1.

Question 1

The reusability of the code is one of the key characteristics of a function that helps data engineers efficiently retrieve the required data without writing the same piece of code repeatedly.

1 / 1 point

True

False

Correct

That’s correct! A function is a block of code that performs a defined task and returns the results. You can use the function in your application as many times as needed by calling its name.

2.

Question 2

How can you make use of MySQL’s built-in functions when interacting with a MySQL database using Python?

1 / 1 point

Use the MySQL built-in function in your Python code after reading the data using the SQL query.

Write a SQL query with the required MySQL function and pass it as a Python string to the execute module.

Include the CALL statement in your SQL query to use the MySQL built-in function with Python.

You cannot make use of a MySQL function in your Python-based application.

Correct

That’s correct! Your SQL query contains the MySQL function, and the results are retrieved after running the query.

3.

Question 3

The MySQL built-in functions for date and time data cannot be accessed using Python.

1 / 1 point

True

False

Correct

That’s correct! You can access MySQL’s date and time function using Python via MySQL Connector/Python API.

4.

Question 4

What module must be invoked on a cursor object to call a MySQL stored procedure using Python?

1 / 1 point

fetchall

call

callproc

execute

Correct

That’s correct! The callproc module takes the name of the stored procedures as an argument and needs to be invoked on the cursor object to call the stored procedure.

5.

Question 5

When creating a stored procedure using Python, you must change SQL’s default delimiter to a different character before and after the stored procedure statement.

1 / 1 point

True

False

Correct

That’s correct! You don’t need to change the default SQL delimiter when using Python to create a stored procedure as the whole procedure is passed to the execute module as a Python string.

6.

Question 6

The following code is used to create a stored procedure using Python. However, a key module is missing from the syntax. Identify the missing module.

cursor.\_\_\_\_\_\_\_\_\_(="""

CREATE PROCEDURE OrderStatus()

BEGIN

SELECT bookingID,

CASE

WHEN employeeID IN (1,2,3) THEN "Order Served"

WHEN employeeID IN (4,5) THEN "Preparing Order"

ELSE "In Queue"

END AS Status

FROM bookings;

1 / 1 point

create

execute

run

connection

Correct

That’s correct! The execute module takes the whole stored procedure as a Python string and stores it in the database after compilation.

7.

Question 7

A new user needs to connect to the database. However, there is no free connection in the pool. What message appears in the output when the user attempts to connect to the pool?

1 / 1 point

PoolWarning: [New connection added; user connected]

PoolWarning: [no free connection; add new connection]

PoolError: [Failed adding connection; queue is full]

PoolError: [Failed getting connection; poll exhausted]

Correct

That’s correct! There is no free connection, which generates a PoolError message.

8.

Question 8

What optional parameters do you need to pass to the MySQLConnectionPool class when creating a connection pool using Python? Select all that apply.

1 / 1 point

pool\_size

Correct

That’s correct! The pool\_size is an optional parameter that you can pass when creating a connection pool. By default, the connection pool is created with five connections.

pool\_reset\_session

Correct

That’s correct! The pool\_reset\_session is an optional parameter that you can pass when creating a connection pool. By default, it is set as True.

All of these options.

pool\_name

9.

Question 9

You have three connected users in a database connection pool with pool\_size = 2. What happens when the users close their respective connections after they’ve completed their tasks?

1 / 1 point

All three connections are returned to the pool and the pool size is increased permanently.

Only the first two connections are returned to the pool. The third connection is permanently closed as the pool size can’t be increased.

Only the first two connections are returned to the pool. Closing the third connection raises a PoolError message as the pool size can’t be increased.

All three connections are returned to the pool and the pool size is increased temporarily.

Correct

That’s correct! The pool size is defined during its creation and can’t be increased afterwards. If you want to return more connections than the size of the pool allows for, it will raise a PoolError message.

10.

Question 10

If you pass two integers to MySQL’s built-in CONCAT function, it returns the sum of the two numbers.

1 / 1 point

True

False

Correct

That’s correct! The CONCAT function is a string function which treats integers as strings. The function combines the numbers as strings. For example, passing 11 and 22 returns 1122.