

## Latest Version: 6

### Question: 1

Select two suitable statements regarding the following SQL statement:

```
CREATE TRIGGER trigger_1 AFTER UPDATE ON sales FOR EACH ROW EXECUTE PROCEDURE write_log();
```

- A. It is defining a trigger "trigger\_1".
- B. Every time 'UPDATE' is executed on the "sales" table, the "write\_log" function is called once.
- C. The "write\_log" function is called before 'UPDATE' takes place.
- D. 'UPDATE' is not executed if "write\_log" returns NULL.
- E. 'DROP TRIGGER trigger\_1 ON sales;' deletes the defined trigger.

**Answer: A, E**

### Question: 2

Select two transaction isolation levels supported in PostgreSQL.

- A. DIRTY READ
- B. READ COMMITTED
- C. REPEATABLE READ
- D. PHANTOM READ
- E. SERIALIZABLE

**Answer: B, E**

### Question: 3

PostgreSQL can use an index to access a table. Select two incorrect statements about indexes.

- A. An index is created by 'CREATE INDEX', and deleted by 'DROP INDEX'.
- B. By using an index effectively, searching and sorting performs faster.
- C. There are B-tree, Hash, R-tree and GiST index types.
- D. By creating an index, performance always improves.
- E. Creating an unused index does not affect the performance of a database at all.

**Answer: D, E**

### Question: 4

Select two incorrect statements regarding 'DOMAIN'.

- A. When defining a domain, you can add a default value and constraints to the original data.
- B. Domain is a namespace existing between databases and objects such as tables.
- C. A domain is created by 'CREATE DOMAIN'.
- D. A domain can be used as a column type when defining a table.
- E. To define a domain, both input and output functions are required.

**Answer: B, E**

### Question: 5

Select two suitable statements regarding the data types of PostgreSQL.

- A. One field can handle up to 1GB of data.
- B. 'n' in CHARACTER(n) represents the number of bytes.
- C. Only the INTEGER type can be declared as an array.
- D. There is a non-standard PostgreSQL data type, called Geometric data type, which handles 2dimensional data.
- E. A large object data type can be used to store data of unlimited size.

**Answer: A, D**

### Question: 6

The table "score" is defined as follows:

gid | score

-----+-----

1 | 70 1 |

60 2 | 100

3 | 80 3 |

50

The following query was executed. Select the number of rows in the result.

SELECT gid, max(score) FROM score GROUP BY gid HAVING max(score) > 60;

- A. 1 row
- B. 2 rows
- C. 3 rows
- D. 4 rows
- E. 5 rows

**Answer: C**

### Question: 7

Table "t1" is defined as follows: CREATE TABLE t1 (value VARCHAR(5)); A set of SQL statements were executed in the following order. Select the number of rows that table "t1" has after execution. BEGIN; INSERT INTO t1 VALUES ('AA'); SAVEPOINT point1; INSERT INTO t1 VALUES ('BB'); SAVEPOINT point2; INSERT INTO t1 VALUES ('CC'); ROLLBACK TO point1; INSERT INTO t1 VALUES ('DD'); END;

- A. 1 row
- B. 2 rows
- C. 3 rows
- D. 4 rows
- E. 0 rows

**Answer: B**

### Question: 8

Select two suitable statements about sequences.

- A. A sequence always returns a 4-byte INTEGER type value, so the maximum value is 2147483647.
- B. A sequence is defined by 'CREATE SEQUENCE', and deleted by 'DROP SEQUENCE'.
- C. Although the "nextval" function is called during a transaction, it will have no effect if that transaction is rolled back.
- D. A sequence always generates 0 or consecutive positive numbers.
- E. A sequence number can be set by calling the "setval" function.

**Answer: B, E**

### Question: 9

The "sample" table consists of the following data: How many rows are returned by executing the following SQL statement? SELECT DISTINCT ON (data) \* FROM sample;

- A. 2 rows
- B. 3 rows
- C. 4 rows D. 5 rows
- E. 6 rows

**Answer: B**

## Question: 10

The following SQL statements were executed using psql.

Select the appropriate statement about the result.

```
LISTEN sign_v; BEGIN; NOTIFY sign_v; COMMIT;
```

```
LISTEN sign_v;
```

- A. At the point that 'NOTIFY sign\_v' is executed, a message that starts with "Asynchronous notification 'sign\_v' received" is output.
- B. At the point that 'COMMIT' is executed, a message that starts with "Asynchronous notification 'sign\_v' received" is output.
- C. At the point that 'SELECT \* FROM pg\_user;' is executed, a message that starts with "Asynchronous notification 'sign\_v' received" is output.
- D. When 'LISTEN sign\_v' is executed for the second time, a message that starts with "Asynchronous notification 'sign\_v' received" is output.
- E. The message "Asynchronous notification 'sign\_v' received" is not received while in this connection.

**Answer: B**

## Question: 11

Select the correct SQL statement which concatenates strings 'ABC' and 'abc' to form 'ABCabc'.

- A. SELECT 'ABC' . 'abc';
- B. SELECT cat('ABC', 'abc') FROM pg\_operator;
- C. SELECT 'ABC' + 'abc';
- D. SELECT 'ABC' + 'abc' FROM pg\_operator;
- E. SELECT 'ABC' || 'abc';

**Answer: E**

## Question: 12

Select two correct descriptions about views.

- A. A view is created by 'DECLARE VIEW', and deleted by 'DROP VIEW'.
- B. A view is a virtual table which does not exist.
- C. A view is created to simplify complicated queries.
- D. You can create a view with the same name as already existing tables.
- E. A view only exists while the postmaster is running, and is deleted when the postmaster stops.

**Answer: B, C**

### Question: 13

Table "t1" is defined below. Table "t1" has a column "id" of type INTEGER, and a column "name" of type TEXT. t1: The following SQL is executed while client "A" is connected. BEGIN; SELECT \* FROM t1 WHERE id = 2 FOR UPDATE; SELECT \* FROM t1 WHERE id = 1 FOR UPDATE; -- (\*) While the second 'SELECT' statement, shown with (\*), is being executed, a separate client "B" connects and executes the following SQL. Select the correct statement about the execution results. UPDATE t1 SET name = 'turtle' WHERE id = 2; Note: the default transaction isolation level is set to "read committed".

- A. The update process for client "B" is blocked until the current connection for client "A" is finished.
- B. The update process for client "B" is blocked until the current transaction for client "A" is finished.
- C. The 'UPDATE' process for client "B" proceeds regardless of the condition of client "A".
- D. The process of client "B" immediately generates an error.
- E. The processes for both clients are blocked, and an error stating that a deadlock has been detected is generated.

**Answer: B**

### Question: 14

SQL statements were executed in the following order:

```
CREATE TABLE fmaster
```

```
(id INTEGER PRIMARY KEY, name TEXT);
```

```
CREATE TABLE ftrans
```

```
(id INTEGER REFERENCES fmaster (id), stat INTEGER, date DATE);
```

```
INSERT INTO fmaster VALUES (1, 'itemA');
```

```
INSERT INTO ftrans VALUES (1, 1, CURRENT_DATE);
```

Select two SQL statements that will generate an error when executed next.

- A. INSERT INTO ftrans VALUES (1, 1, CURRENT\_DATE);
- B. INSERT INTO ftrans VALUES (2, 1, '2007-07-07');
- C. UPDATE fmaster SET name = 'itemAX' WHERE id = 1;
- D. UPDATE fmaster SET id = 100 WHERE id = 1;
- E. UPDATE ftrans SET id = 200 WHERE id = 1;

**Answer: A, C**

### Question: 15

Select three SQL statements which return NULL.

- A. SELECT 0 = NULL;
- B. SELECT NULL != NULL;
- C. SELECT NULL IS NULL;
- D. SELECT NULL;
- E. SELECT 'null'::TEXT;

<b>Answer: A, B, D</b>
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