**TAKORADI TECHNICAL UNIVERSITY**

**FACULTIES OF APPLIED SCIENCE**

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

**COURSE NAME: Database Concepts and Technology COURSE CODE: ICT 112**

**DURATION: 2 HOURS MAY, 2018**

**ANSWER ALL QUESTIONS**

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

1) The ‘Insert’ command is one of the popular command in:

A) DDL. B) DML. C) DCL. D) None of the above.

2) SQL\*Plus is:

A) Procedural Query Language. B) Structure Query Language. C) Non procedural Language. D) Is an oracle tool.

3) SQL is:

A) Procedural Query Language. B) Structure Query Language. C) Non procedural Language. D) B and C.

4) You can create a new object in a data base by.

A) DDL. B) DCL. C) DML. D) DFL.

5) SQL Commands that allow you to manipulate data in existing database objects is called.

A) DDL. B) DCL. C) DML. D) DFL.

6) Data that the db needs to manage itself is called.

A) User data. B) System data. C) Information data. D) All of the above.

7) In the 2NF

A) Attributes may be functionally dependent on non-key attributes

B) No attribute dependent on a non-key attribute

C) No attributes dependent on a primary key

D) None of the above is correct

8) A \_\_\_\_\_ refers to a single characteristic or fact about an entity.

A) Record B) table C) field D)primary key

9) A \_\_\_\_\_ contains records that contain day-to-day business and operational data.

A) transaction file B) work file C) table file D) master file

10) Which of the following languages is used to define the schema of the database?

A) DCL B) DDL C) DML D) None of these

11) The DML is used for:

A) Creating tables B) Retrieving data C) Deleting users

D) Inserting data E) Deleting data

12) The security features of the database are set up by the \_\_\_\_\_\_\_.

A) Online Users B) Database Administrator C) Naive Users

D) Application Programmer

13) Which of the following are the roles of the Database Administrator?

a) Managing security issues

b) Storage structure definition

c) Develop application programs

d) Take backups of the database

A) a B) a,b,c C) a,b,d D) All of these

14) A group of associated fields is called a \_\_\_\_\_\_\_.

A) Attribute B) record C) field D) table

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



A) select job from emp; B) select job from emp where job is not null;

C) select \* from emp; D) select distinct job from emp;

**SECTION B (ANSWER ALL QUESTIONS)**

1. Define the following terms in relation to Database. 10 marks
2. Foreign key
3. Normalization
4. Referential integrity
5. Constraints
6. Database Modeling
7. UPS prides itself on having up-to-date information on the processing and current location of each shipped item. To do this, UPS relies on a company-wide information system. Shipped items are the heart of the UPS product tracking information system. Shipped items can be characterized by item number (unique), weight, dimensions, insurance amount, destination, and final delivery date. Shipped items are received into the UPS system at a single retail center. Retail centers are characterized by their type, uniqueID, and address. Shipped items make their way to their destination via one or more standard UPS transportation events (i.e., flights, truck deliveries). These transportation events are characterized by a unique schedule Number, a type (e.g, flight, truck), and a delivery Route.

Please create an Entity Relationship diagram that captures this information about the UPS system. Be certain to indicate identifiers and cardinality constraints.

[20 marks]