Pretest/Posttest for Class # 2 – The Relational Database Model

True/False

1. The final outcome of a natural JOIN yields a table that provides only the copies of the un-matched pair.

2. Another form of JOIN, known as equiJOIN, links tables on the basis of an equality condition that compares columns of each table.

3. In a relational table, each table row (tuple) does not necessarily represent a single entity occurrence within the entry set.

4. In a relational table, each column represents an attribute, and each column has a distinctive name.

5. Each column in a relational table has a specific range of values known as the attribute object.

6. The numeric data format are data on which you can perform meaningful arithmetic procedures.

7. Character data, can contain any character or symbol intended for mathematical manipulation.

8. Date attributes contain calendar dates stored in a special format known as Julian date format.

9. Logical data can have only a true or false (yes or no) condition.

10. The proper use of foreign keys is crucial to exercising data redundancy control.

MULTIPLE CHOICE

1. The entity integrity rule requires that
   a. all entries are unique.
   b. a part of the key may be null.
   c. foreign key values do not reference primary key values.
   d. duplicate object values are allowed.

2. The referential integrity rule requires that
   a. every null foreign key value must reference an existing primary key value.
   b. it makes it possible for an attribute to have a corresponding value.
   c. every non-null foreign key value must reference an existing primary key value.
   d. it makes it possible to delete a row in one table whose primary key does not have a matching foreign key value in another table.

3. Data are classified according to their format and function and consist of
   a. Numeric, Date, and Alphanumeric.
   b. Numeric, Date, Alphanumeric, and Logical
   c. Numeric, Character, and Date
d. Numeric, Character, Date, and Logical

4. The logical view of the relational database is facilitated by
   a. the wizard.
   b. the use of tables.
   c. the creation of queries using the wizard.
   d. the creation of data relationships based on a construct known as table.

5. The key's role is based on a concept known as
   a. consistency.
   b. availability.
   c. determination.
   d. uniqueness.

6. A primary key
   a. must be defined in every table.
   b. is always the first field in each table.
   c. must be numeric.
   d. must be unique.

7. A Relational operator that yields values from all rows in a table is known as a
   a. difference.
   b. product.
   c. select.
   d. project.

8. A Relational operator that yields all values from selected attributes is known as a
   a. difference.
   b. product.
   c. select.
   d. project.
   e. join.

9. A Relational operator that allows for the combination of information from two or more tables is known as a
   a. select.
   b. project.
   c. product.
   d. difference.
   e. join.
10. In a relationship, when a primary key from one table is also defined in a second table, the field is referred as a ____________ in the second table.
   a. combined key
   b. redundant field
   c. primary key
   d. foreign key

11. A primary key that consists of more than one field is called a
   a. foreign key.
   b. secondary key.
   c. group key.
   d. all of the above
   e. none of the above

12. When creating a table, what happens when you do not assign a field as primary key?
   a. The table will not have a primary or foreign key.
   b. The program will select one of your fields as primary key.
   c. The table will not have a primary key but it will have a foreign key.
   d. The program will create an ID field and assign it as primary key.

13. In general terms the _____________ key is an attribute (or combination of attributes) that uniquely identifies any given entity.
   a. indexed
   b. primary
   c. foreign
   d. redundant

14. It might take more than a single attribute to define functional dependence; that is, a key may be composed of more than one attribute. A multi-attribute key is known as a _____ key.
   a. primary
   b. super
   c. composite
   d. foreign

15. Within a table, the primary key must be unique so that it will identify each row. When this is the case, the table is said to exhibit ____________.
   a. referential integrity.
   b. entity integrity.
   c. enforced integrity.
   d. all of the above
Fill In

1. Each entity has certain characteristics known as ______________________.
2. Each attribute should be _____________________ to remind the user of its contents.
3. A table is perceived as a two-dimensional structure composed of ________________ and ________________.
4. A(n) ____________________ consists of one or more attributes that determine other attributes.
5. The key's role is based on a concept known as ____________________
6. Another form of JOIN, known as ________________, links tables on the basis of an equality condition that compares columns of each table.
7. In a(n) ________________, each row/column intersection represents a single data value.
8. In a relational table, each ____________________ intersection represents a single data value.
9. In a relational table, each table row (tuple) necessarily ________________ a single entity occurrence within the entry set.
10. In a relational table, each table must have a(n) ________________ or a(n) ____________________ that uniquely identifies each row.

Essay

Name three of the limitations of some of the older data base management systems.