**Chapter 5 – Database and Cloud Security**

**TRUE/FALSE QUESTIONS:**

T F 1. A query language provides a uniform interface to the database.

T F 2. A single countermeasure is sufficient for SQLi attacks.

T F 3. To create a relationship between two tables, the attributes that define the

primary key in one table must appear as attributes in another table, where they are referred to as a foreign key.

T F 4. The value of a primary key must be unique for each tuple of its table.

T F 5. A foreign key value can appear multiple times in a table.

T F 6. A view cannot provide restricted access to a relational database so it cannot

be used for security purposes.

T F 7. The database management system makes use of the database description

tables to manage the physical database.

T F 8. Two disadvantages to database encryption are key management and

inflexibility.

T F 9. Fixed server roles operate at the level of an individual database.

T F 10. SQL Server allows users to create roles that can then be assigned access

rights to portions of the database.

T F 11. A data center generally includes backup power supplies.

T F 12. Site security of the data center itself includes barriers to entry, coupled with

authentication techniques for gaining physical access.

T F 13. Network security is extremely important in a facility in which such a large

collection of assets is concentrated in a single place and accessible by external network connections.

T F 14. Security specifically tailored to databases is an increasingly important

component of an overall organizational security strategy.

T F 15. Encryption becomes the last line of defense in database security.

**MULTIPLE CHOICE QUESTIONS:**

1. A(n) \_\_\_\_\_\_\_\_\_\_ is a structured collection of data stored for use by one or more applications.

A. attribute B. database

C. tuple D. inference

2. The basic building block of a \_\_\_\_\_\_\_\_\_\_ is a table of data, consisting of rows and columns, similar to a spreadsheet.

A. relational database B. query set

C. DBMS D. perturbation

3. In relational database parlance, the basic building block is a \_\_\_\_\_\_\_\_\_\_, which is a flat table.

A. attribute B. tuple

C. primary key D. relation

4. In a relational database rows are referred to as \_\_\_\_\_\_\_\_\_.

A. relations B. attributes

C. views D. tuples

5. A \_\_\_\_\_\_\_\_\_ is defined to be a portion of a row used to uniquely identify a row in a table.

A. foreign key B. query

C. primary key D. data perturbation

6. A \_\_\_\_\_\_\_\_\_ is a virtual table.

A. tuple B. query

C. view D. DBMS

7. A(n) \_\_\_\_\_\_\_\_\_\_ is a user who has administrative responsibility for part or all of the database.

A. administrator B. database relations manager

C. application owner D. end user other than application owner

8. An end user who operates on database objects via a particular application but does not own any of the database objects is the \_\_\_\_\_\_\_\_\_\_.

A. application owner B. end user other than application owner

C. foreign key D. administrator

9. \_\_\_\_\_\_\_\_\_\_ is the process of performing authorized queries and deducing unauthorized information from the legitimate responses received.

A. Perturbation B. Inference

C. Compromise D. Partitioning

10. A \_\_\_\_\_\_\_\_\_\_\_ is the portion of the data center that houses data processing equipment.

A. computer room B. main distribution area

C. entrance room D. horizontal distribution area

11. \_\_\_\_\_\_\_\_\_\_ houses cross-connects and active equipment for distributing cable to the equipment distribution area.

A. Main distribution area B. Equipment distribution area

C. Horizontal distribution area D. Zone distribution area

12. \_\_\_\_\_\_\_\_\_\_ encompasses intrusion detection, prevention and response.

A. Intrusion management B. Security assessments

C. Database access control D. Data loss prevention

13. \_\_\_\_\_\_\_\_\_ is an organization that produces data to be made available for controlled release, either within the organization or to external users.

A. Client B. Data owner

C. User D. Server

14. \_\_\_\_\_\_\_\_\_\_ is an organization that receives the encrypted data from a data owner and makes them available for distribution to clients.

A. User B. Client

C. Data owner D. Server

15. \_\_\_\_\_\_\_\_\_\_ specifies the minimum requirements for telecommunications infrastructure of data centers.

A. TIA-492 B. RFC-4949

C. NIST-7883 D. RSA-298

**SHORT ANSWER QUESTIONS:**

1. A \_\_\_\_\_\_\_\_\_\_ is a suite of programs for constructing and maintaining the database and for offering ad hoc query facilities to multiple users and applications.
2. In a relational database columns are referred to as \_\_\_\_\_\_\_\_\_.
3. A \_\_\_\_\_\_\_\_\_ is the result of a query that returns selected rows and columns from one or more tables.
4. \_\_\_\_\_\_\_\_\_\_ is a standardized language that can be used to define schema, manipulate, and query data in a relational database.
5. With \_\_\_\_\_\_\_\_\_\_\_ administration the owner (creator) of a table may grant and revoke access rights to the table.
6. In a \_\_\_\_\_\_\_\_\_\_\_ administration a small number of privileged users may grant and revoke access rights.
7. In addition to granting and revoking access rights to a table, in a \_\_\_\_\_\_\_\_\_\_\_ administration the owner of the table may grant and revoke authorization rights to other users, allowing them to grant and revoke access rights to the table.
8. In a discretionary access control environment database users are classified into three broad categories: administrator, end user other than application owner, and \_\_\_\_\_\_\_\_\_\_.
9. The information transfer path by which unauthorized data is obtained is referred to as an \_\_\_\_\_\_\_\_\_\_\_ channel.
10. The \_\_\_\_\_\_\_\_\_\_   attack typically works by prematurely terminating a text string and appending a new command.
11. The \_\_\_\_\_\_\_\_\_\_ form of attack injects code in one or more conditional statements so they always evaluate to true.
12. A \_\_\_\_\_\_\_\_\_\_ language provides a uniform interface to the database for users and applications.
13. \_\_\_\_\_\_\_\_\_, out-of-band, and inferential are the three main categories of SQLi attack types.
14. A \_\_\_\_\_\_\_\_\_\_ is an enterprise facility that houses a large number of servers, storage devices, and network switches and equipment.
15. The Telecommunications Industry Association standard \_\_\_\_\_\_\_\_\_ specifies the minimum requirements for telecommunications infrastructure of data centers.