Course Code: CIT 427   *Time:*   3hrs
Course Title: Database Systems and Management   *Course*
Credit Unit: 3
 Instruction: Answer any **five (5)** questions.

QUESTIONS

1a. In the context of database systems and management, give a concise
    description of web services.
        (4 marks)

1b. By means of a well-labelled diagram, describe how weather information
    can be accessed by means of Web services.
        (16 marks)
                                                              [Total =20
    marks]

2a. Write down four (4) main elements of an entity-relationship diagram,
    identifying their corresponding roles.
    (16 marks)

2b. Describe an empty element in the context of documents
        (4 marks)

                                                              [Total =20
                                            marks]

3a. Distinguish between a key constraint and a domain constraint.
        (10 marks)

3b. State two (2) practical approaches for slotting data into a relation.   (10
    marks)

                                                              [Total =20
                                            marks]

4a. State the three (3) main elements of an SQL expression.
(12 marks)

4b. Give four (4) reasons why the data definition language is vital in
    databases. (8 marks)

                                                              [Total =20
                                            marks]

5a. Write the expression to find the names of all units in a bank relation, if a
    unit in the unit designated by u.
        (12 marks)

5b. Identify and state the key role of a select clause.
(8 marks)
[Total =20 mark

6a. Enumerate five (5) internal entities of XML specification.　　　　(10 marks)
6b. Write two (2) main functions of the check clause.　　　　(10 marks)

[Total =20 marks]

7a. Data manipulation can be described based on four (4) different approaches, specify these approaches.
(16 marks)

7b. State the syntax for deletion in SQL.
(4 marks)

[Total =20 marks]