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Question 1:

Consider the following code snippet for creating a stored procedure in MySQL:

```sql

DELIMITER //

CREATE PROCEDURE GetEmployeeCount()

BEGIN

DECLARE emp\_count INT;

SELECT COUNT(\*) INTO emp\_count FROM employees;

SELECT emp\_count;

END //

DELIMITER ;

```

Which of the following statements correctly calls this procedure?

A. `CALL GetEmployeeCount();`

B. `EXECUTE GetEmployeeCount();`

C. `RUN GetEmployeeCount();`

D. `START PROCEDURE GetEmployeeCount();`

> Answer: A. `CALL GetEmployeeCount();`

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Question 2:

What will be the output of the following MySQL code if the variable `num` is set to 10?

```sql

DECLARE num INT DEFAULT 10;

IF num > 5 THEN

SELECT 'Greater than 5';

ELSE

SELECT 'Less than or equal to 5';

END IF;

```

A. `Greater than 5`

B. `Less than or equal to 5`

C. `10`

D. Error: Incorrect syntax for IF statement

> Answer: A. `Greater than 5`

---

Question 3:

In MySQL, which of the following statements is true about cursors?

A. Cursors can only be used with SELECT statements.

B. Cursors allow row-by-row processing of result sets.

C. Cursors are stored procedures that execute automatically.

D. Cursors are faster than direct SQL statements for bulk data processing.

> Answer: B. Cursors allow row-by-row processing of result sets.

---

Question 4:

Which of the following correctly creates a trigger in MySQL that executes after a new row is inserted into the `employees` table?

```sql

A.

CREATE TRIGGER after\_employee\_insert

AFTER INSERT ON employees

BEGIN

INSERT INTO logs (action) VALUES ('New employee added');

END;

B.

CREATE TRIGGER after\_employee\_insert

AFTER INSERT ON employees

FOR EACH ROW

BEGIN

INSERT INTO logs (action) VALUES ('New employee added');

END;

C.

CREATE TRIGGER after\_employee\_insert

BEFORE INSERT ON employees

FOR EACH ROW

BEGIN

INSERT INTO logs (action) VALUES ('New employee added');

END;

D.

CREATE TRIGGER after\_employee\_insert

AFTER UPDATE ON employees

FOR EACH ROW

BEGIN

INSERT INTO logs (action) VALUES ('New employee added');

END;

```

> Answer: B.

This syntax creates a trigger that executes after a new row is inserted into the `employees` table, using the `AFTER INSERT` keyword and `FOR EACH ROW`.

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Question 5:

Which data type in MySQL would be most appropriate to store the following value: `'2023-07-24 15:30:00'`?

A. `DATE`

B. `DATETIME`

C. `TIMESTAMP`

D. `TIME`

> Answer: B. `DATETIME`

---

Question 6:

Which parameter mode allows a stored procedure to both accept input and return an output value in MySQL?

A. `IN`

B. `OUT`

C. `INOUT`

D. `RESULT`

> Answer: C. `INOUT`

---

Question 7:

Given the following MySQL code for a `WHILE` loop, what is the output?

```sql

DECLARE counter INT DEFAULT 1;

WHILE counter <= 3 DO

SELECT counter;

SET counter = counter + 1;

END WHILE;

```

A. `1 2 3`

B. `1 2 3 4`

C. `0 1 2`

D. Error: Incorrect syntax for WHILE loop

> Answer: A. `1 2 3`

---

Question 8:

Which of the following is a disadvantage of using cursors in MySQL?

A. They allow row-by-row processing.

B. They can consume more memory and resources.

C. They simplify handling of complex queries.

D. They make bulk data processing faster.

> Answer: B. They can consume more memory and resources.

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Question 9:

In MySQL, which syntax is used to create a stored program that executes an action when a specific event occurs on a table, such as an `INSERT`, `UPDATE`, or `DELETE`?

A. `PROCEDURE`

B. `FUNCTION`

C. `TRIGGER`

D. `CURSOR`

> Answer: C. `TRIGGER`

---

Question 10:

Which control structure in MySQL is used to perform different actions based on different conditions?

A. `WHILE`

B. `IF-ELSE`

C. `LOOP`

D. `DECLARE`

> Answer: B. `IF-ELSE`

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Question 11:

What is the primary advantage of using stored procedures in MySQL?

A. They require less memory for execution.

B. They reduce the network load by executing on the client side.

C. They allow for improved performance by running on the server side.

D. They are automatically cached for future use.

> Answer: C. They allow for improved performance by running on the server side.

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Question 12:

Which of the following is the correct syntax to declare a variable in a MySQL stored procedure?

A. `DECLARE num INT;`

B. `LET num = INT;`

C. `VAR num INT;`

D. `SET num INT;`

> Answer: A. `DECLARE num INT;`

---

Question 13:

Given the following MySQL code snippet, what will be the output?

```sql

DECLARE num INT DEFAULT 5;

CASE

WHEN num < 3 THEN SELECT 'Less than 3';

WHEN num < 7 THEN SELECT 'Less than 7';

ELSE SELECT '7 or more';

END CASE;

```

A. `Less than 3`

B. `Less than 7`

C. `7 or more`

D. Error: Incorrect syntax for CASE statement

> Answer: B. `Less than 7`

---

Question 14:

Which of the following best describes the `IN` parameter mode in MySQL stored procedures?

A. It is used for output-only values.

B. It is used for both input and output values.

C. It is used for input-only values.

D. It is used to return values from a procedure.

> Answer: C. It is used for input-only values.

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Question 15:

Consider the following MySQL trigger syntax. Which event will trigger this code?

```sql

CREATE TRIGGER before\_employee\_update

BEFORE UPDATE ON employees

FOR EACH ROW

BEGIN

INSERT INTO logs (action) VALUES ('Employee record updated');

END;

```

A. A row is deleted in the `employees` table.

B. A row is inserted into the `employees` table.

C. A row is updated in the `employees` table.

D. A row is selected from the `employees` table.

> Answer: C. A row is updated in the `employees` table.

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Question 16:

In MySQL, which of the following statements is correct about `AFTER INSERT` triggers?

A. They execute before an insert operation on a table.

B. They execute after a delete operation on a table.

C. They execute after an insert operation on a table.

D. They execute after an update operation on a table.

> Answer: C. They execute after an insert operation on a table.

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Question 17:

Which of the following data types would be most appropriate for storing a binary value in MySQL?

A. `CHAR`

B. `VARCHAR`

C. `BINARY`

D. `DATE`

> Answer: C. `BINARY`

---

Question 18:

Given the following stored procedure, what is the expected output if the input value of `num` is 6?

```sql

CREATE PROCEDURE CheckEvenOdd(IN num INT)

BEGIN

IF num % 2 = 0 THEN

SELECT 'Even';

ELSE

SELECT 'Odd';

END IF;

END;

```

A. `Even`

B. `Odd`

C. `6`

D. Error: Incorrect syntax

> Answer: A. `Even`

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Question 19:

In MySQL, which statement is used to terminate the current loop in a `WHILE` or `LOOP` control structure?

A. `STOP`

B. `EXIT`

C. `TERMINATE`

D. `LEAVE`

> Answer: D. `LEAVE`

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Question 20:

What type of cursor in MySQL allows only sequential access to rows?

A. `STATIC`

B. `DYNAMIC`

C. `SCROLL`

D. `FORWARD-ONLY`

> Answer: D. `FORWARD-ONLY`

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