✅ **Congratulations! You passed!**

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1. Which of the database life cycle phases is typically where DBAs check for authorized user access to databases?   `1 / 1 point`

○ Implementation

○ Requirements analysis

○ Design and plan

⦿ Monitor and maintain

⤢ **Expand**

✅ **Correct**
DBAs ensure that only authorized users are allowed to access the system in this phase.

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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

○ Index

⦿ Trigger

○ Event

⤢ **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. Which of the following statements is correct about modifying the configuration of a cloud-based relational database?   `1 / 1 point`

○ You need to modify the configuration files directly.

○ You must use the command line to modify the configuration.

○ You can safely discard the configuration files after modifying them.

⦿ You can modify the configuration while the service is running.

⤢ **Expand**

✅ **Correct**
One advantage of cloud-based systems is that you can scale many configuration options through a graphical interface as the service is running. You don't have to edit configuration files.

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4. Database partitions store subsets of data from very large databases. Which of the following environments commonly use partitions?   `0 / 1 point`

○ Data analysis for BI

○ Classroom grades

⦿ Users' personal storage

○ Customer directories

❌ **Incorrect**

Please review the Database Storage video.

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5. Which of the following key considerations is perhaps the most important?

0 / 1 point

○ Validate backups

◉ Backup scheduling

○ Storage level snapshots

○ Secure back up files

❌ **Incorrect**

Please review the Introduction to Backup and Restore video.

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6. What does a database management system (DBMS) use transaction logs to do?

1 / 1 point

◉ Keep track of all transactions that change or modify the database

○ Record system or hardware failures

○ Keep track of all the users that access the database

○ Monitor other logs in the system

✓ **Correct**

A database management system (DBMS) uses transaction logs to keep track of all transactions that change or modify the database.

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

1 / 1 point

○ Difficulty restoring

◉ Must secure backup copy

○ Complicates backup/restore

○ Difficult to access

✓ **Correct**

If you store a complete copy of data outside of the RDBMS, then it must be secured so that it can't be accessed by unauthorized users.

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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

○ Traces

○ Reports

◉ Alerts

✓ **Correct**

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

urgent attention.

9. Together authentication, authorization, encryption, and auditing provide system and data security. Which security method provides information that you can analyze to determine and find weak spots?

1 / 1 point

- ○ Authentication
- ○ Encryption
- ● Auditing
- ○ Authorization

⤢ **Expand**

✓ **Correct**
Auditing lets you track server and database access, see what actions are taken, and provides this information to you for analyzing the security.

10. When creating a backup and restore policy, you must consider the frequency with which you should backup data. Which of the following factors should determine this frequency?

1 / 1 point

- ○ Time of day that users commonly access the data
- ○ Use of manual or automated backup
- ● Impact of data loss on your business
- ○ Sensitivity and proprietary nature of the data

⤢ **Expand**

✓ **Correct**
The frequency with which you should backup data depends on the impact that any data loss would have on your business operations and how frequently your data is changing.

11. When you first create a database user, how many permissions will the user generally have by default?

1 / 1 point

- ○ The user will have all existing permissions.
- ○ The user will have just one permission.
- ● The user will have few or no permissions.
- ○ The user will have up to five permissions.

⤢ **Expand**

✓ **Correct**
When you first create a user, they will generally have few, if any, permissions to interact with the database objects unless they are the creator of the database.

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

1 / 1 point

- ○ Add privileges
- ● Grant user permissions to create objects
- ○ Delete
- ○ Reject

⤢ **Expand**

✓ **Correct**
You can also use the GRANT statement to grant privileges to create objects in a database.

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

1 / 1 point

- ● InnoDB
- ○ CSV
- ○ BLACKHOLE
- ○ MyISAM

⤢ Expand

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

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

1 / 1 point

- ○ Flags
- ○ Tables
- ● Triggers
- ○ Logs

⤢ Expand

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

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

1 / 1 point

- ● Algorithms
- ○ Keys
- ○ Deciphers
- ○ Security templates

⤢ Expand

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

16. What effect does encryption and decryption have on your database?

1 / 1 point

- ○ Increased longevity
- ○ Increased capacity
- ● Decreased performance
- ○ Decreased stability

⤢ Expand

✓ **Correct**
Because of the time and effort that it takes the algorithm to process the data, any type of encryption and decryption will decrease the performance of your database.

17. What does database throughput measure?

1 / 1 point

- ○ Active network connections

○ Which transactions are consuming the most resources

○ How well the system is responding to inbound requests

◉ The work done by your database

⤢ Expand

✓ **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.

18. Which log is most useful for troubleshooting database problems?

1 / 1 point

○ User session log

○ Query log

◉ Diagnostic log

○ Database transaction log

⤢ Expand

✓ **Correct**

The diagnostic log is a record of significant events and errors in chronological order and is very useful for diagnosing or troubleshooting problems.

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

1 / 1 point

○ Snapshot monitors

○ Monitoring clients

◉ Event monitors

○ Monitoring tables

⤢ Expand

✓ **Correct**

Event monitors capture information about database operations over time as specific types of events occur.

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

1 / 1 point

◉ Schema object check

○ Alert log file cleanup

○ Database configuration check

○ Data dictionary 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

○ Fixes a possibly corrupted table

○ Generates statistics about a table's data

○ Shows a checksum for the contents of a table

⤢ Expand

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 indexing options for better performance.

○ Understand the characteristics of the columns.

◉ Understand the most frequently used queries.

○ Understand how the database will be used.

⤢ Expand

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

1 / 1 point

○ Disk fragmentation

○ Improper storage configuration

◉ Bugs in OS or RDBMS

○ Out of disk space

⤢ Expand

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

1 / 1 point

○ Object log

○ Trace log

○ Error log

◉ Event log

⤢ Expand

25. What is compliance?

1 / 1 point

○ Adhering to transparent practices

○ Using secure archiving

◉ Making sure your database practices follow all applicable laws, regulations, and industry standards

○ Making sure your data will fit into your planned database

Correct
Failure to comply can result in data insecurity, professional censure for your organization, and even legal action.

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