Practice Exam Questions

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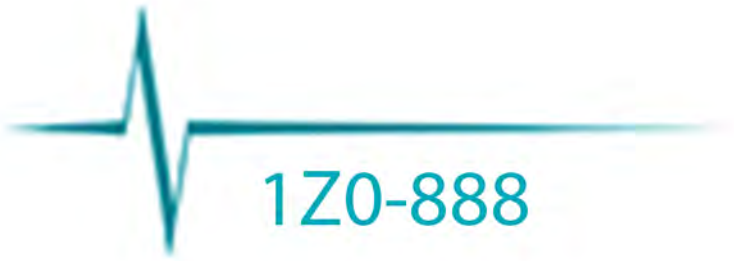

1Z0-888

MySQL 5.7 Database Administrator

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Oracle

Exam 1Z0-888

MySQL 5.7 Database Administrator

Version: 5.0

[Total Questions: 124]

Question No : 1

Which two statements are true regarding MySQL security? (Choose two.)

A. The mysql user needs to have sudo privileges.
B. The mysqld process owner should own all files and directories to which the server writes.
C. The root or administrator users should own all files and directories to which the server writes.
D. The mysqld process should be run as root or administrator.
E. The mysqld process should not be run as root or administrator.

Answer: C,E

Question No : 2

Which statement is true about using Microsoft Windows Cluster as a platform for MySQL?

A. It relies on the shared disk architecture being visible to both servers.
B. It is provided by means of IP-level disk replication.
C. It implements High Availability by using the .NET Connector's load balancing capabilities.
D. It is a shared-nothing architecture.

Answer: A

Question No : 3

You have a MySQL instance with the following variables in the /etc/my.cnf file:

```
[mysqld]
binlog-format = ROW
binlog-ignore-db = sales
transaction-isolation = REPEATABLE READ
binlog-row-event-max-size = 512
```

You issue these statements:

USE prices;

UPDATE sales.january SET amount=amount+1000;

An hour after excluding the statements, you realize that you made a mistake and you want to go to the binary log and look at the statements again.

Which statement is true? (Choose two.)

A. You would receive an error on the statement because you cannot update a different database that what is specified with the USE statement.
B. The changes caused by the UPDATE statement are logged to the binary log because the instance is using --binlog-format = ROW
C. The statement would fail because you cannot update more than one row at a time when using --binlog-format = ROW.
D. Nothing is logged because you are executing an UPDATE statement that will cause changes to more than one row, and you do not have the --binlog-format value set to STATEMENT.
E. Nothing was written to the binary log because you cannot perform a calculation in a query without enclosing the statement in single quotation marks.

Answer: D,E

Question No : 4

MySQL is installed on a Linux server and has this configuration:

[mysqld]

user=mysql

datadir=/data/mysql/

As the ‘root’ user, you change the datadir location by executing:

shell> cp –R /var/lib/mysql /data/mysql/

shell> chown –R mysql /data/mysql

What is the purpose of changing ownership of datadir to the 'mysql' user?

A. MySQL needs to be run as the root user, but files cannot be owned by it.
B. The mysqld process requires all permissions within datadir to be the same.
C. MySQL cannot be run as the root user.
D. MySQL requires correct file ownership while remaining secure.

Answer: A

Question No : 5

You are using the Performance Schema to investigate replication on a slave which has a single master. The option slave-parallel-type is set to DATABASE.

```
mysql> SELECT THREAD_ID, threads.NAME, SUM(COUNT_STAR) AS TotalCount, SUM
(SUM_TIMER_WAIT) AS TotalTime
   ➔ FROM
     performance_schema.events_waits_summary_by_thread_by_event_name
   ➔    INNER JOIN performace_schema.threads USING (THREAD_ID)
   ➔ WHERE threads.NAME LIKE 'thread/sql/slave\_%'
   ➔ GROUP BY THREAD_ID, threads.NAME;
```

THREAD_ID	NAME	TotalCount	TotalTime
20	thread/sql/slave_io	5785	654785731198
21	thread/sql/slave_sql	3875	96931638913
22	thread/sql/slave_worker	0	0
23	thread/sql/slave_worker	0	0
24	thread/sql/slave_worker	346730	7262131209667
25	thread/sql/slave_worker	597127	15498842906584

Assume that all instruments and consumers are enabled and all threads are instrumented.

Which two facts can be concluded from the given output? (Choose two.)

A. The slave has two intermediate relay slaves connected to it.
B. The slave is configured with slave_parallel_workers = 4
C. At most, two schemas are being updates concurrently.
D. THREAD_ID 21 has stopped running.
E. The slave cannot process the relay log fast enough to use all threads.

F. The server needs more cores to use all slave threads.

Answer: B,E

Question No : 6

A particular government's security policy is to have very strict data encryption and safety settings. This is done by restricting access based on their own CA authority and limiting access to particular users within a department. Which method could be used to restrict access as required?

A. using GRANT … REQUIRE X509 AND REQUIRE ISSUER '/C=…..' AND REQUIRE SUBJECT '/C=…..'
B. using GRANT USAGE, X509, …….ON *.* TO user@remotehost IDENTIFIED BY 'secret_password'
C. using GRANT … REQUIRE SSL for a secure connection
D. using GRANT USAGE, SSL, …..ON *.* TO user@remotehost IDENTIFIED BY 'secret_password'

Answer: A

Question No : 7

You are contacted by a user who does not have permission to access a database table. You determine after investigation that this user should be permitted to have access and so you execute a GRANT statement to enable the user to access the table.

Which statement describes the activation of that access for the user?

A. The access does not take effect until the user logs out and back in.
B. The access does not take effect until the next time the server is started.
C. The access is available immediately.
D. The access does not take effect until you issue the FLUSH PRIVILEGES statement.

Answer: C

Question No : 8

Which two statements are true regarding the creating of new MySQL physical and logical backups? (Choose two.)

A. Physical backups can be used to recover from data corruption.
B. Logical backups are human-readable whereas physical backups are not.
C. Logical backups are always larger than physical backups.
D. Physical backups are usually slower than text backups.
E. Physical backups are usually faster than text backups.

Answer: A,E

Question No : 9

You are receiving complaints from your application administrators that they are seeing periodic stalls in database response (no queries to any table are returning results for several seconds or longer). You monitor your system and notice that the durations of those stalls correspond to peaks in disk I/O.

Which 2 things should you investigate?

A. Check the rate of change in the status value Aborted_connects and compare to the rate of change in Connections.
B. Check the difference between the InnoDB status values “Log Sequence number” and “Last Checkpoint” positions then compare that to the total size of the redo log.
C. Check the rate of change in the status value Select_scan and compare to the rate of change in Com_select.
D. Check the difference between the InooDB status values “Trx id counter” and “Purge done for” and compare to the state substatus of the main “Main thread”
E. Check the rate of change in the statis value Qcache_hits and compare that to the rate of change of Qcache_not_cached.

Answer: B,E

Question No : 10

Group Replication uses global transaction identifiers to track executed transactions and are fundamental in avoiding transaction conflict. Which additional three steps help in avoiding conflicts in group replication? (Choose three.)

A. Set isolation level to be SERIALIZABLE.
B. Use the binary log row format.
C. Set isolation level to be READ COMMITTED.
D. Configure IPv6 network for hosts.
E. Guarantee a secondary index on every table.
F. Guarantee a primary key on every table.
G. Set multiple slave parallel worker threads.

Answer: A,B,F

Question No : 11

You have successfully provisioned the latest MySQL 5.7 database instance on a physical host, to be added to an existing farm for use in a modern, high volume, ACID-compliant, OLTP website, which serves hundreds of DML transactions per second.

The default values of which two key variables do you change to ensure seamless operation of the database? (Choose two.)

A. Key Buffer Size
B. InnoDB Redo Log Size
C. Binary Log Size
D. Buffer Pool Size
E. Sort Buffer size
F. Query Cache Size

Answer: A,E

Question No : 12

You have a config file for a running DB with this excerpt:

[mysqld]

tmp_table_size=16M

sort_buffer_size=256k

To address a query performance problem of connecting to the DB from an application on another host, you log in and make these changes to the DB:

mysql> SET GLOBAL tmp_table_size=32000000; mysql>

SET sort_buffer_size=2000000;

This solves the problem with your queries. However, later the DB instance is restarted and the performance problem returns.

Which three best describe this scenario?

A. Global variables are not persistent across server restarts.
B. Session variables are not persistent across server restarts.
C. The query benefited from sort_buffer_size increase.
D. sort_buffer_size should match tmp_table_size to be optimal.
E. The query benefited from tmp_table_size increase.
F. The query benefited from sort_buffer_size and tmp_table_size increases.

Answer: B,C,E

Question No : 13

You are no longer able to log in to an existing MySQL Server because the root password credentials not working. You need to reset the root password to complete various administrative tasks. What are the two major methods that will achieve this? (Choose two.)

A. Start the MySQL Server in --safe-mode, which only loads the privilege system for changes as data is inaccessible.
B. Start the MySQL Server with reset-root-password in my.cnf, which will prompt you to enter a new root user password.
C. Start the MySQL Server with --init-file pointing to SQL that executes an ALTER USER statement to change the root user password.
D. Start the MySQL Server with --skip-grant-tables and execute SQL, which will update the root password.
E. Start the MySQL Server with –initialize-insecure to force a password reset procedure on

the command line.

Answer: C,D
Reference: https://dev.mysql.com/doc/refman/5.5/en/resetting-permissions.html

Question No : 14

Which statement is correct about how InnoDB storage engine uses disk space?

A. It stores data in .MYD files and its index and undo information in the common tablespace.
B. It stores data in .MYD files, index information in .MYI files, and undo information the common tablespace.
C. It stores its data in tablespace file(s). Index and data dictionary details are stored in .FRM files.
D. It stores its data, index and undo information in .MYD and .MYI files.
E. It stores data, index and undo information in tablespace file(s).

Answer: E

Question No : 15

Which two are considered good security practices when using passwords? (Choose two.)

A. Use one-way encryption for storage of passwords.
B. Store passwords external to the database.
C. Choose short passwords to save on storage space.
D. Use simple keyboard actions that give mixed letters.
E. Do not use dictionary-based words.

Answer: A,E
Reference: https://stackoverflow.com/questions/14798275/best-way-to-store-passwords-in-mysql-database

Question No : 16

Consider that local disk files are accessible via MySQL with commands such as:

mysql> LOAD DATA LOCAL INFILE '/etc/passwd' INTO TABLE mypasswords;

What change could be made to stop any breach via this insecurity?

A. executing REVOKE LOAD FROM *.*
B. setting the --local-service=0 option when starting mysqld
C. executing REVOKE FILE FROM *.*
D. executing REVOKE FILE ON *.* FROM ' ' @'%'
E. setting the --local-infile=0 option when starting mysqld
F. setting the --open-files-limit=0 option when starting mysqld

Answer: F

Question No : 17

You have created a backup of the 'sales' database with the command:

```
mysqldump -u root -p --tab=/backup sales
```

Which two procedures can be used to restore the 'orders' table from the backup?

A.

```
shell$ mysqldump -u root -p --tab=/backup --restore sales --tables orders
```

B.

```
shell$ mysql -u root -p sales < /backup/orders.sql
shell$ mysql -u root -p sales < /backup/orders.txt
```

C.

```
mysql> use sales
mysql> SOURCE /backup/orders.sql
mysql> LOAD DATA LOCAL INFILE '/backup/orders.txt' INTO TABLE orders;
```

D.

```
shell$ mysql -u root -p sales < /backup/orders.sql
shell$ mysqlimport -u root -p --local sales /backup/orders.txt
```

Answer: B,C

Question No : 18

Which statement describes how the relay log works?

A. when a slave receives a change from the master, it is processed first, and then recorded in the relay log.
B. It maintains a record of available master binary logs and the current executed log position.
C. It stores changes on the master, and relays them to the slave.
D. When a slave receives a change from the master, it is recorded in the relay log first and processed later.

Answer: B

Question No : 19

After rebooting the host, you attempt to start the mysqld service. You get the following error:

Can’t start the server: Bind on TCP/IP port: Address already in use

What is the most likely cause of this error?

A. The mysqld service has already been started on the same port.
B. The network service process in the server is frozen, so all TCP/IP connections are paused and cannot be reused.
C. You failed to specify the port number 3306 to the command to start the server, so it is defaulting to port 80, which is in use by the built-in web server.
D. The /etc/hosts file does not have a valid IP entry for mysqld localhost, so it is binding to 127.0.0.1, which is already in use.
E. The mysql.sock file in the MySQL /tmp directory was not removed after the reboot, so mysqld still thinks there is an active server running.

Answer: E

Question No : 20

Suppose you are adding rows to a MyISAM table and the --datadir location runs out of disk space. What will happen when this occurs?

A. The server will crash.
B. The server suspends that INSERT operation until space becomes available.
C. An error message will be returned to the client .Server Error: ER_IO
D. The server suspends operations for all storage engines until space becomes available.

Answer: B

Question No : 21

Host slave1 has ip address 192.0.2.10.

Host slave2 has ip address 203.0.113.50

Examine these commands:

```
shell> mysql_config_editor print --all
[slave1]
host = slave1.exampledomain.com
user=robert
[slave2]
host = slave2.exampledomain.com
user=karen

shell> mysql --login-path=slave1 --host=192.0.2.10 --
user=robert -p
Enter password:
ERROR 1045 (28000): Access denied for user
'robert'@'192.0.2.10' (using password: YES)
```

Why did this error occur?

A. The host on the command line is not defined in the login path.
B. The mysqld instance has not been restarted after creating the login path.
C. There is no password defined in the login path.
D. The DNS is not configured correctly for slave1 host.

E. The .mylogin.cnf file is not readable.

Answer: E

Question No : 22

The MySQL installation includes the mysql_config_editor utility for managing login paths stored in a .mylogin.cnf file.

Which two are true about the login path feature? (Choose two.)

A. mysql_config_editor is the only MySQL-provided utility that can print the values stored in .mylogin.cnf.
B. A .mylogin.cnf file can store at most one login path.
C. It provides a FIPS-compliant keyring for storing MySQL login details.
D. A .mylogin.cnf file can be edited using a text editor, such as vim or Notepad++.
E. It is an alternative to storing the MySQL login details in a my.cnf file.
F. It provides means to help avoid accidentally exposing the MySQL login details.

Answer: E,F
Reference: https://dev.mysql.com/doc/refman/8.0/en/mysql-config-editor.html

Question No : 23

Consider the table people with this definition:

```
CREATE TABLE 'people' (
 'id' int(10) unsigned NOT NULL AUTO_INCREMENT,
 'FirstName' varchar(40) NOT NULL,
'Surname' varchar(40) NOT NULL,
'Birthday' date NOT NULL,
PRIMARY KEY ('id'),
KEY 'Surname' ('Surname', 'FirstName'),
KEY 'FirstName' ('FirstName'),
KEY 'Birthday' ('Birthday')
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4
```

The application uses a query such as:

SELECT * FROM people WHERE YEAR(Birthday) = 1980;

The query is not using an index.

Which two methods can be used to allow the query to use an index? (Choose two.)

A. Change the WHERE clause to Birthday BETWEEN 1980-01-01 AND 1980-12-31.
B. Add a functional index for YEAR(Birthday).
C. Execute ANALYZE TABLE to update the index statistics.
D. Add a generated column calculating YEAR(Birthday) and index that column.
E. Add FORCE INDEX (Birthday) to the query.

Answer: A,E

Question No : 24

A MySQL instance is running on a dedicated server. Developers access the server from the same network subnet. Users access the database through an application that is running on a separate server in a DMZ.

Which two will optimize the security of this setup? (Choose two.)

A. enabling and using SSL for connections to the MySQL database
B. running the server with –-skip-networking specified
C. disabling connections from named pipes or socket files (depending on the operating system of the server)
D. starting the server with –-bind-address=0.0.0.0 specified
E. limiting logins to originate from the application server or the server's subnet
F. installing MySQL on the application server, and running the database and application on the same server

Answer: A,F

Question No : 25

What two statements are true regarding FLUSH TABLES FOR EXPORT? (Choose two.)

A. It can be used to export TEMPORARY tables.
B. Table only exports when the table has its own tablespace.
C. The InnoDB Storage engine must be used for the table being exported.
D. It is the safest way to extract tables from the shared tablespace.
E. Partitioned tables are not supported.

Answer: A,B

Question No : 26

Which two statements describe how InnoDB recovery works? (Choose two.)

A. InnoDB handles most crash recoveries automatically.
B. InnoDB blocks some operations when innodb_force_recovery is set to greater than 0.
C. There will in general be lost committed transactions after a crash using the default settings.
D. It is required to enable binlog_gtid_simple_recovery to perform a crash recovery.
E. It is recommended to set innodb_force_recovery = 1 as part of normal operations.
F. It is always required to enable innodb_force_recovery to perform a crash recovery.

Answer: B,F

Question No : 27

Consider:

```
mysql> EXPLAIN SELECT DISTINCT City.id,City.name
-> FROM City,Country
-> WHERE Country.Name IN ('United States','Canada','Mexico')
-> AND City.CountryCode=Country.Code
-> ORDER BY name\G
*************************** 1. row ***************************
           id: 1
  select_type: SIMPLE
        table: City
         type: ALL
possible_keys: NULL
          key: NULL
      key_len: NULL
          ref: NULL
         rows: 4079
        Extra: Using temporary; Using filesort
*************************** 2. row ***************************
           id: 1
  select_type: SIMPLE
        table: Country
         type: eq_ref
possible_keys: PRIMARY
          key: PRIMARY
      key_len: 3
          ref: world.City.CountryCode
         rows: 1
        Extra: Using where; Distinct
```

Which statement best describes the meaning of the values in the ref columns?

A. world.City.CountryCode is used as the primary key for the Country table.
B. No indexed columns are used to select rows from the City table. The world.City.CountryCode column is used to select rows in the Country table.
C. world.City.CountryCode is used to sort the rows in the City table.
D. No indexed columns are used to select rows from the Country table. The world.City.CountryCode column is used to select rows in the City table.

Answer: B

Question No : 28

Consider the index information for the dept_emp table in the employee's schema:

```
mysql> SELECT INDEX_NAME, NON_UNIQUE, SEQ_IN_INDEX, COLUMN_NAME,
CARDINALITY, INDEX_TYPE
       FROM information_schema.STATISTICS
      WHERE TABLE_SCHEMA = 'employees' AND TABLE NAME = 'dept_emp';

+---------------+------------------+------------------+-------------+-------------+------------+
| INDEX_NAME | NON_UNIQUE | SEQ_IN_INDEX | COLUMN_NAME| CARDINALITY | INDEX_TYPE |
+---------------+------------------+------------------+-------------+-------------+------------+
|PRIMARY        |                0|                1| emp_no      |      299939 | BTREE      |
|PRIMARY        |                0|                2| dept_no     |      331570 | BTREE      |
|emp_no         |                1|                1| emp_no      |      301154 | BTREE      |
|dept_no        |                1|                1| dept_no     |           8 | BTREE      |
+---------------+------------------+------------------+-------------+-------------+------------+
4 rows in set (0.00 sec)
```

Which two conclusions can be made based on the output of the query? (Choose two.)

A. There are three indexes on the table.
B. There is a redundant index on the dept_no column.
C. The secondary indexes are optimized for unique key look-ups.
D. The values on the emp_no column must be unique.
E. The selectivity of the dept_no column is the best of the indexed columns.
F. There is a redundant index on the emp_no column.

Answer: C,F

Question No : 29

What is the order of tables shown in an EXPLAIN output?

A. It lists tables from the smallest to the largest.
B. It lists tables in the order in which their data will be read.
C. It lists tables from the most optimized to the least optimized.
D. It lists tables in the order in which they are specified in the statement that is being explained.

Answer: D
Reference: https://dev.mysql.com/doc/refman/8.0/en/explain-output.html

Question No : 30

Which MySQL utility program should you use to process and sort the Slow Query Log based on query time or average query time?

A. mysqldumpslow
B. mysqldump
C. mysqlaccess
D. mysqlshow
E. mysqlslow

Answer: A

Question No : 31

Consider the join_buffer_size parameter in MySQL Server.

Which two statements are true about the join buffer? (Choose two.)

A. The value should be increased if the client performs several SELECT operations.
B. The join buffer is set per connection.
C. The join buffer is used to process sorts when complex joins are being performed.
D. The value should be increased from the default if the query joins large rows without using an index.
E. The join buffer is global and can be changed only by restarting the server.

Answer: C,D

Question No : 32

You have installed MySQL Server for the first time on your system. However, the data directory along with the tables in the mysql system database are missing. Which step do you perform to create the contents of the data directory?

A. Run the create_system_tables.sql file
B. Run the mysql_unpack.sql file
C. Invoke mysqld with the --initialize option.
D. Invoke mysql with the --initialize option.

Answer: C

Reference: https://dev.mysql.com/doc/refman/5.7/en/data-directory-initialization-mysqld.html

Question No : 33

You have created a new user with this statement:

CREATE USER ‘erika’@’localhost’ IDENTIFIED BY ‘first#1Pass’ PASSWORD EXPIRE;

What is the outcome?

A. When ‘erika’@’localhost’ tries to log in with the MySQL command-line client, the user will have to change the password before seeing the mysql> prompt.
B. When ‘erika’@’localhost’ tries to log in with the MySQL command-line client, the user will not be permitted to log in because the password is expired.
C. When ‘erika’@’localhost’ tries to log in with the MySQL command-line client, the user will be permitted to log in but will not be able to issue ant statements until the user changes the password.
D. You receive a syntax error that indicates that you cannot set a password and expire it at the same time.

Answer: A

Question No : 34

Due to an authentication plug-in that is used on the server, passwords are required to be sent as clear text as opposed to the usual encrypted format.

Which two methods would allow the mysql client to connect to the server and send clear text passwords? (Choose two.)

A. mysql --protocol=PLAIN –uroot –p –h dbhost.example.com
B. INSTALL PLUGIN mysql_cleartext_password SONAME ‘mysql_cleartext_password.so’;
C. export LIBMYSQL_ENABLE_CLEARTEXT_PLUGIN=’Y’
D. SET GLOBAL mysql_cleartext_passwords=1;