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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
- ☐ Monitor and maintain
- ☐ Design and plan
- ☐ Implementation

[↗ 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?

0 / 1 point

- ☐ Constraint
- ☐ Trigger
- ☐ Index
- ☒ Event

[↗ Expand](#)**Incorrect**

Refer to the Database Objects video.

3. Database installation saves the system information into files. What are these files called?

1 / 1 point

- ☒ Configuration
- ☐ Column
- ☐ System
- ☐ Parameter

[↗ Expand](#)**Correct**

The system information is saved into files known as configuration or initialization files.

4. In the context of database storage, temperature refers to which of the following?

1 / 1 point

- ☐ Means of configuration
- ☒ Frequency of access
- ☐ Recoverability of data
- ☐ Capacity of container

[↗ Expand](#)**Correct**


In the context of database storage, temperature refers to the frequency of data access: hot data is accessed very frequently, warm data is accessed somewhat frequently, and cold data is accessed infrequently.

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

0 / 1 point

- ☐ Logical backups are useful for large databases that require fast recovery times.
- ☐ Logical backups allow you to recreate the database on another system.
- ☐ Logical backups are often smaller and quicker.
- ☒ Logical backups create copies of all the data files and directories.

 Expand


 **Incorrect**
Refer to the Introduction to Backup and Restore video.

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

1 / 1 point

- ☐ Plain text
- ☒ Binary format
- ☐ No encryption
- ☐ Human readable

 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 happens if you store backup data outside the RDBMS?

1 / 1 point

- ☐ Difficult to access
- ☒ Must secure backup copy
- ☐ Difficulty restoring
- ☐ Complicates backup/restore

 Expand


 **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.

8. Assume that a particular database issue, should it occur, is important but does not require your immediate attention. Which automated database feature should you use to inform you when this issue occurs?

0 / 1 point

- ☐ Alerts
- ☒ Reports
- ☐ Notifications
- ☐ Traces

 Expand


 **Incorrect**
Refer to the Automating Reports and Alerts video.

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

1 / 1 point

- ☐ Authorization
- ☒ Authentication
- ☐ Encryption
- ☐ 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 consider the frequency with which you should backup data. Which of the following factors should determine this frequency?

0 / 1 point

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

 Expand


 **Incorrect**
Refer to the Backup Policies video.

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

0 / 1 point

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

 Expand


 **Incorrect**
Refer to the Users, Groups, and Roles video.

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

1 / 1 point

- ☐ DELETE
- ☐ GRANT
- ☐ UPDATE
- ☒ REVOKE

 Expand


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

13. Which of these is NOT a common command for managing storage engines in MySQL?

0 / 1 point

- ☐ ALTER TABLE
- ☐ CREATE ENGINE
- ☒ CREATE TABLE
- ☐ SHOW ENGINES

 Expand


 **Incorrect**
Please review the MySQL Storage Engines reading.

14. Which of the following is an action you can take to help you identify potential future attacks, such as brute force attempts, on your system?

1 / 1 point

- ☐ Implementing strong encryption for all data
- ☐ Testing and monitoring the security of applications
- ☐ Using data masking to anonymize user data
- ☒ Tracking failed attempts to access the database

 Expand


 **Correct**
You should track failed attempts to access the database, as these can help you to identify potential attacks, such as brute force attempts, on your system.

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. What is the main difference between symmetric and asymmetric encryption?

1 / 1 point

- ☐ Shared keys
- ☐ Data encryption standard
- ☒ Number of keys
- ☐ Advanced encryption

 Expand

 **Correct**

Symmetric encryption uses the same key for encryption and decryption. Asymmetric encryption uses a public key for encryption and a private key for decryption.

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

0 / 1 point

- ☒ Query
- ☐ User
- ☐ Platform
- ☐ Infrastructure

 Expand

 **Incorrect**

Refer to the Monitoring Usage and Performance – Part 1 video.

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

1 / 1 point

- ☒ Diagnostic log
- ☐ User session log
- ☐ Query 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

- ☐ Monitoring tables
- ☐ Snapshot monitors
- ☐ Monitoring clients
- ☒ Event monitors

 Expand

 **Correct**

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

20. What is the automated database task that determines how efficient the database system is?

1 / 1 point

- ☐ Database configuration check
- ☐ Schema object check
- ☒ Database health check
- ☐ Trace file cleanup

 Expand

 **Correct**

The database health check is the process of inspecting a database system to determine the system's health and efficiency.

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

1 / 1 point

- ☐ Generates statistics about a table's data
- ☐ Fixes a possibly corrupted table
- ☒ Reorganizes physical storage of table data
- ☐ Shows a checksum for the contents of a 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?

1 / 1 point

- ☐ Understand the most frequently used queries
- ☐ Determine best location to store index
- ☐ Understand how database is used
- ☒ Understand characteristics of columns

 Expand

 **Correct**

Knowing what kind of data columns will contain can help you choose an appropriate index type.

23. Which of the following actions might resolve basic connectivity issues?

1 / 1 point

- ☐ Defragmenting the hard disk on which the data resides
- ☐ Adding more physical RAM or physical disk space to the server
- ☐ Changing database buffering or database indexing
- ☒ Verifying that the database can be reached from the client

 Expand

 **Correct**

One common step in resolving a connectivity issue is to verify that the database can be reached from the client. A typical way to perform this verification is to use the PING command from the client to communicate with the server's IP address or host name.

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

0 / 1 point

- ☐ Object log
- ☐ Event log
- ☒ Error log
- ☐ Trace log

 Expand

 **Incorrect**

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

25. Which of the following are factors you should consider to ensure that the data in your system is secure? Select the three choices that apply.

1 / 1 point

- ☒ Protection from malicious access

 **Correct**

Update cybersecurity software and scanning lists frequently. You should also educate users about phishing and other ways that they can unwittingly enable malicious access.

- ☐ Efficiency of file transfer

- ☒ Accurate access

 **Correct**

Establish a system of assigning and tracking privileges that assigns each user only the necessary privileges and controls what they can do with the data.

- ☒ Secure movement

✓ **Correct**

Data can be particularly vulnerable to interception when moved into or out of storage.
Consider safe transfer methods as carefully as you plan the safety for the rest of your system.

 **Expand**

✓ **Correct**

Great, you got all the right answers.