

W1-2-60-1-6

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2013/2014**

**YEAR II, IV SEMESTER I EXAMINATION FOR THE DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY/BACHELOR OF BUSINESS INFORMATION TECHNOLOGY**

**ICS 2206: DATABASE SYSTEMS**

**DATE: DECEMBER 2013 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO**

**QUESTION ONE (COMPULSORY) 30 MARKS**

1. Differentiate between DML language and DDL language [2 marks]
2. Define the following terms:
3. Relation
4. Attribute
5. Domain
6. Tuple
7. Degree
8. Cardinality [6 marks]
9. Describe any FIVE database specialist. [5 marks]
10. Explain any FOUR common uses of databases [4 marks]
11. With the aid of relevant diagrams differentiate between file based system and database system [4 marks]
12. Write the syntax for the following:
13. UPDATA
14. INSERT INTO
15. ORDERBY [9 marks]

**QUESTION TWO**

1. Describe any FOUR type of DBMS [4 marks]
2. Explain the FIVE components of a DBMS [5 marks]
3. Define normalization and describe the THREE basic levels of normalization [7 marks]
4. Assess any FOUR roles of a database administration [4 marks]

1. Differentiate between primary key Vs foreign key [4 marks]
2. Write the syntax for the following:
3. CREATE
4. ALTER
5. AND operator
6. OR operator [12 marks]
7. Describe TWO advantages and TWO disadvantages of normalization approach [4 marks]

**QUESTION FOUR**

1. State FOUR limitations of file based system [4 marks]
2. With the aid of a relevant diagram, describe the ANSI-SPARC architecture [10 marks]
3. Explain the forms of ERD [3 marks]
4. List any THREE advantages of database systems [3 marks]