. Differentiate between active and passive data dictionaries (2 marks)
6. An organization intends to acquire a database application to manage its big data. Describe THREE professionals that may be required to implement. (6 Marks)
7. The principal from Kina institute noticed that there was a lot of data duplication of student's details within the system. Identify TWO issues that may arise as a result of data duplication (4 Marks)
8. Highlight FOUR characteristics of a well-defined database system. (4 Marks)
9. Elucidate FOUR merits of a distributed database (4 Marks)
10. Identify FOUR disadvantages of file-based system (4 Marks)