**Quiz 4:**

If introduced as follows, the subquery can return which of the values listed below?  
**WHERE 2 < (subquery)**

Select one:

a. a single value

b. a column of one or more rows

c. a table

d. a subquery can't be introduced in this way

Feedback

The correct answer is: a single value

Question **2**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

In a join, column names need to be qualified only

Select one:

a. in inner joins

b. in outer joins

c. when the code is confusing

d. when the same names are used in both tables

Feedback

The correct answer is: when the same names are used in both tables

Question **3**

Correct

Score 1.00 out of 1.00

Flag question

Question text

The column definition for a MySQL table can be used to determine all but one of the following. Which one is it?

Select one:

a. what type of data the column can contain

b. whether the column can contain a null value

c. whether the column has a default value

d. what range of values the column can contain

Feedback

The correct answer is: what range of values the column can contain

Question **4**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which of the following is a formal process used to separate data into related tables to avoid data redundancy?

Select one:

a. normalization

b. serialization

c. referential integrity

d. data mining

Feedback

The correct answer is: normalization

Question **5**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Each row in a table should be able to be uniquely identified by a:

Select one:

a. primary key

b. field name

c. cell

d. record

Feedback

The correct answer is: primary key

Question **6**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

Which of the following isn't a valid column alias?

Select one:

a. **total**

b. **total sales**

c. **total\_sales**

d. **"Total Sales"**

Feedback

The correct answer is: **total sales**

Question **7**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which of the following does *not* violate the referential integrity of a database?

Select one:

a. inserting a new row into a table with a foreign key that doesn't match a primary key in the related table

b. updating a foreign key with a value that doesn't match a primary key in the related table

c. updating a primary key in a primary key table without also updating the foreign keys for the related rows in all related tables

d. deleting a row in a foreign key table without deleting the related row in the related primary key table

Feedback

The correct answer is: deleting a row in a foreign key table without deleting the related row in the related primary key table

Question **8**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

Which of the following can a SELECT statement *not* do to the data in a table?

Select one:

a. Get selected rows

b. Get selected columns

c. Sort the rows

d. Delete the rows

Feedback

The correct answer is: Delete the rows

Question **9**

Correct

Score 1.00 out of 1.00

Flag question

Question text

When you use MySQL, you can't code one of the following as part of a CREATE TABLE statement. Which one is it?

Select one:

a. NOT NULL attribute for a column

b. default value for a column

c. primary key for the table

d. user privileges for the table

Feedback

The correct answer is: user privileges for the table

Question **10**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which SQL statement can be used to show the privileges for a user?

Select one:

a. ACCESS

b. SHOW PRIVILEGES

c. SHOW GRANTS

d. DISPLAY RIGHTS

Feedback

The correct answer is: SHOW GRANTS

Which of the following ensures that relationships between tables are maintained correctly?

Select one:

a. metadata

b. referential integrity

c. Structured Query Language (SQL)

d. flux capacitor

Feedback

The correct answer is: referential integrity

Question **2**

Correct

Score 1.00 out of 1.00

Flag question

Question text

**Code example 18-1**  
**SELECT vendorName, COUNT(\*) AS numberOfInvoices,  
       MAX(invoiceTotal - paymentTotal - creditTotal) AS balanceBue  
FROM vendors v   
  JOIN invoices i  
  ON v.vendorID = i.vendorID    
WHERE invoiceTotal - paymentTotal - creditTotal >  
    (SELECT AVG(invoiceTotal - paymentTotal - creditTotal)  
    FROM invoices)  
GROUP BY vendorName  
ORDER BY balanceBue DESC**

(Please refer to code example 18-1.) When this query is executed, the result set will contain

Select one:

a. one row for each invoice that has a larger balance due than the average balance due for all invoices

b. one row for the invoice with the largest balance due for each vendor

c. one row for each invoice for each vendor that has a larger balance due than the average balance due for all invoices

d. one row for each vendor that shows the largest balance due for any of the vendor's invoices, but only if that balance due is larger than the average balance due for all invoices

Feedback

The correct answer is: one row for each vendor that shows the largest balance due for any of the vendor's invoices, but only if that balance due is larger than the average balance due for all invoices

Question **3**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which clause in a SQL statement specifies the columns to return?

Select one:

a. SELECT

b. FROM

c. WHERE

d. ORDER BY

Feedback

The correct answer is: SELECT

Question **4**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which SQL statement can be used to modify the columns of an existing table?

Select one:

a. ALTER TABLE

b. MODIFY TABLE

c. UPDATE

d. INSERT

Feedback

The correct answer is: ALTER TABLE

Question **5**

Correct

Score 1.00 out of 1.00

Flag question

Question text

If you assign an alias to one table in a join, you have to

Select one:

a. assign them to all of the tables in the query

b. use that name for the table throughout the query

c. qualify every column name in the query

d. qualify all of the column names for that table

Feedback

The correct answer is: use that name for the table throughout the query

Question **6**

Correct

Score 1.00 out of 1.00

Flag question

Question text

When coded in a WHERE clause, which search condition will return invoices when paymentDate isn't null and invoiceTotal is greater than or equal to $500?

Select one:

a. **paymentDate IS NULL AND invoiceTotal > 500**

b. **paymentDate IS NOT NULL OR invoiceTotal >= 500**

c. **NOT (paymentDate IS NULL AND invoiceTotal <= 500)**

d. **paymentDate IS NOT NULL AND invoiceTotal >= 500**

Feedback

The correct answer is: **paymentDate IS NOT NULL AND invoiceTotal >= 500**

Question **7**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

**Figure 16-1**

(Refer to figure 16-1.) Which column or columns in each table should be defined as the primary key?

Select one:

a. Orders: OrderID  
OrderLineItems: OrderID  
Products: ProductID

b. Orders: OrderID and OrderDate  
OrderLineItems: OrderID and OrderSequence  
Products: ProductID

c. Orders: OrderID  
OrderLineItems: OrderID and OrderSequence  
Products: ProductID

d. Orders: OrderID  
OrderLineItems: OrderID, OrderSequence, and ProductID  
Products: ProductID and ProductName

Feedback

The correct answer is: Orders: OrderID  
OrderLineItems: OrderID and OrderSequence  
Products: ProductID

Question **8**

Correct

Score 1.00 out of 1.00

Flag question

Question text

**Code example 3-1  
SELECT vendorName, invoiceNumber, invoiceDate, invoiceTotal  
FROM vendors INNER JOIN invoices  
    ON vendors.vendorID = invoices.vendorID  
WHERE invoiceTotal >= 500  
ORDER BY vendorName DESC**

(Refer to code example 3-1.) How many columns will the result set have?

Select one:

a. 4

b. 5

c. 6

d. 7

Feedback

The correct answer is: 4

Question **9**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

Which SQL statement will select a database?

Select one:

a. CREATE

b. DROP

c. USE

d. MODIFY

Feedback

The correct answer is: USE

Question **10**

Correct

Score 1.00 out of 1.00

Flag question

Question text

The result set retrieved by the following SELECT statement contains rows that have  
**SELECT balance, number  
FROM accounts  
WHERE balance < 0**

Select one:

a. all of the columns from the accounts table

b. two of the rows from the account table

c. all of the columns from the accounts table where balance is less than 0

d. two of the columns from the accounts table where balance is less than 0

Feedback

The correct answer is: two of the columns from the accounts table where balance is less than 0

Expressions coded in the WHERE clause

Select one:

a. can use either aggregate search conditions or non-aggregate search conditions

b. can use aggregate search conditions but can't use non-aggregate search conditions

c. can use non-aggregate search conditions but can't use aggregate search conditions

d. must refer to columns in the SELECT clause

Feedback

The correct answer is: can use non-aggregate search conditions but can't use aggregate search conditions

Question **2**

Correct

Score 1.00 out of 1.00

Flag question

Question text

A database is typically considered normalized if it is in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ normal form.

Select one:

a. paranormal

b. second

c. third

d. first

Feedback

The correct answer is: third

Question **3**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which MySQL attribute indicates that a column cannot accept NULL values?

Select one:

a. UNIQUE

b. NOT NULL

c. DEFAULT

d. VARCHAR

Feedback

The correct answer is: NOT NULL

Question **4**

Correct

Score 1.00 out of 1.00

Flag question

Question text

When you identify the data elements in a new database, you typically subdivide data elements into

Select one:

a. the largest practical components

b. the smallest practical components

c. components that can be easily parsed each time you use them

Feedback

The correct answer is: the smallest practical components

Question **5**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which clause in a SQL statement is typically used to return data from more than one table?

Select one:

a. SELECT

b. FROM

c. WHERE

d. JOIN

Feedback

The correct answer is: JOIN

Question **6**

Correct

Score 1.00 out of 1.00

Flag question

Question text

**Code example 18-1**  
**SELECT vendorName, COUNT(\*) AS numberOfInvoices,  
       MAX(invoiceTotal - paymentTotal - creditTotal) AS balanceBue  
FROM vendors v   
  JOIN invoices i  
  ON v.vendorID = i.vendorID    
WHERE invoiceTotal - paymentTotal - creditTotal >  
    (SELECT AVG(invoiceTotal - paymentTotal - creditTotal)  
    FROM invoices)  
GROUP BY vendorName  
ORDER BY balanceBue DESC**

(Please refer to code example 18-1.) When this query is executed, the numberOfInvoices column for each row will show the number

Select one:

a. 1

b. of invoices in the Invoices table

c. of invoices for each vendor

d. of invoices for each vendor that have a larger balance due than the average balance due for all invoices

Feedback

The correct answer is: of invoices for each vendor that have a larger balance due than the average balance due for all invoices

Question **7**

Correct

Score 1.00 out of 1.00

Flag question

Question text

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ functions perform calculations on the values in a set of selected rows in a SQL query.

Select one:

a. Illegal

b. Ideal

c. Aggregate

d. Computational

Feedback

The correct answer is: Aggregate

Question **8**

Correct

Score 1.00 out of 1.00

Flag question

Question text

An advantage of using MySQL is:

Select one:

a. cost

b. speed

c. ease of use

d. all of these

Feedback

The correct answer is: all of these

Question **9**

Correct

Score 1.00 out of 1.00

Flag question

Question text

A join that returns records from related tables only if their related fields match is called

Select one:

a. an outer join

b. an inner join

c. a cross join

d. a data join

Feedback

The correct answer is: an inner join

Question **10**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

Which SQL statement can be used to change a user's password?

Select one:

a. RENAME

b. USER

c. MODIFY

d. GRANT

Feedback

The correct answer is: GRANT

What does a relational database use to uniquely identify each row in a table?

Select one:

a. indexes

b. foreign keys

c. non-primary keys

d. primary keys

Feedback

The correct answer is: primary keys

Question **2**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which of the following diagrams best represents the relationship between a table of customers and a table of orders placed by customers?

Select one:

a.

b.

c.

d.

Feedback

The correct answer is:

Question **3**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

In a SQL statement, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ clause specifies the rows to retrieve.

Select one:

a. SELECT

b. FROM

c. WHERE

d. ORDER BY

Feedback

The correct answer is: WHERE

Question **4**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which URL can be used to start phpMyAdmin on a local system?

Select one:

a. http://localhost/phpmyadmin

b. http://phpmyadmin

c. http://phpmyadmin.localhost

d. phpmyadmin://localhost

Feedback

The correct answer is: http://localhost/phpmyadmin

Question **5**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which of the statements below best describes the result set returned by this SELECT statement?  
**SELECT vendorID,  
       SUM(invoiceTotal - paymentTotal - creditTotal) AS column2  
FROM invoices  
WHERE invoiceTotal - paymentTotal - creditTotal > 0  
GROUP BY vendorID**

Select one:

a. The unpaid balance for each invoice

b. The total unpaid balance due for each vendor ID

c. The total amount invoiced by each vendor ID

d. The total of paid invoices for each vendor ID

Feedback

The correct answer is: The total unpaid balance due for each vendor ID

Question **6**

Correct

Score 1.00 out of 1.00

Flag question

Question text

To add a column to a table after a database has been created, you can use the

Select one:

a. ALTER TABLE statement

b. ALTER COLUMN statement

c. ALTER DATABASE statement

d. ADD COLUMN statement

Feedback

The correct answer is: ALTER TABLE statement

Question **7**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which SQL statement can be used to delete a table?

Select one:

a. DELETE TABLE

b. DROP TABLE

c. ALTER TABLE

d. DESTROY TABLE

Feedback

The correct answer is: DROP TABLE

Question **8**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which clause in a SQL statement will only allow the retrieval of a maximum number of rows?

Select one:

a. LIMIT

b. RESTRICT

c. MAX

d. NUMBER

Feedback

The correct answer is: LIMIT

Question **9**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which clause in a SQL statement specifies how the result set should be sorted?

Select one:

a. SELECT

b. FROM

c. WHERE

d. ORDER BY

Feedback

The correct answer is: ORDER BY

Question **10**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

**Figure 16-1**

(Refer to figure 16-1.) Which column or columns in each table are foreign keys?

Select one:

a. Orders: none  
OrderLineItems: OrderID and ProductID  
Products: none

b. Orders: OrderID  
OrderLineItems: OrderID and OrderSequence  
Products: ProductID

c. Orders: none  
OrderLineItems: OrderID and OrderSequence  
Products: none

d. Orders: OrderID  
OrderLineItems: OrderSequence  
Products: ProductID

Feedback

The correct answer is: Orders: none  
OrderLineItems: OrderID and ProductID  
Products: none

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is used in a SQL statement to combine columns from two or more tables into a result set.

Select one:

a. join

b. sort

c. combine

d. wildcard

Feedback

The correct answer is: join

Question **2**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

Which of the following diagrams best represents the relationship between a table of students and a table of classes for which the student is registered?

Select one:

a.

b.

c.

d.

Feedback

The correct answer is:

Question **3**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

Which of the following isn't a privilege for modifying the database structure that can be assigned to a user?

Select one:

a. CREATE

b. ALTER

c. DROP

d. KEYS

Feedback

The correct answer is: KEYS

Question **4**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

In a SQL statement, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ clause specifies the columns to retrieve.

Select one:

a. SELECT

b. FROM

c. WHERE

d. ORDER BY

Feedback

The correct answer is: SELECT

Question **5**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which type of SQL statement returns a result set?

Select one:

a. UPDATE

b. CREATE

c. SELECT

d. INSERT

Feedback

The correct answer is: SELECT

Question **6**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which of the following is an operator that can be used in the WHERE clause of a SQL statement to use wildcards to match a pattern or portion of a string?

Select one:

a. LIKE

b. EQUALS

c. REGEXP

d. IS

Feedback

The correct answer is: LIKE

Question **7**

Correct

Score 1.00 out of 1.00

Flag question

Question text

ANo \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ provides a way for a database management system to locate information more quickly.

Select one:

a. anomaly

b. index

c. slow computer

d. large monitor

Feedback

The correct answer is: index

Question **8**

Correct

Score 1.00 out of 1.00

Flag question

Question text

**Code example 3-1  
SELECT vendorName, invoiceNumber, invoiceDate, invoiceTotal  
FROM vendors INNER JOIN invoices  
    ON vendors.vendorID = invoices.vendorID  
WHERE invoiceTotal >= 500  
ORDER BY vendorName DESC**

When you code a DELETE statement, you usually need to include

Select one:

a. a SORT BY clause

b. a WHERE clause

c. an inner join

d. an outer join

Feedback

The correct answer is: a WHERE clause

Question **9**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which clause in a SQL statement specifies the records to return based on criteria?

Select one:

a. SELECT

b. FROM

c. WHERE

d. ORDER BY

Feedback

The correct answer is: WHERE

Question **10**

Incorrect

Score 0.00 out of 1.00

Flag question

Question text

Which of the following is NOT a MySQL data type?

Select one:

a. CHR

b. TINYINT

c. INT

d. DECIMAL

Feedback

The correct answer is: CHR

Which clause in a SQL statement specifies the table(s) that should supply the data that is returned?

Select one:

a. SELECT

b. FROM

c. WHERE

d. ORDER BY

Feedback

The correct answer is: FROM

Question **2**

Correct

Score 1.00 out of 1.00

Flag question

Question text

In a SQL statement, the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ clause specifies the table or tables to retrieve data from.

Select one:

a. SELECT

b. FROM

c. WHERE

d. ORDER BY

Feedback

The correct answer is: FROM

Question **3**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which type of operators can be used to create compound conditions in a SQL statement?

Select one:

a. smooth

b. comparison

c. relational

d. logical

Feedback

The correct answer is: logical

Question **4**

Correct

Score 1.00 out of 1.00

Flag question

Question text

A column in a table that can be computed from other columns contains \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ data.

Select one:

a. useless

b. denormalized

c. derived

d. indexed

Feedback

The correct answer is: derived

Question **5**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Attributes that limit the type of data that a column can store are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:

a. constraints

b. normalizers

c. parameters

d. arguments

Feedback

The correct answer is: constraints

Question **6**

Correct

Score 1.00 out of 1.00

Flag question

Question text

**Code example 3-1  
SELECT vendorName, invoiceNumber, invoiceDate, invoiceTotal  
FROM vendors INNER JOIN invoices  
    ON vendors.vendorID = invoices.vendorID  
WHERE invoiceTotal >= 500  
ORDER BY vendorName DESC**

(Refer to code example 3-1.) If vendorName contains string data and invoiceTotal contains decimal values, how will the result set be ordered?

Select one:

a. alphabetically starting with A

b. alphabetically starting with Z

c. numerically starting with 0

d. numerically starting with 500

Feedback

The correct answer is: alphabetically starting with Z

Question **7**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which of the following is NOT a SQL privilege for working with data?

Select one:

a. ALTER

b. SELECT

c. INSERT

d. UPDATE

Feedback

The correct answer is: ALTER

Question **8**

Correct

Score 1.00 out of 1.00

Flag question

Question text

**Code example 3-1  
SELECT vendorName, invoiceNumber, invoiceDate, invoiceTotal  
FROM vendors INNER JOIN invoices  
    ON vendors.vendorID = invoices.vendorID  
WHERE invoiceTotal >= 500  
ORDER BY vendorName DESC**

(Refer to code example 3-1.) What table(s) does the data in the result set come from?

Select one:

a. vendors

b. invoices

c. vendors and invoices

Feedback

The correct answer is: vendors and invoices

Question **9**

Correct

Score 1.00 out of 1.00

Flag question

Question text

If two tables have a one-to-many relationship, you may need to add a \_\_\_\_\_\_\_\_\_\_\_\_\_ column to the table on the "many" side.

Select one:

a. foreign key

b. referential constraint

c. invisible key

d. numeric index

Feedback

The correct answer is: foreign key

Question **10**

Correct

Score 1.00 out of 1.00

Flag question

Question text

Which of the following is used as a wildcard in a SQL statement to specify that all columns should be retrieved?

Select one:

a. asterisk (\*)

b. exclamation point (!)

c. question mark (?)

d. dollar sign ($)

Feedback

The correct answer is: asterisk (\*)