✓ **Congratulations! You passed!**

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1. In which phase of the database lifecycle does the database administrator determine the purpose and scope of the database?

| | 1 / 1 point |

- ◉ Requirements analysis
- ○ Implementation
- ○ Design and plan
- ○ Monitor and maintain

⤢ **Expand**

✓ **Correct**
In the requirements analysis stage, database administrators determine the purpose and scope of the database by interviewing data users and producers, examining the data, and creating samples.

2. Which of the following database objects defines a set of actions performed in response to an insert, update, or delete on a specified table?

| | 1 / 1 point |

- ○ Constraint
- ◉ Trigger
- ○ Event
- ○ Index

⤢ **Expand**

✓ **Correct**
A trigger defines a set of actions performed in response to an insert, update, or delete on a specified table.

3. What is the first step to modify the configuration of an on-premises relational database?

| | 0 / 1 point |

- ○ Stop the database service.
- ○ Start the database service.
- ○ Monitor the configuration settings.
- ◉ Modify the configuration file.

⤢ **Expand**

✗ **Incorrect**
Refer to the System Objects and Database Configuration video.

4. A storage group is a grouping of storage paths or containers based on which of the following?

| | 0 / 1 point |

- ○ Performance
- ○ Age
- ○ Capacity
- ◉ Name

⤢ Expand

⊗ **Incorrect**
Refer to the Database Storage video.

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5. What is one advantage of logical backups over physical backups?

1 / 1 point

○ Logical backups are useful for large databases that require fast recovery times.

○ Logical backups create copies of all the data files and directories.

◉ Logical backups allow you to recreate the database on another system.

○ Logical backups are often smaller and quicker.

↗ **Expand**

⊘ **Correct**
A logical backup creates a file containing DDL and DML commands that recreate the objects and data in the database. With this file, you can recreate the database on the same or another system.

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6. Transaction logs typically have which of the following characteristics?

1 / 1 point

○ No encryption

○ Human readable

◉ Binary format

○ Plain text

↗ **Expand**

⊘ **Correct**
Many types of logs, such as diagnostic and error logs, are mostly in text format and are human readable. However, transaction logs are typically in binary formats that are sometimes encrypted and require specialized tools to format and display contents.

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7. What happens if you store backup data outside the RDBMS?

0 / 1 point

○ Difficulty restoring

○ Must secure backup copy

○ Difficult to access

◉ Complicates backup/restore

↗ **Expand**

⊗ **Incorrect**
Please review the Types of Backup video.

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8. Assume that a particular database issue, such as extremely low drive space, would require your urgent attention should it occur. Which automated database feature should you use to inform you when this issue occurs?

1 / 1 point

○ Notifications

◉ Alerts

○ Reports

○ Traces

↗ **Expand**

⊘ **Correct**
You should use alerts to inform you of an issue, such as extremely low drive space, that requires your

You should use alerts to inform you of an issue, such as extremely low drive space, that requires your urgent attention.

9. Which security method verifies that users are who they say they are?

1 / 1 point

○ Encryption

○ Authorization

◉ Authentication

○ Auditing

⤢ Expand

✓ Correct

Authentication is a process of verifying that users are who they claim to be. For example, an authentication system may validate credentials such as username and password.

10. When creating a backup and restore policy, you must determine an appropriate schedule. Which of the following factors should impact your decision regarding this schedule?

1 / 1 point

○ Impact of data loss on your business

◉ Time of day that users commonly access the data

○ Use of manual or automated backup

○ Sensitivity and proprietary nature of the data

⤢ Expand

✓ Correct

To determine an appropriate backup schedule, consider when users commonly access the data. For example, if your data is mainly accessed during the working day in one time zone, you should schedule your backup outside of those hours.

11. What do database groups and database roles have in common?

1 / 1 point

○ Both are exempt from the principle of least privilege.

○ Both allow for only a limited number of users at a time.

○ Both grant users full access to the data by default.

◉ Both confer privileges and access rights to all users within a given category.

⤢ Expand

✓ Correct

Database groups and database roles are similar in that they both confer privileges and access rights to all users within the group or role, respectively.

12. Which of the following statements can you use to remove privileges granted to a user?

1 / 1 point

○ UPDATE

○ GRANT

◉ REVOKE

○ DELETE

⤢ Expand

✓ Correct

You can use the REVOKE statement to remove privileges granted to a user.

13. In MySQL, you can use which command to specify a different default storage engine?

1 / 1 point

- ◉ SET
- ○ RESET
- ○ ALTER
- ○ FLUSH

⤢ Expand

✓ **Correct**
  In MySQL, you can use the SET command to specify a different default storage engine.

14. What do some RDBMSs use to audit database activity?

1 / 1 point

- ○ Tables
- ○ Logs
- ○ Flags
- ◉ Triggers

⤢ Expand

✓ **Correct**
  Some RDBMS's use triggers.

15. Which type of encryption uses a public and a private key?

1 / 1 point

- ○ Symmetric encryption
- ◉ Asymmetric encryption
- ○ Full disk encryption
- ○ Transparent data encryption

⤢ Expand

✓ **Correct**
  Asymmetric encryption, also known as public key encryption, uses a public key and a private key. You encrypt the data with the public key and valid users have a unique matching private key to decrypt it.

16. In which form of encryption is encryption and decryption invisible to users because the database handles both tasks?

1 / 1 point

- ◉ Transparent data encryption
- ○ Advanced encryption
- ○ Asymmetric encryption
- ○ Symmetric encryption

⤢ Expand

✓ **Correct**
  Many modern databases support transparent data encryption, or TDE. In TDE, the database engine encrypts and decrypts the data, so neither task is visible to users.

17. Which level of database monitoring is often the most misleading?

1 / 1 point

- ○ Platform
- ○ Infrastructure
- ● User
- ○ Query

[⤢ Expand]

✓ **Correct**

If users are not reporting any issues, you might assume everything is working properly. However, just because users aren't noticing or reporting an issue doesn't mean an issue doesn't exist or won't arise soon. Therefore, the user level is often misleading.

18. To specify the type of information that an error log will store, database administrators use the log_err_verbosity option to set the server verbosity level to 1, 2, or 3. What type of information will an error log store at a server verbosity level of 3?

`1 / 1 point`

- ○ Warnings and notes only
- ○ Errors only
- ● Errors, warnings, and notes
- ○ Errors and warnings only

[⤢ Expand]

✓ **Correct**

If the server verbosity level is set to 3, an error log will store errors, warnings, and notes.

19. Which tool captures historical information about specific database operations that occur over a given time period?

`0 / 1 point`

- ○ Event monitors
- ○ Monitoring clients
- ● Monitoring tables
- ○ Snapshot monitors

[⤢ Expand]

✕ **Incorrect**

Refer to the Overview of Database Monitoring video.

20. What is the process of monitoring database changes to quickly identify weak links and performance issues?

`1 / 1 point`

- ○ Database configuration check
- ○ Data dictionary check
- ○ Alert log file cleanup
- ● Schema object check

[⤢ Expand]

✓ **Correct**

A schema object check is the process of monitoring your database changes to quickly identify the weak links and problematic queries.

21. In MySQL, what does the OPTIMIZE TABLE command do?

`1 / 1 point`

- ● Reorganizes physical storage of table data

○ Shows a checksum for the contents of a table

○ Generates statistics about a table's data

○ Fixes a possibly corrupted table

[⤢ Expand]

✓ **Correct**
The OPTIMIZE TABLE command reorganizes the physical storage of table data and associated index data. This reorganization reduces storage space and improves I/O efficiency when accessing the table.

22. There are a few core principles to consider when designing indexes. Which core principle involves knowing what data type is contained in the index?

0 / 1 point

○ Understand characteristics of columns

⦿ Understand the most frequently used queries

○ Determine best location to store index

○ Understand how database is used

[⤢ Expand]

✕ **Incorrect**
Please review the Using Indexes video.

23. Server configuration issues can severely effect performance and operations. Which of the following issues can require software patches?

1 / 1 point

○ Improper storage configuration

○ Out of disk space

⦿ Bugs in OS or RDBMS

○ Disk fragmentation

[⤢ Expand]

✓ **Correct**
Bugs can result in errors and crashes, so regularly apply software patches and security updates.

24. Which of the following SQL server logs shows informational and error events?

1 / 1 point

○ Object log

○ Error log

○ Trace log

⦿ Event log

[⤢ Expand]

✓ **Correct**
The event log shows informational and error events.

25. Which of the following are basic ethical concepts that support good data security practices? Select the three choices that apply.

1 / 1 point

☑ Transparency

✓ **Correct**
When you collect data, you should be transparent about what data you will collect, what you will do with the data, who will have access to the data, how you will store the data,

and how you will dispose of the data when finished with it.

☑ Consent

✓ **Correct**

You should get clear consent from data owners before you collect their data. This agreement should detail what data you will be allowed to collect and how you will be allowed to use it.

☑ Integrity

✓ **Correct**

Be clear about your procedures and policies and follow them consistently. As far as you can, ensure that others in your organization also follow the correct procedures and policies.

☐ Efficiency

⤢ **Expand**