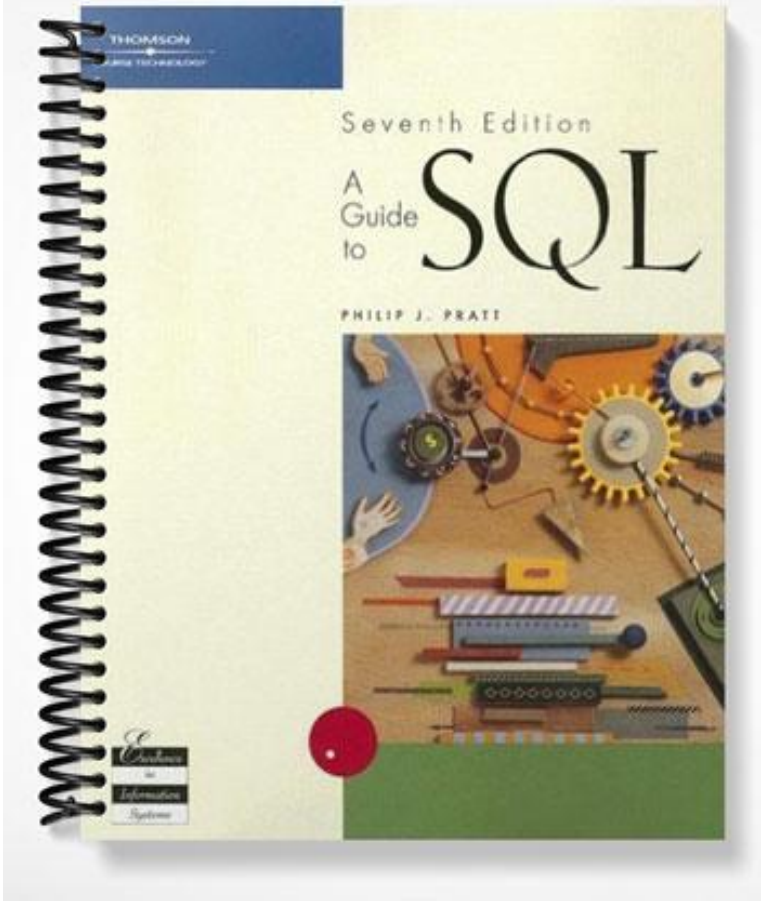
TEST BANK



Chapter 2: An Introduction to SQL

TRUE/FALSE

1. Tables are called relations.

   ANS: T PTS: 1 REF: 26

2. Each column in a table of a relational database should have a unique name.

   ANS: T PTS: 1 REF: 29

3. In the one-to-many type of relationship, the word many always indicates a large number.

   ANS: F PTS: 1 REF: 28

4. In general, SQL is case-sensitive.

   ANS: F PTS: 1 REF: 30

5. All values in a column are values of the same attribute.

   ANS: T PTS: 1 REF: 30

6. The word TABLE is followed by the name of the table to be created and then by the names and data types of the columns that will comprise the table.

   ANS: T PTS: 1 REF: 31

7. Table names can contain spaces.

   ANS: F PTS: 1 REF: 32

8. In SQL, there are special rules that specify that a particular word must begin in a particular position on the line.

   ANS: F PTS: 1 REF: 32

9. You can edit entire commands in Oracle SQL*Plus.

   ANS: F PTS: 1 REF: 36

10. If you are using Oracle, you probably have access to SQL*Plus.

    ANS: T PTS: 1 REF: 34

11. In Access, you can use DECIMAL data type.

    ANS: F PTS: 1 REF: 35

12. Dropping a table also deletes any data that you entered into the table.

ANS: T PTS: 1 REF: 41

13. When you enter a new row into a table or modify an existing row, the values for one or more columns can be unknown or unavailable.

ANS: T PTS: 1 REF: 42

14. When adding rows to character columns, make sure you enclose the values in double quotation marks.

ANS: F PTS: 1 REF: 44

15. When you execute the EDIT command, Oracle SQL*Plus opens a text editor, such as Notepad.

ANS: T PTS: 1 REF: 45

16. To enter a null value into a table, you use a special format of the NULL command.

ANS: F PTS: 1 REF: 48

17. In SQL*Plus, you type the command at the SQL> prompt and press the Run key at the end of each line.

ANS: F PTS: 1 REF: 50

18. In MySQL, you can display the data vertically rather than horizontally.

ANS: T PTS: 1 REF: 53-54

19. If you added a row that should not be in a database, use a REMOVE command to remove it.

ANS: F PTS: 1 REF: 56

20. To run the command(s) in a script file in Oracle SQL*Plus, type @ (the "at" symbol) followed by the filename.

ANS: T PTS: 1 REF: 57

MODIFIED TRUE/FALSE

1. SQL was developed as the data manipulation language for IBM's prototype relational model DBMS, System R. _____

ANS: T PTS: 1 REF: 26

2. A(n) relation is a characteristic or property of an entity. _____

ANS: F, attribute

PTS: 1 REF: 28

3. A relation is essentially a(n) three-dimensional table. _____

ANS: F

two
2

PTS: 1 REF: 29

4. Columns are sometimes called tuples. _____

   ANS: F, Rows

   PTS: 1 REF: 29

5. When you are inserting character values into a table, you must use the correct size. _____

   ANS: F, case

   PTS: 1 REF: 30

6. You usually indicate a table's primary key by underlining the column or collection of columns that comprises the primary key for each table in the database. _____

   ANS: T PTS: 1 REF: 31

7. Column names must start with a(n) number. _____

   ANS: F, letter

   PTS: 1 REF: 32

8. In SQL, commands are free-format. _____

   ANS: T PTS: 1 REF: 32

9. MySQL is an open-source database system that supports the SQL language. _____

   ANS: T PTS: 1 REF: 35

10. In an Oracle SQL*Plus Worksheet, you type commands in the upper pane of the window and then click the Run button to run the command. _____

    ANS: F
    Execute
    execute

    PTS: 1 REF: 33

11. In SQL, you use the NOT NULL clause in a CREATE TABLE command to indicate columns that cannot contain null values. _____

    ANS: T PTS: 1 REF: 43

12. In Access, you use the HELP tool to produce documentation about tables and other objects stored in a database. _____

ANS: F, Documenter

PTS: 1 REF: 63

MULTIPLE CHOICE

1. SQL was developed in the mid-_____.
   a. 1960s
   b. 1970s
   c. 1980s
   d. 1990s

   ANS: B PTS: 1 REF: 26

2. What is the original name of SQL?
   a. SEQUEL
   b. MYSEQUEL
   c. DBase
   d. MySQL

   ANS: A PTS: 1 REF: 26

3. A(n) _____ is a characteristic or property of an entity.
   a. field
   b. attribute
   c. column
   d. All of the above

   ANS: D PTS: 1 REF: 28

4. At Premiere Products, there is a _____ relationship between sales reps and customers.
   a. one-to-one
   b. one-to-two
   c. one-to-many
   d. many-to-many

   ANS: C PTS: 1 REF: 29

5. In a relational database each _____ should be unique.
   a. row
   b. record
   c. tuple
   d. All of the above

   ANS: D PTS: 1 REF: 29

6. There is a commonly accepted shorthand representation to show the structure of a relational database: After the name of the table, all the columns in the table are listed within a set of _____.
   a. square brackets
   b. parentheses
   c. back slashes
   d. curly braces

   ANS: B PTS: 1 REF: 30

7. Which of the following symbols is used to qualify column names?
   a. .
   b. ,
   c. /
   d. #

   ANS: A PTS: 1 REF: 30

8. Which of the following is the primary key of the ORDER_LINE (ORDER_NUM, PART_NUM, NUM_ORDERED, QUOTED_PRICE) table?
   a. ORDER_NUM
   b. PART_NUM
   c. QUOTED_PRICE
   d. ORDER_NUM and PART_NUM

   ANS: D PTS: 1 REF: 31

9. The table names cannot exceed _____ characters.
   a. 12
   b. 14
   c. 16
   d. 18

   ANS: D PTS: 1 REF: 32

10. Which of the following is a valid name for a table?
   a. TBL_1
   b. 2_TBL
   c. TBL 3
   d. 4 tbl

   ANS: A PTS: 1 REF: 32

11. You indicate the end of a command by typing a(n) _____.
   a. column
   b. comma
   c. semicolon
   d. period

   ANS: C PTS: 1 REF: 33

12. Microsoft Access is a DBMS that lets you create queries in _____.
   a. worksheet
   b. SQL screen
   c. SQL view
   d. SQL list

   ANS: C PTS: 1 REF: 34

13. In Oracle, names can be up to _____ characters in length.
   a. 18
   b. 22
   c. 24
   d. 30

   ANS: D PTS: 1 REF: 32

14. In MySQL, you type commands at the mysql> _____.
   a. worksheet
   b. window
   c. prompt
   d. screen

   ANS: C PTS: 1 REF: 35

15. In MySQL, to move to the beginning of the current line, you need to press the _____ key(s).
   a. CTRL + A
   b. Left arrow
   c. Backspace
   d. CTRL + E

   ANS: A PTS: 1 REF: 39

16. In MySQL, to delete the previous character, you need to press the _____ key(s).
   a. Ctrl + A
   b. Ctrl + E
   c. Backspace
   d. Delete

   ANS: C PTS: 1 REF: 39

17. Oracle assigns the file extension _____ automatically.
   a. .exe
   b. .dat
   c. .orc
   d. .sql

   ANS: D PTS: 1 REF: 57

18. To display all the rows and columns in a table, type the word SELECT, followed by a(n) _____, followed by the word FROM and then the name of the table containing the data you want to view.

a. single quote
b. asterisk
c. double quote
d. slash

ANS: B PTS: 1 REF: 49

19. Which of the following commands changes the value in a column?
a. UPDATE
b. CHANGE
c. REPLACE
d. ADD

ANS: A PTS: 1 REF: 55

20. If you add a row that contained some incorrect data, you can use a(n) _____ command to make the necessary corrections.
a. EDIT
b. REPLACE
c. INSERT
d. UPDATE

ANS: D PTS: 1 REF: 56

COMPLETION

1. SQL is Structured _____ Language.

ANS:
Query
query

PTS: 1 REF: 26

2. A(n) _____ is a person, place, object, event, or idea for which you want to store and process data.

ANS: entity

PTS: 1 REF: 28

3. A(n) _____ is the association between entities.

ANS: relationship

PTS: 1 REF: 28

4. A table's design should be as simple as possible; you should restrict each position in a table to a single entry by not allowing multiple entries (called a(n) _____ group) in an individual location in the table.

ANS: repeating

PTS: 1 REF: 29

5. A relational database is a collection of _____.

ANS: relations

PTS: 1 REF: 30

6. When you combine a column name with a table name, you are said to _____ the column name.

   ANS: qualify

   PTS: 1 REF: 30

7. The _____ key of a table (relation) is the column or collection of columns that uniquely identifies a given row in that table.

   ANS: primary

   PTS: 1 REF: 31

8. You use the _____ command to describe the layout of a table.

   ANS: CREATE TABLE

   PTS: 1 REF: 31

9. In SQL*Plus, the most recent command you entered is stored in a special area of memory called the command _____.

   ANS: buffer

   PTS: 1 REF: 36

10. Oracle SQL*Plus is a program in which you type SQL commands at an SQL> _____.

    ANS: prompt

    PTS: 1 REF: 33

11. In MySQL, the most recent command you entered is stored in a special area of memory called the statement _____.

    ANS: history

    PTS: 1 REF: 39

12. You can delete the entire table using the _____ TABLE command.

    ANS: DROP

    PTS: 1 REF: 41

13. You can use a special value to represent situations in which an actual value is unknown, unavailable, or not applicable. This special value is called a(n) _____ data value.

    ANS: null

    PTS: 1 REF: 43

14. The _____ command adds rows to a table.

    ANS: INSERT

    PTS: 1 REF: 44

15. To view the data in a table, you use the _____ command.

    ANS: SELECT

    PTS: 1 REF: 49

16. In SQL*Plus Worksheet, you can adjust the line size using the SET _____ command.

    ANS: LINESIZE

    PTS: 1 REF: 51

17. You can use the _____ command to update a value in a table.

    ANS: UPDATE

    PTS: 1 REF: 55

18. If you need to delete a record, you can use the _____ command.

    ANS: DELETE

    PTS: 1 REF: 56

19. In Oracle SQL*Plus, you can use an editor to create a special file, called a(n) _____ file, that contains one or more SQL commands.

    ANS: script

    PTS: 1 REF: 57

20. In either Oracle SQL*Plus or Oracle SQL*Plus Worksheet, you can use the _____ command to list all the columns in a table and their corresponding data types.

    ANS: DESCRIBE

    PTS: 1 REF: 62

ESSAY

1. How does a DBMS that follows the relational model handle entities, attributes of entities, and relationships between entities?

   ANS:

Entities and attributes are fairly simple. Each entity has its own table. The attributes of an entity become the columns in the table. In a relational model database a one-to-many relationship is represented by using common columns in two or more tables. More formally, a relation is essentially a two-dimensional table. Each column in a table should have a unique name, and entries within each column should all "match" this column name. Also, each row (also called a record or a tuple in some programs) should be unique. After all, if two rows in a table contain identical data, the second row doesn't provide any information that you don't already have. In addition, for maximum flexibility in manipulating data, the order in which columns and rows appear in a table should be immaterial. Finally, a table's design should be as simple as possible; you should restrict each position in a table to a single entry by not allowing multiple entries (called a repeating group) in an individual location in the table.

PTS: 1 REF: 28-29

2. Define a relation.

ANS:
A relation is a two-dimensional table in which:
1. The entries in the table are single-valued; that is, each location in the table contains a single entry.
2. Each column has a distinct name (technically called the attribute name).
3. All values in a column are values of the same attribute (that is, all entries must match the column name).
4. The order of columns is immaterial.
5. Each row is distinct.
6. The order of rows is immaterial.

PTS: 1 REF: 30

3. What are the common restrictions placed on table and column names?

ANS:
The names cannot exceed 18 characters. (In Oracle, names can be up to 30 characters in length.)
The names must start with a letter.
The names can contain letters, numbers, and underscores (_).
The names cannot contain spaces.

PTS: 1 REF: 32