**TAKORADI TECHNICAL UNIVERSITY**

**FACULTIES OF APPLIED SCIENCE**

**END OF SECOND SEMESTER EXAMINATION 2017/2018 (EVENING)**

**COURSE: DATABASE CONCEPTS AND TECHNOLOGY CODE: ICT 112**

**DURATION: 2 HOURS MAY 2018**

**ANSWER ALL QUESTIONS**

**SECTION A (30 MARKS – 2 MARKS EACH)**

1) A \_\_\_\_\_ language allows a user to specify a task without specifying how the task will be accomplished.

A) Programming B) database C) query D) user-oriented

2) Which of these is an example of an entity?

A) student B) a patient’s name C) an employee’s ID

D) all of the above

3) A DML statement is executed when you:

A) Add new rows to a table B) modify existing rows in a table

C) Remove existing rows from a table D) all of the above.

4) Which of the following choices best concatenates information from two columns in an SQL query?

A) @ B) # C) || D) /

5) Which of the following choices identifies the type of statement you would use when trying to obtain data from the database?

A) select B) update C) insert D) delete

6) When you need to display all the possible combinations of rows from

multiple tables, we use.

A) Outer join B) Self join C)Cartesian product D) Non equijoin.

7) Review the following output : which of the following SQL statements likely produced the output below:



A) select ename from emp where ename like J\_M%S;

B) select ename from emp where ename like 'J\_M%S';

C) select ename from emp where ename like 'j\_m%s';

D) select ename from emp where ename like 'J\_MS %';

8) Which language is used to permit or prohibit access to a table?

A) DCL B) DDL C) DML D) All of these

9) What are the three steps of normalization to third normal form for databases?

A) Identify the primary key, select secondary keys, and define relationships.

B) Remove repeating groups, remove partial dependencies, and remove transitive dependencies.

C) Define entities, select relationships, and define attributes.

D) None of the above is correct.

10) Non key field is a field that is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A) not a candidate key for the primary key B) a candidate key for the primary key

C) a primary key D) none of the above is correct

11) Functions are a very powerful feature of SQL and can be used to do:

A) Perform calculations on data B) Manipulate output for groups of rows

C) Format dates and numbers for display D) All of the above

12) STUDENT (STUDENT-NUMBER, STUDENT-NAME, TOTAL-CREDITS, GPA, ADVISOR-NUMBER, ADVISOR-NAME, COURSE-NUMBER, COURSE-DESC, NUM-CREDITS, GRADE)

The STUDENT table above is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A) unnormalized B) in the 1NF C) in the 2NF

D) in the 3NF

13). Software that defines a database, stores the data, supports a query language, produces reports and creates data entry screens is a:

A) data dictionary B) database management system (DBMS) C) decision support system D) relational database

14). Business rules can be represented in the database through:

A) Associations (or relationships) B) attributes C) properties D) secondary keys

15) In a Hierarchical model records are organized as

A) Graph. B) List. C) Links. D) Tree.

**SECTION B**

**ANSWER ALL QUESTIONS**

1. i. Write any five (5) specific functions of DBMS. [10 marks]

ii. State any five (5) database models you know. [5 marks]

1. i. Define the term entity and give an example. [5 marks]

ii. Explain the difference between a primary key and a candidate key. [5 marks]

iii. List the characteristics a table must have to be considered a relation. [5 marks]