

Oracle Database 11g Workshop Administration II

Number: 1Z0-053

Passing Score: 800

Time Limit: 120 min

File Version: 3.2

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Sections

1. Flashback Operations & Configuration
2. Backup, Recovery & Recovery Manager (RMAN)
3. Managing Database Performance & Tuning
4. SQL, PL/SQL, Packages, Functions, Jobs & Views
5. Database Architecture & Resource Management, RAC, ASM
6. Initialization, Parameters, File Location & Server Configuration

Exam A

QUESTION 1

What are the prerequisites for performing flashback transactions? (Choose all that apply)

- A. Supplemental log must be enabled
- B. Supplemental log must be enabled for the primary key
- C. Undo retention guarantee for the database must be configured
- D. "EXECUTE " permission on the DBMS_FLASHBACK package must be granted to the user

Answer: ABD

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

Explanation/Reference:

<http://www.oracleflash.com/30/Oracle-11g-Flashback-Transaction-in-OEM-LogMiner-Interface.html>

```
/*  
    Supplemental logging for primary key columns must be enabled for flashback transaction  
    to work.  
*/  
  
ALTER DATABASE ADD SUPPLEMENTAL LOG DATA;  
ALTER DATABASE ADD SUPPLEMENTAL LOG DATA (PRIMARY KEY) COLUMNS;
```

http://books.google.com/books?id=14ZH0eZV6G8C&pg=PA123&lpg=PA123&dq=flashback+transaction+prerequisite&source=bl&ots=brh9_V-4Wz&sig=4PvpL2uM1xTf2eKkpoKKma18RkY&hl=en&ei=ZSL8TKq0KlugsQOZ7ZT3DQ&sa=X&oi=book_result&ct=result&resnum=2&ved=0CB0Q6AEwAQ#v=onepage&q&f=false

Prerequisites for Flashback Transaction Backout

You must first enable *supplemental logging* in the database and then grant certain special privileges to users who want to use the flashback transaction backout feature. To enable supplemental logging in your database, use the following commands:

```
SQL> alter database add supplemental log data;  
SQL> alter database add supplemental log data (primary key) columns;
```

In addition to turning supplemental logging on, grant the following privileges to the users who need to use the flashback transaction backout feature:

```
SQL> grant execute on dbms_flashback to hr;  
SQL> grant select any transaction to hr;;
```

A user must have the flashback privilege, which you can grant by granting the execute privilege on the DBMS_FLASHBACK table. In addition, the user needs the select any transaction privilege.

If users want to back out transactions in their own schema, no additional privileges are necessary. If a user wants to back out transactions in another schema, however, you must also grant DML privileges to that user on all tables that'll be affected by the transaction backout operation.

QUESTION 2

Your production database is running in archivelog mode and you are using recovery manager (RMAN) with recovery catalog to perform the database backup at regular intervals. When you attempt to restart the database instance after a regular maintenance task on Sunday, the database fails to open displaying the message that the data file belonging to the users tablespace are corrupted.

The steps to recover the damaged data files are follows:

1. Mount the database
2. Open the database
3. Recover the data file
4. Restore the data file
5. Make the data file offline
6. Make the data file online

Which option identifies the correct sequence that you must use to recover the data files?

- A. 2, 4, 3
- B. 1, 4, 3, 2
- C. 2, 5, 4, 3, 6
- D. 5, 2, 4, 3, 6
- E. 1, 5, 4, 3, 6, 2

Answer: E

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://ss64.com/ora/rman_recover.html

Steps for Media Recovery:

1. Mount or open the database.
Mount the database when performing whole database recovery,
or open the database when performing online tablespace recovery.
2. To perform incomplete recovery,
use the SET UNTIL command to specify the time,
SCN, or log sequence number at which recovery terminates.
Alternatively, specify the UNTIL clause on the RESTORE and RECOVER
commands.
3. Restore the necessary files with the RESTORE command.
4. Recover the datafiles with the RECOVER command.
5. Place the database in its normal state.
For example, open it or bring recovered tablespaces online.

Restore and recover a datafile

```
RMAN> SQL 'ALTER DATABASE DATAFILE 64 OFFLINE';  
RMAN> RESTORE DATAFILE 64;  
RMAN> RECOVER DATAFILE 64;  
RMAN> SQL 'ALTER DATABASE DATAFILE 64 ONLINE';
```

QUESTION 3

You want to perform an RMAN backup of database as a copy. Which two factors will you consider while performing the backup operation? (Choose two).

- A. The backup as copy can only be taken to disk
- B. The backup as copy can only be taken to tape
- C. Backup can be performed only when the instance is shutdown
- D. Backup will constitute all used and unused blocks in the database

Answer: AD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 4

In your database, the flash recovery area (FRA) is configured as the default for RMAN backups. You executed the following commands to configure the settings in RMAN:

```
RMAN> CONFIGURE DEVICE TYPE disk PARALLELISM 2 BACKUP TYPE TO BACKUPSET;  
RMAN> CONFIGURE CHANNEL 1 DEVICE TYPE disk FORMAT  
'/home/oracle/disk1/%U';  
RMAN> CONFIGURE CHANNEL 2 DEVICE TYPE disk FORMAT  
'/home/oracle/disk2/%U';
```

You issue the following RMAN command to backup the database:

```

RMAN> RUN
2> {
3> ALLOCATE CHANNEL ch1 DEVICE TYPE disk;
4> BACKUP DATABASE;
5> }

```

Which statement is true about the outcome?

- A. Only one channel is allocated and the backup is created in the flash recovery area
- B. Only one channel is allocated and the backup is created in the destination specified for channel 1
- C. Two channels are allocated and backup sets are created in the destinations specified for channels 1 and 2
- D. Three channels are allocated and backup sets are created in the destinations specified for channels 1, 2, and 3

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/B19306_01/backup.102/b14192/setup004.htm#i1017890

Configuring Disk Devices and Channels:

RMAN **channels** (connections to server sessions on the target database) perform all RMAN tasks. By default, RMAN allocates one disk channel for all operations.

The following command configures RMAN to write disk backups to the `/backup` directory (refer to "Backing Up Database Files and Archived Logs with RMAN").:

```

CONFIGURE CHANNEL DEVICE TYPE DISK FORMAT
'/backup/ora_df%t_s%s_s%p';

```

The format specifier `%t` is replaced with a four byte time stamp, `%s` with the backup set number, and `%p` with the backup piece number.

You can also configure an Automatic Storage Management disk group as your destination, as in the following example:

```

CONFIGURE CHANNEL DEVICE TYPE DISK FORMAT '+dgroup1';

```

Note:

By configuring an explicit format for disk channels, you direct backups away from the flash recovery area, if you have configured one. You lose the disk space management capabilities of the flash recovery area.

QUESTION 5

You are using recovery Manager (RMAN) with a recovery catalog to backup up your production database. The backups and the archived redo log files are copied to a tape drive on a daily basis. The database was open and transactions were recorded in the redo logs. Because of fire in the building you lost your servers having the production database and the

recovery catalog database.

The archive log files generated after the last backup are intact on one of the remote locations. While performing a disaster recovery of the production database what is the next step that you must perform after restoring the data files and applying archived redo logs?

- A. Open the database in NORMAL mode
- B. Open the database in read-only mode
- C. Open the database in RESTRICTED mode
- D. Open the database with the RESETLOGS option

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

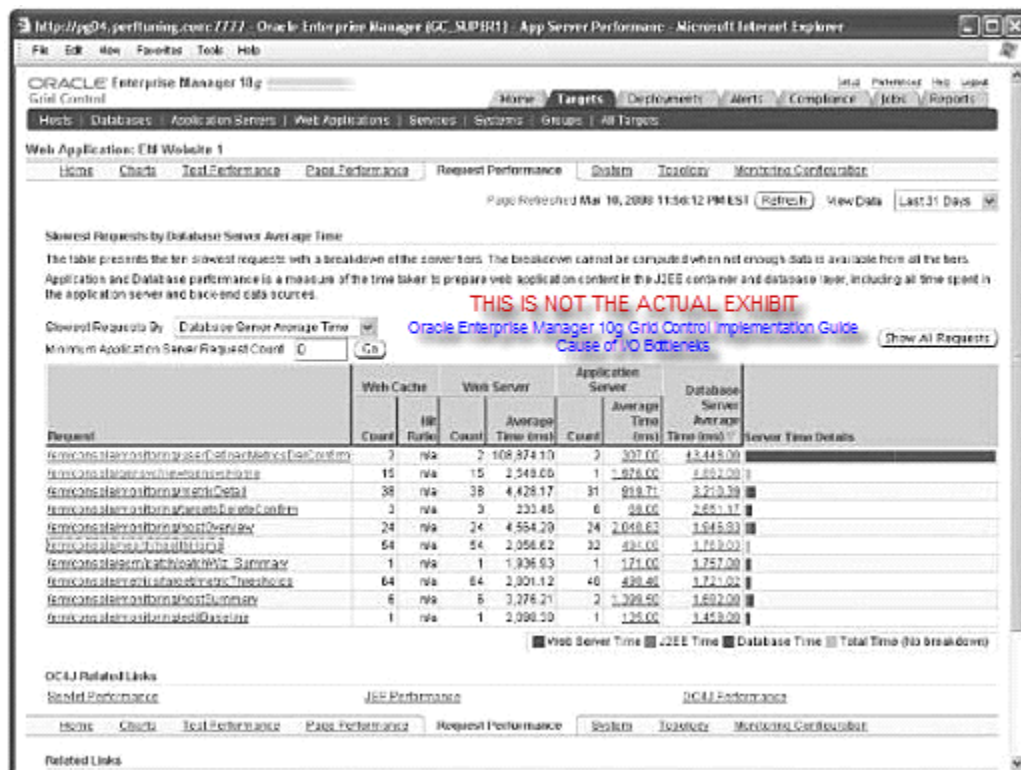
QUESTION 6

View the exhibit and examine the output.

NOTE: Exhibit Estimated, Not The Actual Exhibit

Which statement can be an inference from the output?

Exhibit:



- A. The FRA disk group has an asynchronous I/O bottleneck

- B. The least number of I/Os are performed on the last data file in the list
- C. The number of times that the backup or restore process directed the OS to wait until an I/O was complete is t
- D. The number of times that the backup or restore process made an OS call to poll for I/O completion in Nonblo

Answer: A

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

NO EXHIBIT - ANSWER impossible / A) is set as placeholder

Oracle Press 1Z0-053 Exam Guide, Chapter 8: Monitoring and Tuning RMAN

Monitoring Asynchronous I/O

To monitor asynchronous I/O operations, you use the dynamic performance view V\$BACKUP_ASYNC_IO. The key columns to watch are the following:

- IO_COUNT: Number of I/Os performed on the file
- LONG_WAITS: Number of times the backup or restore process had to tell the OS to wait for the I/O to complete
- SHORT_WAIT_TIME_TOTAL: Total time, in hundredths of a second, taken for nonblocking polling for I/O completion
- LONG_WAIT_TIME_TOTAL: Total time, in hundredths of a second, taken while blocking waits for I/O completion

The largest ratio of LONG_WAITS to IO_COUNT is a likely bottleneck in the backup process.

SHORT_WAIT_TIME_TOTAL and LONG_WAIT_TIME_TOTAL are also indicators of a bottleneck if they are nonzero.

This example identifies two input files with nonzero ratios:

```
SQL> select long_waits / io_count waitcountratio, filename
2 from v$backup_async_io
3 where long_waits / io_count > 0
4 order by long_waits / io_count desc;
```

WAITCOUNTRATIO FILENAME

```
-----
.248201439 /u01/oradata/bkup/6bjmt1e3_1_1
.2 /u01/app/oracle/flash_recovery_area/HR/a
utobackup/2008_07_31/o1_mf_s_661554862_%
u_.bkpSQL>
```

For these two files, you may consider increasing the multiplexing to decrease or eliminate the

wait times when backing them up.

Exam Tip:

If you are using synchronous I/O but you have set BACKUP_DISK_IO_SLAVES to TRUE, then the I/O performance is monitored in V\$BACKUP_ASYNC_IO.

QUESTION 7

Your database interface is running. A user SCOTT starts a SQL *Plus session, and issues the following query:

```
SQL> SELECT * FROM sales;
```

Which process would retrieve the result from the database and return it to the client program?

- A. User process
- B. Server process
- C. System Monitor (SMON)
- D. Process Monitor (PMON)
- E. Checkpoint process (CKPT)

Answer: B

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 8

You observed the following output for a user session:

```
SQL > SELECT sid, event, seconds _in _wait FROM v$session _wait WHERE  
sid = 18;
```

SID	EVENT	SECONDS_IN_WAIT
18	statement suspended, wait error to be cleared	648

What do you infer from the preceding output?

- A. Resumable set for session with sid 18
- B. The user session has entered into a deadlock
- C. The database instance is enabled to use asynchronous commit
- D. The threshold warning limit is exceeded for the tablespace that is used by the user session

Answer: A

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 9

The database is configured in ARCHIVELOG mode and regular complete database backups are taken. The loss of which two types of files may require a recovery with the RESETLOGS option? (Choose two)

- A. Control files
- B. Password files
- C. Inactive online redo log file
- D. Archived log files required to perform recovery
- E. Newly created tablespace which is not backed up

Answer: AD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 10

Multiple RMAN sessions are connected to the database instance.

Examine the following output when backup commands are running in server sessions:

```
SQL> SELECT s.sid, p.spid, s.client _info FROM v$process p, v$session
s
WHERE p.addr = s.paddr
AND CLIENT _INFO LIKE 'rman%';

SID  SPID  CLIENT_INFO
---  ---  -
103  25280  rman channel 1=ORA_DISK_1
151  25292  rman channel 1=ORA_DISK_2
```

What could have helped you to correlate server sessions with channels?

- A. Implement RMAN multiplexing
- B. Set the DEBUG ON in the RMAN script
- C. Specify the command ID in the RMAN script
- D. Use a tag with the RMAN BACKUP command

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 11

Examine the following scenario:

The target database instance is running. The most recent backup available for the target database was taken two days ago. Log files switches have occurred in last two days. The

target database is duplicated on the same host, using the Recovery Manager (RMAN) duplicate command as follows:

```
RMAN> RUN
{
  ALLOCATE AUXILIARY CHANNEL aux 1 DEVICE TYPE DISK;
  DUPLICATE TARGET DATABASE TO auxdb;
}
```

Which statement is true about the duplicate database in this scenario?

- A. It contains data till the last backup
- B. It contains all data from target database until the current time
- C. It contains all data from only the committed transactions in the target database
- D. It contains all data except that which is used by the transactions in the current online redo file of target database

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/E11882_01/backup.112/e10643/rcmsynta020.htm#RCMRF126

For backup-based duplication of databases in ARCHIVELOG mode, RMAN recovers by default up to the last archived redo log generated at the time the command was executed, or until a time specified with a SET UNTIL clause.

http://download.oracle.com/docs/cd/B10500_01/server.920/a96566/rcmdupdb.htm#441820
During duplication, RMAN must perform incomplete recovery because the online redo logs in the target are not backed up and cannot be applied to the duplicate database. The farthest that RMAN can go in recovery of the duplicate database is the most recent redo log archived by the target database.

QUESTION 12

Examine the following command:

```
SQL> ALTER TABLE booking SHRINK SPACE COMPACT;
```

Which activity is performed when the preceding command is executed?

- A. The shrink operation touches every block in the BOOKING table
- B. The high-water mark (HWM) for the BOOKING table is shifted from its original position
- C. The progress of the shrink operation is saved in the bitmap blocks of the BOOKING table
- D. The data manipulation language (DML) triggers on the BOOKING table are executed because the shrink operation is a DML operation

Answer: C

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

<http://www.oracle-base.com/articles/10g/SpaceObjectTransactionManagement10g.php>

Based on the recommendations from the segment advisor you can recover space from specific objects using one of the variations of the `ALTER TABLE ... SHRINK SPACE` commands.

The shrink is accomplished by moving rows between blocks, hence the requirement for row movement to be enabled for the shrink to take place. This can cause problem with ROWID based triggers. The shrinking process is only available for objects in tablespaces with automatic segment-space management enabled.

The `COMPACT` option allows the shrink operation to be broken into two stages. First the rows are moved using the `COMPACT` option but the HWM is not adjusted so no parsed SQL statements are invalidated. The HWM can be adjusted at a later date by reissuing the statement without the `COMPACT` option. At this point any dependent SQL statements will need to be reparsed.

http://books.google.com/books?id=0iwrL9P25Z0C&pg=PA190&lpg=PA190&dq=shrink+operation+is+saved+in+the+bitmap+blocks&source=bl&ots=MGoTq9AT0m&sig=y0EgXfO2MZnWIOZTgKXo5CDbFJw&hl=en&ei=L0gATdqaNsG1nAfsrZjIDQ&sa=X&oi=book_result&ct=result&resnum=4&ved=0CCcQ6AEwAw#v=onepage&q=shrink%20operation%20is%20saved%20in%20the%20bitmap%20blocks&f=false

A shrink operation may cause ROWIDs to change in heap-organized segments. So row movement has to be enabled to circumvent this issue before a shrink operation. To enable row movement, use the `{CREATE|ALTER} TABLE ... ENABLE ROW movement` command.

A shrink operation consists of two phases, compaction and adjusting the HWM to release the unused space. If the `COMPACT` option is used, only the first phase is executed. The shrink results are saved in bitmap blocks of the corresponding segment, Oracle 10g will remember what has been done. If `CASCADE` is specified, the shrinking cascades to all dependent segments that support a shrink operation.

During the `COMPACT` phase, individual rowlocks are held. Concurrent DML operations serialize on these rowlocks and DML operations can block the compaction progress. When the HWM is adjusted in the second phase, the object is locked in exclusive mode for a short duration.

QUESTION 13

The `RECYCLEBIN` parameter is set to `ON` for your database. You drop a table, `PRODUCTS`, from the `SCOTT` schema.

Which two statements are true regarding the outcome of this action? (Choose two)

- A. All the related indexes and views are automatically dropped
- B. The flashback drop feature can recover only the table structure

- C. Only the related indexes are dropped whereas views are invalidated
- D. The flashback drop feature can recover both the table structure and its data

Answer: CD

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 14

Which two client requests are captured during database replay Capture? (Choose two)

- A. Flashback queries
- B. Shared server requests
- C. Login and logoff activities of sessions
- D. Direct path load of data from external files by using utilities such as SQL *loader
- E. Data definition language (DDL) and data manipulation language (DML) operations

Answer: CE

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Flashback Operations & Configuration

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/server.111/e12253/dbr_capture.htm#CACIC AAC

Workload Capture Restrictions

The following types of client requests are NOT captured in a workload:

- Direct path load of data from external files using utilities such as SQL*Loader
- Shared server requests (Oracle MTS)
- Oracle Streams
- Advanced replication streams
- Non-PL/SQL based Advanced Queuing (AQ)
- Flashback queries
- Oracle Call Interface (OCI) based object navigations
- Non SQL-based object access
- Distributed transactions (any distributed transactions that are captured will be replayed as local transactions)

QUESTION 15

You are in the process of creating a Virtual Private Catalog (VPC) in your Oracle Database 11g database. The Prod1, Prod2 and Prod3 Oracle Database 10g databases are registered in the recovery catalog. The database user who owns the base recovery catalog is CATOWNER. CATOWNER executes the following command to grant privileges to a new user VPC1 using Oracle Database 11g RMAN executables:

```
RMAN> GRANT CATALOG FOR DATABASE prod 1 prod 2 TO vpc1;
```

Then you issue the following commands;

```
RMAN > CONNECT CATALOG vpc1/oracle@catdb;
```

```
RMAN> SQL 掬XEC catowner.dbms_rcvcat.create virtual_catalog;?
```

What is the outcome of the above commands?

- A. They execute and a create a virtual private catalog for pre-Oracle 11g clients
- B. They produce an error because PROD1 and PROD 2 databases belong to the older version
- C. They produce an error because you must connect as CATOWNER to execute this packaged procedure
- D. They produce an error because you must connect to the target database to execute this packaged procedure

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/backup.111/b28273/rcmsynta013.htm

Before using the virtual private catalog, this user must connect to the recovery catalog database as the virtual catalog owner and execute the following PL/SQL procedure (where `base_catalog_owner` is the database user who owns the base recovery catalog):

```
base_catalog_owner.DBMS_RCVCAT.CREATE_VIRTUAL_CATALOG
```

QUESTION 16

You plan to execute the following command to perform a Flashback Database operation in your database:

```
SQL> FLASHBACK DATABASE TO TIMESTAMP (SYSDATE -5/24);
```

Which two statements are true about this? (Choose two)

- A. The database must have multiplexed redo log files
- B. The database must be in the MOUNT state to execute the command
- C. The database must be in the NOMOUNT state to execute the command
- D. The database must be opened in RESTRICTED mode before this operation
- E. The database must be opened with the RESETLOGS option after the flashback operation

Answer: BE

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

http://www.di.unipi.it/~ghelli/didattica/bdl/doc/B19306_01/server.102/b14200/statements_9011.

htm

Use the `FLASHBACK DATABASE` statement to return the database to a past time or system change number (SCN). This statement provides a fast alternative to performing incomplete database recovery.

Following a `FLASHBACK DATABASE` operation, in order to have write access to the flashed back database, you must reopen it with an `ALTER DATABASE OPEN RESETLOGS` statement.

http://www.idevelopment.info/data/Oracle/DBA_tips/SQL/SQL_4.shtml

Action	Interval Time
Execute daily	'SYSDATE + 1'
Execute every 4 hours	'SYSDATE + 4/24'
Execute every 10 minutes	'SYSDATE + 10/1440'
Execute every 30 seconds	'SYSDATE + 30/86400'
Execute every 7 days	'SYSDATE + 7'
Do no re-execute and remove job	NULL

QUESTION 17

View the Exhibit and examine the steps that you executed to create a database resource plan.

Subsequently, you execute the following procedure which results in an error:

```
SQL> EXECUTE dbms_resources_manager.validate_pending_area ( );
```

What could be the reason?

Exhibit:

```
SQL> EXECUTE dbms_resource_manager.create_pending_area();

PL/SQL procedure successfully completed.

SQL> EXECUTE dbms_resource_manager.create_consumer_group(consumer_group => 'OLTP',-
> comment => 'Online users');

PL/SQL procedure successfully completed.

SQL> EXECUTE dbms_resource_manager.create_plan (plan => 'PRIUSERS',-
> comment => 'DSS/Batch priority, ...' );

PL/SQL procedure successfully completed.

SQL> EXECUTE dbms_resource_manager.create_plan_directive (plan => 'PRIUSERS',-
> group_or_subplan => 'OLTP',comment => 'Online Group',CPU_P1 => 60);

PL/SQL procedure successfully completed.
```

- A. The pending area is automatically submitted after the plan creation
- B. The procedure must be executed before creating the resources plan directive
- C. The SYS_GROUP resource consumer group is not included in the resource plan directive
- D. The OTHER_GROUPS resources consumer group is not included in the resource plan directive

Answer: D

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

D is correct

Exhibit Reference: 1Z0-033, 9i Performance Tuning, Question 146 of 164 - Exact Question/Answer

SYBEX Oracle 1Z0-053 Study Guide, Chapter 11: Managing Database Resources

The validation process verifies that any changes in the pending area will not result in a violation of any of the rules, such as the following:

There must be a plan directive for the OTHER_GROUPS group to allocate resources for sessions not identified in the active plan.

Oracle Press 1Z0-053 Exam Guide, Chapter 12: Disk Space and Resource Management

Remember that your plan must include OTHER_GROUPS so that users other than those in the consumer groups assigned to the [PLAN NAME] plan will have some resources available when the plan is activated. Therefore, create one more plan directives for the [PLAN NAME] plan that includes OTHER_GROUPS.

QUESTION 18

Examine the following command that is used to duplicate a database on the same host:

```

RMAN> RUN
{
  ALLOCATE AUXILIARY CHANNEL, aux 1 DEVICE TYPE DISK;
  DUPLICATE TARGET DATABASE TO auxdb SKIP READONLY; \ }

```

Which two statements describe the effect after the database is duplicated successfully? (Choose two)

- A. The data files of the read-only tablespaces in the target database are not duplicated
- B. The read-only tablespaces in the target database are still defined in new the database
- C. The read-only tablespaces in the target database are changed to online after duplication
- D. The data files of the read-only tablespaces in the target database get duplicated
- E. The read-only tablespaces in the target database are not defined in the new database

Answer: AB

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 19

You need to perform a block media recovery on the tools01.dbf data file in the SALES database by using Recovery Manager (RMAN).

Which two are the prerequisites to perform this operation? (Choose two)

- A. You must configure block change tracking file
- B. You must have first level 1 backups for RMAN to restore blocks
- C. You must ensure that the SALES database is mounted or open
- D. You must have full or level 0 backups for RMAN to restore blocks
- E. You must take the tools01.dbf data file offline before you start a block media recovery

Answer: CD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 20

You performed the RMAN database backup with the KEEP option.

Which two statements are true about this backup? (Choose two)

- A. The KEEP option overrides the configured retention policy
- B. The KEEP option is an attribute of an individual backup piece
- C. The backup contains only data files and archived redo log files
- D. The backup contains data files, the server parameter file and the control file even if the control file auto backup is disabled

Answer: AD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 21

On Friday at 11:30 am you decided to flash back the database because of a user error that occurred at 8:30 am.

Which option must you use to check whether a flashback operation can recover the database to the specified time?

- A. Check the alert log file
- B. Query the V\$FLASHBACK_DATABASE_LOG view
- C. Query the V\$RECOVERY_FILE_DEST_SIZE view

- D. Query the V\$FLASHBACK_DATABASE_STAT view
- E. Check the value assigned for the UNDO_RETENTION parameter

Answer: B

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

Explanation/Reference:

```
select oldest_flashback_scn, oldest_flashback_time
from
v$flashback_database_log;
```

SYBEX Oracle 120-053 Study Guide, Chapter 9: Understanding Flashback Technology

Query the V\$FLASHBACK_DATABASE_LOG to determine the amount of space required in the recovery area to support the flashback activity generated by changes in the database.

The values in the OLDEST_FLASHBACK_SCN and OLDEST_FLASHBACK_TIME columns give you information regarding how far back you can use Flashback Database.

Oracle Press 120-053 Exam Guide, Chapter 9: Configuring and Using Flashback

You can determine how far back you can flashback the database by querying the V\$FLASHBACK_DATABASE_LOG view. The amount of flashback data retained in the database is controlled by the initialization parameter and the size of the flash recovery area.

QUESTION 22

While performing a regular check on your recovery catalog you realized that the catalog database is running out of space and you do not have options to increase the space.

However, you have another database where more space is available and you want to move your existing recovery catalog to this database.

The options that can be considered while moving the recovery catalog are as follows:

1. Using one of the Oracle expdp utilities to export the catalog data
 2. Creating a recovery catalog user and granting the necessary privileges in the other database
 3. Creating the recovery catalog using the CREATE CATALOG command
 4. Using the corresponding impdp utility to import the catalog data into the other database
 5. Registering the target database in the new catalog database using the REGISTER DATABASE command
- Identify the option with the correct sequence for moving the recovery catalog.

- A. 2, 3, 5
- B. 1, 2, 4
- C. 1, 2, 4, 5
- D. 1, 2, 3, 4, 5

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://books.google.com/books?id=Dmzzjq0izZwC&pg=PA127&lpg=PA127&dq=how+to+move+recovery+catalog%3F&source=bl&ots=OOoX8UCzv8&sig=ULFjuNpAUTchjY7PFqybfh3rn cE&hl=en&ei=M7DRTKKbII G0IQfVhMi1DA&sa=X&oi=book_result&ct=result&resnum=1&ved=0CBMQ6AEwAA#v=onepage&q=how%20to%20move%20recovery%20catalog%3F&f=false

As you can with any database, you can use the Oracle Data Pump export and import utilities expdp and impdp to create logical backups of the recovery catalog. You can use this logical backup to move the recovery catalog to another database. Follow these general steps to move a recovery catalog to another database:

1. Use an export utility to copy the recovery catalog schema to an export dump file.
2. Create the recovery catalog owner on the target catalog database with the appropriate permissions; see [Create the Recovery Catalog Owner](#) earlier in this chapter.
3. Use the corresponding import utility to copy the recovery catalog schema to the target catalog database.

The next time you launch RMAN, you connect to the same target database but a different recovery catalog database. However, even though the recovery catalog database name is different, the target database's metadata is identical to the metadata in the previous recovery catalog.

You can also use transportable tablespaces to move a recovery catalog schema from one database to another.

You do not need to run an RMAN CREATE CATALOG command in this scenario; the tables, columns, and views are already in place from the source database.

QUESTION 23

You realize that the control file is damaged in your production database. After restoring the control file from autobackup, what is the next step that you must do to proceed with the database recovery?

- A. Mount the database
- B. Open the database in NORMAL mode
- C. Open the database in RESTRICTED mode
- D. Open the database with the RESETLOGS option

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

duh..

Oracle Press 1Z0-053 Exam Guide, Chapter 5: Recovering Using RMAN Backups

Restoring the Control File from the Autobackup

Restoring the control file from an autobackup is similar to the steps you use to restore an SPFILE from an autobackup.

```
RMAN> startup nomount;  
RMAN> restore controlfile from autobackup;  
RMAN> alter database mount;  
RMAN> recover database;  
RMAN> alter database open resetlogs;
```

Note that since there is no control file, you have to open the database with NOMOUNT and then restore the control file. After you mount the database, you must recover the database, because the backup control file contains information about an older version of the database. For the same reason, you must open the database with RESETLOGS.

RMAN restores the control file to all locations specified by the initialization parameter CONTROL_FILES. If one or more of those locations are still not available, you will have to edit the CONTROL_FILES parameter to specify alternative locations or temporarily restore the control file to a different location:

```
RMAN> restore controlfile to '/u06/oradata/rest_cf.dbf' from autobackup;
```

QUESTION 24

What two are the prerequisites for enabling Flashback Database? (Choose two)

- A. The database must be in ARCHIVELOG mode
- B. The database must be in MOUNT EXCLUSIVE mode
- C. The database must be opened in RESTRICTED mode
- D. The database instance must be started in the NOMOUNT state
- E. The database instance must have the keep buffer pool defined

Answer: AB

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 25

Identify the channel settings that can be performed using the CONFIGURE CHANNEL or ALLOCATE CHANNEL commands in RMAN (choose all that apply)

- A. Limiting the input/output (I/O) bandwidth consumption
- B. Specifying the size of backup sets and backup pieces
- C. Specifying vendor-specific information for a media manager
- D. Specifying the parallelism for backup and restore operations

Answer: AC

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Whether you allocate channels manually or automatically, you can use channel control commands and options to do the following:

Control the operating system resources RMAN uses when performing RMAN operations. Affect the degree of parallelism for a backup or restore (in conjunction with the FILESPERSET parameter of the BACKUP command)

Set limits on I/O bandwidth consumption in kilobytes, megabytes, or gigabytes
(ALLOCATE CHANNEL ...RATE, CONFIGURE CHANNEL ... RATE)-check

Set limits on the size of backup pieces (the MAXPIECESIZE parameter specified on the CONFIGURE CHANNEL and ALLOCATE CHANNEL commands)- half of answer B

Set limits on the size of backup sets
(the MAXSETSIZE parameter specified on the BACKUP and CONFIGURE commands)
- Not in the CONFIGURE CHANNEL and ALLOCATE CHANNEL (B is wrong)

Set limits on the number of concurrently open files
(ALLOCATE CHANNEL ... MAXOPENFILES, CONFIGURE CHANNEL ... MAXOPENFILES)

Send vendor-specific commands to the media manager
(SEND)

Specify vendor-specific parameters for the media manager
(ALLOCATE CHANNEL ... PARMS, CONFIGURE CHANNEL ... PARMS)-check

Specify which instance performs the operation
(ALLOCATE CHANNEL ... CONNECT, CONFIGURE CHANNEL ... CONNECT)

Oracle Press 1Z0-053 Exam Guide, Chapter 8: Monitoring and Tuning RMAN:

You can further tune your RMAN backup performance by tuning individual channels with the CONFIGURE CHANNEL and ALLOCATE CHANNEL commands. Each CHANNEL command accepts the following parameters:

- MAXPIECESIZE: The maximum size of a backup piece
- RATE: The number of bytes per second read by RMAN on the channel
- MAXOPENFILES: The maximum number of input files that a channel can have

open at a given time

The MAXPIECESIZE parameter is useful when you back up to disk and the underlying operating system limits the size of an individual disk file, or when a tape media manager cannot split a backup piece across multiple tapes.

Note that the RATE parameter doesn't improve performance but throttles performance intentionally to limit the disk bandwidth available to a channel. This is useful when your RMAN backups must occur during periods of peak activity elsewhere in the database.

MAXOPENFILES was reviewed in the preceding section, but it is worth revisiting when you want to optimize the performance of an individual channel. For example, you can use MAXOPENFILES to limit RMAN's use of operating system file handles or buffers.

Oracle Press 1Z0-053 Exam Guide, Chapter 4: Creating RMAN Backups

References to PARALLELISM were only referenced as CONFIGURE DEVICE TYPE DISK PARALLELISM...

By default, any backups to disk default to a backupset backup type:

CONFIGURE DEVICE TYPE DISK PARALLELISM 1 BACKUP TYPE TO BACKUPSET; # default

QUESTION 26

You are managing an Oracle Database 11g database. You want to take a backup on tape drives of the USERS tablespace that has a single data file of 900 MB. You have tape drives of 300 MB each. To accomplish the backup, you issued the following RMAN command:

```
RMAN> BACKUP  
SECTION SIZE 300M TABLESPACE users;
```

Identify the appropriate configuration to accomplish faster and optimized backups using the above command.

- A. The SBT channel must be configured, with the MAXPIECESIZE set to 300 MB.
- B. The SBT channel must be configured, with the parallelism setting for the SBT devices set to 3.
- C. The COMPATIBLE initialization parameter for the database instance must be set to at least 10.0.
- D. The SBT channel must be configured, with the default parallelism setting for the SBT devices set to 1

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 27

Examine the following scenario:

- Database is running in ARCHIVELOG mode.
- Complete consistent backup is taken every Sunday.
- On Tuesday the instance terminates abnormally because the disk on which control files are located gets corrupted
- The disk having active online redo log files is also corrupted.

- The hardware is repaired and the paths for online redo log files and control files are still valid.

Which option would you use to perform the recovery of database till the point of failure?

- A. Restore the latest whole backup, perform complete recovery, and open the database normally
- B. Restore the latest whole backup, perform incomplete recovery, and open the database with the RESETLOGS
- C. Restore the latest backups control file, perform complete recovery, and open the database with the RESETLOGS
- D. Restore the latest backup control file, perform incomplete recovery using backup control file, and open the database

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

QUESTION 28

You are managing a 24*7 database. The backup strategy for the database is to perform user-managed backups.

Identify two prerequisites to perform the backups. (Choose two.)

- A. The database must be opened in restricted mode.
- B. The database must be configured to run in ARCHIVELOG mode.
- C. The tablespaces are required to be in backup mode before taking the backup.
- D. The tablespaces are required to be in read-only mode before taking the backup

Answer: BC

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 29

Examine the following commands and their output:

```
SQL> SELECT ename, sal FROM emp WHERE ename='JAMES';
```

ENAME	SAL
JAMES	1050

```
SQL> UPDATE emp SET sal=sal+sal*1.2 WHERE ename='JAMES';
```

1 row updated.

```
SQL> SELECT ename, sal FROM emp WHERE ename='JAMES';
```

ENAME	SAL
JAMES	2310

View the exhibit and examine the Flashback Version Query that was executed after the preceding commands.

What could be the possible cause for the query not displaying any row?

Exhibit:

ORACLE Enterprise Manager 11g Database Control

Setup Preferences Help Logout Database

Perform Object Recovery: Choose SCN

95859343 Recovery Scope Tables Operation Type Flashback Existing Tables

Table Name system.emp

Following is the history of the row. Select the version you wish to restore.

Flashback Versions Query Result

Select	Flashback SCN	Flashback Timestamp	Transaction ID	Operation	NAME
<input checked="" type="radio"/>	95859343	27-Jan-2009 18:08:20	0100140049040000	UPDATE	Karen
<input type="radio"/>	95859344	27-Jan-2009 18:08:20	0100140049040000	UPDATE	Guy
<input type="radio"/>	95859345	27-Jan-2009 18:08:20	0100140049040000	UPDATE	Sigal

Return to Recovery Type Selection

Database | Setup | Preferences | Help | Logout

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About Oracle Enterprise Manager 10g Database Control

No results for the preceeding transactions will appear on this screen on the exam.
Why is the Question?

- A. Flashback logging is not enabled for the database.
- B. The changes made to the table are not committed.
- C. Supplemental logging is not enabled for the database.
- D. The database is not configured in ARCHIVELOG mode.

Answer: B

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 30

Using the LIST command in Recovery Manager (RMAN), which two pieces of information from the RMAN repository can be listed?
(Choose two.)

- A. Stored scripts in the recovery catalog
- B. Backups that can be deleted from disk
- C. Backup sets and images copies that are obsolete
- D. Backups that do not have the AVAILABLE status in the RMAN repository

Answer: AD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/backup.111/b28273/rcmsynta027.htm#i82460

Prerequisites

Execute `LIST` only at the RMAN prompt. Either of the following conditions must be met:

- RMAN must be connected to a target database. If RMAN is not connected to a recovery catalog, and if you are not executing the `LIST FAILURE` command, then the target database must be mounted or open. If RMAN is connected to a recovery catalog, then the target database instance must be started.
- RMAN must be connected to a recovery catalog and `SET DBID` must have been run.

Usage Notes

With the exception of `LIST FAILURE`, the `LIST` command displays the backups and copies against which you can run `CROSSCHECK` and `DELETE` commands. The `LIST FAILURE` command displays failures against which you can run the `ADVISE FAILURE` and `REPAIR FAILURE` commands.

"RMAN Backups in a Data Guard Environment" explains how RMAN handles backups in a Data Guard environment. In general, RMAN considers tape backups created on one database in the environment as accessible to all databases in the environment, whereas disk backups are accessible only to the database that created them. In a Data Guard environment, `LIST` displays those files that are accessible to the connected target database.

RMAN prints the `LIST` output to either standard output or the message log, but not to both at the same time.

Oracle Press 1Z0-053 Exam Guide, Chapter 4: Creating RMAN Backups

The `LIST` command displays information about backupsets and image copies in the repository and can also store the contents of scripts stored in the repository catalog.

Another variation on the `LIST` command is `LIST FAILURE`, which displays database failures; `LIST FAILURE`, `ADVISE FAILURE`, and `REPAIR FAILURE`

QUESTION 31

View the Exhibit to examine the parameter values.

You are planning to set the value for the `MEMORY_TARGET` parameter of your database instance. What value would you recommend?

Exhibit:

NAME	TYPE	VALUE
archive_lag_target	integer	0
db_flashback_retention_target	integer	1440
fast_start_io_target	integer	0
fast_start_mtttr_target	integer	3600
memory_max_target	big integer	0
memory_target	big integer	0
pga_aggregate_target	big integer	90M
sga_target	big integer	272M

- $$\begin{array}{ccccc} \text{pga_aggregate_target} & + & \text{sga_target} & = & \text{MEMORY_TARGET} \\ 90\text{M} & & 272\text{M} & & 362\text{M} \end{array}$$

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

<http://www.informit.com/articles/article.aspx?p=30348>

Database Crashes During Hot Backup

There can be many reasons for the database to crash during a hot backup—a power outage or rebooting of the server, for example. If these were to happen during a hot backup, chances are that tablespace would be left in backup mode. In that case you must manually recover the files involved, and the recovery operation would end the backup of tablespace. It's important to check the status of the files as soon as you restart the instance and end the backup for the tablespace if it's in backup mode.

```
select a.name,b.status from v$datafile a, v$backup b
where a.file#=b.file# and b.status='ACTIVE';
or
select a.tablespace_name,a.file_name,b.status from dba_data_files a,
v$backup b
where a.file_id=b.file# and b.status='ACTIVE';
```

This statement lists files with ACTIVE status. If the file is in ACTIVE state, the corresponding tablespace is in backup mode. The second statement gives the tablespace name also, but this can't be used unless the database is open. You need to end the backup mode of the tablespace with the following command:

```
alter tablespace tablespace_name end backup;
```

QUESTION 33

Examine the following command used to perform incremental level 0 backup:

```
RMAN> BACKUP
INCREMENTAL LEVEL 0 DATABASE;
```

To enable the block change tracking, after the incremental level 0 backup you issued the following command:

```
SQL> ALTER DATABASE ENABLE BLOCK CHANGE TRACKING USING FILE
'/mydir/rman_change_track.f';
```

To perform incremental level 1 cumulative backup, you issued the following command:

```
RMAN> BACKUP INCREMENTAL LEVEL 1 CUMULATIVE DATABASE;
```

Which two statements are true in the above situation? (Choose two.)

- A. The block change tracking data will be used only from the next incremental 0 backup.
- B. The incremental backup will use change tracking data for accomplishing the backup.
- C. The incremental backup will not use change tracking data for accomplishing the backup.
- D. The block track file will scan all the blocks and create bitmap for all the blocks backed up in the level 0 backup.

Answer: AC

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

<http://www.pythian.com/documents/Pythian-oracle-block-change.pdf>

After enabling change tracking, the first level 0 incremental backup still has to scan the entire datafile, as the change tracking file does not yet reflect the status of the blocks. Subsequent incremental backup that use this level 0 as parent will take advantage of the change tracking file.

When some a chunk needs to be marked dirty for the first time after incremental backup, version information in bitmap extent headers (X\$KRCFBH) is initialized - XFLAGS is set to 2, CURR_VERCNT and CURR_VERTIME filled from datafile descriptor. If file had no changes since last incremental backup - nothing is written to the bitmap.

There is no difference in handling different backup levels. Version is created in the same way whether its level 0, level 1 or level 4 backup. By the way, it seems that Oracle 10g documentation officially mentions only support for levels 0 and 1. However, I checked incremental backup levels up to 4 and they do work (10.2.0.2).

Oracle Press 120-053 Exam Guide, Chapter 4: Creating RMAN Backups

The first incremental level 0 backup reads every block in the datafile, and subsequent incremental level 1 backups use the block change tracking file. No reference to create bitmap found.

http://download.oracle.com/docs/cd/B19306_01/backup.102/b14192/bkup004.htm#i1032148
RMAN's change tracking feature for incremental backups improves incremental backup performance by recording changed blocks in each datafile in a change tracking file. If change tracking is enabled, RMAN uses the change tracking file to identify changed blocks for incremental backup, thus avoiding the need to scan every block in the datafile.

Using change tracking in no way changes the commands used to perform incremental backups, and the change tracking files themselves generally require little maintenance after initial configuration.

QUESTION 34

You want to use the automatic management of backup and recovery operations features for your database.

Which configuration must you set?

- A. Enable the flash recovery area and specify it as the archived redo log destination.
- B. Disable the flash recovery area and start the database instance in ARCHIVELOG mode.
- C. Enable the flash recovery area but do not specify it as the archived redo log destination.
- D. Disable the flash recovery area and start the database instance in NOARCHIVELOG mode.

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

QUESTION 35

Which three types of files can be automatically placed in the flash recovery area (fast recovery area in 11g Release 2)? (Choose three.)

- A. Alert log file
- B. Archived redo log files
- C. Control file autobackups
- D. Server Parameter file (SPFILE)
- E. Recovery Manager (RMAN) backup piece

Answer: BCE

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

Explanation/Reference:

http://www.pafumi.net/Flash_Recovery_Area.html

The Flash Recovery Area (FRA) is a unified storage location for all recovery related files and activities in an Oracle database.

By defining one init.ora parameter, all RMAN backups, archive logs, control file autobackups, and datafile copies are automatically written to a specified files system or ASM Disk Group.

Oracle Press 1Z0-053 Exam Guide, Chapter 4: Creating RMAN Backups

The following permanent items are stored in the flash recovery area:

- **Control file:** Oracle stores one copy of the control file in the flash recovery area during an installation, which specifies the flash recovery area.
- **Online redo log files** You can store one mirrored copy from each redo log file group in the flash recovery area.

The following transient items are stored in the flash recovery area:

- **Archived redo log files** When you configure the flash recovery area, one set of archived redo log files is stored in the flash recovery area.
- **Flashback logs** Flashback logs are stored in the flash recovery area when Flashback Database is enabled.
- **Control file automatic backups** RMAN stores control file automatic backups in the flash recovery area.

When RMAN backs up the first datafile, which is part of the SYSTEM tablespace, the control file is automatically included in the RMAN backup.

- **Datafile copies** When you use the RMAN command BACKUP AS COPY, the datafile copies are stored in the flash recovery area by default.
- **RMAN backupsets** Files created with the BACKUP AS BACKUPSET command are stored in the flash recovery area.
- **RMAN files** By default, RMAN uses the flash recovery area as a staging area for backup and recovery of the archive log files from disk or tape.

QUESTION 36

Before a Flashback Table operation, you execute the following command:

```
ALTER TABLE employees ENABLE ROW MOVEMENT;
```

Why would you need this to be executed?

- A. Because row IDs may change during the flashback operation
- B. Because the object number changes after the flashback operation
- C. Because the rows are retrieved from the recycle bin during the flashback operation
- D. Because the table is moved forward and back to a temporary during the flashback operation

Answer: A

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 37

The EMP table has some discrepancy in data entry with a particular employee ID. You execute the query as shown in the Exhibit to retrieve all versions of the row that exist between two SCNs.

View the Exhibit.

Which two statements about the results of the query shown in the Exhibit are correct? (Choose two.)

Exhibit:

```

SELECT  versions_xid AS VXID,
        versions_startscn AS FIRST_SCN,
        versions_endscn AS LAST_SCN,
        versions_operation AS OPERATION, ename
FROM emp
VERSIONS BETWEEN SCN MINVALUE AND MAXVALUE
AS OF SCN 6636300
WHERE empno=7126;

```

VXID	FIRST_SCN	LAST_SCN	O	ENAME
8C0031003A000000	6636289		I	Smith
8C0030003A000000	6636280		D	Jones
8C0028003A000000	6636252	6636280	I	Jones

- A. The LAST_SCN value in the first row is NULL, which means that the versions of the row still exist at SCN 6636289.
- B. The LAST_SCN value in the second row is NULL, which means that the version of the row still exists at SCN 6636280.
- C. The LAST_SCN value in the third row is 6636280, which means that the version of row exists above SCN 6636280.
- D. The LAST_SCN value in the second row is NULL, which means that the version of the row no longer exists because it has been deleted.

Answer: AD

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Dunno -

Exhibit Reference: Exhibit Located in 1Z0-045 Exam - Exact Question/Answer

<http://www.oracle-developer.net/display.php?id=320>

If we look at the VERSIONS_OPERATION column, we can see that the second record is actually the delete operation against the last row (specified by 'D').

B is Wrong because the record has been deleted.

D is Wrong because the NULL Value does NOT mean the row no longer exists.

http://www.rampant-books.com/art_otn_flashback_tips.htm

The metadata also gives us an indication that the delete operation was the final version of this data. The end timestamp of the version is NULL which tells us that there is no superceding record.

Note that all the changes to the row are shown here, even when the row was deleted and reinserted. The VERSION_OPERATION column shows what operation (Insert/Update/Delete) was performed on the row. This was done without any need of a history table or additional columns.

QUESTION 38

A database instance is using an Automatic Storage Management (ASM) instance, which has a disk group, DGROUP1, created as follows:

```
SQL> CREATE DISKGROUP dgroup1 NORMAL REDUNDANCY  
FAILGROUP controller1 DISK '/devices/diska1', '/devices/diska2'  
FAILGROUP controller2 DISK '/devices/diskb1', '/devices/diskb2' ;
```

What happens when the whole CONTROLLER1 Failure group is damaged?

- A. The transactions that use the disk group will halt.
- B. The mirroring of allocation units occurs within the CONTROLLER2 failure group.
- C. The data in the CONTROLLER1 failure group is shifted to the CONTROLLER2 failure group and implicit rebalancing occurs.
- D. The ASM does not mirror any data and newly allocated primary allocation units (AU) are stored in the CONTROLLER2 failure group.

Answer: C

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Oracle Press 1Z0-053 Exam Guide, Chapter 1: Database Architecture and ASM

Whenever you change the configuration of a disk group-whether you are adding or removing a failure group or a disk within a failure group-dynamic rebalancing occurs automatically to proportionally reallocate data from other members of the disk group to the new member of the disk group. This rebalance occurs while the database is online and available to users. Any impact to ongoing database I/O can be controlled by adjusting the value of the initialization parameter `ASM_POWER_LIMIT` to a lower value.

QUESTION 39

You want to set the following initialization parameters for your database instance:

```
LOG_ARCHIVE_DEST_1 = 'LOCATION=/disk1/arch'  
LOG_ARCHIVE_DEST_2 = 'LOCATION=/disk2/arch'  
LOG_ARCHIVE_DEST_3 = 'LOCATION=/disk3/arch'  
LOG_ARCHIVE_DEST_4 = 'LOCATION=/disk4/arch MANDATORY'
```

Identify the statement that correctly describes this setting.

- A. The MANDATORY location must be a flash recovery area.
- B. The optional destinations may not use the flash recovery area.
- C. This setting is not allowed because the first destination is not set as MANDATORY.
- D. The online redo log file is not allowed to be overwritten if the archived log cannot be created in the fourth destination.

Answer: D

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

QUESTION 40

View the Exhibit and note the contents of V\$DIAG_INFO. Which statement is true about the ADR?

Exhibit:

```
SELECT * FROM V$DIAG_INFO;
```

INST_ID	NAME	VALUE
1	Diag	TRUE
1	ADR Base	/u01/oracle
1	ADR Home	/u01/oracle/diag/rdbms/orclbi/orclbi
1	Diag Trace	/u01/oracle/diag/rdbms/orclbi/orclbi/trace
1	Diag Alert	/u01/oracle/diag/rdbms/orclbi/orclbi/alert
1	Diag Incident	/u01/oracle/diag/rdbms/orclbi/orclbi/incident
1	Diag Cdump	/u01/oracle/diag/rdbms/orclbi/orclbi/cdump
1	Health Monitor	/u01/oracle/diag/rdbms/orclbi/orclbi/hm
1	Default Trace File	/u01/oracle/diag/rdbms/orclbi/orclbi/trace/orcl_ora_22769.trc
1	Active Problem Count	8

- A. The text alert log file will be available in Diag Trace
- B. A copy alert log file will be kept in Diag Incident for every incident.
- C. The XML version of the alert log file will be available in Diag Trace.
- D. An Automatic Database Diagnostic Management (ADDM) report is generated and stored in the Health Monitor.

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/server.111/b28310/diag001.htm

The V\$DIAG_INFO view lists all important ADR locations for the current Oracle Database instance.

The following table describes some of the information displayed by this view.

Table 8-3 Data in the V\$DIAG_INFO View

Name	Description
ADR Base	Path of ADR base
ADR Home	Path of ADR home for the current database instance
Diag Trace	Location of background process trace files, server process trace files, SQL trace files, and the text-formatted version of the alert log
Diag Alert	Location of the XML-formatted version of the alert log
Default Trace File	Path to the trace file for the current session

The alert log is an XML file that is a chronological log of database messages and errors. It is stored in the ADR and includes messages about the following:

- Critical errors (incidents)
- Administrative operations, such as starting up or shutting down the database,

recovering

- the database, creating or dropping a tablespace, and others.
- Errors during automatic refresh of a materialized view
- Other database events

You can view the alert log in text format (with the XML tags stripped) with Enterprise Manager and with the ADRCI utility. There is also a text-formatted version of the alert log stored in the ADR for backward compatibility. However, Oracle recommends that any parsing of the alert log contents be done with the XML-formatted version, because the text format is unstructured and may change from release to release.

In 11g the default alert log is now in xml format, text is provided for backward compatibility.

QUESTION 41

You are using the control file to maintain information about the database backups that are being performed by Recovery Manager (RMAN).

Identify two scenarios in which you must have a recovery catalog. (Choose two.)

- A. To store the backup information of multiple database
- B. To restrict the amount of space that is used by the backups
- C. To maintain a backup for a certain time is set by the CONTROL_FILE_RECORD_KEEP_TIME parameter.
- D. To list the data files that were in a target database at a given time by using the AT option of REPORT SCHEMA

Answer: AD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

SYBEX 1Z0-053 Study Guide, Chapter 5: Using the RMAN Recovery Catalog

Identify situations that will require the RMAN recovery catalog.

Understand that the recovery catalog is largely optional. A recovery catalog will be **needed for storing scripts**, and it **will be required if you want to store backup records longer than one year** or beyond the setting of CONTROL_FILE_RECORD_KEEP_TIME.

Oracle Press 1Z0-053 Exam Guide, Chapter 3: Creating and Maintaining an RMAN Catalog

Finally, using a recovery catalog permits you to use the following RMAN commands:

- BACKUP...KEEP UNTIL TIME Keep a backup for a period of time that differs from the configured retention policy.
- BACKUP...KEEP FOREVER Keep a backup indefinitely or until you manually remove it.
- REPORT SCHEMA...AT Show the structure of the database at a specific time in the past.

QUESTION 42

You have enabled backup optimization for the RMAN environment. Identify two criteria on which RMAN will skip the file, if it has already been backed up. (Choose two.)

- A. The data file backup is done with multiple channels
- B. The data files is in the read-write mode after being backed up in the read only mode
- C. The backup was taken after the data files was taken offline-normal or is in the read only mode
- D. The data file backup complies with the back retention policy and the backup duplexing feature

Answer: CD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 43

Which are the two prerequisites before setting up Flashback Data Archive? (Choose two.)

- A. Flash recovery area must be defined
- B. Undo retention guarantee must be enabled.
- C. Database must be running in archivelog mode.
- D. Automatic undo management must be enabled.
- E. The tablespace in which the Flashback Data Archive is created must have automatic segment space Manage

Answer: DE

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

Explanation/Reference:

<http://www.oracle.com/technetwork/database/features/storage/total-recall-whitepaper-171749.pdf?ssSourceSitelD=ocomen>

7 Oracle White Paper- Oracle Total Recall with Oracle Database 11g Release 2, Page

Flashback Data Archive Requirements

- 1. Flashback Data Archive tablespaces must be managed with automatic segment space management (ASSM).
- 2. Automatic Undo Management must be enabled.

http://www.dba-oracle.com/t_11g_new_enabling_fdba.htm

There are a number of restrictions for flashback archives:

- The tablespaces used for a flashback archive must use **local extent management** and **automatic segment space management.**
- The database must use **automatic undo management.**

QUESTION 44

You need to maintain a record of all transactions on some tables for at least three years. Automatic undo management is enabled for the database.

What must you do accomplish this task?

- A. Enable supplemental logging for the database.
- B. Specify undo retention guarantee for the database
- C. Create Flashback Data Archive in the tablespace where the tables are stored.
- D. Create Flashback Data Archive and enable Flashback Data Archive for specific tables

Answer: D

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 45

You issued the following commands to configure setting in RMAN;

```
RMAN> CONFIGURE DEVICE TYPE sbt PARALLELISM 1;  
RMAN> CONFIGURE DEFAULT DEVICE TYPE TO sbt;  
RMAN> CONFIGURE DATAFILE BACKUP COPIES FOR DEVICE TYPE sbt TO 2;  
RMAN> CONFIGURE ARCHIVELOG BACKUP COPIES FOR DEVICE TYPE sbt TO 2;  
RMAN> CONFIGURE DATAFILE BACKUP COPIES FOR DEVICE TYPE DISK TO 2;
```

Then you issued the following command to take the backup:

```
RMAN> BACKUP DATABASE PLUS ARCHIVELOG;
```

Which statement is true about the execution of the above command?

- A. The backup will terminate because the FORMAT clause was not configured for the channel
- B. It backs up two copies of data files to tape and disk, and two copies of archived log file on tape
- C. It backs up the data files and archived log files to disk, making two copies of each data file and archived log file
- D. It backs up the data files and archived log files to tape, making two copies of each data file and archived log file

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 46

You work with a newly created database. Presently, there is no application load on the database instance.

You want to create a baseline for tuning the application, so you decide to collect recommendations that can be implemented to improve application performance.

What action must you take to achieve this?

- A. Run Segment Advisor
- B. Run the SQL Tuning Advisor (STA)
- C. Run the Automatic Workload Repository (AWR) report
- D. Run the SQL Access Advisor with a hypothetical workload

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 47

Your database is running in ARCHIVELOG mode. One of the data files, USERDATA01.dbf, in the USERS tablespace is damaged and you need to recover the file until the point of failure. The backup for the datafile is available. Which three files would be used in the user-managed recovery process performed by the database administrator (DBA)? (Choose Three)

- A. Redo logs
- B. Control file
- C. The latest backup of only the damaged data file
- D. The latest backup of all the data file in the USERS tablespace
- E. Temporary files of temporary tablespace
- F. Archive Logs since the latest backup to point of failure

Answer: ACF

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 48

Which options must you configure while performing an automated Tablespace Point-in-Time Recovery (TSPITR) by using Recovery Manager (RMAN)?

- A. New channels for restore and recovery tasks
- B. New name for the data files of the tablespace
- C. Auxiliary name for the data files of the tablespace
- D. Auxiliary destinations for an auxiliary set of data files

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Use the AUXILIARY DESTINATION parameter to set a location for RMAN to use for the auxiliary set datafiles. The auxiliary destination must be a location on disk with enough space to hold auxiliary set datafiles. Even if you use other techniques to rename some or all of the auxiliary set datafiles, specifying an AUXILIARY DESTINATION parameter provides a default location for auxiliary set datafiles for which names are not specified. TSPITR will not fail if you inadvertently do not provide names for all auxiliary set datafiles.

Oracle Press 1Z0-053 Exam Guide, Chapter 7: Miscellaneous RMAN Features

Auxiliary destination A temporary location to store the auxiliary set of files, including online and archived redo log files, and a copy of the control file during created the recovery process

QUESTION 49

In Recovery Manager (RMAN), you are taking image copies of the data files of your production database and rolling them forward at regular intervals. You attempt to restart your database. After a regular maintenance task, you realize that one of the data files that belongs to the USERS tablespace is damaged and you need to recover the data file by using the image copy. Because a media failure caused the data file to be damaged, you want to place the data file in a different location while restoring the file. Which option must you consider for this task?

- A. using only the RMAN SWITCH command to set the new location for the data file
- B. placing the database in the MOUNT state for the restore and recovery operations.
- C. using an RMAN RUN block with the SET NEWNAME and then the SWITCH command.
- D. configuring two channels: one for the restore operation and the other for the recovery operation

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/B10501_01/server.920/a96566/rcmconc2.htm

RMAN automates the procedure for restoring files. You do not need to go into the operating system, locate the backup or copy that you want to use, and manually copy files into the appropriate directories. When you issue a RESTORE command, RMAN directs a server session to restore the correct backups and copies to either:

The default location, overwriting the files with the same name currently there

A new location, which you can specify with the SET NEWNAME command

To restore a datafile, either mount the database or keep it open and take the datafile to be restored offline. When RMAN performs a restore, the RESTORE command creates the restored files as datafile copies and records them in the repository. The following table describes the behavior of the RESTORE, SET NEWNAME, and SWITCH commands.

Run SET NEWNAME?	RESTORE Behavior	Run SWITCH?
No	RMAN restores the files to their current path names and immediately removes the repository records for the datafile copies created during the restore.	N/A
Yes	RMAN restores the files to the path names specified by SET NEWNAME and does not remove the repository records for the datafile copies created during the restore.	If yes, then RMAN updates the datafile names in the control file to the names of the restored files; if no, then RMAN does not update the filenames in the control file and the restored files become datafile copies.

For example, if you restore datafile `?:oradata/trgt/tools01.dbf` to its default location, then RMAN restores the file `?:oradata/trgt/tools01.dbf` and overwrites any file that it finds with the same filename. If you run a `SET NEWNAME` command before you restore a file, then RMAN creates a datafile copy with the name that you specify. For example, assume that you run the following commands:

```
SET NEWNAME FOR DATAFILE '?:oradata/trgt/tools01.dbf' TO
'/tmp/tools01.dbf';
RESTORE DATAFILE '?:oradata/trgt/tools01.dbf';
```

In this case, RMAN creates a datafile copy of `?:oradata/trgt/tools01.dbf` named `/tmp/tools01.dbf` and records it in the repository.

To change the name for datafile `?:oradata/trgt/tools01.dbf` to `/tmp/tools01.dbf` in the control file, run a `SWITCH` command so that RMAN considers the restored file as the current database file. For example:

```
SWITCH DATAFILE '/tmp/tools01.dbf' TO DATAFILECOPY
'?:oradata/trgt/tools01.dbf';
```

The `SWITCH` command is equivalent to the SQL statement `ALTER DATABASE RENAME FILE`.

QUESTION 50

The database is running in the ARCHIVELOG mode. It has three redo log groups with one member each. One of the redo log groups has become corrupted. You have issued the following command during the recovery of a damaged redo log file:

```
ALTER DATABASE CLEAR UNARCHIVED LOGFILE GROUP 3;
```

Which action should you perform immediately after using this command?

- A. You should perform a log switch
- B. You should make a backup of the database
- C. You should switch the database to the NONARCHIVELOG mode
- D. You should shut down the database instance and perform a complete database recovery

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)**Explanation/Reference:**

```
SQL> ALTER DATABASE CLEAR LOGFILE UNARCHIVED GROUP 3;
```

Immediately back up all datafiles in the database with an operating system utility, so that you have a backup you can use for complete recovery without relying on the cleared log group.

For example, enter:

```
% cp /disk1/oracle/dbs/*.dbf /disk2/backup
```

http://www.oracle-dba-online.com/managing_redo_logfiles.htm

This statement clears the corrupted redo logs and avoids archiving them. The cleared redo logs are available for use even though they were not archived.

If you clear a log file that is needed for recovery of a backup, then you can no longer recover from that backup. The database writes a message in the alert log describing the backups from which you cannot recover

QUESTION 51

Which option is best practice for creating a recovery catalog owner in the catalog database?

- A. Granting UNLIMITED QUOTA on the SYSTEM tablespace to the owner
- B. Allocating the SYSTEM tablespace as the default tablespace and granting the SYSDBA privilege to the user
- C. Creating a new tablespace, allocating this as the default, and granting UNLIMITED QUOTA on this tablespace
- D. Allocating the SYSAUX tablespace as the default tablespace and granting UNLIMITED QUOTA on this tablespace

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

```
SQL> CREATE USER vpc1 IDENTIFIED BY password
2 DEFAULT TABLESPACE vpcusers
3 QUOTA UNLIMITED ON vpcusers;
```

http://www.dba-oracle.com/real_application_clusters_rac_grid/recovery_catalog.html

The RMAN schema owner is created in the RMAN database using the following steps:

1. Start SQL*Plus and connect as a user with administrator privileges to the database containing the

recovery catalog:

```
CONNECT SYS/oracle@catdb AS SYSDBA
```

2. Create a user and schema for the recovery catalog. For example, enter:

```
CREATE USER rman IDENTIFIED BY cat
TEMPORARY TABLESPACE temp
```

```
DEFAULT TABLESPACE tools
QUOTA UNLIMITED ON tools;
```

3. Grant the recovery_catalog_owner role to the user.

This role provides all of the privileges required to maintain and query the recovery catalog:

```
SQL> GRANT RECOVERY_CATALOG_OWNER TO rman;
```

Once the owner user is created, the RMAN recovery catalog schema can be added:

1. Connect to the database that contains the catalog owner. For example, using the RMAN user from the

above example, enter the following from the operating system command line.

The use of the

CATALOG keyword tells Oracle this database contains the repository:

```
% rman CATALOG rman/cat@catdb
```

2. It is also possible to connect from the RMAN utility prompt:

```
% rman
```

```
RMAN> CONNECT CATALOG rman/cat@catdb
```

3. Now, the CREATE CATALOG command can be run to create the catalog. The creation of the catalog

may take several minutes. If the catalog tablespace is this user's default tablespace, the command would

look like the following:

```
CREATE CATALOG;
```

Each database that the catalog will track must be registered.

1. Make sure the recovery catalog database is open.

2. Connect RMAN to both the target database and recovery catalog database. For example, with a

catalog database of RMANDB and user RMAN, owner of the catalog schema, and the target database,

AULT1, which is the database to be backed up, database user SYS would issue:

```
% rman TARGET sys/oracle@ault1 CATALOG rman/cat@rmandb
```

3. Once connected, if the target database is not mounted, it should be opened or mounted:

```
RMAN> STARTUP;
```

```
--or--
```

```
RMAN> STARTUP MOUNT;
```

4. If this target database has not been registered, it should be registered in the connected recovery

catalog:

```
RMAN> REGISTER DATABASE;
```

QUESTION 52

Which two statements are true about encrypting RMAN backup? (Choose two.)

- A. The transparent encryption of backups uses the encryption wallet
- B. The database uses the same encryption key for every encrypted backup
- C. The password encryption of backups only uses the password while creating and restoring backup

D. If transparent encryption is configured, you cannot use the SET ENCRYPTION BY PASSWORD command to

Answer: AC

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://www.di.unipi.it/~ghelli/didattica/bdldoc/B19306_01/backup.102/b14191/rcmbackp006.htm

A) Transparent Encryption of Backups

This is the default mode and uses the Oracle wallet. A wallet is a password-protected container used to store authentication and signing credentials, including private keys, certificates, and trusted certificates needed by SSL.

C) Password Encryption of Backups

This mode uses only password protection. You must provide a password when creating and restoring encrypted backups.

Caution:

If you forget, or lose, the password that you used to encrypt a password-encrypted backup, you will be unable to restore that backup.

Dual Mode Encryption of Backups

Dual-mode encrypted backups can be restored either transparently or by specifying a password. When restoring a dual-mode encrypted backup, you can use either the Oracle Encryption Wallet or a password for decryption.

QUESTION 53

View the Exhibit and examine the output of the query in different times when the following command runs in an RMAN sessions:

```
RMAN> BACKUP DATABASE FILESPERSET 2;
```

The database has seven data files. Why is the %_COMPLETE refreshed to 13.59 in the third output after reaching 88.77?

Exhibit:

```
SQL> SELECT OPNAME, CONTEXT, SOFAR, TOTALWORK,
2  ROUND (SOFAR/TOTALWORK*100,2) "%_COMPLETE"
3  FROM V$SESSION_LONGOPS
4  WHERE OPNAME LIKE 'RMAN%'
5  AND OPNAME NOT LIKE '%aggregate%'
6  AND TOTALWORK != 0
7  AND SOFAR < TOTALWORK; NOT ACTUAL EXAM EXHIBIT
```

SID	SERIAL#	CONTEXT	SOFAR	TOTALWORK	%_COMPLETE
13	75	1	9470	15360	61.65
12	81	1	15871	28160	56.36

- A. Because the progress is reported for each data file
- B. Because the progress is reported for each backup set
- C. Because other RMAN sessions have issued the same BACKUP command
- D. Because new data files have been added to the database while the RMAN backup is in progress

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/B19306_01/backup.102/b14191/advmaint.htm#i1008347
While the RMAN job is running, start SQL*Plus and connect to the target database, and execute the longops script to check the progress of the RMAN job.

If you repeat the query while the RMAN job progresses, then you see output such as the following:

```
SQL> @longops
SID          SERIAL#    CONTEXT          SOFAR          TOTALWORK  %_COMPLETE
-----
8             19          1             10377          36617       28.34

SQL> @longops
SID          SERIAL#    CONTEXT          SOFAR          TOTALWORK  %_COMPLETE
-----
8             19          1             21513          36617       58.75

SQL> @longops
SID          SERIAL#    CONTEXT          SOFAR          TOTALWORK  %_COMPLETE
-----
8             19          1             29641          36617       80.95
```

If you run the longops script at intervals of two minutes or more and the %_COMPLETE column does not increase, then RMAN is encountering a problem.

Refer to "Monitoring RMAN Interaction with the Media Manager" on page 23-8 to obtain more information.

If you frequently monitor the execution of long-running tasks, then you could create a shell script or batch file under your host operating system that runs SQL*Plus to execute this query repeatedly.

QUESTION 54

Which mode of database shutdown requires an instance recovery at the time of the next database startup?

- A. ABORT
- B. NORMAL
- C. IMMEDIATE
- D. TRANSACTIONAL

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 55

Note the following parameter settings:

```
SQL> show parameter DB
```

NAME	TYPE	VALUE
db_16k_cache_size	big integer	0
db_2k_cache_size	big integer	0
db_32k_cache_size	big integer	0
db_4k_cache_size	big integer	0
db_8k_cache_size	big integer	0
db_block_buffers	integer	0
db_block_checking	string	FALSE
db_block_checksum	string	TYPICAL
db_block_size	integer	8192
db_cache_advice	string	ON
db_cache_size	big integer	0

Which setting is NOT allowed?

- A. ALTER SYSTEM SET DB_CACHE_SIZE=50M;
- B. ALTER SYSTEM SET DB_8K_CACHE_SIZE=10M;
- C. ALTER SYSTEM SET DB_4K_CACHE_SIZE=10M;
- D. ALTER SYSTEM SET DB_16K_CACHE_SIZE=10M;

Answer: B

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

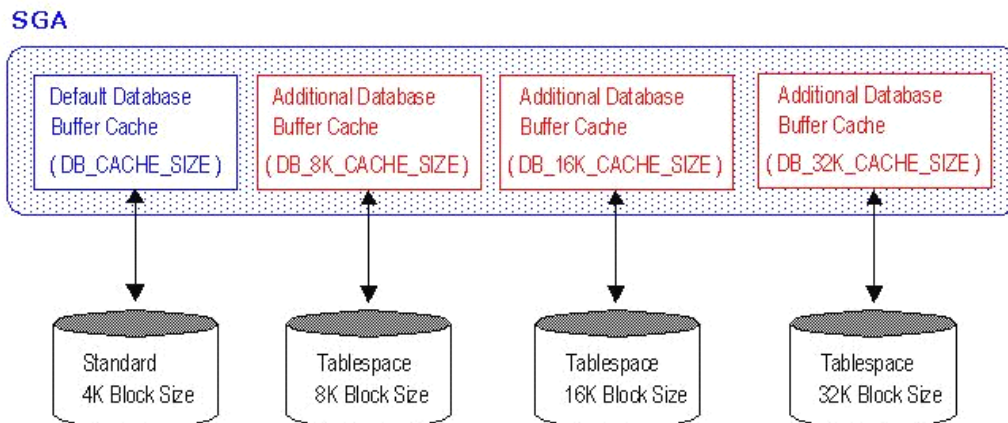
Explanation/Reference:

http://www.akadia.com/services/ora_asm_multiple_block_sizes.html

db_block_size integer 8192 - is the db default so you can't have 8K subcache

Configure sub-caches for non-standard block sizes

If you intend to use multiple block sizes in your database, you must have the **DB_CACHE_SIZE** and **at least one DB_nK_CACHE_SIZE** parameter set. Oracle assigns an appropriate default value to the DB_CACHE_SIZE parameter, but the DB_nK_CACHE_SIZE parameters default to 0, and no additional block size caches are configured.



QUESTION 56

Which three statements must be true before transporting a tablespace from a database on one platform to a database on another platform? (Choose three.)

- A. Both source and target database must be the same character set
- B. Both source and target database must have the same endian format
- C. The COMPATIBLE parameter must be the same in the source and target databases.
- D. The minimum compatibility level for both the source and target database must be 10.0.0.
- E. All read-only and offline data files that belong to the tablespace to be transported must be platform aware.

Answer: ABD

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/server.111/b28310/tspaces013.htm#ADMIN01101

Limitations on Transportable Tablespace Use

The source and target database must use the same character set and national character set.

You cannot transport a tablespace to a target database in which a tablespace with the same name already exists. However, you can rename either the tablespace to be transported or the destination tablespace before the transport operation.

Objects with underlying objects (such as materialized views) or contained objects (such as partitioned tables) are not transportable unless all of the underlying or contained objects are in the tablespace set.

Encrypted tablespaces have the following the limitations:

Before transporting an encrypted tablespace, you must copy the Oracle wallet manually to the destination database, unless the master encryption key is stored in a Hardware Security Module

(HSM) device instead of an Oracle wallet. When copying the wallet, the wallet password remains the same in the destination database. However, it is recommended that you change the password

on the destination database so that each database has its own wallet password. See Oracle Database Advanced Security Administrator's Guide for information about HSM devices, about

determining the location of the Oracle wallet, and about changing the wallet password with Oracle Wallet Manager.

You cannot transport an encrypted tablespace to a database that already has an Oracle wallet for transparent data encryption. In this case, you must use Oracle Data Pump to export the tablespace's

schema objects and then import them to the destination database. You can optionally take advantage of Oracle Data Pump features that enable you to maintain encryption for the data while it is being exported and imported.

See Oracle Database Utilities for more information.

You cannot transport an encrypted tablespace to a platform with different endianness.

Tablespaces that do not use block encryption but that contain tables with encrypted columns cannot be transported. You must use Oracle Data Pump to export and import the tablespace's schema objects. You can take advantage of Oracle Data Pump features that enable you to maintain encryption for the data while it is being exported and imported. See Oracle Database Utilities for more information.

Beginning with Oracle Database 10g Release 2, you can transport tablespaces that contain XMLTypes. Beginning with Oracle Database 11g Release 1, you must use only Data Pump to export and import the tablespace metadata for tablespaces that contain XMLTypes.

The following table shows the minimum compatibility requirements of the source and target tablespace in various scenarios. The source and target database need not have the same compatibility setting.

Table 12-1 Minimum Compatibility Requirements

Transport Scenario	Minimum Compatibility Setting	
	Source Database	Target Database
Databases on the same platform	8.0	8.0
Tablespace with different database block size than the target database	9.0	9.0
Databases on different platforms	10.0	10.0

QUESTION 57

Your database instance is running. You are not able to access Oracle Enterprise Manager Database Control because the listener is not started.

Which tool or utility would you use to start the listener?

- A. Oracle Net Manager
- B. Listener Control utility
- C. Database Configuration Assistant
- D. Oracle Net Configuration Assistant

Answer: B

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

http://download.oracle.com/docs/cd/A97630_01/network.920/a96581/lsnrctl.htm

Listener Control Utility:

The Listener Control utility enables you to configure listeners to receive client connections. You can access the utility through Enterprise Manager or as a standalone command-line application.

QUESTION 58

While Monitoring the space usage in your database that is in ARCHIVELOG mode you observed that the flash recovery area does not have enough free space to accommodate any more files and you do not have necessary permissions to add more space to it.

Identify the two events that can occur in the event of a log switch? (Choose two.)

- A. An entry is created in the alert log file and the database instance continues to function normally
- B. The log switch hangs occur for transactions until free space is available in the flash recovery area
- C. The Oracle database server deletes a file that is on the obsolete file list to make free space in the flash recovery area
- D. The database instance status is implicitly changed to RESTRICTED mode and file creations to the flash recovery area

Answer: BC

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

Explanation/Reference:

https://netfiles.uiuc.edu/jstrode/www/oraelmt/redo_log_files.html

Log Switch:

A log switch occurs when the database stops writing to one online redo log file and begins writing to another.

Normally, a switch occurs when the current online redo log file is full and writing must continue. However, you can configure log switches to occur at regular intervals, regardless of whether the current online redo log file is filled, and force log switches manually.

Incremental checkpoints:

An incremental checkpoint is a type of thread checkpoint partly intended to avoid writing large numbers of blocks at online redo log switches. DBWn checks at least every three seconds to determine whether it has work to do. When DBWn writes dirty buffers, it advances the checkpoint position, causing CKPT to write the checkpoint position to the control file, but not to the data file headers.

QUESTION 59

Identify the persistent configuration setting for the target database that can be set for the backup by using RMAN. (Choose all that apply.)

- A. Backup retention policy
- B. Default backup device type
- C. Default destinations for backups
- D. Multiple backup device types for single backup
- E. Default section size for backups

Answer: ABC

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 60

Which three statements are true about windows? (Choose three.)

- A. Only one window can be open at any given time
- B. Consumer groups are associated with windows
- C. Windows work with job classes to control resource allocation
- D. The database service name must be provided during windows creation
- E. Windows can automatically start job or change resource allocation among jobs for various time periods.

Answer: ACE

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 61

Which three statements are true about persistent configuration? (Choose three.)

- A. A user cannot set privileges on the persistent lightweight jobs
- B. Persistent lightweight jobs generate a large amount of metadata
- C. It is possible to create fully self-contained persistent lightweight jobs
- D. The use of a template is mandatory to create persistent lightweight jobs
- E. Persistent lightweight jobs are useful when users need to create a large number of jobs in a short time

Answer: ADE

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 62

You want to enable automatic PGA memory management in your database. Which setting is required to achieve this?

- A. Set MEMORY_TARGET to zero
- B. Set the STATISTICS_LEVEL parameter to BASIC
- C. Set the WORKAREA_SIZE_POLICY parameter to MANUAL
- D. Set the PGA_AGGREGATE_TARGET parameter to nonzero value

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

Automatic PGA Memory Management:

When automatic memory management is disabled and PGA_AGGREGATE_TARGET is set to a nonzero value, the database uses automatic PGA memory management.

In this mode, the PGA_AGGREGATE_TARGET specifies a target size for the instance PGA. The database then tunes the size of the instance PGA to this target and dynamically tunes the sizes of individual PGAs. If you do not explicitly set a target size, then the database automatically configures a reasonable default.

QUESTION 63

Examine the parameter setting in your database:

```
SQL> SHOW PARAMETER TARGET
```


NAME	TYPE	VALUE
archive_lag_target	integer	0
db_flashback_retention_target	integer	1440
fast_start_io_target	integer	0
fast_start_mttr_target	integer	0
memory_max_target	big integer	808M
memory_target	big integer	808M
pga_aggregate_target	big integer	0
sga_target	big integer	0


```
SQL> SHOW PARAMETER SGA_MAX_SIZE
```

NAME	TYPE	VALUE
sga_max_size	big integer	808M

Which statement is correct about the database?

- A. Automatic memory management is disabled because PGA_AGGREGATE_TARGET and SGA_TARGET are
- B. The instance is started but the database will not be opened until PGA_AGGREGATE_TARGET and SGA_TARGET
- C. The database is opened but users cannot perform transactions until PGA_AGGREGATE_TARGET and SGA_TARGET
- D. Automatic memory management is enabled and, as per policy, 60% of the memory for System Global Area (SGA)

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

Not sure about the policy stuff, but it's the default behavior when memory_target and memory_max_target are set, sga_max_size is always set automatically to the same value as memory_max_target

http://download.oracle.com/docs/cd/B14117_01/server.101/b10752/memory.htm#47750

Configuring Automatic PGA Memory

When configuring a brand new instance, it is hard to know precisely the appropriate setting for PGA_AGGREGATE_TARGET. You can determine this setting in three stages:

Make a first estimate for PGA_AGGREGATE_TARGET, based on a rule of thumb.
By default, Oracle uses
20% of the SGA size. However, this initial setting may be too low for a large DSS system.

Run a representative workload on the instance and monitor performance, using PGA statistics collected
by Oracle, to see whether the maximum PGA size is under-configured or over-configured.

Tune PGA_AGGREGATE_TARGET, using Oracle PGA advice statistics.

QUESTION 64

Which three functions are performed by the SQL Tuning Advisor? (Choose three.)

- A. Building the SQL profile
- B. Recommending optimization of materialized views
- C. Checking query objects for missing and stale statistics
- D. Recommending bitmap, function-based, and B-tree indexes
- E. Recommending restructuring SQL queries that are using bad plans

Answer: ACE

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

SQL Tuning Advisor Automatic SQL tuning is exposed through SQL Tuning Advisor.

SQL Tuning Advisor runs automatically during system maintenance windows as a maintenance task. During each automatic run, the advisor selects high-load SQL queries in the database and generates recommendations for tuning these queries.

SQL Tuning Advisor recommendations fall into the following categories:

- Statistics analysis
- SQL profiling
- Access path analysis
- SQL structure analysis

A SQL Profile contains additional statistics specific to a SQL statement and enables the optimizer to generate a better execution plan. Essentially, a SQL profile is a method for analyzing a query. Both access path and SQL structure analysis are useful for tuning an application under development or a homegrown production application.

A principal benefit of SQL Tuning Advisor is that solutions come from the optimizer rather than external tools (see "Overview of the Optimizer" on page 7-10). Thus, tuning is performed by the database component that is responsible for the execution plans and SQL performance. The tuning process can consider past execution statistics of a SQL statement and customizes the optimizer settings for this statement.

http://www.remote-dba.net/oracle_10g_new_features/tuning_advisor.htm

How the SQL Tuning Advisor Works:

The optimizer will work in the new tuning mode wherein it conducts an in-depth analysis to come up with a set of recommendations, the rationale for them and the expected benefit if you follow the recommendations. When working in tuning mode, the optimizer is referred to as the Automatic Tuning Optimizer (ATO).

QUESTION 65

In your production database, users report that they are unable to generate reports on an important table because it does not contain any data. While investigating the reason, you realize that another user executed the TRUNCATE TABLE command, which accidentally caused the data to be lost. Now you want to recover the lost data of the table without affecting objects in other schemas.

Which method must you use to recover the lost data?

- A. Complete Recovery with online redo log
- B. Complete Recovery with archived redo log
- C. Tablespace Point-in-Time Recovery (TSPITR)
- D. Incomplete Recovery with system change number (SCN)

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

RMAN TSPITR is most useful for the following situations:

- You want to recover data lost after DDL operations that change the structure of tables.

You cannot use Flashback Table to rewind a table to before the point of a structural change such as a truncate table operation.

QUESTION 66

View the Exhibit.

You are creating a database by using Database Configuration Assistant (DBCA). You have chosen the File System option as the storage mechanism. What would be the result of choosing this option?

Exhibit:

- A. Disk mirroring and striping would be done automatically
- B. The database files would be managed by the operating system's file system
- C. DBCA would not save the database files by using Optimal File Architecture (OFA)
- D. The data files are automatically spread across all available storage devices to optimize performance and resource usage

Answer: B

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 67

View the Exhibit and examine the disk groups created at the time of migrating the database storage to Automatic Storage Management (ASM).

Why does the FRA disk group initially have more free space even though both DATA and FRA disk groups are provided with the same size?

- A. Because the FRA disk group will not support dynamic rebalancing
- B. Because the FRA disk group is not configured to support mirroring
- C. Because disks in the FRA disk group are not formatted at this stage
- D. Because the FRA disk group will support only a single size of allocation unit

Answer: B

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

most logical guess

QUESTION 68

Which two statements are true about a job chain? (Choose two.)

- A. A job chain can contain a nested chain of jobs.
- B. The jobs in a job chain cannot have more than one dependency.
- C. A job of the CHAIN type can be run using event-based or time-based schedules.
- D. The jobs in a job chain can be executed only by using the events generated by the Scheduler

Answer: AC

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 69

View the exhibit and examine the TRANS table's storage information.

After a massive delete operation, you executed the following statement to shrink the TRANS table:

```
SQL> ALTER TABLE trans SHRINK SPACE CASCADE;
```

Which statement describes the outcome of the command?

Exhibit:

Results						
Select	Name	Type	Extent Management	Segment Management	Status	Size (MB)
e	SYSTEM	PERMANENT	LOCAL	AUTO	ONLINE	330,000
e	SYSTEM	PERMANENT	LOCAL	MANUAL	ONLINE	470,000
c	TEMP	TEMPORARY	LOCAL	MANUAL	ONLINE	20,000
c	TT	PERMANENT	LOCAL	MANUAL	ONLINE	0.102
c	UNDOTBS1	UNDO	LOCAL	MANUAL	ONLINE	90,000
c	TRANS	PERMANENT	LOCAL	AUTO	ONLINE	127,500

- A. An error is produced.
- B. The table and all related objects are compacted and the position of the high-water mark (HWM) for the table is updated.
- C. The table and related indexes are compacted but the position of the high-water mark (HWM) for the table remains the same.
- D. The unused space in the table is reclaimed and returned to the tablespace and the data manipulation language (DML) operation is successful.

Answer: B

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Exhibit Reference: 1Z0-043, 10g OCP, Question 9 of 163

CASCADE:

If you specify CASCADE, then Oracle Database performs the same operations on all dependent objects of table, including secondary indexes on index-organized tables.

The CASCADE clause extends the segment shrink operation to all dependent segments of the object. For example, if you specify CASCADE when shrinking a table segment, all indexes of the table will also be shrunk. (You need not specify CASCADE to shrink the partitions of a partitioned table.) To see a list of dependent segments of a given object, you can run the `OBJECT_DEPENDENT_SEGMENTS` procedure of the `DBMS_SPACE` package.

QUESTION 70

You executed the following commands in a database session:

```
SQL> SELECT object_name, original_name FROM user_recyclebin;
```

```
OBJECT_NAME          ORIGINAL_NAME
-----
BIN$QJwAldMyB1LgQJYK+xUptw= = $0 MYSPACE
```

```
SQL> CREATE TABLE myspace AS SELECT * FROM my region;
Table created.
```

```
SQL> SELECT object_name, original_name FROM user_recyclebin;
No rows selected
```

What could have caused the recycle bin to clean up?

- A. There is demand for space from the new table
- B. The undo tablespace does not have sufficient free space

- C. The new table name is the same as the table name in the recycle bin
- D. The temporary tablespace that is assigned to you does not have sufficient free space

Answer: A

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

http://download.oracle.com/docs/cd/B19306_01/backup.102/b14192/flashptr004.htm#i1019426

Recycle Bin Capacity and Space Pressure

There is no fixed amount of space preallocated for the recycle bin. Therefore, there is no guaranteed minimum amount of time during which a dropped object will remain in the recycle bin.

The rules that govern how long an object is retained in the recycle bin and how and when space is reclaimed are explained in this section.

QUESTION 71

Note the following statements that use flashback technology:

1. FLASHBACK TABLE <table> TO SCN <scn>;
2. SELECT * FROM <table> AS OF SCN 123456;
3. FLASHBACK TABLE <table> TO BEFORE DROP;
4. FLASHBACK DATABASE TO TIMESTAMP <timestamp>;
5. SELECT * FROM <table> VERSIONS AS OF SCN 123456 AND 123999;

Which of these statements will be dependent on the availability of relevant undo data in the undo segment?

- A. 1, 2, and 5
- B. 1, 3, and 4
- C. 2, 3, 4, and 5
- D. 1, 2, 3, 4, and 5

Answer: A

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 72

Examine the CREATE DISKGROUP command used to create a disk group:

```
SQL> CREATE DISKGROUP misc EXTERNAL REDUNDANCY  
DISK 'ORCL: FRA3' NAME misc1, 'ORCL: FRA4' NAME misc2;
```

In which situation would you use this method of disk group creation?

- A. When two-way disk mirroring is required for the allocation units
- B. When three-way disk mirroring is required for the allocation units
- C. When using hardware mirroring or RAID
- D. When disk mirroring is required for the Automatic Storage Management (ASM) disks

Answer: C

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 73

Which three tasks can be performed using a duplicate database? (Choose three.)

- A. Testing the backup and recovery procedures
- B. Testing the upgrade of an Oracle database to a new release
- C. Testing the effect of an application changes on database performance
- D. Continuously updating archive log files from the target database to support failover

Answer: ABC

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 74

The user SYS creates a job by using the following command:

```
BEGIN
DBMS_SCHEDULER.CREATE_JOB ( job_name => 'update_sales',
job_type => 'STORED-PROCEDURE',
job_action => 'OPS.SALES_PKG.UPDATE_SALES-SUMMARY',
start_date => '28-DEC-07 07.00.00 PM Australia/Sydney',
repeat_interval => 'FREQ=DAILY; INTERVAL=2',
end_date => '20-JAN-08 07.00.00 PM Australia/Sydney',
comments => 'New sales job');
END;
/
```

Which two statements are true about the job that was created by the preceding command? (Choose two.)

- A. The job is enabled by default after creation
- B. The job is automatically dropped after the end date
- C. The job executes with the privileges of the user SYS
- D. The globalization environment that exists at the time of the job creation prevails at the job runs

Answer: BC

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 75

Tape streaming is not happening while performing RMAN tape backup. On investigation, you find that it is not because of the incremental backup or the empty file backup and that RMAN is sending data blocks to the tape drive fast enough.

What could be a solution to make tape streaming happen during the backup?

- A. Configure backup optimization
- B. Configure the channel to increase MAXOPENFILES
- C. Configure the channel to increase the capacity with the RATE parameter
- D. Configure the channel to adjust the tape buffer size with the BLKSIZE option

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

In the ALLOCATE or CONFIGURE CHANNEL commands, the RATE parameter specifies the bytes/ second that are read on a channel. You can use this parameter to set an upper limit for bytes read so that RMAN does not consume excessive disk bandwidth and degrade online performance. Essentially, RATE serves as a backup throttle. For example, if you set RATE 1500K, and if each disk drive delivers 3 MB/ second, then the channel leaves some disk bandwidth available to the online system.

QUESTION 76

Which two operations are NOT performed by the DUPLICATE command in Recovery Manager (RMAN) while duplicating a running database? (Choose Two)

- A. Creating the control file for the duplicate database
- B. Restoring the target data files to the duplicate database
- C. Performing complete recovery using all available backups
- D. Generating a new, unique DBID for the duplicate database
- E. Copying the online redo log files from the target database to the duplicate database

Answer: CE

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 77

You are using Recovery Manager (RMAN) with a recovery catalog to back up your production database. The backups and the archived redo log files are copied to a tape drive on a daily basis. Because of media failure, you lost your production database completely along with the recovery catalog database.

You want to recover the target database and make it functional. You consider performing the following steps to accomplish the task:

- 1) Restore an autobackup of the server parameter file.
- 2) Restore the control file
- 3) Start the target database instance
- 4) Mount the database
- 5) Restore the data files
- 6) Open the database with RESETLOGS option
- 7) Recover the data files
- 8) Set DBID for the target database

Which option illustrates the correct sequence that you must use?

- A. 8, 1, 3, 2, 4, 5, 7, 6
- B. 1, 8, 3, 4, 2, 5, 7, 6
- C. 1, 3, 4, 2, 8, 5, 6, 7
- D. 1, 3, 2, 4, 6, 5, 7, 8

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

w/o recovery catalog, you must provide dbid for rman to search for spfile autobackup

QUESTION 78

Examine the following ALTER command:

```
SQL> ALTER DISKGROUP dgroup1 UNDROP DISKS;
```

What is the purpose of the command?

- A. It cancels all pending disk drops within the disk group.
- B. It restores disks that are being dropped as the result of a DROP DISKGROUP operation
- C. It mounts disks in the disk group for which the drop-disk operation has already been completed
- D. It restores all the dropped disks in the disk group for which the drop-disk operation has already been completed
- E. It adds previously dropped disks back into the disk group

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

The `UNDROP DISKS` clause of the `ALTER DISKGROUP` statement allows pending disk drops to be undone. It will not revert drops that have completed, or disk drops associated with the dropping of a disk group.

QUESTION 79

The `BACKUP_TAPE_IO_SLAVES` parameter is set to `FALSE` for the database instance. Which statement is true while performing a tape backup in an RMAN session?

- A. The tape I/O performed is asynchronous
- B. The tape buffer is allocated from the System Global Area (SGA)
- C. The tape buffer is allocated from the Program Global Area (PGA)
- D. Oracle I/O uses an interrupt mechanism to determine when each I/O completes

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/B10501_01/server.920/a96566/rcmtunin.htm#449408
RMAN allocates the tape buffers in the SGA or the PGA, depending on whether I/O slaves are used. If you set the initialization parameter `BACKUP_TAPE_IO_SLAVES = true`, then RMAN allocates tape buffers from the SGA or the large pool if the `LARGE_POOL_SIZE` initialization parameter is set. If you set the parameter to false, then RMAN allocates the buffers from the PGA.

QUESTION 80

The database is currently open and the temp03.dbf tempfile belonging to the default temporary tablespace TEMP has been corrupted. What steps should you take to recover from this tempfile loss in an efficient manner?

- A. Allow the database to continue running, drop the TEMP tablespace, and then re-create it with new tempfiles
- B. Shut down the database, restore and recover the tempfile from backup, and then open the database with `RESETLOGS`
- C. Allow the database to continue running, take the TEMP tablespace offline, drop the missing tempfile, and then open the database with `RESETLOGS`
- D. Allow the database to continue running, add a new tempfile to TEMP tablespace with a new name, and drop the corrupted one

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 81

Identify two advantages of using recovery catalog instead of the control file of the database in Recovery Manager (RMAN).
(Choose two.)

- A. You can use RMAN stored scripts
- B. Recovery is faster if data is stored in catalog in addition to the control file
- C. You can store backup information of all registered databases in one place
- D. Database backups are automatically deleted when they are older than the specified time period

Answer: AC

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 82

Which two commands never trigger an implicit rebalancing within the disk group?. (Choose two.)

- A. ALTER DISKGROUP misc MOUNT;
- B. ALTER DISKGROUP misc DROP DISK misc2;
- C. ALTER DISKGROUP misc CHECK ALL NOREPAIR;
- D. ALTER DISKGROUP misc RESIZE ALL SIZE 1023m;
- E. ALTER DISKGROUP dgroupA ADD DISK '/devices/A*';

Answer: AC

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 83

You want to take the backup of the USERS tablespace. It has a single data file of 900 MB. You have tape drives of 300 MB each. The SBT channel is configured for Recovery Manager (RMAN).

To accomplish the backup, you issued the following RMAN command:

```
RMAN> BACKUP SECTION SIZE 300M TABLESPACE users;
```

Which two statements are true about the execution of the above command? (Choose two.)

- A. The backup piece size will be limited to 300 MB
- B. The RMAN uses multiplexing to perform backup
- C. The operation is accomplished using the default channel available
- D. The RMAN parallelizes the backup although the parallelism is not set for a channel

Answer: AC

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 84

You want to configure the Flashback Database feature and retain flashback logs for three days. Presently the database is open and configured in ARCHIVELOG mode.

The following steps must be performed in the correct sequence to do this:

1. Set the retention target:

```
SQL> ALTER SYSTEM SET DB_FLASHBACK_RETENTION_TARGET=4320;
```

2. Enable Flashback Database:

```
SQL> ALTER DATABASE FLASHBACK ON;
```

3. Mount the database:

```
SQL> STARTUP MOUNT EXCLUSIVE
```

4. Shutdown the instance:

```
SQL> SHUTDOWN IMMEDIATE
```

5. Open the database:

```
SQL> ALTER DATABASE OPEN;
```

Choose the correct sequence.

- A. 4, 1, 3, 2, 5
- B. 4, 3, 1, 2, 5
- C. 2, 4, 3, 5, 1
- D. 4, 2, 5, 3, 1

Answer: B

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 85

View the Exhibit and examine the output.

You execute the following RMAN command to perform the backup operation:

```
RMAN> RUN {  
  ALLOCATE CHANNEL c1 DEVICE TYPE disk MAXOPENFILES 8;  
  BACKUP DATABASE FILESPERSET 4;  
}
```

What is the multiplexing level in the preceding backup process?

- A. 4
- B. 8
- C. 7
- D. 0

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

The MAXOPENFILES parameter of ALLOCATE CHANNEL or CONFIGURE CHANNEL defines how many datafiles RMAN can read from simultaneously. The basic multiplexing algorithm is as follows:

- Number of files in each backup set

This number is the minimum of the FILESPERSET setting and the number of files read by each channel. The FILESPERSET default is 64.

- The level of multiplexing

This is the number of input files simultaneously read and then written into the same backup piece. The level of multiplexing is the minimum of MAXOPENFILES and the number of files in each backup set. The MAXOPENFILES default is 8. Suppose that you back up 12 datafiles with one channel when FILESPERSET is set to 4. The level of multiplexing is the lesser of this number and 8. Thus, the channel simultaneously writes blocks from 4 datafiles into each backup piece. Now suppose that you back up 50 datafiles with one channel. The number of files in each backup set is 50. The level of multiplexing is the lesser of this number and 8. Thus, the channel simultaneously writes blocks from 8 datafiles into each backup piece.

http://www.filibeto.org/sun/lib/nonsun/oracle/11.1.0.6.0/B28359_01_200708/backup.111/b28270/rcmtunin.htm

Tuning RMAN Performance

QUESTION 86

To enable faster incremental backups, you enabled block change tracking for the database.

Which two statements are true about the block change tracking file? (Choose two.)

- A. Multiple change tracking files can be created for a database.
- B. The change tracking file must be created after the first level 0 backup.
- C. RMAN does not support backup and recovery of the change tracking file.
- D. The database clears the change tracking file and starts tracking changes again, after whole database restore.

Answer: CD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 87

Which options would you consider while configuring a flash recovery area (fast recovery area in 11g Release 2) for your production database that is running in ARCHIVELOG mode? (Choose all that apply.)

- A. Setting the FAST_START_MTTR_TARGET to set the mean time to recover
- B. Setting the RECOVERY_PARALLELISM parameter to twice the number of CPUs
- C. Using the DB_RECOVERY_FILE_DEST parameter to set the location for flash recovery area
- D. Using the DB_RECOVERY_FILE_DEST_SIZE parameter to define the disk space limit for the recovery files created in the flash recovery area

Answer: CD

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 88

You want to take a complete database backup using RMAN. The backup should consist only the used blocks from your database.

Which two statements are true about this backup operation? (Choose two.)

- A. Backup compression should be enabled
- B. Parallelism for the channel should be set to 2
- C. All the files must be backed up as backup sets
- D. The backup may be stored either on disk or on media with media manager

Answer: CD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 89

Which two statements are true about the Automatic Diagnostic Repository (ADR)? (Choose two.)

- A. The ADR base keeps all diagnostic information in binary format
- B. SQL*Plus provides the ADRI script, which can be used to work with ADR
- C. The ADR can be used for problem diagnosis only when the database is open
- D. The ADR can be disabled by setting the DIAGNOSTIC_DEST parameter to null
- E. The ADR can be used for problem diagnosis even when the database instance is down
- F. The ADR base is shared across multiple instances

Answer: EF

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Automatic Diagnostic Repository (ADR)

The ADR is a file-based repository for database diagnostic data such as traces, dumps, the alert log, health monitor reports, and more. It has a unified directory structure across multiple instances and multiple products. Beginning with Release 11g, the database, Oracle Automatic Storage Management (Oracle ASM), the listener, and other Oracle products or components store all diagnostic data in the ADR. Each instance of each product stores diagnostic data underneath its own home directory within the ADR. For example, in an Oracle Real Application Clusters environment with shared storage and Oracle ASM, each database instance and each Oracle ASM instance has an ADR home directory. ADR's unified directory structure, consistent diagnostic data formats across products and instances, and a unified set of tools enable customers and Oracle Support to correlate and analyze diagnostic data across multiple instances.

Note:

Beginning with Release 11g of Oracle Database, because all diagnostic data, including the alert log, are stored in the ADR, the initialization parameters `BACKGROUND_DUMP_DEST` and `USER_DUMP_DEST` are deprecated. They are replaced by the initialization parameter `DIAGNOSTIC_DEST`, which identifies the location of the ADR.

The Automatic Diagnostic Repository (ADR) is a directory structure that is stored outside of the database. It is therefore available for problem diagnosis when the database is down.

The ADR root directory is known as ADR base. Its location is set by the `DIAGNOSTIC_DEST` initialization parameter. If this parameter is omitted or left null, the database sets `DIAGNOSTIC_DEST` upon startup as follows:

* If environment variable `ORACLE_BASE` is set, `DIAGNOSTIC_DEST` is set to the directory designated by `ORACLE_BASE`.

* If environment variable `ORACLE_BASE` is not set, `DIAGNOSTIC_DEST` is set to `ORACLE_HOME/log`.

QUESTION 90

You are working in an online transaction processing (OLTP) environment. You use the `FLASHBACKTABLE` command to flash back the `CUSTOMERS` table. Before executing the `FLASHBACK TABLE` command, the system change number (SCN) was 663571. After flashing back the `CUSTOMERS` table, you realize that the table is not in the correct state. Now, you need to reverse the effects of the `FLASHBACK TABLE` command.

Which is the fastest and the most efficient option to reverse the effects of the `FLASHBACK TABLE` command?

- A. Restore the backup control file and open the database with `RESETLOGS` option.
- B. Perform point-in-time recovery because flashback cannot be performed again on this table
- C. Execute the `FLASHBACK DATABASE` statement to retrieve the `CUSTOMERS` table as it was at SCN 663571
- D. Execute another `FLASHBACK TABLE` statement to retrieve the `CUSTOMERS` table as it was at SCN 663571

Answer: D

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

Explanation/Reference:**Undoing a Flashback Table Operation**

It is important to note your current SCN before using a Flashback Table operation.

Use the FLASHBACK TABLE statement again to go back to just before you were when you issued the first statement.

QUESTION 91

What does the DB_FLASHBACK_RETENTION_TARGET parameter configure?

- A. An upper limit on how far you can flash back the database, depending on the information in the redo logs
- B. An upper limit on how far you can flash back the database, depending on the information in the undo tablespaces
- C. The amount of time for which the flashback data is to be kept in the flash recovery area, provided that there is space
- D. The amount of time for which the flashback data is guaranteed to be kept in the undo tablespace, provided there is space

Answer: C

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 92

Examine the following RMAN script:

```
RMAN> run {  
  debug on;  
  allocate channel c1 type disk;  
  backup datafile 5;  
}
```

Which statement describes the purpose of the script?

- A. The data file is checked for physical corruption and backed up if found clean.
- B. The backup of data file 5 is performed and the interactive messages during the backup are suppressed.
- C. The existing backup for the data file is checked and the backup is performed if there are changes in the data file.
- D. The backup of data file 5 is performed and all SQL statements that are executed during RMAN compilation are backed up.

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

<http://www.cs.bris.ac.uk/maintain/OracleDocs/server.816/a76990/troubler.htm>

RMAN debugging output is so highly detailed that you may find yourself unable to distinguish the useful from the useless information. Execute the following command in debug mode:


```
run{ allocate channel c1 type disk; backup tablespace TBS_5,  
TBS_6; }
```

QUESTION 93

User SCOTT wants to back out the transactions on the REGIONS table in his schema. As a DBA, which commands must you execute to enable SCOTT to flash back the transactions? (Choose four.)

- A. ALTER DATABASE FLASHBACK ON;
- B. GRANT SELECT any transaction TO scott;
- C. GRANT EXECUTE ON dbms_flashback TO scott;
- D. ALTER DATABASE ADD SUPPLEMENTAL LOG DATA;
- E. ALTER TABLESPACE undots1 RETENTION GUARANTEE;
- F. ALTER DATABASE ADD SUPPLEMENTAL LOG DATA (PRIMARY KEY) COLUMNS;

Answer: BCDF

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 94

After you have restored and recovered a database to a new host by using a previously performed Recovery Manager (RMAN) backup, which is the best option you would consider for the new database?

- A. Opening the database in RESTRICTED mode
- B. Opening the database with the RESETLOGS option
- C. Setting a new DBID for the newly restored database
- D. Restoring the server parameter file (SPFILE) to the new host

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://www.di.unipi.it/~ghelli/didattica/bdldoc/B19306_01/backup.102/b14191/rcmrecov002.htm

QUESTION 95

For which two database objects can the VERSIONS clause of the Flashback Versions Query be used? (Choose two.)

- A. views

- B. fixed tables
- C. heap tables
- D. external tables
- E. temporary tables
- F. index-organized tables (IOT)

Answer: CF

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 96

Examine the following RMAN command:

```
RMAN> CONFIGURE ENCRYPTION FOR DATABASE ON;  
RMAN> BACKUP DATABASE PLUS ARCHIVELOG;
```

Which prerequisite must be met before accomplishing the backup?

- A. Provide a password for the encryption
- B. Set up an Oracle wallet for the encryption
- C. No setup is required as it is a default encryption method
- D. Both Oracle wallet and password must be set up for the encryption

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/backup.111/b28270/rcmconfa.htm

To configure the environment so that all RMAN backups are encrypted:
Set up the Oracle wallet as explained in Oracle Database Advanced Security Administrator's Guide.

Issue the following RMAN command:

```
CONFIGURE ENCRYPTION FOR DATABASE ON;
```

At this stage, all RMAN backup sets created by this database will use transparent encryption by default.

QUESTION 97

You plan to control idle sessions that are blocking other sessions from performing transactions.

Your requirement is to automatically terminate these blocking sessions when they remain idle for a specified amount of time.

How would you accomplish this task?

- A. Set metric threshold
- B. Implement Database Resource Manager
- C. Enable resumable timeout for user sessions
- D. Add directives to Automatic Database Diagnostic Monitor (ADDM)

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 98

You want to create the Recovery Manager (RMAN) Virtual Private Catalog (VPC) to maintain a separation of responsibilities along with a consolidation of RMAN repository. Which condition must be met before you create the VPC?

- A. A base catalog exists
- B. The recovery catalog is empty
- C. The base recovery catalog must be dropped
- D. A target database is registered in the recovery catalog

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 99

Consider the following scenario for your database:

- Backup optimization is enabled in RMAN.
- The recovery window is set to 7 days in RMAN.
- The most recent backup to disk for the TOOLS tablespace was taken on November 3, 2007.
- The TOOLS tablespace is read-only since November 4, 2007.

On November 23, 2007, you issue the RMAN command to back up the database to disk.

Which statement is true regarding the backup of the TOOLS tablespace?

- A. The RMAN backup fails because the TOOLS tablespace is read-only
- B. The RMAN skips the backup of the tablespace because backup optimization is enabled
- C. The RMAN makes backup because optimization can be enabled only for backups to disk
- D. The RMAN makes the backup because no backup of the tablespace exists within the seven day window

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

<http://web.njit.edu/info/limpid/DOC/backup.102/b14191/rcmconc1008.htm>

With a recovery window-based retention policy:

For backups to tape, RMAN takes another backup of a file, even if a backup of an identical file exists, if the most recent backup is older than the configured recovery window. This is done to allow media to be recycled after the media expires.

For backups to disk, RMAN skips taking the backup if an identical file is available from a backup on disk, even if that backup is older than the beginning of the recovery window. The retention policy causes RMAN to retain the old backup for as long as it is needed.

QUESTION 100

The EMP table exists in your schema. You want to execute the following query:

```
SELECT ename, sal
FROM emp
AS OF TIMESTAMP (SYSTIMESTAMP - INTERVAL '6' MINUTE)
WHERE ename = 'ALLEN';
```

What are the minimum requirements for the statement to execute successfully? (Choose all that apply)

- A. ARCHIVELOG mode must be enabled
- B. Row Movement must be enabled for the table
- C. FLASHBACK must be set to ON for the database
- D. The UNDO_MANAGEMENT parameter must be set to AUTO
- E. The UNDO_RETENTION parameter must be set appropriately

Answer: DE

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 101

Note the following parameters settings in your database:

```
SGA_MAX_SIZE = 1024M
SGA_TARGET = 700M
DB_8K_CACHE_SIZE = 124M
LOG_BUFFER = 200M
```

You issued the following command to increase the value of DB_8K_CACHE_SIZE:

```
SQL> ALTER SYSTEM SET DB_8K_CACHE_SIZE=140M;
```

What would happen?

- A. It will fail because DB_8K_CACHE_SIZE parameter cannot be changed dynamically
- B. It will be successful only if the memory is available from the auto tuned components
- C. It will fail because an increase in DB_8K_CACHE_SIZE cannot be accommodated within SGA_TARGET
- D. It will fail because an increase in the DB_8K_CACHE_SIZE cannot be accommodated within SGA_MAX_SIZE

Answer: D

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Whoever wrote this question is on dope.. log_buffer=200M? How does one set that?

http://www.dba-oracle.com/art_tr_multiblock.htm

Allocating many RAM data buffers

In Oracle, you can start using new RAM buffers at any time. However, when you add space to a new data buffer, you must make sure that RAM is available within the Oracle SGA. Otherwise, you'll get this error:

```
SQL> alter system set db_16k_cache_size=10m;

alter system set db_16k_cache_size=10m
ERROR at line 1:
ORA-02097: parameter cannot be modified because specified value
is invalid
ORA-00384: Insufficient memory to grow cache
```

To get around this problem, you can reduce the size of an existing RAM region or tell Oracle to increase the SGA size. Increasing the total size of the RAM SGA is accomplished with this simple command:

```
alter system set sga_max_size=130m scope=spfile;
```

Now that you have room to add frames to a new pool, add a new data buffer, and issue an alter system command, like so:

```
alter system set db_16k_cache_size=1028576;
System Altered.
```

You can verify that this new buffer exists by viewing the current Oracle parameters with this command:

```
SQL> show parameters cache_size
```

QUESTION 102

The SQL Tuning Advisor configuration has default settings in your database instance. Which recommendation is automatically implemented after the SQL Tuning Advisor is run as part of the automatic maintenance task?

- A. statistics recommendations
- B. SQL Profile recommendations
- C. Index-related recommendations
- D. restructuring of SQL recommendations

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/server.111/b28274/sql_tune.htm#CHDIBFGA

During the tuning process, all recommendation types are considered and reported, but only SQL profiles can be implemented automatically.

QUESTION 103

The BOOKINGS table contains online booking information. When a booking is confirmed, the details are transferred to an archival table BOOKINGS_HIST and deleted from the BOOKINGS table. There is no fixed time interval between each online booking and its confirmation. Because sufficient space is not always available from the delete operations the high-water mark (HWM) is moved up and many rows are inserted below the HWM of the table. The BOOKINGS table has Automatic Segment Space Management (ASSM) and row movement enabled. The table is accessible in 24x7 mode.

What is the most efficient method to reclaim the space released by the delete operations in the BOOKINGS table

- A. Perform EXPORT, DROP, and IMPORT operations on the BOOKINGS table sequentially
- B. Shrink the BOOKINGS table by using the ALTER TABLE... SHRINK SPACE command
- C. Move the BOOKINGS table to a different location by using the ALTER TABLE... MOVE command
- D. Deallocate the space in the BOOKINGS table by using the ALTER TABLE ... DEALLOCATE UNUSED command

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 104

The ORACLE_SID environment variable is set to +ASM. ASMLIB is not used in the configuration. You executed the following command to startup the Automatic Storage Management (ASM) instance.

```
SQL> STARTUP;
```

Which two activities are performed during a successful start up operation? (Choose two.)

- A. The databases configured to use the ASM instance are mounted
- B. The disk groups are mounted as per the ASM_DISKGROUPS initialization parameter
- C. ASM starts the Oracle Cluster Synchronization Services (CSS) daemon if it is not started
- D. ASM discovers and examines the contents of all files that are in the paths specified in the ASM_DISKGROUPS initialization parameter

Answer: BC

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

There is only 1 good answer.. D would be correct if ASM_DISKGROUPS is replaced with ASM_DISKSTRING ASM does not start CSS it may prompt user to run local config add to start CSS service.

http://download.oracle.com/docs/cd/B14117_01/server.101/b10739/storeman.htm#i1013975

Starting Up an ASM Instance

ASM instances are started similarly to Oracle database instances with some minor differences. These are:

- The initialization parameter file, which can be a server parameter file, must contain:
`INSTANCE_TYPE = ASM`
- This parameter signals the Oracle executable that an ASM instance is starting and not a database instance.
- Using a server parameter file is recommended because it eliminates the need to make manual changes to a text initialization parameter file.
- For ASM instances, STARTUP tries to mount the disk groups specified by the initialization parameter ASM_DISKGROUPS and not the database.

Further, the SQL*Plus STARTUP command parameters are interpreted by Automatic Storage Management as follows:

STARTUP Parameter ^a	Description ^a
FORCE ^c	Issues a SHUTDOWN · ABORT to the ASM instance before restarting it ^c
MOUNT ^c	Mounts the disk groups specified in the ASM_DISKGROUPS initialization parameter ^c
NOMOUNT ^c	Starts up the ASM instance without mounting any disk groups ^c
OPEN ^c	Invalid for an ASM instance ^c

The following is a sample SQL*Plus session where an ASM instance is started:

```
% sqlplus /nolog
SQL> CONNECT / AS sysdba
Connected to an idle instance.
SQL> STARTUP
ASM instance started
Total System Global Area 147936196 bytes
Fixed Size 324548 bytes
Variable Size 96468992 bytes
Database Buffers 50331648 bytes
Redo Buffers 811008 bytes
ASM diskgroups mounted
```

ASM Instance Memory Requirements

ASM instances are smaller than database instances. A 64 MB SGA should be sufficient for all but the largest ASM installations.

Disk Discovery

When an ASM instance initializes, ASM is able to discover and look at the contents of all of the disks in the disk groups that are pointed to by the ASM_DISKSTRING initialization parameter. This saves you from having to specify a path for each of the disks in the disk group.

Disk group mounting requires that an ASM instance doing disk discovery be able to access all the disks within the disk group that any other ASM instance having previously mounted the disk group believes are members of that disk group. It is vital that any disk configuration errors be detected before a disk group is mounted.

Automatic Storage Management attempts to identify the following configuration errors:

A single disk with different mount points is presented to an ASM instance. This can be caused by multiple paths to a single disk. In this case, if the disk in question is part of a disk group, disk group mount fails. If the disk is being added to a disk group with ADD DISK or CREATE DISKGROUP, the command fails. To correct the error, restrict the disk string so that it does not include multiple paths to the same disk.

Multiple ASM disks, with the same ASM label, passed to separate ASM instances as the same disk. In this case, disk group mount fails.

Disks that were not intended to be ASM disks are passed to an ASM instance by the discovery function. ASM does not overwrite a disk if it recognizes the header as that of an Oracle object.

Disk Group Recovery

When an ASM instance fails, then all Oracle database instances on the same node as that ASM instance and that use a disk group managed by that ASM instance also fail. In a single

ASM instance configuration, if the ASM instance fails while ASM metadata is open for update, then after the ASM instance reinitializes, it reads the disk group log and recovers all transient changes.

With multiple ASM instances sharing disk groups, if one ASM instance should fail, another ASM instance automatically recovers transient ASM metadata changes caused by the failed instance. The failure of an Oracle database instance is not significant here because only ASM instances update ASM metadata.

QUESTION 105

Examine the output of the query that you executed to list the objects in the recycle bin:

```
SQL> SELECT original_name, droptime, dropscn FROM user_recyclebin;
```

ORIGINAL_NAME	DROPTIME	DROPSCN
SALES_TAB	2007-12-11:13:37:11	4472036
SALES_TAB	2007-12-11:13:49:30	4472988
SALES_TAB	2007-12-11:13:55:39	4473100

You verified that no table named SALES_TAB exists in the schema. Then you executed the following command to purge the objects in the recycle bin:

```
SQL> PURGE TABLE sales_tab;
```

What would be the outcome of this command?

- A. All three tables in the recycle bin are purged
- B. Only the table with the oldest DROPSCN is purged
- C. The command returns an error because multiple entries with the same name exist in the recycle bin
- D. Only the table with the latest DROPSCN is purged

Answer: B

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

verified

http://download.oracle.com/docs/cd/B14117_01/server.101/b10759/statements_9018.htm

If you specify the user-specified name, and if the recycle bin contains more than one object of that name, then the database purges the object that has been in the recycle bin the longest.

Use the PURGE statement to remove a table or index from your recycle bin and release all of the space associated with the object, or to remove the entire recycle bin, or to remove part of all of a dropped tablespace from the recycle bin.

When the database purges a table, all table partitions, LOBs and LOB partitions, indexes, and other dependent objects of that table are also purged.

Caution:

You cannot roll back a PURGE statement, nor can you recover an object after it is purged.

The database object must reside in your own schema or you must have the DROP ANY... system privilege for the type of object to be purged, or you must have the SYSDBA system privilege.

QUESTION 106

View the Exhibit and examine the resource consumption details for the current plan in use by the database instance.

Which two statements are true based on the output? (Choose two.)

Exhibit:

NAME	ACTIVE_SESSIONS	QUEUE_LENGTH	CONSUMED_CPU_TIME	CPU_WAITS	CPU_WAIT_TIME
OLTP_ORDER_ENTRY	1	0	29690	467	6709
OTHER_GROUPS	0	0	5982366	4089	60425
SYS_GROUP	1	0	2420704	914	19540
DSS_QUERIES	4	2	4594660	3004	55700

- A. An attempt to start a new session by the user belonging to DSS_QUERIES fails with an error
- B. A user belonging to DSS_QUERIES can log in to a new session but the session will be queued
- C. The CPU_WAIT_TIME column indicates the total time that sessions in the consumer group waited for the CP
- D. The CPU_WAIT_TIME column indicates the total time that sessions in the consumer group waited for the CP

Answer: BC

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/server.111/b28310/dbrm009.htm

V\$RSRC_CONSUMER_GROUP

Use the V\$RSRC_CONSUMER_GROUP view to monitor CPU usage and CPU waits. It provides the cumulative amount of CPU time consumed, cumulative amount of time waiting for CPU, and cumulative number of CPU waits by all sessions in each consumer group. It also provides a number of other measures helpful for tuning.

```
SQL> SELECT name, active_sessions, queue_length,  
consumed_cpu_time, cpu_waits, cpu_wait_time
```

```
FROM v$rsrc_consumer_group;
```

QUESTION 107

Because of a logical corruption in your production database, you wanted to perform Tablespace Point in Time Recovery (TSPITR). But before you start the recovery, you queried the TS_PITR_OBJECTS_TO_BE_DROPPED view and realized that there are a large number of objects that would be dropped when you start the recovery by using this method.

You want to preserve these objects. Which option must you use to perform TSPITR and preserve the object?

- A. Perform Export before TSPITR and Import after TSPITR
- B. Move objects to another schema that has the same tablespace assigned
- C. Perform Incomplete Recovery before TSPITR with the Log Sequence Number (LSN)
- D. Perform Incomplete Recovery before TSPITR with the System Change Number (SCN)

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 108

You are using a recovery catalog to maintain Recovery Manager (RMAN) backup information for your production database. You have registered your production database and are performing regular backups. Because of a new requirement you have added a few new tablespaces to your production database and you want them to be included in backups.

Identify two options for completing this task. (Choose two.)

- A. Reregistering the target database in recovery catalog
- B. Transporting the new tablespaces to the recovery catalog database
- C. Synchronizing the recovery catalog with the target database control file
- D. Performing a fresh backup of the target database to include the new data files in the catalog database

Answer: CD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 109

You executed the following command in the Recovery Manager (RMAN):

```
RMAN> REPORT NEED BACKUP days 3;
```

What is the output of this command?

- A. A list of files that require a backup within 3 days

- B. A list of files requiring more than 3 days of archive logs to apply
- C. A list of files that RMAN recommends be backed up only once in every three days, based on low volatility
- D. A list of files for which a backup has already been performed in the last three days and which is required to be backed up again based on the high number of transactions performed on them

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

http://download.oracle.com/docs/cd/B10501_01/server.920/a96566/rcmquery.htm#442383

To override the retention policy (or if you do not have a retention policy enabled), run `REPORT NEED BACKUP DAYS`. Any files older than the `DAYS` parameter value need a new backup because their backups require the specified number of `DAYS` worth of archived logs for recovery.

QUESTION 110

In Recovery Manager (RMAN), you are taking image copies of the datafiles of your production database and rolling them forward as regular intervals. You attempt to restart your database instance after a regular maintenance task, you realize that one of the data files that belongs to the `USERS` tablespace is damaged and you need to recover the datafile by using the image copy. You could perform the following steps to accomplish this:

- 1) Mount the database
- 2) Take the data file offline
- 3) Bring the data file online
- 4) Use the `RMAN SWITCH TO` command to switch the image copy
- 5) Apply the archived redo logs
- 6) Open the database
- 7) Use the `RMAN RESTORE TO` command to switch to the image copy

Which two options illustrate the correct sequence of steps that you could follow? (Choose two.)

- A. 2, 6, 4, 5, 3
- B. 1, 2, 4, 5, 3, 6
- C. 1, 2, 4, 6, 3
- D. 1, 2, 7, 5, 3, 6

Answer: BD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

1,2,4,5,3,6 or 1,2,7,5,3,6

QUESTION 111

Which two statements are true about the duplexing of the backups taken by RMAN? (Choose two.)

- A. It's only supported for the backups performed on the tape
- B. It is not supported for backup operations that produce image copies
- C. Duplex backups need a parallelism for the device to be equal to number of copies
- D. Duplex backups can be performed to either disk or tape, but cannot be performed on tape and disk simultaneously

Answer: BD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager

(RMAN)RMAN-03002: failure of backup command at 02/09/2011 15:37:15

RMAN-06580: the copies option cannot be used with AS COPY

QUESTION 112

You are using Recovery Manager (RMAN) for backup and recovery operations with a recovery catalog. You have been taken database backups every evening. On November 15, 2007, at 11:30 AM, you were informed that the USER_DATA tablespace was accidentally dropped.

On investigation, you found that the tablespace existed until 11:00 AM, and important transactions were done after that.

So you decided to perform incomplete recovery until 11:00 AM. All the archive logs needed to perform recovery are intact. In NOMOUNT state you restored the control file that has information about the USER_DATA tablespace from the latest backup. Then you mounted the database.

Identify the next set of commands that are required to accomplish the task?

- A. RMAN> run
{
SET UNTIL TIME 'Nov 15 2007 11:00:00';
RESTORE DATABASE;
RECOVER DATABASE;
}
- B. RMAN> run
{
SET UNTIL TIME 'Nov 15 2007 11:00:00';
RESTORE DATABASE;
RECOVER DATABASE USING BACKUP CONTROLFILE;
}
- C. RMAN> run
{

```

RESTORE DATABASE;
RECOVER DATABASE UNTIL TIME 'Nov 15 2007 11:00:00';
}
D. RMAN> run
{
RESTORE TABLESPACE user_data;
RECOVER TABLESPACE user_data UNTIL TIME 'Nov 15 2007 11:00:00';
}

```

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Perform the following operations within a RUN block:

1.
Use SET UNTIL to specify the target time, restore point, SCN, or log sequence number for DBPITR. If specifying a time, then use the date format specified in the NLS_LANG and NLS_DATE_FORMAT environment variables.
2.
If automatic channels are not configured, then manually allocate disk and tape channels as needed.
3.
Restore and recover the database.

The following example performs DBPITR on the target database until SCN 1000:

```

RUN
{
SET UNTIL SCN 1000;
RESTORE DATABASE;
RECOVER DATABASE;
}

```

As shown in the following examples, you can also use time expressions, restore points, or log sequence numbers to specify the SET UNTIL time:

```

SET UNTIL TIME 'Nov 15 2004 09:00:00';
SET UNTIL SEQUENCE 9923;
SET UNTIL RESTORE POINT before_update;

```

QUESTION 113

You create two resource plans, one for data warehouse loading jobs at night and the other for application jobs at day time. You want the resource plans to activate automatically so that the

resource allocation is optimum as desired by the activity.

How would you achieve this?

- A. Implement job classes
- B. Implement Scheduler windows
- C. Implement the mapping rule for the consumer groups
- D. Set the SWITCH_TIME resource plan directive for both the resource plans

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

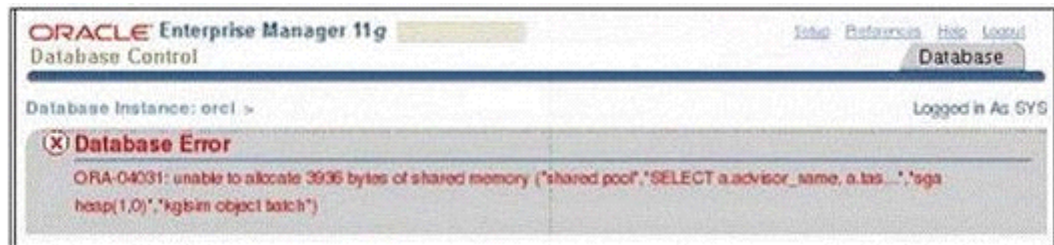
QUESTION 114

View the Exhibit to observe the error.

You receive this error regularly and have to shutdown the database instance to overcome the error. Automatic Shared Memory Management is configured for the instance. What can you do to reduce the chance of this error in the future?

View Exhibit:

Exhibit:



- A. Increase the value of SGA_MAX_SIZE
- B. Enable automatic memory management
- C. Set the PRE_PAGE_SGA parameter to true
- D. Lock the System Global Area (SGA) in memory

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 115

You want to schedule a job to rebuild all indexes on the SALES table after the completion of a bulk load operation. The bulk load operation must also be a scheduled job that executes as soon as the first file that contains data arrives on the system.

How would you create these jobs?

- A. Create both jobs by using events raised by the scheduler
- B. Create both jobs by using events raised by the application
- C. Create a job to rebuild indexes by using events arised by the application and then create another job to perform
- D. Create a job to rebuild indexes by using events arised by the Scheduler and then create another job to perform

Answer: D

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 116

View the Exhibits: Exhibit 1 and Exhibit 2

Both processes use an existing job template PROG_1. The time taken by the jobs are recorded in the TEST_LOG table. It was observed that the job creation process in exhibit 1 takes less time than in exhibit 2.

What is the reason for this?

Exhibit:

Exhibit #1:

```
DECLARE
newjob sys.job;
newjobarr sys.job_array;
newjobname VARCHAR2(30);
BEGIN
newjobarr := sys.job_array();
newjobarr.extend(10);
FOR j in 1..61 LOOP
FOR i IN 1..10 LOOP
newjob := sys.job(job_name => 'LMTJK' || to_char(i) || '_' || to_char(j),
job_style => 'LIGHTWEIGHT',
job_template => 'PROG_1',
enabled => TRUE
);
newjobarr(i) := newjob;
END LOOP;
END LOOP;
INSERT INTO TEST_LOG
VALUES('LMTJ','START',SYSTIMESTAMP);
DBMS_SCHEDULER.CREATE_JOBS(newjobarr, 'TRANSACTIONAL');
INSERT INTO TEST_LOG
VALUES('LMTJ','END',SYSTIMESTAMP);
END LOOP;
END;
```

Exhibit #2:

```
DECLARE
newjob sys.job;
newjobarr sys.job_array;
newjobname VARCHAR2(30);
BEGIN
newjobarr := sys.job_array();
newjobarr.extend(10);
FOR j in 1..61 LOOP
FOR i IN 1..10 LOOP
newjob := sys.job(job_name => 'REGJK' || to_char(i) || '_' || to_char(j),
job_style => 'REGULAR',
job_template => 'PROG_1',
enabled => TRUE
);
newjobarr(i) := newjob;
END LOOP;
END LOOP;
INSERT INTO TEST_LOG
VALUES('REGJOB','START',SYSTIMESTAMP);
DBMS_SCHEDULER.CREATE_JOBS(newjobarr, 'TRANSACTIONAL');
INSERT INTO TEST_LOG
VALUES('REGJOB','END',SYSTIMESTAMP);
END LOOP;
END;
```

- A. It creates less metadata for jobs
- B. It creates jobs temporarily in memory only
- C. It writes the jobs metadata to disk in compressed format
- D. It updates tables in SYSTEM tablespace instead of creating new tables

Answer: A

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

job_style=>'lightweight'

QUESTION 117

You want to track and store all transactional changes to a table over its lifetime. To accomplish this task, you enabled Flashback Data Archive with the retention of 5 years. After some time, the business requirement changed and you are asked to change the retention period from 5 years to 3 years. To accomplish this, you issued the following command:

```
ALTER FLASHBACK ARCHIVE fla1 MODIFY RETENTION 3 YEARS;
```

What is the outcome of this command?

- A. The command produces an error because the retention period cannot be reduced
- B. All historical data older than 3 years is purged from the flashback archive FLA1
- C. All historical data is retained but the subsequent flashback data archives are maintained for only 3 years
- D. All historical data is transferred to flashback logs and the flashback archive is refreshed to set a new retention time

Answer: B

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

QUESTION 118

Which two statements are true regarding an Automatic Storage Management (ASM) instance? (Choose two.)

- A. As ASM instance mounts an ASM control file
- B. An ASM instance uses the ASMB process for rebalancing of disks within a disk group
- C. Automatic Memory Management is enabled in an ASM instance even when the `MEMORY_TARGET` parameter is not set
- D. An RDBMS instance gets connected to an ASM instance using ASMB as a foreground process when the datafile is not in ASM

Answer: CD

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

http://download.oracle.com/docs/cd/B28359_01/server.111/b31107/asminst.htm

Automatic memory management is enabled by default on an ASM instance, even when the `MEMORY_TARGET` parameter is not explicitly set.

ASMB runs in a database instance that is using an ASM disk group. ASMB communicates with the ASM instance, managing storage and providing statistics. ASMB can also run in the ASM instance. ASMB runs in ASM instances when the `ASMCMD cp` command runs or when the database instance first starts if the `SPFILE` is stored in ASM.

QUESTION 119

The DB_BLOCK_CHECKING initialization parameter is set to OFF.

Which block checking would be performed?

- A. The Oracle database will perform block checking for the index blocks only
- B. The Oracle database will not perform block checking for any of the data blocks
- C. The Oracle database will perform block checking for the default permanent tablespace only
- D. The Oracle database will perform block checking for the data blocks in all user tablespaces
- E. The Oracle database will perform block checking for the data blocks in the SYSTEM tablespace only

Answer: E

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

QUESTION 120

Which two statements are correct about database transportation? (Choose two.)

- A. The source and target platforms must be the same
- B. Redo logs, control files and temp files are also transported
- C. The transported database must have the same database identifier (DBID) as the source database and cannot be renamed
- D. The COMPATIBLE parameter must be set to 10.0.0.0 or higher and the database must be opened in read-only mode
- E. Recovery Manager (RMAN) is used to convert the necessary data files of the database if the target platform is different

Answer: DE

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 121

What is the effect of increasing the value of the ASM_POWER_LIMIT parameter?

- A. The number of DBWR processes increases
- B. The number of ASMB processes increases
- C. The number of DBWR_TO_SLAVES increases
- D. The rebalancing operation in an ASM instance completes more quickly, but can result in higher I/O overhead

Answer: D

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

QUESTION 122

You plan to use Flashback Drop feature to recover a dropped table SALES_EMP. No other

table with the same name exists in the schema.

You query RECYCLEBIN and find multiple entries for the SALES_EMP table as follows:

```
SQL> SELECT object_name, original_name, droptime, FROM recyclebin;
```

OBJECT_NAME	ORIGINAL_NAME	DROPTIME
BIN\$/m0DrBV9RFGOAA53dC+FPW==\$0		SALES_EMP
2007-12-07:11:08:55		
BIN\$2DeIssLeQTqgH/n80Rm2JQ==\$0		SALES_EMP
2007-12-07:11:11:38		
BIN\$UuqgroNodQy6ouDtaA+XOVw==\$0		SALES_EMP
2007-12-07:11:08:18		

You then issue the following statement to recover the table:

```
SQL> FLASHBACK TABLE sales_emp TO BEFORE DROP;
```

What would be the outcome of the precedent statement?

- A. It retrieves the latest version of the table from the recycle bin
- B. It retrieves the oldest version of the table from the recycle bin
- C. It retrieves the version of the table for which undo information is available
- D. It returns an error because the table name is not specified as per the names in the OBJECT_NAME column

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 123

View the Exhibit to examine the error during the database startup. You open an RMAN session for the database instance. To repair the failure, you executed the following as the first command in the RMAN session:

```
RMAN> REPAIR FAILURE;
```

Which statement describes the consequence of the command?

Exhibit:

```

SQL> STARTUP
Total System Global Area  426864640 bytes
Fixed Size                  1300352 bytes
Variable Size              180357248 bytes
Database Buffers           239075328 bytes
Redo Buffers                6131712 bytes
Database mounted.
ORA-01157: cannot identify/lock data file 4 - see DBWR trace file
ORA-01110: data file 4: '/u01/app/oracle/oradata/orcl/users01.dbf'

```

- A. The command performs the recovery and closes the failures.
- B. The command executes the RMAN script to repair the failure and removes the entry from the Automatic Diagnostic Advisor.
- C. The command only displays the advice and the RMAN script required for repair.
- D. The command produces an error because the ADVISE FAILURE command has not been executed before the STARTUP command.

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 124

Which two are the prerequisites to enable Flashback Data Archive? (Choose two.)

- A. Database must be running in archivelog mode.
- B. Automatic undo management must be enabled.
- C. Undo retention guarantee must be enabled.
- D. The tablespace on which the Flashback Data Archive is created must be managed with Automatic Segment Space Management.

Answer: BD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 125

Observe the structure of the table employees:

DESC employees

Name	Null?	Type
emp_no	NOT NULL	VARCHAR(5) PRIMARY KEY
emp_fname	NOT NULL	VARCHAR (15)
emp_lname	NOT NULL	VARCHAR (15)
emp_dob	NOT NULL	DATE
emp_dtojoin	NOT NULL	DATE
emp_salary		NUMBER(5,2)

The table contains 8475 records.

One of the employees wants to know the names of all employees of the company. For this, he fires the following query:

```
SELECT * FROM EMPLOYEES ORDER BY emp_fname;
```

Since the operation performed on executing the query cannot fit into memory, it requires disk space to complete the operation. Which of the following types of segments will Oracle allocate to complete the operation and to provide the required result?

- A. Rollback segment
- B. Temporary segment
- C. Data segment
- D. Index segment

Answer: B

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 126

Using the LIST command in Recovery Manager (RMAN), which two pieces of information in the RMAN repository can be listed? (Choose two.)

- A. stored scripts in the recovery catalog.
- B. backups that can be deleted from disk.
- C. backup sets and image copies are obsolete.
- D. backups that do not have the AVAILABLE status in the RMAN repository.

Answer: AD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 127

A database is running in ARCHIVELOG mode and regular backups are performed. A user receives the following error message:

```
ERROR at line 1:
ORA-01116: error in opening database file 3
ORA-01110: data file 11: '/oracle/oradata/orcl/data/userdata11.dbf'
ORA-27041: unable to open file
```

Which is the recommended sequence of operations you need to perform for the query successfully?

- A. Drop the affected tablespace, re-create the tablespace, restore the datafiles, and the tablespace.
- B. Take the affected datafile offline (if not already offline), restore the damaged image of the datafile, and then bring it online.

- C. Restart the database in MOUNT mode, restore the damaged datafile, recover the datafile and then open the database.
- D. Put the database in RESTRICTED mode, restore all the datafiles in the affected datafile and recover the tablespace.

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 128

You are working on a 24X7 database. You want to design a backup strategy for your database that uses user managed backups. You want to be able to perform all backups while the database remains online.

Which statement about performing user-managed backups in a 24x7 environment is true?

- A. You must have change tracking enabled in your database
- B. Your database must be running in `NOARCHIVELOG` mode
- C. To back up a tablespace, it must be in backup mode
- D. To back up a tablespace, it must first be taken offline

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 129

You are managing an ASM instance. You previously issued the following statements:

```
ALTER DISKGROUP dg1 DROP DISK disk2;  
ALTER DISKGROUP dg1 DROP DISK disk3;  
ALTER DISKGROUP dg1 DROP DISK disk5;
```

You want to cancel the disk drops that are pending for the `DG1` disk group.

Which statement should you issue?

- A. `ALTER DISKGROUP dg1 UNDROP disk2, disk3, disk5;`
- B. `ALTER DISKGROUP dg1 UNDROP;`
- C. `ALTER DISKGROUP dg1 UNDROP DISKS;`
- D. You cannot cancel the pending disk drops.

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 130

You are maintaining the `SALES` database. You have added a new disk to a disk group. Automatic Storage Management performs the rebalancing activity. You want to speed up the rebalancing activity.

Which parameter should you specify to control the speed of the rebalancing activity?

- A. `ASM_POWER_LIMIT`
- B. `ASM_DISKSTRING`
- C. `ASM_DISKGROUPS`
- D. `INSTANCE_TYPE`

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

You should use the `ASM_POWER_LIMIT` parameter to control the speed of the rebalancing activity. To ensure that rebalancing operations do not interfere with the ongoing user I/O, the `ASM_POWER_LIMIT` parameter controls the speed of rebalancing operations. The value for the `ASM_POWER_LIMIT` parameter ranges from 0 to 11. The default value of 1 indicates low overhead. This is a dynamic parameter; therefore, you can set this to a low value during the day and to a higher value overnight whenever a disk rebalancing operation must occur. You can also control the speed of rebalancing by specifying a `POWER` clause in an `ALTER DISKGROUP` statement or when rebalancing.

The option stating that the `ASM_DISKSTRING` parameter is used to control the speed of rebalancing is incorrect. The `ASM_DISKSTRING` parameter specifies one or more strings, which are operating system dependent, to limit the disk devices that can be used to create disk groups.

The option stating that the `ASM_DISKGROUPS` parameter is used to control the speed of rebalancing is incorrect. The `ASM_DISKGROUPS` parameter specifies a list containing the names of the disk groups that will be automatically mounted by the ASM instance at startup or by the `ALTER DISKGROUP ALL MOUNT;` statement.

The option stating that the `INSTANCE_TYPE` parameter is used to control the speed of rebalancing is incorrect. The `INSTANCE_TYPE` parameter identifies the instance as an ASM instance or non-ASM instance. For an ASM instance, this parameter must be set to a value of ASM.

QUESTION 131

You are performing incomplete recovery using RMAN. You execute the following `RUN` block:

```
RUN
{
SET UNTIL SCN 1107600;
RESTORE DATABASE;
```

```
RECOVER DATABASE;  
}
```

Which statement is true about the result?

- A. RMAN restores all datafiles from the most recent backup available since the failure and applies the redo logs
- B. RMAN restores all datafiles needed to restore the database through SCN 1107599 and applies the redo logs
- C. RMAN restores all datafiles and control files from the most recent backup
- D. The `RUN` block fails because you did not specify an `UNTIL` clause in your `RECOVER DATABASE` command

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 132

You issue the following RMAN command to set a retention policy on a database:

```
RMAN>CONFIGURE RETENTION POLICY TO REDUNDANCY 2;
```

What will be the outcome of issuing this command?

- A. After two days, a backup will be marked obsolete
- B. After two days, a backup will be deleted from the media
- C. If the RMAN repository has records of two or more recent backups of a file, then older backups will be deleted
- D. If the RMAN repository has records of two or more recent backups of a file, then older backups will be marked obsolete

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 133

Which statements about the `MEMORY_TARGET` initialization parameter are true? (Choose all that apply.)

- A. `MEMORY_TARGET` can be increased up to the value of `MEMORY_MAX_TARGET`, if `MEMORY_MAX_TARGET` is set
- B. `MEMORY_MAX_TARGET` defaults to a value of zero if `MEMORY_TARGET` is not set
- C. `MEMORY_TARGET` represents the total amount of memory that can be allocated to SGA and PGA memory structures
- D. `MEMORY_TARGET` is static and cannot be modified without shutting down the instance

Answer: ABC

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 134

Which three components does the Scheduler use for managing tasks within the Oracle environment? (Choose three.)

- A. a job
- B. a program
- C. a schedule
- D. a PL/SQL procedure

Answer: ABC

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

Explanation/Reference:

Section: SQL, PL/SQL, Packages, Functions, Jobs & Views

QUESTION 135

You have enabled backup optimization in RMAN. You issue the following RMAN command to configure a redundancy-based retention policy:

```
CONFIGURE RETENTION POLICY TO REDUNDANCY 3;
```

Which statement is true?

- A. The command fails because you cannot configure a redundancy-based retention policy when backup optimization is enabled.
- B. Backup optimization is performed, but RMAN considers the redundancy-based retention policy when it determines which files to backup.
- C. Backup optimization is permanently disabled.
- D. Backup optimization is temporarily disabled because a redundancy-based retention policy is specified.

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 136

You issue the following command on the RMAN prompt.

```
REPORT NEED BACKUP DAYS 5;
```

Which statement is true about executing this command?

- A. It will display a list of files that need incremental backup.
- B. It will display a list of files that need backup after five days.
- C. It will display a list of files that were backed up in the last five days.
- D. It will display a list of files that have not been backed up in the last five days.
- E. It will apply the current retention policy to determine the files that need to be backed up.

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 137

You perform a backup using the following `BACKUP` command:

```
RMAN> BACKUP AS COMPRESSED BACKUPSET DATABASE;
```

Which statement is true of this command?

- A. A different procedure is required to restore a database from compressed backups
- B. The `AS COMPRESSED` clause of the `BACKUP` command provided by RMAN is used to create compressed backups
- C. Using this command to create backups minimizes the bandwidth consumed
- D. Using this command to create backups improves the performance of the backup process

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 138

Which background process of a database instance, using Automatic Storage Management (ASM), connects as a foreground process into the ASM instance?

- A. ASMB
- B. PMON
- C. RBAL
- D. SMON

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

The ASMB process of a database instance, using ASM, connects as a foreground process into the ASM instance. This ASMB process is responsible for the communication between the database and the ASM instance.

The process monitor (PMON) process does not connect as a foreground process into the ASM instance. The PMON process cleans up failed user processes and frees up all the resources used by the failed processes.

The RBAL process does not connect as a foreground process into the ASM instance. The RBAL process is a new background process of an ASM instance, and this process coordinates

rebalancing activity for disk groups.

The system monitor (SMON) process does not connect as a foreground process into the ASM instance. The SMON process performs instance recovery at database start up by using the online redo log files.

QUESTION 139

You specify a nonzero value for the MEMORY_TARGET initialization parameter, but do not set the PGA_AGGREGATE_TARGET or the SGA_TARGET parameters. You restart your database instance.

Which statement about the result is true?

- A. The database instance starts, and Oracle sets the default value of SGA_TARGET to the same value as SGA_MAX_SIZE.
- B. The database instance starts, and Oracle automatically tunes memory and allocates 60 percent to the SGA and 40 percent to the PGA.
- C. The database instance starts, but Automatic Memory Management is disabled.
- D. The database instance will not start because you did not specify the PGA_AGGREGATE_TARGET or SGA_TARGET parameters.

Answer: B

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

The database instance starts, and Oracle automatically tunes memory and allocates 60 percent to the SGA and 40 percent to the PGA. In this scenario, you specified a value for the MEMORY_TARGET parameter, but not values for the SGA_TARGET and PGA_AGGREGATE_TARGET parameters. In such a scenario, Oracle automatically tunes memory, but does not use any default values. Instead, at startup, Oracle allocates 60 percent of memory to the SGA and 40 percent to the PGA. If you set MEMORY_TARGET and PGA_AGGREGATE_TARGET but not SGA_TARGET, SGA_TARGET is set to either the SGA_MAX_SIZE value or the value of MEMORY_TARGET - PGA_AGGREGATE_TARGET, whichever is smaller.

If you set MEMORY_TARGET and SGA_TARGET but not PGA_AGGREGATE_TARGET, PGA_AGGREGATE_TARGET is set to a value of MEMORY_TARGET - SGA_TARGET. The option that states the database instance starts, and Oracle sets the default value of SGA_TARGET to the same value as SGA_MAX_SIZE is incorrect. Oracle does not set a default value for SGA_TARGET or PGA_AGGREGATE_TARGET in this scenario.

The option that states the database instance starts, but Automatic Memory Management is disabled is incorrect because you specified a value for the MEMORY_TARGET initialization parameter.

The option that states the database instance will not start because you did not specify the PGA_AGGREGATE_TARGET or SGA_TARGET parameter is incorrect. You can set only the MEMORY_TARGET parameter and leave the PGA_AGGREGATE_TARGET and SGA_TARGET parameters unset, and the database instance will start successfully.

QUESTION 140

Examine the exhibit to view the parameters set in your parameter file. (Click the Exhibit(s) button.)

You restart the instance.

To what value will the MEMORY_MAX_TARGET parameter be set by default?

- A. 120M
- B. 320M
- C. 480M
- D. 600M

Answer: D

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

The MEMORY_MAX_TARGET parameter will be set to 600M by default. Oracle 11g has two new Automatic Memory Management initialization parameters, namely MEMORY_TARGET and MEMORY_MAX_TARGET. MEMORY_TARGET represents the total amount of memory that can be allocated to SGA and PGA memory structures. If the SGA_TARGET and PGA_AGGREGATE_TARGET parameters are specified and MEMORY_TARGET is set to a value greater than zero, they represent the minimum sizes of the SGA and PGA. MEMORY_TARGET should be no less than the sum of SGA_TARGET and PGA_AGGREGATE_TARGET.

If not explicitly specified, MEMORY_TARGET defaults to 0. The MEMORY_MAX_TARGET parameter represents the largest possible value to which MEMORY_TARGET can be set. The MEMORY_MAX_TARGET parameter can be manually set, or it will be derived. If you specify a nonzero value for MEMORY_TARGET and do not set MEMORY_MAX_TARGET, MEMORY_MAX_TARGET will be set to the same value as MEMORY_TARGET by default, which is 600M in this scenario. MEMORY_MAX_TARGET is set to 0 if MEMORY_TARGET is not set or is explicitly set to 0.

All of the other options are incorrect because if MEMORY_TARGET is set to a nonzero value and MEMORY_MAX_TARGET is not set, MEMORY_MAX_TARGET will default to the same value as MEMORY_TARGET, which in this scenario is 600M.

SYBEX Oracle 1Z0-053 Study Guide, Chapter 11: Managing Database Resources

If you don't set MEMORY_MAX_TARGET, it will default to the value of MEMORY_TARGET.

Oracle Press 1Z0-053 Study Guide, Chapter 11: Managing Database Resources

The exam very specifically gives you scenarios combining various initialization parameters such as **MEMORY_TARGET** and **SGA_TARGET** set to zero and nonzero values, and then asks you what the effect is on instance memory and other initialization parameters. You'll have to memorize the contents of following Tables 10-1 and 10-2 to answer those questions!

TABLE 10-1 Dependencies for a Nonzero MEMORY_TARGET

When MEMORY_TARGET > 0 and these parameters are set...	The behavior is...
Both SGA_TARGET and PGA_AGGREGATE_TARGET set	SGA_TARGET and PGA_AGGREGATE_TARGET are minimum values for SGA and PGA; MEMORY_TARGET ranges from SGA_TARGET + PGA_AGGREGATE_TARGET to MEMORY_MAX_TARGET
SGA_TARGET is set, but PGA_AGGREGATE_TARGET is NOT set	Both parameters are still auto-tuned, but PGA_AGGREGATE_TARGET starts out at MEMORY_TARGET - SGA_TARGET
SGA_TARGET is NOT set, but PGA_AGGREGATE_TARGET is set	Both parameters are still auto-tuned, but SGA_TARGET starts out at MIN (MEMORY_TARGET - PGA_AGGREGATE_TARGET, SGA_MAX_SIZE)
Both SGA_TARGET and PGA_AGGREGATE_TARGET are NOT set	Both SGA_TARGET and PGA_AGGREGATE_TARGET are auto-tuned, with 60% for SGA and 40% for PGA

TABLE 10-2 Dependencies for a Zero MEMORY_TARGET

When MEMORY_TARGET = 0 (or not set) and these parameters are set...	The behavior is...
SGA_TARGET is set	Oracle auto-tunes SGA components, and PGA is auto-tuned whether or not it is explicitly set
SGA_TARGET is NOT set	Some SGA components must be explicitly specified, and PGA is auto-tuned

QUESTION 141

You are tuning RMAN to optimize performance. You want tape I/O to be asynchronous when you perform tape backups.

Which action should you take?

- A. Set the BACKUP_TAPE_IO_SLAVES parameter to FALSE.
- B. Set the BACKUP_TAPE_IO_SLAVES parameter to TRUE.
- C. Use compression when performing tape backups.
- D. Configure multiple SBT channels.

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

You should set the BACKUP_TAPE_IO_SLAVES parameter to TRUE. When this parameter is set to TRUE, RMAN uses I/O server processes to perform reads and writes when performing backups, copies, or restores to or from tape. When asynchronous tape I/O is configured, tape buffers are allocated from the SGA, rather than the PGA. With asynchronous I/O, the server process can perform multiple I/O operations at the same time. For example, it can begin a

read/write operation and perform other tasks while waiting for the current I/O operation to finish. You should note that the support for asynchronous I/O is dependent on the operating system. Not all operating systems support asynchronous tape I/O.

You should not set the `BACKUP_TAPE_IO_SLAVES` parameter to `FALSE`. This would configure RMAN to use synchronous tape I/O, which is the default value. With synchronous tape I/O, a server process can perform only one operation at a time, and tape buffers are allocated from the PGA.

All of the other options are incorrect. Using compression or multiple channels does not configure RMAN to use asynchronous tape I/O.

QUESTION 142

Your database is in ARCHIVELOG mode. You have two online redo log groups, each of which contains one redo member. When you attempt to start the database, you receive the following errors:

```
ORA-00313: open failed for members of log group 1 of thread 1
ORA-00312: online log 1 thread 1: 'D:\REDO01.LOG'
```

You discover that the online redo log file of the current redo group is corrupted.

Which statement should you use to resolve this issue?

- A. `ALTER DATABASE DROP LOGFILE GROUP 1;`
- B. `ALTER DATABASE CLEAR LOGFILE GROUP 1;`
- C. `ALTER DATABASE CLEAR UNARCHIVED LOGFILE GROUP 1;`
- D. `ALTER DATABASE DROP LOGFILE MEMBER 'D:\REDO01.LOG';`

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

You should use the `ALTER DATABASE CLEAR UNARCHIVED LOGFILE GROUP 1;` statement to clear the corrupted online redo log file. When you issue this statement, the contents of the online redo log file are cleared, and the log file is initialized. Because the log file has not been archived, the `UNARCHIVED` keyword is used. This keyword overrides the archiving of the online redo log file in the redo group, and the cleared redo log files become available for use. Immediately after issuing this statement, you should perform a database backup.

The option stating that you will use the `ALTER DATABASE DROP LOGFILE GROUP 1;` statement to resolve the corrupted online redo log file is incorrect. If you attempt to drop the online redo log group that belongs to a current redo group, you will receive the following errors:

```
ORA-01623: log 1 is current log for thread 1 cannot drop
ORA-00312: online log 1 of thread 1: 'D:\REDO01.LOG'
```

The option stating that you will use the ALTER DATABASE CLEAR LOGFILE GROUP 1; statement to resolve the corrupted online redo log file is incorrect. If you attempt to clear an online redo log file that must be archived without using the UNARCHIVED keyword, you will receive the following errors:

```
ORA-00350: log 1 of thread 1 needs to be archived
ORA-00312: online log 1 thread 1: 'D:\REDO01.LOG'
```

The option stating that you will use the ALTER DATABASE DROP LOGFILE MEMBER 'D:\REDO01.LOG'; statement to resolve the corrupted online redo log file is incorrect. Oracle does not allow you to drop an online redo log member that belongs to an active or current redo group. Therefore, if you attempt to drop such a member, you will receive the following error:

```
ORA-00361: cannot remove last log member 'D:\redo01.log for group
1'
```

QUESTION 143

Which statement about recovering from the loss of a redo log group is true?

- A. If the lost redo log group is ACTIVE, you should first attempt to clear the log file.
- B. If the lost redo log group is CURRENT, you must clear the log file.
- C. If the lost redo log group is ACTIVE, you must restore, perform cancel-based incomplete recovery, and open the database.
- D. If the lost redo log group is CURRENT, you must restore, perform cancel-based incomplete recovery, and open the database.

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

If the lost redo log group is CURRENT, you must restore, perform cancel-based incomplete recovery, and open the database using the RESETLOGS option. A redo log group with a CURRENT status indicates that LGWR is currently writing to it. To recover from this failure, you must restore the database from a whole backup and perform cancel-based incomplete recovery. Then, you should open the database using the RESETLOGS option.

The option that states if the lost redo log group is ACTIVE, you should first attempt to clear the log file is incorrect. If the lost redo log group has a status of ACTIVE, it is needed for instance recovery. In that situation, you should first attempt to perform a checkpoint. After the checkpoint, the log file is no longer required for instance recovery.

The option that states if the lost redo log group is CURRENT, you must clear the log file is incorrect. You would clear the log file only if the status of the lost redo log group was INACTIVE. After clearing the log file, the log file may be reused.

The option that states if the lost redo log group is ACTIVE, you must restore, perform cancel-based incomplete recovery, and open the database using the RESETLOGS option.

These actions are only necessary if the log file has a CURRENT status, which indicates LGWR is currently writing to it.

QUESTION 144

You have enabled resumable space allocation in your database by setting the RESUMABLE_TIMEOUT parameter set to a nonzero value.

Which three statements about resumable space allocation are true? (Choose three.)

- A. Even with resumable space allocation enabled for your database, you can disable resumable space allocation.
- B. A resumable statement is suspended only if an out of space error occurs.
- C. When a resumable statement is suspended, the transaction that contains the statement is also suspended.
- D. A resumable statement can only be suspended and resumed once during the execution of the statement.
- E. You can query the V\$SESSION_WAIT dynamic performance view to identify the statements that are suspended.

Answer: ACE

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

The following three statements are true about resumable space allocation:

Even with resumable space allocation enabled for your database, you can disable resumable space allocation for a single session.

When a resumable statement is suspended, the transaction that contains the statement is also suspended. You can query the V\$SESSION_WAIT dynamic performance view to identify the statements that are suspended for a session.

Resumable space allocation is an Oracle feature that allows certain statements to be suspended if space errors, such as out of space errors, space quota exceeded errors, or maximum extents reached errors, occur. Resumable statements include SELECT statements, DML statements, SQL*Loader imports and exports, and some DDL statements.

You enable resumable space allocation by setting the RESUMABLE_TIMEOUT parameter to a value greater than zero. The parameter represents the amount of time, in seconds, that a resumable statement will be suspended before it is terminated and an error is generated. You can also set this value for a session using the `ALTER SESSION ENABLE RESUMABLE TIMEOUT n;` statement, or, you can disable resumable space allocation for a session using the `ALTER SESSION DISABLE RESUMABLE;` statement.

If you have enabled resumable space allocation and a resumable statement experiences a space error, the statement is suspended. If the statement is contained within a transaction, the transaction is also suspended. This gives you the opportunity to correct the space issue. After the space issue is corrected, the suspended statement automatically resumes execution.

You can query the V \$SESSION_WAIT dynamic performance view to identify the statements

that are suspended for a session. The event column of the `V$SESSION_WAIT` view will display statement suspended, wait error to be cleared for a statement that is suspended. The sid column identifies the session id that executed the suspended statement, and the seconds_in_wait column displays the number of seconds the statement has been suspended. The option that states a resumable statement is suspended only if an out of space error occurs is incorrect. A resumable statement is also suspended if a space quota is exceeded or a maximum extents reached error occurs.

The option that states a resumable statement can only be suspended and resumed once during the execution of the statement is incorrect. A statement can be suspended and resumed multiple times during its execution.

QUESTION 145

Which statement about using RMAN stored scripts is true?

- A. To create and execute an RMAN stored script, you must use a recovery catalog.
- B. When executing a stored script and a command fails, the remainder of the script is executed, and a message is written to the alert log file.
- C. RMAN stored scripts can always be executed against any target database that is registered in the recovery catalog.
- D. When you execute a stored script, it always executes using the persistent channel settings previously set with the `CONFIGURE` command.

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

To create and execute an RMAN stored script, you must use a recovery catalog because RMAN stored scripts are stored in the recovery catalog. You cannot use RMAN stored scripts if you are using the control file for your RMAN repository.

The option that states when executing a stored script and a command fails, the remainder of the script is executed, and a message is written to the alert log file is incorrect. If you are executing a stored RMAN script and one of the commands in the script fails, the other subsequent commands in the script are not executed because a stored RMAN script is created within a RUN block.

The option that states RMAN stored scripts can always be executed against any target database that is registered in the recovery catalog is incorrect. RMAN stored scripts can be created as local scripts or as global scripts. Local scripts can only be executed against the target database to which you are connected when you create the script. To create a global script that can be executed against any target database registered in the recovery catalog, you must include the GLOBAL keyword when you create the script.

The option that states when you execute a stored script, it always executes using the persistent channel settings set with the CONFIGURE command is incorrect. You can override any persistent channel settings by including an ALLOCATE CHANNEL command in the RUN block before executing the script.

QUESTION 146

Which type of backup contains only the blocks that have changed since the last level 0 incremental backup?

- A. a cumulative level 1 backup
- B. a differential level 1 backup
- C. a full backup
- D. a whole backup

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

A cumulative level 1 backup contains only the blocks that have changed since the last level 0 incremental backup.

A full backup contains all used data blocks.

A whole backup contains all used and unused data blocks.

A differential level 1 backup contains only the data blocks that have changed since the last level 1 or level 0 incremental backup.

QUESTION 147

You have not configured Oracle Managed Files (OMF) in your database. You do not want to scan the entire datafile every time an incremental backup is performed. You decide to enable the block change tracking feature.

Which statement should you use to enable the block change tracking feature?

- A. ALTER DATABASE ENABLE BLOCK CHANGE TRACKING;
- B. ALTER SYSTEM ENABLE BLOCK CHANGE TRACKING USING FILE <path>;
- C. ALTER DATABASE ENABLE BLOCK CHANGE TRACKING USING FILE <path>;
- D. ALTER SYSTEM ENABLE BLOCK CHANGE TRACKING;

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

You should use the ALTER DATABASE ENABLE BLOCK CHANGE TRACKING USING FILE <path>; statement. If OMF is configured in your database, then you need not specify the

name of the block change tracking file in the `ALTER DATABASE` statement. The file is automatically located in the directory specified by the `DB_CREATE_FILE_DEST` parameter. In this scenario, OMF is not configured. Therefore, you must specify the location of the block change tracking file in the statement. After you enable block change tracking, RMAN uses the block change tracking file to determine the blocks that have changed and should be backed up in an incremental backup. This improves the performance because RMAN does not have to scan the entire datafiles during backup. RMAN backs up only the changed blocks and skips the unchanged blocks.

The options stating that you should issue the `ALTER SYSTEM ENABLE BLOCK CHANGE TRACKING;` or the `ALTER SYSTEM ENABLE BLOCK CHANGE TRACKING USING FILE <path>;` statements are incorrect. Each of these statements will generate an error because the block change tracking feature is enabled at the database level, not at the system level.

The option stating that you should issue the `ALTER DATABASE ENABLE BLOCK CHANGE TRACKING;` statement is incorrect because OMF is not configured in the database. If OMF is not configured, then you must specify the location of the block change tracking file in the `ALTER DATABASE ENABLE BLOCK CHANGE TRACKING;` statement.

QUESTION 148

You want to back up your 100-GB database on a remote tape device. You are required to ensure that minimum network bandwidth is consumed while transferring the backups to the tape device. The current consumption of your CPU is approximately 40 percent.

Which type of backup should you perform?

- A. standard backup set
- B. image copy
- C. compressed backup
- D. user-managed backup

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

In this scenario, you should use a compressed backup. The size of the database in this scenario is large, and you are required to reduce the network bandwidth consumed while the backups are being transferred to a remote tape device. A compressed backup will reduce the size of the database backup and will eventually reduce the network bandwidth consumed to place the backup on a remote tape device. The CPU usage in this scenario is low. Therefore, the CPU can tolerate some overhead that will be generated while compressing backups. You can only perform compression on backup sets, but not on image copies. Other situations in which compressed backups can be beneficial are as follows:

- When there is a space constraint on the backup disk.
- When writing backups either to a CD or a DVD
- When you want to limit the expense of backup media

You should not use a standard backup set in this scenario because a standard backup set is larger and will consume more network bandwidth when it is being placed on a remote tape device. A standard backup set should be used if CPU performance is more important than the benefits provided by a compressed backup. A compressed backup incurs some CPU overhead and should not be used if CPU performance cannot be compromised.

You cannot use an image copy in this scenario. You cannot create an image copy on tape devices. An image copy can be created only on disk. An image copy is an identical copy of a datafile in the database and is created using RMAN commands. An image copy is larger than a backup set because the unused data blocks are also copied in an image copy. Image copies should be used when you want to simplify the recovery process.

You should not use user-managed backup in this scenario. The user-managed backup will be larger than a compressed backup. A user-managed backup creates an exact copy of a datafile using operating system commands, and copies all the used and unused blocks in the datafile. This increases the size of the backups. In this scenario, you are required to reduce the network bandwidth consumed. Therefore, you should choose a backup method that reduces the size of the backups.

QUESTION 149

You enable block change tracking. You issue the following command:

```
BACKUP INCREMENTAL LEVEL 0 DATABASE;
```

The next day, you issue the following command:

```
BACKUP INCREMENTAL LEVEL 1 CUMULATIVE DATABASE;
```

Which statement about the use of the change tracking file is true?

- A. RMAN reads the block change tracking file only when it performs the incremental level 0 backup.
- B. RMAN reads the block change tracking file when it performs both incremental backups.
- C. RMAN reads the block change tracking file only when it performs the incremental level 1 backup.
- D. RMAN does not read the block change tracking file when it performs either incremental backup.

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

RMAN reads the block change tracking file only when it performs the incremental level 1 backup. After you enable block change tracking, you perform a level 0 incremental backup. For this backup, RMAN has to scan the entire datafile because the change tracking file does not contain information about the changed blocks.

Next, you perform an incremental level 1 backup. For this backup, RMAN uses the block change tracking file to determine the blocks that have changed since the incremental level 0 backup.

The option that states RMAN reads the block change tracking file only when it performs the incremental level 0 backup is incorrect. For the first incremental level 0 backup, the change tracking file does not contain information about the changed blocks, and RMAN has to scan the entire datafiles to determine the blocks that have changed.

The option that states RMAN reads the block change tracking file when it performs both incremental backups is incorrect. RMAN only uses the block change tracking file for the incremental level 1 backup.

The option that states RMAN does not read the block change tracking file when it performs either incremental backup is incorrect. RMAN uses the block change tracking file for the incremental level 1 backup, but not for the incremental level 0 backup.

QUESTION 150

Your database is running in ARCHIVELOG mode, and the database is open. You execute an RMAN backup and specify the KEEP clause.

Which components are backed up when this option is specified?

- A. only the control file, the current SPFILE, and data files
- B. only the current SPFILE and data files if autobackup is disabled
- C. only the data files and the archived redo logs
- D. the control file, current SPFILE file, data files, and archived redo logs

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

When the KEEP clause is specified, RMAN backs up all necessary components to ensure that the database can be restored. This includes the control file, the current SPFILE, data files, and the archived redo logs if the database is open when the backup is performed. You should note that when you use the KEEP clause, the KEEP clause takes precedence over other configured settings, such as any configured retention policy. Also, the control file is backed up even if autobackup has been disabled.

All of the other options are incorrect because the control file, current SPFILE, data files, and archived redo logs are backed up when you specify the KEEP clause.

QUESTION 151

You want to use RMAN to create compressed backups.

Which statement is true about the compression algorithms that RMAN can use?

- A. The BZIP2 compression algorithm consumes more CPU resources than the ZLIB compression algorithm.
- B. The ZLIB compression algorithm consumes more CPU resources than the BZIP2 compression algorithm.

- C. The ZLIB compression algorithm provides maximum compression and produces smaller backups than the BZIP2 compression algorithm.
- D. Only the BZIP2 compression algorithm can be used to make compressed backups to disk.

Answer: A

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

The BZIP2 compression algorithm consumes more CPU resources than the ZLIB compression algorithm. The BZIP2 compression algorithm provides for optimum compression, but tends to use more CPU resources than the ZLIB compression algorithm. The ZLIB compression algorithm is optimized for performance and uses less CPU resources. You should note that the COMPATIBLE initialization parameter must be set to 11.0.0 or higher to use the ZLIB compression algorithm.

The option that states the ZLIB compression algorithm consumes more CPU resources than the BZIP2 compression algorithm is incorrect. The BZIP2 compression algorithm consumes more CPU resources. The option that states the ZLIB compression algorithm provides maximum compression and produces smaller backups than the BZIP2 compression algorithm is incorrect. The BZIP2 compression algorithm provides maximum compression and produces smaller backups than the ZLIB compression algorithm.

The option that states only the BZIP2 compression algorithm can be used to make compressed backups to disk is incorrect. The ZLIB compression algorithm can also be used to make compressed backups to disk.

QUESTION 152

You discover that your Recycle Bin contains two tables with the same name, MY_TABLE. You also have a table named MY_TABLE in your schema.

You execute the following statement:

```
FLASHBACK TABLE my_table TO BEFORE DROP RENAME TO my_table2;
```

What will be the result of executing this statement?

- A. One of the tables is recovered from the Recycle Bin using a First In First Out (FIFO) approach.
- B. One of the tables is recovered from the Recycle Bin using a Last In First Out (LIFO) approach.
- C. Both the tables are recovered from the Recycle Bin with one table renamed to MY_TABLE2 and the other to MY_TABLE.
- D. None of the tables are recovered from the Recycle Bin, and the statement returns an error.

Answer: B

Section: Flashback Operations & Configuration

Explanation/Reference:

Section: Flashback Operations & Configuration

Explanation/Reference:

One of the tables is recovered from the Recycle Bin using a Last In First Out (LIFO) approach. If you use the `FLASHBACK TABLE my_table TO BEFORE DROP RENAME TO my_table2;` statement to recover a table in a scenario where your Recycle Bin has multiple copies of the `MY_TABLE` table, then only the latest copy of the table will be recovered. The table that is moved to the Recycle Bin most recently is recovered first using a LIFO algorithm. In this scenario, you also included a `RENAME TO` clause in your `FLASHBACK TABLE` statement. Therefore, the restored table will be given the new name `MY_TABLE2`.

The option that states one of the tables is recovered from the Recycle Bin using a First In First Out (FIFO) approach is incorrect because the last table moved to the Recycle Bin is flashed back. The FIFO approach is used when you purge a table from the Recycle Bin using the `PURGE TABLE` statement. The oldest table moved to the Recycle Bin is purged first.

The option that states both the tables are recovered is incorrect. Using the `FLASHBACK TABLE my_table TO BEFORE DROP RENAME TO my_table2;` statement, you cannot recover both tables. Only the latest table will be recovered.

The option that states none of the tables are recovered from the Recycle Bin is incorrect because the latest copy of the table will be recovered from the Recycle Bin without returning any error.

QUESTION 153

You want to disable resumable space allocation for all sessions.

Which value should be assigned to the `RESUMABLE_TIMEOUT` parameter to disable resumable space allocation for all sessions?

- A. 0
- B. 10
- C. 100
- D. NULL

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

You can disable resumable space allocation for all sessions by assigning a value of 0 to the `RESUMABLE_TIMEOUT` parameter. The `RESUMABLE_TIMEOUT` parameter indicates the maximum time that a resumable statement is suspended. A resumable statement can be a data definition language (DDL) command that is being suspended due to non-availability of space allocated for the object to be created in the database. After the space is allocated, the suspended statement can be resumed for execution. You can also disable resumable space allocation for a single session using the `ALTER SESSION DISABLE RESUMABLE;` statement within the session.

The values 10 and 100 can be assigned to the `RESUMABLE_TIMEOUT` parameter, but these

values cannot be used to disable resumable space allocation for all sessions. A value of 10 indicates 10 seconds, and a value of 100 indicates 100 seconds.

The NULL value is an invalid value to be assigned to the RESUMABLE_TIMEOUT parameter.

QUESTION 154

You want to enable resumable space allocation at the instance level.

Which two actions would enable resumable space allocation at the instance level? (Choose two.)

- A. issuing the ALTER SYSTEM ENABLE RESUMABLE; statement
- B. issuing the ALTER SESSION ENABLE RESUMABLE; statement
- C. modifying the RESUMABLE_TIMEOUT initialization parameter to a nonzero value
- D. issuing the ALTER SYSTEM SET RESUMABLE_TIMEOUT=<nonzero value>; statement

Answer: CD

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

You can enable resumable space allocation at the instance level by modifying the RESUMABLE_TIMEOUT initialization parameter to a nonzero value, or you can change the value of the RESUMABLE_TIMEOUT parameter dynamically by issuing the following statement:

```
ALTER SYSTEM SET RESUMABLE_TIMEOUT=<nonzero_value>;
```

Issuing the ALTER SYSTEM ENABLE RESUMABLE; statement is incorrect. This statement would generate an error on execution because the syntax is incorrect.

Issuing the ALTER SESSION ENABLE RESUMABLE; statement is incorrect. You issue the ALTER SESSION ENABLE RESUMABLE; statement to enable resumable space allocation at the session level, not to enable resumable space allocation at the instance level.

QUESTION 155

Your database is running in ARCHIVELOG mode. You are performing a user-managed backup of the DATA1 tablespace. You place the DATA1 tablespace in backup mode by issuing the following statement:

```
ALTER TABLESPACE data1 BEGIN BACKUP;
```

While you are performing the backup, an error occurs that causes the instance to terminate abnormally. Which statement about the DATA1 tablespace is true?

- A. The DATA1 tablespace is automatically taken out of backup mode when the instance aborts.
- B. If you restart the database, the DATA1 tablespace will be automatically taken out of backup mode when the d

- C. If you restart the database, the DATA1 tablespace will be automatically taken out of backup mode when the database is opened.
- D. If you restart the database, the database will not be opened.

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

If you restart the database, the database will not be opened. The database will reach the MOUNT state, but will not be opened. An error will be generated indicating that media recovery is required. To successfully open the database, you should take the tablespace out of backup mode. You can do so by issuing the `ALTER TABLESPACE data1 END BACKUP;` statement, or you can issue an `ALTER DATABASE END BACKUP;` statement, which will take all datafiles in all tablespaces out of backup mode.

All of the other options are incorrect. The DATA1 tablespace is automatically taken out of backup mode when the instance aborts, when the instance is opened, or when the instance is mounted.

QUESTION 156

Examine the following values of the initialization parameters in the database having the SID ORCL:

```
BACKGROUND_DUMP_DEST=/u01/app/oracle/product/11.1.0/db_1/bdump
USER_DUMP_DEST=/u01/app/oracle/product/11.1.0/db_1/udump
CORE_DUMP_DEST=/u01/app/oracle/product/11.1.0/db_1/cdump
DIAGNOSTIC_DEST=
```

The environment variables have the following value:

```
ORACLE_BASE=/u01/app/oracle
ORACLE_HOME=/u01/app/oracle/product/11.1.0/db_1
```

What is the location of the Automatic Diagnostic Repository (ADR) home?

- A. /u01/app/oracle/product/11.1.0/db_1
- B. /u01/app/oracle
- C. \$ORACLE_HOME/bdump
- D. \$ORACLE_HOME/log

Answer: B

Section: Initialization, Parameters, File Location & Server Configuration

Explanation/Reference:

Section: Initialization, Parameters, File Location & Server Configuration

QUESTION 157

Which statements are true regarding table compression? (Choose all that apply.)

- A. It saves disk space and reduces memory usage.
- B. It saves disk space but has no effect on memory usage.
- C. It incurs extra CPU overhead during DML as well as direct loading operations.
- D. It incurs extra CPU overhead during DML but not direct loading operations.
- E. It requires uncompress operation during I/O.

Answer: AC

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 158

For which two situations would you use functionality provided by the Resource Manager?
(Choose two.)

- A. setting idle timeout limits on resource plans
- B. saving storage space by using compressed backup sets
- C. creating jobs that will run automatically at a scheduled time
- D. assigning priorities to jobs to manage access to system resources
- E. creating alerts to perform notification when tablespaces are low on available space resources

Answer: AD

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

The Resource Manager provides the functionality of setting idle timeout limits on resource plans and assigning priorities to jobs to manage access to system resources. The Resource Manager feature of an Oracle database provides a set of APIs that allow you to manage resources automatically. The Resource Manager allows you to distribute processing resources to users so that they are used efficiently, create undo pools to be used by specific groups of users, create session pools for users, limit the number of active sessions for a specific group of users, and prevent processing-intensive jobs from executing longer than expected or from generating more I/O than you specify.

RMAN provides the functionality of saving storage space by using compressed backup sets.

The Scheduler provides the functionality of creating jobs that will run automatically at a scheduled time. The Tablespace Monitoring feature provides the functionality of creating alerts to perform notification when tablespaces are low on available space resources. Monitoring and Tuning RMAN

QUESTION 159

Which statement about Automatic Memory Management with Oracle 11g is true?

- A. You cannot specify MEMORY_TARGET if you explicitly specify SGA_TARGET or PGA_AGGREGATE_TARGET.
- B. Oracle can reallocate memory between the SGA and PGA automatically as needed.
- C. To use Automatic Memory Management, you must explicitly set both the MEMORY_TARGET and MEMORY_MAX_TARGET.
- D. You can set the MEMORY_TARGET parameter to a maximum value of the current SGA size plus the current PGA size.

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

When Automatic Memory Management is enabled in Oracle 11g, Oracle can reallocate memory between the SGA and PGA automatically as needed. Using Automatic Memory Management can reduce the chances of being unable to allocate memory to SGA and PGA memory structures. You can enable Automatic Memory Management by setting the MEMORY_TARGET initialization parameter or using Enterprise Manager.

The option that states you cannot specify MEMORY_TARGET if you explicitly specify SGA_TARGET or PGA_AGGREGATE_TARGET values that are greater than zero in your parameter file is incorrect. If you explicitly set SGA_TARGET and PGA_AGGREGATE_TARGET, the MEMORY_TARGET value will default to the sum of the two, but can be increased up to the value of MEMORY_MAX_SIZE. If you set MEMORY_TARGET, you can also set SGA_TARGET, PGA_AGGREGATE_TARGET, both SGA_TARGET and PGA_AGGREGATE_TARGET, or neither of the two.

How Oracle manages memory and sets the defaults for other memory parameters depends on which parameters you specify. If you set only the MEMORY_TARGET, and leave the SGA_TARGET and PGA_AGGREGATE_TARGET parameters unset, Oracle automatically allocates 60 percent of available memory to the SGA and 40 percent of available memory to the PGA when the database starts. If you set MEMORY_TARGET and PGA_AGGREGATE_TARGET but not SGA_TARGET, SGA_TARGET is set to either the SGA_MAX_SIZE value or the value of MEMORY_TARGET - PGA_AGGREGATE_TARGET, whichever is smaller. If you set MEMORY_TARGET and SGA_TARGET but not PGA_AGGREGATE_TARGET, PGA_AGGREGATE_TARGET is set to a value of MEMORY_TARGET - SGA_TARGET.

The option that states to use Automatic Memory Management you must explicitly set both the MEMORY_TARGET and MEMORY_MAX_TARGET parameters in your parameter file is incorrect. You only need to set MEMORY_TARGET. If you specify a nonzero value for MEMORY_TARGET and do not set MEMORY_MAX_TARGET, MEMORY_MAX_TARGET will be set to the same value as MEMORY_TARGET by default.

The option that states you can set the MEMORY_TARGET parameter to a maximum value of the current SGA size plus the current PGA size is incorrect. You can increase MEMORY_TARGET up to the value of MEMORY_MAX_SIZE.

QUESTION 160

Which tuning tool recommends how to optimize materialized views so that these views can take advantage of the general query rewrite feature?

- A. Segment Advisor
- B. SQL Access Advisor
- C. Undo Advisor
- D. SQL Tuning Advisor

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

SQL Access Advisor recommends how to optimize materialized views so that these views can take advantage of the general query rewrite feature. To achieve optimum performance for complex, data-intensive queries, you need to use materialized views and indexes. The SQL Access Advisor helps you achieve your performance goals by recommending the proper set of materialized views, materialized view logs, and indexes for a given workload. The SQL Access Advisor can use current SQL, an existing SQL Tuning Set (STS), or a hypothetical workload to make its recommendations.

The option stating ADDM is incorrect. ADDM recommendations are based on the following:

- Hardware changes - Adding CPUs or changing the I/O subsystem configuration
- Database configuration - Changing initialization parameter settings
- Schema changes - Hash partitioning of a table or index
- Application changes - Using the cache option for sequences or using bind variables
- Using other advisors - Running the SQL Tuning Advisor on high load SQL or running the Segment Advisor on hot objects

ADDM does not recommend how to optimize materialized views.

The Undo Advisor does not recommend how to optimize materialized views. The Undo Advisor helps you to estimate the space that you will need to store undo information.

Segment Advisor does not recommend how to optimize materialized views. Segment Advisor helps to determine whether an object has space available for reclamation.

QUESTION 161

In Oracle 11g, which recommendations does the SQL Access Advisor generate? (Choose all that apply.)

- A. partitioning recommendations
- B. statistics collection recommendations
- C. index creation recommendations
- D. materialized view recommendations
- E. materialized view log recommendations

Answer: ACDE

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

In Oracle 11g, the SQL Access Advisor can generate partitioning recommendations, index creation recommendations, materialized view recommendations, and materialized view log recommendations. The SQL Access Advisor is a tuning tool that provides advice regarding the tuning of materialized views, indexes (Btree, bitmap, and function-based), and materialized view logs, as well as advice on table and index partitioning.

The SQL Access Advisor provides recommendations by analyzing a known workload and other specified information. SQL Access Advisor does not generate statistics collection recommendations. This task is performed by the SQL Tuning Advisor.

QUESTION 162

Which statement is true regarding virtual private catalogs?

- A. A virtual private catalog owner can create a local stored script, and have read/write access to a global stored
- B. The virtual private catalog owner cannot create and modify the stored scripts.
- C. The set of views and synonyms that make up the virtual private catalog is stored in the schema of the RMAN
- D. To perform most of the RMAN operations, the virtual catalog owner must have the SYSDBA or SYSOPER privilege

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 163

You are managing an Oracle Database 11g database. You want to take the backup of MULT_DATA, a big file tablespace of size 100 TB on tape drive, but you have tapedrives of only 10 GB each.

Which method would accomplish the task quickly and efficiently?

- A. parallel image copy backup
- B. backup with MAXPIECESIZE configured for the channel
- C. parallel backup with MAXPIECESIZE configured for the channel
- D. intrafile parallel backup

Answer: D

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 164

Identify two situations in which you can use Data Recovery Advisor for recovery. (Choose two.)

- A. The user has dropped an important table that needs to be recovered.
- B. The database files are corrupted when the database is open.
- C. You are not able to start up the database instance because the required database files are missing.
- D. The archived log files are missing for which backup is not available.

Answer: BC

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 165

View the Exhibit for some of the current parameter settings. A user logs in to the HR schema and issues the following commands:

```
SQL> CREATE TABLE emp
(empno NUMBER(3),
ename VARCHAR2(20),
sal NUMBER(8,2));
SQL> INSERT INTO emp(empno,ename) VALUES(1,'JAMES');
```

At this moment, a second user also logs in to the HR schema and issues the following command:

```
SQL> ALTER TABLE emp MODIFY sal NUMBER(10,2);
```

What happens in the above scenario?

Exhibit:

NAME	TYPE	VALUE
db_file_multiblock_read_count	integer	107
ddl_lock_timeout	integer	60
distributed_lock_timeout	integer	60
dml_locks	integer	748
lock_sga	boolean	FALSE
enable_ddl_logging	boolean	FALSE
resumable_timeout	integer	0

- A. The second user's session immediately produces the resource busy error.
- B. The second user's command executes successfully.
- C. The second user's session waits for a time period before producing the resource busy error.
- D. A deadlock is created.

Answer: C

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 166

Which of the following is not a configurable attribute for an individual disk group?

- A. AU_SIZE
- B. COMPATIBLE.RDBMS
- C. COMPATIBLE.ASM
- D. DISK_REPAIR_TIME
- E. DG_DROP_TIME

Answer: E

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 167

Which of the following is a benefit of ASM fast disk resync?

- A. Failed disks are taken offline immediately but are not dropped.
- B. Disk data is never lost.
- C. By default, the failed disk is not dropped from the disk group ever, protecting you from loss of that disk.
- D. The failed disk is automatically reformatted and then resynchronized to speed up the recovery process.
- E. Hot spare disks are automatically configured and added to the disk group.

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 168

What is the default AU size of an ASM disk group? What is the maximum AU size in an ASM disk group?

- A. 100KB default, 10TB maximum
- B. 256KB default, 1024MB maximum
- C. 10MB default, 126PB maximum
- D. 64KB default, 1EB maximum
- E. 1MB default, 64MB maximum

Answer: E

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:**Section:** Managing Database Performance & Tuning**QUESTION 169**

When starting up your ASM instance, you receive the following error:

```
SQL> startup pfile=?/dbs/init+ASM.ora ASM instance started
Total System Global Area 104611840 bytes
Fixed Size 1298220 bytes
Variable Size 78147796 bytes
ASM Cache 25165824 bytes

ORA-15032: not all alterations performed
ORA-15063: ASM discovered an insufficient number of disks for disk group
"DGROUP3"
ORA-15063: ASM discovered an insufficient number of disks for disk group
"DGROUP2"
ORA-15063: ASM discovered an insufficient number of disks for disk group
"DGROUP1"
```

In trying to determine the cause of the problem, you issue this query:

```
SQL> show parameter asm
NAME                                TYPE                                VALUE
-----                                -                                -
asm_allow_only_raw_disks            boolean                             FALSE
asm_diskgroups                      string                             DGROUP1, DGROUP2, DGROUP3
asm_diskstring                      string
asm_power_limit                     integer                             1
asm_preferred_read_failure_groups   string
```

What is the cause of the error?

- A. The ASM_DISKGROUPS parameter is configured for three disk groups: DGROUP1, DGROUP2, and DGROUP3.
- B. The format of the ASM_DISKGROUPS parameter is incorrect. It should reference the disk group numbers, not names.
- C. The ASM_POWER_LIMIT parameter is incorrectly set to 1. It should be set to the number of disk groups being managed.
- D. The ASM_DISKSTRING parameter is not set; therefore disk discovery is not possible.
- E. There is insufficient information to solve this problem.

Answer: D**Section:** Database Architecture & Resource Management, RAC, ASM**Explanation/Reference:****Section:** Managing Database Performance & Tuning**QUESTION 170**

Which of the following ALTER DISKGROUP commands does not use V\$ASM_OPERATION to record the status of the operation?

- A. ADD DIRECTORY

- B. DROP DISK
- C. RESIZE DISK
- D. REBALANCE
- E. ADD FAILGROUP

Answer: A

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 171

How many individual archive-log destination directories are supported by Oracle Database11g?

- A. 7
- B. 1
- C. 10
- D. 11
- E. 21

Answer: C

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

QUESTION 172

Your database has experienced a loss of datafile users_01.dbf, which is associated with a tablespace called USERS. The database is still running. Which answer properly describes the order

of the steps that you would use to recover from this error?

- 1.Shut down the database.
- 2.Take the users_01.dbf datafile offline with the alter database command.
- 3.Restore the users_01.dbf datafile from backup media with the required archived redo logs.
- 4.Restore all users tablespace-related datafiles from backup media.
- 5.Issue the recover tablespace users command.
- 6.Issue the recover datafile users_01.dbf command.
- 7.Start up the database.
- 8.Bring the users_01.dbf datafile online with the alter database command.

- A. 1,3,6,7
- B. 2,3,6,8
- C. 1,2,3,6,7
- D. 1,2,3,6,,7,8
- E. 2,3,6,5,7

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 173

Upon starting your database, you receive the following error:

```
SQL> startup
ORACLE instance started.
Total System Global Area 171581440 bytes
Fixed Size 1298640 bytes
Variable Size 146804528 bytes
Database Buffers 20971520 bytes
Redo Buffers 2506752 bytes
Database mounted.
```

```
ORA-00313: open failed for members of log group 1 of thread 1
ORA-00312: online log 1 thread 1: '/oracle01/oradata/orcl/redo01.log'
ORA-00312: online log 1 thread 1: '/oracle01/oradata/orcl/redo01a.log'
```

You can choose from the following steps:

- 1.Restore the database datafiles.
- 2.Issue the alter database clear unarchived logfile group 1 command.
- 3.Issue the alter database open command.
- 4.Issue the alter database open resetlogs command.
- 5.Recover the database using point-in-time recovery.
- 6.Issue the Startup Mount command to mount the database.
- 7.Back up the database.

Which is the correct order of these steps in this case?

- A. 1,6,5,4,7
- B. 6,5,4
- C. 6,2,3,7
- D. 1,6,3
- E. The database cannot be recovered.

Answer: C

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 174

Given the following steps, which would be the correct order to create a backup of an Oracle database in NOARCHIVELOG mode?

- 1.shutdown immediate from RMAN
- 2.Log into RMAN

- 3.startup mount from RMAN
- 4.backup database
- 5.alter database open
- 6.backup database plus archivelog delete input

- A. 2,3,1,4,5
- B. 2,1,3,6,5
- C. 1,3,5,4
- D. 2,1,3,5,6
- E. 2,1,3,4,5

Answer: E

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

QUESTION 175

How can you reverse the effects of an ALTER DISKGROUP ... DROP DISK command if it has not yet completed?

- A. Issue the ALTER DISKGROUP ... ADD DISK command.
- B. Issue the ALTER DISKGROUP ... UNDROP DISKS command.
- C. Issue the ALTER DISKGROUP ... DROP DISK CANCEL command.
- D. Retrieve the disk from the Recycle Bin after the operation completes.

Answer: B

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Use the `undrop_disk_clause` cancel the drop of disks from the disk group. This clause is not relevant for disks that have already been completely dropped from the disk group or for disk groups that have been completely dropped.

http://download.oracle.com/docs/cd/B19306_01/server.102/b14200/statements_1006.htm#i2168780

Use the `CREATE DISKGROUP` clause to create a collection of disks.

http://download.oracle.com/docs/cd/B19306_01/server.102/b14200/statements_5008.htm

Use the `add_disk_clause` to add one or more disks to the disk group and specify attributes for the newly added disk.

http://download.oracle.com/docs/cd/B19306_01/server.102/b14200/statements_1006.htm#i2168780

QUESTION 176

How can you reverse the effects of an ALTER DISKGROUP ... DROP DISK command if it has already completed?

- A. Issue the ALTER DISKGROUP ... ADD DISK command.
- B. Issue the ALTER DISKGROUP ... UNDROP DISKS command.
- C. Issue the ALTER DISKGROUP ... DROP DISK CANCEL command.
- D. Retrieve the disk from the Recycle Bin after the operation completes.

Answer: A

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Section: Database Architecture & Resource Management, RAC, ASM

Explanation/Reference:

Use the `undrop_disk_clause` cancel the drop of disks from the disk group. This clause is not relevant for disks that have already been completely dropped from the disk group or for disk groups that have been completely dropped.

http://download.oracle.com/docs/cd/B19306_01/server.102/b14200/statements_1006.htm#i2168780

Use the `CREATE DISKGROUP` clause to create a collection of disks.

http://download.oracle.com/docs/cd/B19306_01/server.102/b14200/statements_5008.htm

Use the `add_disk_clause` to add one or more disks to the disk group and specify attributes for the newly added disk.

http://download.oracle.com/docs/cd/B19306_01/server.102/b14200/statements_1006.htm#i2168780

QUESTION 177

Which of the following files cannot be backed up by RMAN? (Choose all that apply.)

- A. Database datafiles
- B. Control files
- C. Online redo logs
- D. Database pfiles
- E. Archived redo logs

Answer: CD

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

QUESTION 178

RMAN provides more granular catalog security through which feature?

- A. Virtual private database
- B. Virtual private catalog
- C. RMAN virtual database
- D. RMAN secure catalog

E. Oracle Database Vault

Answer: B

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

Section: Backup, Recovery & Recovery Manager (RMAN)

Explanation/Reference:

QUESTION 179

What recommendations does the SQL Access Advisor provide for optimizing SQL queries? (Choose all that apply.)

- A. selection of SQL plan baselines
- B. partitioning of tables and indexes
- C. creation of index-organized tables
- D. creation of bitmap, function-based, and B-tree indexes
- E. optimization of materialized views for maximum query usage and fast refresh

Answer: BDE

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 180

What two statements are true regarding the recommendations received from the SQL Access Advisor? (Choose two.)

- A. It cannot generate recommendations that support multiple workload queries.
- B. It can recommend partitioning on tables provided that the workloads have some predicates and joins on the columns.
- C. It can recommend partitioning only on tables that have at least 10,000 rows.
- D. It can recommend only B-tree indexes and not bitmap or function-based indexes.

Answer: BC

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 181

Which of the following is a potential performance tuning recommendation from the SQL Access Advisor?

- A. Create new indexes.
- B. Modify existing indexes.
- C. Implement partitioning on a nonpartitioned table.

- D. Create materialized views.
- E. All of the above

Answer: E

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 182

Which statement most accurately describes the implementation of a SQL Access Advisor recommendation?

- A. SQL Access Advisor recommendations are automatically implemented.
- B. Individual SQL Access Advisor recommendations can be scheduled for implementation.
- C. All SQL Access Advisor recommendations for a specific task must be implemented at the same time.
- D. SQL Access Advisor recommendations are automatically scheduled for implementation during the maintenance window.
- E. None of the above.

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

http://www.oracle-base.com/articles/11g/SQLAccessAdvisor_11gR1.php:

The SQL Access Advisor was introduced in Oracle 10g to make suggestions about additional indexes and materialized views which might improve system performance. Oracle 11g has made two significant changes to the SQL Access Advisor:

1. The advisor now includes advice on partitioning schemes that may improve performance.
2. The original workload manipulation has been deprecated and replaced by SQL tuning sets.

QUESTION 183

What recommendations does the SQL Access Advisor provide for optimizing SQL queries? (Choose all that apply.)

- A. selection of SQL plan baselines
- B. partitioning of tables and indexes
- C. creation of index-organized tables
- D. creation of bitmap, function-based, and B-tree indexes
- E. optimization of materialized views for maximum query usage and fast refresh

Answer: BDE

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 184

Which tasks are run automatically as part of the Automated Maintenance Task by default? (Choose all that apply.)

- A. Segment Advisor
- B. SQL Access Advisor
- C. Optimizer statistics gathering
- D. Automatic SQL Tuning Advisor
- E. Automatic Database Diagnostics Monitor

Answer: ACD

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 185

You have a very large table that your users access frequently. Which of the following advisors will recommend any indexes to improve the performance of queries against this table?

- A. The Automatic Memory Manager (AMM)
- B. The SQL Tuning Advisor
- C. The Segment Advisor
- D. The SQL Access Advisor

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

The SQL Access Advisor analyzes all SQL running during a given time period and recommends indexes and materialized views to improve the overall performance of the database.

A is incorrect because there is no such advisor as the Automatic Memory Manager. B is incorrect because the SQL Tuning Advisor looks only at a single SQL statement and provides recommendations. C is incorrect because the Segment Advisor recommends segment shrink when table and index segments are heavily fragmented.

QUESTION 186

Which of the following advisors within the Oracle advisory framework will analyze a single

SQL statement and make recommendations for performance improvement?

- A. SQL Repair Advisor
- B. SQL Optimizer
- C. SQL Access Advisor
- D. SQL Tuning Advisor

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

Answer option D is correct.

The SQL Tuning Advisor takes one or more SQL statements and performs an analysis to determine what can be done to improve the performance of the SQL statement(s).

Recommendations include rewriting the SQL statement, adding indexes, or even changing initialization parameters or memory component sizes such as the SGA size or buffer cache.

The SQL Tuning Advisor is accessed via tools such as Top SQL, the Automatic SQL Tuning Advisor, or the Top Sessions interface from within EM. In contrast, the SQL Access Advisor takes a broader view of SQL tuning. It considers a larger subset of SQL statements, such as all SQL statements run within a specified time period or from a SQL Tuning Set (STS). The SQL Access advisor may recommend additional indexes as well as materialized views to improve performance.

The SQL Repair Advisor analyzes a SQL statement that causes a critical error and records the results in the Automatic Diagnostic Repository (ADR). It may recommend a patch to fix the problem, or may provide an alternate execution plan to avoid causing an error in the future.

Other advisors within the advisory framework include memory advisors that monitor usage of the SGA and PGA and recommend optimal settings for these memory structures including the substructures within them, such as the library cache and the large pool.

Answer option A is incorrect. The SQL Repair Advisor only makes recommendations for SQL statements that cause a critical error in the ADR.

Answer option B is incorrect. There is no such advisor such as the SQL Optimizer, although the Oracle optimizer uses statistics to determine the best execution plan.

Answer option C is incorrect. The SQL Access Advisor analyzes groups of SQL statements that run during the same time period, not one or two SQL statements in isolation as the SQL Tuning Advisor does.

QUESTION 187

Which of the following advisors is run in every maintenance window by the auto-task system?

- A. The Memory Advisor
- B. The SQL Tuning Advisor
- C. The Undo Advisor

D. The SQL Access Advisor

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

QUESTION 188

Which of the following identifies and creates an index to minimize the DB time for a particular SQL statement?

- A. The SGA Tuning Advisor
- B. The SQL Access Advisor
- C. The SQL Tuning Advisor
- D. The Memory Advisor

Answer: C

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

The **SQL Access Advisor** allows the DBA to gather global recommendations for a workload. The **SQL Tuning advisor** is more granular, tuning a single statement.

The main functions of the **SQL Access advisor** is to recommend missing indexes and materialized views, but a comprehensive task analysis will also create SQL Profiles that can be used within the **SQL Tuning advisor**.

The DBA defines the SQL used in the **SQL Access Advisor** task, and can choose current SQL, a user-defined set of SQL, a historical workload, or a hypothetical workload.

A hypothetical workload is very useful because the DBA need-only specify the tables that participate in the queries, and the **SQL Access Advisor** gathers the appropriate SQL statements to create the workload.

http://www.dba-oracle.com/oracle10g_tuning/t_sql_access_advisor.htm

The **SQL Tuning Advisor (STA)** is primarily designed to replace the manual tuning of SQL statements and speed up the overall SQL tuning process. The **SQL Tuning Advisor** studies poorly executing SQL statements and evaluates resource consumption in terms of CPU, I/O, and temporary space.

The **SQL Tuning Advisor (STA)** works with the Automatic Tuning Optimizer (ATO) to analyze historical SQL workload using data from the AWR, and it generates recommendations for new indexes and materialized views that will reduce the disk I/O associated with troublesome SQL statements.

http://www.dba-oracle.com/oracle10g_tuning/t_sql_tuning_advisor.htm

QUESTION 189

To view the results of the most recent Automatic SQL Tuning Advisor task, which sequence should you follow?

- A. EM Database home page, Software and Support, SQL Advisors, Automatic SQL Tuning Advisor.
- B. EM Database home page, Software and Support, Advisor Central, SQL Advisors, Automatic SQL Tuning Advisor.
- C. EM Database home page, Software and Support, Support Workbench, Advisor Central, SQL Advisors, Automatic SQL Tuning Advisor.
- D. Either B or C.
- E. All of the above

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 190

To view the results of a manual SQL Tuning Advisor task, which steps should the DBA take?

- A. From the Advisor Central home page, select the tuning task from the Advisor Tasks section.
- B. From Advisor Central, choose SQL Advisors, SQL Tuning Advisors, Manual Tuning Task Results.
- C. From Advisor Central, choose SQL Advisors, Manual SQL Tuning Advisors, Tuning Task Results.
- D. Either B or C.

Answer: A

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 191

Which of these appropriately describes the results of a manual SQL Tuning Advisor task?

- A. A list of SQL statements and recommendations for tuning
- B. A list of SQL statements that have been tuned by the Advisor, with before and after metrics
- C. Graphs showing the actual performance improvement made by the Advisor after it implemented the recommendations
- D. All of the above

Answer: A

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 192

When executing a SQL workload, you choose to generate execution plans only, without collecting execution statistics. Which two statements describe the implications of this? (Choose two.)

- A. It produces less accurate results of the comparison analysis.
- B. It automatically calls the SQL Tuning Advisor for recommendations.
- C. It shortens the time of execution and reduces the impact on system resources.
- D. Only the changes in the execution plan, and not performance regression, are detected.

Answer: AC

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 193

Which three statements about performance analysis by SQL Performance Analyzer are true? (Choose three.)

- A. It detects changes in SQL execution plans.
- B. It produces results that can be used to create the SQL plan baseline.
- C. The importance of SQL statements is based on the size of the objects accessed.
- D. It generates recommendations to run SQL Tuning Advisor to tune regressed SQLs.
- E. It shows only the overall impact on workload and not the net SQL impact on workload.

Answer: ABD

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 194

You run the SQL Tuning Advisor (STA) to tune a SQL statement that is part of a fixed SQL plan baseline. The STA generates a SQL profile for the SQL statement, which recommends that you accept the profile. Which statement is true when you accept the suggested SQL profile?

- A. The tuned plan is not added to the SQL plan baseline.
- B. The tuned plan is added to the fixed SQL plan baseline as a fixed plan.
- C. The tuned plan is added to the fixed SQL plan baseline as a nonfixed plan.
- D. The tuned plan is added to a new nonfixed SQL plan baseline as a nonfixed plan.

Answer: C

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 195

Which two statements about the SQL Management Base (SMB) are true? (Choose two.)

- A. It contains only SQL profiles generated by SQL Tuning Advisor.
- B. It stores plans generated by the optimizer using a stored outline.
- C. It is part of the data dictionary and stored in the SYSAUX tablespace.
- D. It is part of the data dictionary and stored in the SYSTEM tablespace.
- E. It contains the statement log, the plan history, plan baselines, and SQL profiles.

Answer: CE

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 196

While tuning a SQL statement, the SQL Tuning Advisor finds an existing SQL profile for the statement that has stale statistics available. What would the optimizer do in this situation?

- A. It updates the existing SQL profiles with current statistics.
- B. It makes the statistics information available to GATHER_STATS_JOB.
- C. It initiates the statistics collection process by running GATHER_STATS_JOB.
- D. It logs a warning message in the alert log so that the DBA can perform statistics collection manually.

Answer: B

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

QUESTION 197

Which of the following cannot be used as input to the SQL Tuning Advisor? (Choose all that apply.)

- A. A single SQL statement provided by a user
- B. An existing SQL Tuning Set (STS)
- C. A preprocessed Database Replay workload
- D. A schema name
- E. SQL statement identified in EM as using excessive resources

Answer: CD

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

You cannot use Database Replay workloads or an entire schema name as input to the SQL

Tuning Advisor. However, you can specify single SQL statements.

A, B, and E are incorrect because single SQL statements and SQL Tuning Sets can be provided as input to the SQL Tuning Advisor.

QUESTION 198

You have a very large table that your users access frequently. Which of the following advisors will recommend any indexes to improve the performance of queries against this table?

- A. The Automatic Memory Manager (AMM)
- B. The SQL Tuning Advisor
- C. The Segment Advisor
- D. The SQL Access Advisor

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

The SQL Access Advisor analyzes all SQL running during a given time period and recommends indexes and materialized views to improve the overall performance of the database.

A is incorrect because there is no such advisor as the Automatic Memory Manager. B is incorrect because the SQL Tuning Advisor looks only at a single SQL statement and provides recommendations. C is incorrect because the Segment Advisor recommends segment shrink when table and index segments are heavily fragmented.

QUESTION 199

Which package provides API's for the SQL Tuning Advisor?

- A. DBMS_MONITOR
- B. DBMS_STATS
- C. DBMS_SQLTUNE
- D. DBMS_ADVISOR

Answer: C

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

Answer option C is correct.

The recommended interface for running the SQL Tuning Advisor is the Oracle Enterprise

Manager.

However, if Oracle Enterprise Manager is unavailable, you can run the SQL Tuning Advisor using procedures in the DBMS_SQLTUNE package. The DBMS_SQLTUNE package provides the following three interrelated areas of functionality:

- SQL Tuning Advisor Subprograms
- SQL Profile Subprograms
- SQL Tuning Set Subprograms

Answer option B is incorrect. With the DBMS_STATS package you can view and modify optimizer statistics gathered for database objects. The Oracle RDBMS allows you to collect statistics of many different kinds as an aid to improve performance. This package is concerned with optimizer statistics only. Given that Oracle sets automatic statistics collection of this kind by default, this package is intended for only specialized cases. The statistics of interest to be viewed or modified can reside in the dictionary or in a table created in the user's schema for this purpose. You can also collect and manage user-defined statistics for tables and domain indexes using this package.

Answer option D is incorrect. DBMS_ADVISOR is part of the Server Manageability Suite of Advisors, a set of expert systems that identifies and helps resolve performance problems relating to the various database server components.

Answer option A is incorrect. The DBMS_MONITOR package lets you use PL/SQL for controlling additional tracing and statistics gathering.

QUESTION 200

Which of the following advisors within the Oracle advisory framework will analyze a single SQL statement and make recommendations for performance improvement?

- A. SQL Repair Advisor
- B. SQL Optimizer
- C. SQL Access Advisor
- D. SQL Tuning Advisor

Answer: D

Section: Managing Database Performance & Tuning

Explanation/Reference:

Section: Managing Database Performance & Tuning

Explanation/Reference:

Answer option D is correct.

The SQL Tuning Advisor takes one or more SQL statements and performs an analysis to determine what can be done to improve the performance of the SQL statement(s). Recommendations include rewriting the SQL statement, adding indexes, or even changing initialization parameters or memory component sizes such as the SGA size or buffer cache.

The SQL Tuning Advisor is accessed via tools such as Top SQL, the Automatic SQL Tuning Advisor, or the Top Sessions interface from within EM. In contrast, the SQL Access Advisor

takes a broader view of SQL tuning. It considers a larger subset of SQL statements, such as all SQL statements run within a specified time period or from a SQL Tuning Set (STS). The SQL Access advisor may recommend additional indexes as well as materialized views to improve performance.

The SQL Repair Advisor analyzes a SQL statement that causes a critical error and records the results in the Automatic Diagnostic Repository (ADR). It may recommend a patch to fix the problem, or may provide an alternate execution plan to avoid causing an error in the future.

Other advisors within the advisory framework include memory advisors that monitor usage of the SGA and PGA and recommend optimal settings for these memory structures including the substructures within them, such as the library cache and the large pool.

Answer option A is incorrect. The SQL Repair Advisor only makes recommendations for SQL statements that cause a critical error in the ADR.

Answer option B is incorrect. There is no such advisor such as the SQL Optimizer, although the Oracle optimizer uses statistics to determine the best execution plan.

Answer option C is incorrect. The SQL Access Advisor analyzes groups of SQL statements that run during the same time period, not one or two SQL statements in isolation as the SQL Tuning Advisor does.