⚠️ **Try again once you are ready**

Grade received 64% **Latest Submission Grade** 64% To pass 80% or higher **Try again**

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1. In which phase of the database lifecycle does the database administrator determine the purpose and scope of the database? `0 / 1 point`

○ Implementation

○ Monitor and maintain

○ Requirements analysis

◉ Design and plan

[↗ Expand]

❌ **Incorrect**
Refer to the Database Management Lifecycle video.

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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

○ Event

◉ Trigger

○ Index

[↗ Expand]

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

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3. What is the first step to modify the configuration of an on-premises relational database? `0 / 1 point`

◉ Monitor the configuration settings.

○ Modify the configuration file.

○ Stop the database service.

○ Start the database service.

[↗ Expand]

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

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4. A storage group is a grouping of storage paths or containers based on which of the following? `0 / 1 point`

○ Performance

○ Name

◉ Capacity

○ Age

[↗ Expand]

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

`1 / 1 point`

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

○ Logical backups are often smaller and quicker.

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

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

↗ **Expand**

✓ **Correct**
A logical backup creates 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.

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

`1 / 1 point`

○ Plain text

○ No encryption

○ Human readable

● Binary format

↗ **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.

7. What is one advantage of differential backups over full backups?

`1 / 1 point`

○ Greater data security

● Quicker backup process

○ Better file integrity

○ Simpler restore method

↗ **Expand**

✓ **Correct**
Differential backups are quicker to run than full backups, but the restore process can take longer.

8. Which of the following is true?

`1 / 1 point`

○ Reports can be automated, but notifications and alerts cannot.

○ You can configure the content of a report, but the frequency is always the same.

● The method of automating reports, notifications, and alerts varies depending on which RDBMS you use.

○ You cannot automate using a graphic user interface.

↗ **Expand**

✓ **Correct**
Different systems have different processes to automate these.

9. Which security method ensures that each user has the appropriate level of access to objects and data?

1 / 1 point

○ Authentication

● Authorization

○ Auditing

○ Encryption

⤢ **Expand**

✓ **Correct**
Through authorization, you grant each user the appropriate permissions, or privileges, to access objects and data.

10. Which of these is NOT a decision you must make about implementing a backup plan?

1 / 1 point

○ Encryption

○ Hot or cold backup

○ Physical or logical backup

● Who will be responsible for the plan

⤢ **Expand**

✓ **Correct**
As DBA, the plan will be your responsibility.

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

1 / 1 point

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

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

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

○ Both are exempt from the principle of least privilege.

⤢ **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. The GRANT connect statement connects a user or group to a database. What else does the GRANT statement do?

0 / 1 point

○ Reject

○ Delete

○ Grant user permissions to create objects

● Add privileges

⤢ **Expand**

⊗ **Incorrect**
Please review the Managing Access to Databases and Their Objects video.

13. Which storage engine available in MySQL is suitable for most data storage needs?

1 / 1 point

○ CSV

○ CSV

○ MyISAM

○ BLACKHOLE

● InnoDB

[⤢ Expand]

⊘ **Correct**
  InnoDB is suitable for most data storage needs and is MySQL's default storage engine.

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14. Which of the following is a method you can use to audit database activity?

0 / 1 point

○ Enable full-scale encryption of all database files.

● Use a user validation function built into the database system.

○ Run an SQL injection string on your database.

○ Attach actions to events that occur in the database.

[⤢ Expand]

⊗ **Incorrect**
  Refer to the Auditing Database Activity video.

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15. What is used to encrypt data into an unreadable string, called a cyphertext?

1 / 1 point

○ Keys

○ Deciphers

○ Security templates

● Algorithms

[⤢ Expand]

⊘ **Correct**
  Algorithms change the data so that nobody can decipher the text without a key.

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

1 / 1 point

○ Asymmetric encryption

○ Symmetric encryption

○ Advanced encryption

● Transparent data 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.

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17. What does database throughput measure?

1 / 1 point

○ Which transactions are consuming the most resources

● The work done by your database

○ How well the system is responding to inbound requests

○ Active network connections

✓ **Correct**
Database throughput indicates how much total work is being taken on by your database and is typically measured by the number of queries executed per second.

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18. Which MySQL server log records connections and queries received from clients?

1 / 1 point

- ◉ General query log
- ○ Relay log
- ○ Error log
- ○ Slow query log

Expand

✓ **Correct**
The general query log records connections and queries received from clients.

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19. Which tool can you use to monitor your database in real-time?

0 / 1 point

- ○ Monitoring snapshots
- ◉ System monitors
- ○ Event monitors
- ○ Monitoring tables

Expand

✗ **Incorrect**
Refer to the Overview of Database Monitoring video.

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

0 / 1 point

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

Expand

✗ **Incorrect**
Refer to the Overview of Database Tasks video.

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21. In Db2, what does the RUNSTATS command do?

1 / 1 point

- ○ Reorganizes physical storage of table data
- ○ Frees up space on all tables
- ○ Reconstructs and compacts table data
- ◉ Updates statistics in the system catalog

Expand

✓ **Correct**

22. There are a few core principles to consider when designing indexes. Which core principle involves knowing size of the data sets that the database will contain?

0 / 1 point

- ◉ Understand the characteristics of the columns.
- ○ Understand the most frequently used queries.
- ○ Understand how the database will be used.
- ○ Understand the indexing options for better performance.

[↗ Expand]

ⓧ **Incorrect**

Refer to 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

- ○ Out of disk space
- ○ Disk fragmentation
- ○ Improper storage configuration
- ◉ Bugs in OS or RDBMS

[↗ 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?

0 / 1 point

- ○ Trace log
- ○ Object log
- ○ Event log
- ◉ Error log

[↗ Expand]

ⓧ **Incorrect**

Refer to the Using Status Variables, Error Codes, and Documentation video.

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.

- ☐ Efficiency
- ☑ 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

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.

⤢ **Expand**

⊘ **Correct**

Great, you got all the right answers.