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Exam: 1Z0-024

Title : Performance Tuning

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QUESTION 1 When performing a sort operation, you notice that there are a large number of sorts requiring I/O to the disk. Which parameter could be increased to allow more sorts to be performed in memory?

- A. SORT_AREA_SIZE
- B. LARGE_POOL_SIZE
- C. SORT_AREA_RETAINED_SIZE
- D. SORT_MULTIBLOCK_READ_COUNT

Answer: A

Explanation: To avoid a large number of sorts requiring I/O to the disk, SORT_AREA_SIZE parameter needs to be increased to perform more sorts in memory. SORT_AREA_SIZE specifies in bytes the maximum amount of memory Oracle will use for a sort. After the sort is complete, but before the rows are returned, Oracle releases all of the memory allocated for the sort, except the amount specified by the SORT_AREA_RETAINED_SIZE parameter. After the last row is returned, Oracle releases the remainder of the memory.

Incorrect Answers:

B: The LARGE_POOL_SIZE parameter is used to set the large pool. It's new area in the Oracle SGA that supports the Recovery Manager tool in recovering the Oracle database.

C: SORT_AREA_RETAINED_SIZE specifies (in bytes) the maximum amount of the user global area (UGA) memory retained after a sort run completes. The retained size controls the size of the read buffer, which Oracle uses to maintain a portion of the sort in memory. This memory is released back to the UGA, not to the operating system, after the last row is fetched from the sort space.

D: SORT_MULTIBLOCK_READ_COUNT specifies the number of database blocks to read each time a sort performs a read from a temporary segment. Temporary segments are used by a sort when the data does not fit in SORT_AREA_SIZE of memory. In these situations, sort writes out sections of data to temporary segments in the form of sorted runs. Once all the data has been partially sorted to these runs, sort merges the runs by reading pieces of them from the temporary segment into memory to produce the final sorted output. If SORT_AREA_SIZE is not large enough to merge all the runs at once, subsets of the runs are merged in a number of merge passes.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 855 Chapter 18: Tuning Memory and Operating System Use

QUESTION 2 Which statement could require a sort?

- A. SELECT DISTINCT dept_id
FROM emp;
- B. UPDATE emp SET salary=salary*1.1
WHERE id 7722;
- C. SELECT emp_id, name
FROM emp
WHERE emp-id= 7722;
- D. SELECT emp_id, name
FROM emp
WHERE emp_id BETWEEN 7722 and 7100;

Answer: A

Explanation: Sorts are conducted as part of SELECT DISTINCT, MINUS, INTERSECT, and UNION statements, as well as the min(), max(), and count() operations.

Incorrect Answers:

B: UPDATE statement does not require a sort operation.

C: This SELECT statement does not require a sort operation.

D: The BETWEEN clause of SELECT statement does not require a sort operation.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 956-959 Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 3 Which two views can be used to detect lock contention? (Choose two)

A. V\$LOCK

B. V\$LOCKED_OBJECT

C. V\$LOCK_CONTENTION

Answer: A, B

Explanation: Two views, V\$LOCK and V\$LOCKED_OBJECT, are used to detect lock contention. The V\$LOCK view lists the locks currently held by the Oracle server and outstanding requests for a lock or latch. The V\$LOCKED_OBJECT view lists all locks acquired by every transaction on the system.

Incorrect Answers:

C: There is no V\$LOCK_CONTENTION view in Oracle 8i.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 934-945 Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 4 The database includes tables with static data, which are used for queries only. To which size should you set PCTFREE for this type of table?

A. 0

B. 50

C. 20

D. 10

Answer: A

Explanation: The PCTFREE parameter is used to specify the amount of space left free in each block to accommodate the growth of existing rows in the block. If the rows in the block will not be updated frequently, or if the updates that will occur will not affect the size of each row, set the value for PCTFREE low on that database object.

Incorrect Answers:

B: Set PCTFREE high if rows in your table will be updated often and each update will add to the size in bytes of the row.

C: PCTFREE=20 is too high for table with static data.

D: PCTFREE=10 is too high for table with static data.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 350-352 Chapter 7: Managing the Physical Database Structure

QUESTION 5 Which action could potentially cause checkpoints to take longer?

A. Increasing the number of redo log groups.

B. Increasing the size of rollback segments.

C. Decreasing the value of the REDO_LOG_BUFFERS parameter.

D. Increasing the value of the FAST_START_IO_TARGET parameter.

Answer: D

Explanation: Checkpoints will take longer after increasing the value of the FAST_START_IO_TARGET parameter.

Incorrect Answers:

A: Increasing the number of redo log groups will not cause checkpoints to take longer.

B: The size of rollback segments has nothing to do with checkpoint duration.

C: The value of the REDO_LOG_BUFFERS does not interact with checkpoint duration.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 902 Chapter 19: Tuning Disk Utilization

QUESTION 6 When a deadlock shutdown is detected by Oracle, where is the trace file generated?

A. SQL_TRACE

B. TRACE_DEST

C. USER_DUMP_DEST

D. CORE_DUMP_DEST

E. BACKGROUND_DUMP_DEST

Answer: C

Explanation: When Oracle's deadlock detection mechanisms discover a deadlocking situation on the database, they write a message to the ALERT log for the Oracle instance, located in USER_DUMP_DEST.

Incorrect Answers:

A: The trace file will not be generated in SQL_TRACE.

B: There is no TRACE_DEST location in Oracle configuration.

D: CORE_DUMP_DEST location contains files different information, not deadlocks.

E: The trace file in BACKGROUND_DUMP_DEST does not contain "a deadlock shutdown".

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 943-945 Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 7 If a willing-to-wait latch request is satisfied on the first attempt, which statistic gets incremented?

A. GETS

B. SLEEPS

C. MISSES

D. IMMEDIATE_GETS

E. IMMEDIATE_MISSES

F. IMMEDIATE_GETS

Answer: A

Explanation: If a willing-to-wait latch request is satisfied on the first attempt, GET statistics will be increased. GETS column in V\$LATCH view is the number of latch requests that resulted in actually obtaining the latch.

Incorrect Answers:

B: SLEEPS column shows the number of times a process waited for the latch, and then requested to obtain it again.

C: MISSES column shows the number of latch requests that did not result in actually obtaining latch.

D: It is the number of latch requests that resulted in immediately obtaining the latch.

E: IMMEDIATE_MISSES is the number of latch requests that were unsuccessful in obtaining the latch.

F: Copy of D.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 953-955 Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 8 For which reason would you query V\$SYSSTAT?

A. Name of the sort segment.

- B. Free space available for a sort segment.
- C. Number of disk sorts performed since startup.
- D. Number of users active on individual sort segments.

Answer: C

Explanation: To determine buffer-cache hits, the DBA can use the V\$SYSSTAT dynamic performance view to calculate the buffer-cache hit ratio. The hit ratio is determined by the total number of instance data requests (the sum of the two "get" statistics) minus physical reads, divided by the total number of instance data requests, multiplied by 100.

Incorrect Answers:

- A: The V\$SYSSTAT view does not show the name of the sort segment.
- B: The V\$SYSSTAT is not used for free space of the sort segment information.
- D: The V\$SYSSTAT view does not show the number of users active on individual sort segments.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 861-863 Chapter 18: Tuning Memory and Operating System Use

QUESTION 9 Which two statements about plan stability and stored outlines are true? (Choose two)

- A. You can group outlines in categories.
- B. You can only have one stored outline per SQL statement.
- C. Plan stability only wants when SQL statements match textually.
- D. Stored outlines are saved in the data dictionary (SYS schema)
- E. Stored outlines become invalid when you analyze the associated objects.

Answer: A, C

Explanation: You can group outlines in categories. To use stored outlines you also need to be sure that SQL statements match textually.

Incorrect Answers:

- B: It can be more than one stored outline per SQL statement.
- D: Stored outlines are saved in the OUTLN schema, not in the data dictionary.
- E: Stored outlines will not become invalid when you analyze the associated objects.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 801-804 Chapter 17: Tuning Database Applications

QUESTION 10 What does this statement do?

SQL> ANALYZE INDEX index_name VALIDITY STRUCTURE;

- A. It places information into the INDEX_STATS view and allows for the monitoring of space used by an index.
- B. It provides information in the INDEX_HISTOGRAM view to indicate whether an index is invalid or valid.
- C. It provides information in the DBA_INDEXES view for the COST BASED Optimizer when choosing an execution plan.

Answer: A

Explanation: This statement places information into the INDEX_STATS view to allow you to monitor of space usage by an index.

Incorrect Answers:

- B: This ANALYZE statement does not provide information in the INDEX_HISTOGRAM view.
- C: This ANALYZE statement does not provide information in the DBA_INDEXES view.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 917-918 Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 11 Which three types of statistics are reported in report.txt after running UTLESTAT SQL?
(Choose three)

- A. Locking statistics.
- B. Memory usage statistics.
- C. Explain plan statistics.
- D. Library cache statistics.
- E. Buffer busy wait statistics.
- F. Rollback contention statistics.

Answer: D, E, F

Explanation: Report.txt file contains library cache, buffer busy waits and rollback contention statistics.

Incorrect Answers:

- A: This report does not shows locking statistics.
- B: It will not provide memory usage statistics.
- C: Report.txt file does not contain any information about explain plan statistics.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 769-776

Chapter 16: Introducing Database Tuning

QUESTION 12 What are two main OLTP requirements? (Choose two)

- A. Use bind variables rather than literals in your SQL code.
- B. Analyze your tables regularly to refresh optimizer statistics.
- C. Create multiple small rollback segments as opposed to a few big ones.
- D. Create indexes on all columns that are regularly used in query predicates.
- E. Set up appropriate default storage parameter values for dynamic (implicit) space allocation.

Answer: B, C,

Explanation: There are several design paradoxes inherent in OLTP systems. First, OLTP systems need to be designed to facilitate fast data entry without sacrificing accuracy. Any mechanism that checks the data being entered will cause some performance degradation. Data change is the primary function of an OLTP system. The designers and DBAs of such systems must work with users to create an effective trade-off between viewing data quickly and making data changes quickly. Because of quick data changes you need to analyze your tables regularly to keep optimizer statistics up to date. Because of high volume of user connections it's reasonable to create multiple small rollback segments as opposed to a few big ones.

Incorrect Answers:

- A: Using bind variables rather than literals in your SQL code will cause performance degradation because SQL statements will be parsed again.
- D: I indexes on ALL columns will decrease performance also, because of high volume of insert, delete and update requires indexes rebuilding constantly.
- E: Setting up default storage parameter values for dynamic space allocation will cause performance degradation, because these parameters need to be set based on database activity, insert and updates.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 793-795 Chapter 17: Tuning Database Applications

QUESTION 13 Which table space is used as the temporary table space if 'TEMPORARY TABLESPACE' is not specified for a user?

- A. TEMP
- B. DATA
- C. SYSTEM

D. ROLL-BACK

Answer: C

Explanation: SYSTEM table space will be used as the temporary table space if TEMPORARY TABLESPACE is not specified for a user.

Incorrect Answers:

A: There is no TEMP table space by default in Oracle.

B: DATA table space is used for data storage, not for data sorts, so it must not to be used as temporary table space. It will not be set as TEMPORARY TABLESPACE for user by default.

D: ROLLBACK table space is used for rollback segments information, not for data sorts, as temporary tblspace is used. It will not be set as TEMPORARY TABLESPACE for user by default.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 953-955. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 14 Which dynamic view is most useful for determining the current number of blocks allocated to a buffer pool?

A. V\$CACHE

B. V\$SESS_IO

C. V\$SYSSTAT

D. V\$BUFFER_POOL

Answer: D

Explanation: The most useful dynamic view for determining the current number of blocks allocated to a buffer pool.

Incorrect Answers:

A: There is no object V\$CACHE in Oracle.

B: V\$SESS_IO view is used for I/O statistics for session, not for determining the current number of blocks allocated to a buffer pool.

C: V\$SYSSTAT view is used to determine the buffer-cache ratio, but it does not show the current number of blocks allocated to a buffer pool.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 872-873. Chapter 18: Tuning Memory and Operating System Use

QUESTION 15 Which three statements about improving the performance of the database buffer cache by creating multiple buffer pools are true? (Choose three)

A. One, two, or three pools may be defined.

B. There are at least 50 blocks per LRU latch for each pool.

C. Each buffer pool is assigned latches taken from DB_BLOCK_LRU_LATCHES.

D. The size of the DEFAULT pool is obtained by adding all the pools to the value of the DB_BLOCK_BUFFERS parameter.

Answer: A, B, C

Explanation: There are three multiple buffer pools that can improve the performance of the database buffer cache: the KEEP pool, the RECYCLE pool and the DEFAULT pool. Also there must be at least 50 block buffers for every LRU latch you allocate to your buffer cache. Each buffer pool is assigned latches from DB_BLOCK_LRU_LATCHES.

Incorrect Answers:

D: The size of the DEFAULT pool is not obtained by adding all the pools. It's separate structure.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 867-872. Chapter 18: Tuning Memory and Operating System Use

QUESTION 16 In which two ways can you reduce the amount of sorting that is performed? (Choose two)

- A. By using UNION instead of UNION ALL.
- B. By using NOSORT when creating tables.
- C. By using NOSORT when creating indexes.
- D. By using COMPUTE instead of ESTIMATE when analyzing objects.
- E. By reducing the number of users that have the sort privilege.
- F. By creating appropriate indexes on tables that are joined often.

Answer: C, F

Explanation: To reduce the amount of sorting that is performed you can use NOSORT clause when creating indexes (data is already sorted). Also you can create appropriate indexes on tables that are often joined.

Incorrect Answers:

- A: It will be increased amount of sorting if you use UNION command.
 - B: There is no NOSORT clause for CREATE TABLE command.
 - D: Usage of COMPUTE instead of ESTIMATE will require more sorts because this clause will process all rows, not only small representation amount of them.
 - E: There is no sort privileges in Oracle for user. All sorts are performed automatically by Oracle itself.
-

QUESTION 17 What will this statement do?

```
CREATE TABLESPACE temp
DATAFILE 'C:\database\temp.dbf' SIZE 10n
Temporary;
```

- A. Create a table space that will be dropped on instance shutdown.
- B. Create a table space in which the user can create segments for usage during sorts.
- C. Create a table space in which oracle can create segments for usage during sorts.
- D. Create a table space in which a user can create tables that will be automatically dropped after a week

Answer: C

Explanation: This statement can be used to create segments for sort usage by Oracle.

Incorrect Answers:

- A: This table space will not be dropped on instance shutdown.
- B: There is no way for user to create sort segments explicitly, only Oracle can do this itself.
- D: Tables can be created by user in TEMP table space, but they will not be dropped automatically. Also TEMPORARY clause will prevent users from creating permanent objects in table spaces containing temporary segments.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 893-895. Chapter 19: Tuning Disk Utilization

QUESTION 18 Which type of transaction should you assign to a specific large rollback segment?

- A. Batch jobs that modify many rows.
- B. Long running serializable transactions.
- C. Long running reports, to avoid 'snapshot too old' errors.
- D. Discrete transactions that modify many rows in the same block.

Answer: A

Explanation: Using SET TRANSACTION USE ROLLBACK SEGMENT command you can assign batch job transaction that modify many rows to a specific large rollback segment.

Incorrect Answers:

B: You don't need to assign long running serializable transactions to a specific large rollback segment.

C: Reports are not changing data usually, so they will not cause 'Snapshot too old' error.

D: Discrete transactions do not need a specific large rollback segment to be assigned.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 911. Chapter 19: Tuning Disk Utilization

QUESTION 19 What is the least number of buffers an LRU latch must cover in the database buffer cache?

A. 5

B. 10

C. 30

D. 50

E. 100

Answer: D

Explanation: There must be at least 50 block buffers for every LRU latch you allocate to database buffer cache.

Incorrect Answers:

A: 5 buffers are not enough for an LRU latch, there must be at least 50 blocks.

B: 10 buffers are not enough for an LRU latch, there must be at least 50 blocks.

C: 30 buffers are not enough for an LRU latch, there must be at least 50 blocks.

D: 100 buffers will be enough for an LRU latch, but the minimum number is 50 blocks, not 100.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 867-872. Chapter 18: Tuning Memory and Operating System Use

QUESTION 20 Which three statements about rebuilding indexes are true? (Choose three)

A. The ALTER INDEX REBUILD command is used to change the storage characteristics of an index.

B. Using the ALTER INDEX REBUILD is usually faster than dropping and recreating an index because it uses the fast full scan feature.

C. Oracle8i allows for the creation of an index or re-creation of an existing index while allowing concurrent operations on the base table.

D. When building an index, the NOLOGGING and UNRECOVERABLE keywords can be used concurrently to reduce the time it takes to rebuild.

Answer: A, B, C

Explanation: It's possible to change the storage parameters of an index with ALTER INDEX REBUILD command. This command usually faster than dropping and recreating an index because of fast full scan feature.

Users can perform concurrent operations on the base table during the creation or re-creation of an index in Oracle8i.

Incorrect Answers:

D: Usage of NOLOGGING keyword can reduce the time to rebuild index, but not an UNRECOVERABLE keyword.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 917-918. Chapter 19: Tuning Disk utilization

QUESTION 21 Where can you find the nondefault parameters when the instance is started?

A. Alert log

B. Online redo log

C. Archived redo log

D. SYSTEM user's trace file

Answer: A

Explanation: You can find non-default parameters for started instance in Alert log file.

Incorrect Answers:

B: Online redo logs do not contain non-default Oracle parameters for instance.

C: Archived redo logs do not contain non-default Oracle parameters for instance, it's just archived version of online redo logs.

D: Trace file for SYSTEM user can not be used for this purpose.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 754-757. Chapter 16: Introducing Database Tuning

QUESTION 22 What should be two goals in tuning rollback segments. (Choose two)

A. Transactions should never wait for access to rollback segment.

B. No transaction, however large or exceptional, should ever run out of rollback space.

C. Rollback segments should be configured to extend continually during normal processing.

D. The ratio of waits to the rollback segment header blocks should be less than 5% of the sum of access.

Answer: A, B

Explanation:

There are two goals in tuning rollback segments: any transaction should never wait for access to rollback segment; it's not acceptable for any transaction to run out space in rollback segment.

Incorrect Answers:

C: Rollback segment should use as little space as possible during normal processing, only during heavy processing it can be extending continually to avoid situation for transaction to run out of space.

D: The ratio of waits to the rollback segment header blocks should be less than 1%, not 5% of the sum of access. In other case it will be a problem with rollback-segment contention.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 904-911. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 23 Which statement about improving the performance of the database buffer cache by creating multiple buffer pools is true?

A. The KEEP buffer pool must also be deferred if the RECYCLE pool is defined.

B. The buffer pool for an object can be set explicitly only at object creation time.

C. The blocks from an object without an explicitly set buffer pool go into the RECYCLE pool.

D. Buffer pools are assigned to a segment, so option with multiple segments can have blocks in multiple buffer pools.

Answer: D

Explanation: Since each partition of a partitioned object can have its own storage clause, you can also assign each partition to different buffer pools. The syntax for assigning an object to a buffer pool is STORAGE (BUFER_POOL POOL), where POOL can be set to KEEP, RECYCLE, or DEFAULT, depending on which buffer pool you want blocks from this object to be part of.

Incorrect Answers:

A: The KEEP buffer pool can be deferred or can not be if the RECYCLE pool is defined.

B: The buffer pool for an object can be set with CREATE OBJECT or ALTER OBJECT command, it means the buffer pool can be set not only at object creation time.

C: The blocks from an object without an explicitly set buffer pool go into the DEFAULT pool, not the RECYCLE pool.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 867-870. Chapter 18: Tuning Memory and Operating System Use

QUESTION 24 What should one be your tuning goals?

- A. Use as much memory as possible.
- B. Use multiple copies of the code in memory.
- C. Access the most possible number of blocks from disk.
- D. Access the least possible number of blocks from disk.

Answer: D

Explanation: One of tuning goals is access the least possible number of blocks from disk to avoid I/O contention.

Incorrect Answers:

A: One of tuning goals can be usage as less, not as much memory as possible.

B: To improve performance you need to try to use the same SQL code to avoid multiple copies of the code in memory.

C: One of tuning goals is access the least, not the most possible number of blocks from disk to avoid I/O contention.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 892-904. Chapter 19: Tuning Disk utilization

QUESTION 25 When should you recommend changing the applications in order to reuse more SQL?

- A. When the GETHITRATIO in the V\$LIBRARYCACHE view is above 0.99
- B. When the misses in the dictionary cache are greater than 1% of the hits.
- C. When the ratio of GETHITS to GETS in the V\$LIBRARYCACHE view is less than 0.9
- D. When the ratio of RELOADS to PINS in the V\$LIBRARYCACHE view is less than 0.01

Answer: C

Explanation: You need to tune your application to reuse more SQL if the ratio of GETHITS to GETS in the V\$LIBRARYCACHE view is less than 0.9.

Incorrect Answers:

A: You don't need to tune SQL statements in application when the GETHITRATIO in the V\$LIBRARYCACHE view is ABOVE 0.99.

B: Application does not require tuning when the misses in the dictionary cache are greater than 1% of the hits. Correct formula for hit ration is : $\text{SUM}(\text{GETS} - \text{GETMISSES}) / \text{SUM}(\text{GETS}) * 100$.

D: It's good for performance when the ratio of RELOADS to PINS in the V\$LIBRARYCACHE view is less than 0.01.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 852-854. Chapter 18: Tuning Memory and Operating System Use

QUESTION 26 What are two possible causes of lock contention? (Choose two)

- A. Uncommitted changes.
- B. Too many rollback segments.
- C. Improperly sized redo logs.
- D. Shared pool is sized too large.
- E. Other protocols imposing unnecessarily high locking levels.

Answer: A, E

Explanation:

There are two possible causes of lock contention: uncommitted transactions and unnecessary high locking levels. For example, if you update data in an area of the application where users expect to perform queries against the database, you might wind up holding a lock that causes contention. This is because the application

probably won't issue a commit any time soon, to release the acquired lock. If process holds an exclusive lock on a table and does not relinquish that lock, then other processes will contend in their attempt to change the same data in the table.

Incorrect Answers:

B: The large amount of rollback segments will reduce lock contention.

C: Size of redo logs cannot cause lock contention.

D: Large size of shared pool will reduce lock contention, not increase it.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 938-940. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 27 Which component will NEVER allocate memory from the large pool?

A. Oracle Library Cache.

B. Oracle Parallel Query.

C. Oracle Recovery Manager.

D. Oracle Multithreaded Server.

Answer: A

Explanation: Oracle Library Cache as part of SGA will NEVER allocate memory from the large pool.

Incorrect Answers:

B: Oracle Parallel Query can use memory from the large pool.

C: The large pool is a new area in the Oracle SGA that supports the Recovery Manager tool in recovering the Oracle database. This memory area is optional, and when it is configured, it will improve RMAN performance by offering buffer space in memory for I/O slaves process to use when backing up the database or restoring file components from tape.

D: Oracle MTS may also allocate memory from the large pool.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 849-855. Chapter 18: Tuning Memory and Operating System Use

QUESTION 28 Database Resource Manager uses resource plans to determine resource limits for the set of users. Which statement is true in reference to resource plans?

A. Resource plans are set using profiles.

B. Only one resource plan can be stored in the database at one time.

C. The database can have many resources plans, but only one can be active at any one time.

D. The database can have many resource plans, and each user chooses which plan to belong to.

Answer: C

Explanation: Only one resource plan can be active at any one time, but the database can have many resources plans.

Incorrect Answers:

A: Resource plans do not use profiles.

B: The database can have many resource plans, not only one.

D: The database can have many resource plans, but each user cannot choose which plan to belong to.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 852-854. Chapter 24: Oracle8i New Features Topics

QUESTION 29 Which three actions will cause queries to place a table's blocks at the most-recently-used end of the LRU list? (Choose three)

A. Creating a table with the CACHE option.

- B. Querying the table by using a CACHE hint.
- C. Ensuring the query performs a full table scan.
- D. Defining the table without the option for caching.
- E. Altering an existing table to set the CACHE option.
- F. Ensuring the query does not retrieve data through index lookup.
- G. Creating a separate database buffer cache to hold cached table.

Answer: A, B, E

Explanation: Creating a table with the CACHE option, querying the table by using a CACHE hint, altering an existing table to set the CACHE option will cause queries to place a table's blocks at the most-recently used end of the LRU list.

Incorrect Answers:

C: If the query performs a full table scan you cannot be sure that all table's blocks will be placed at the most recently used end of the LRU list.

D: Defining the table without the option for caching will not put table in the most-recently used end of the LRU list.

F: The query, which does not retrieve data through index lookup, will not put data in the top of LRU list.

G: A separate database buffer cache have nothing to do with cached table.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 873. Chapter 18: Tuning Memory and Operating System

QUESTION 30 What is the main reason to create a reverse key index on a column?

- A. The column is populated using a sequence.
- B. The column contains many different values.
- C. The column is mainly used for value range scans.
- D. The column implementing an inverted list attribute.

Answer: A

Explanation: It's reasonable to use a reverse key index on a column if it is populated using a sequence. Oracle recommends to use cost-based optimization with reverse-key indexes.

Incorrect Answers:

B: The column, which contains many different values, requires B-tree index, not a reverse key index for better performance.

C: The reverse key index will not give good performance for the column, which is mainly used for value range scans.

D: There is no an inverted list attribute for columns in Oracle.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 811-812. Chapter 17: Tuning Database Applications

QUESTION 31 Which type of table is the best candidate to be cached?

- A. Small table rarely retrieved with a full table scan.
- B. Large table rarely retrieved with a full table scan.
- C. Small table frequently retrieved with a full table scan.
- D. Large table frequently retrieved with a full table scan.

Answer: C

Explanation: The best candidate to be cached is small table frequently retrieved with a full table scan.

Incorrect Answers:

A: If table is rarely retrieved with a full table scan it's not necessary to keep it in cache.

B: If table is large and rarely retrieved with a full table scan it's not necessary to keep it in cache.

D: It's difficult to keep large table in the cache, it must be small enough to fit the cache.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 873. Chapter 18: Tuning Memory and Operating System Use

QUESTION 32 Which initialization parameter specifies the location of the alert log file?

- A. UTL_FILE_DIR
- B. USER_DUMP_DEST
- C. LOG_ARCHIVE_DEST
- D. BACKGROUND_DUMP_DEST

Answer: D

Explanation: The location of your alert log and background trace files depends on the directory specified for the BACKGROUND_DUMP_DEST for your instance.

Incorrect Answers:

A: UTL_FILE_DIR is used for different purpose, not for alert log file storage.

B: USER_DUMP_DEST parameter specifies for user dump files, not alert log file.

D: LOG_ARCHIVE_DEST parameter shows directory where all archived log files are located.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 754-759. Chapter 16: Introducing Database Tuning

QUESTION 33 The NOLOGGING mode in SQL statements is a tool used to reduce redo operations, but NOLOGGING does not apply to every operation for which the attribute is set. Which three SQL statements can use the NOLOGGING mode to reduce redo operations? (Choose three)

- A. UPDATE
- B. CREATE INDEX
- C. ALTER INDEX. . REBUILD
- D. Conventional Path INSERT
- E. CREATE TABLE. . . AS SELECT

Answer: B, C, E

Explanation: There are three statements can use NOLOGGING mode to reduce redo operations: CREATE INDEX, ALTER INDEX ... REBUILD, CREATE TABLE ... AS SELECT.

Incorrect Answers:

A: UPDATE SQL statement cannot use the NOLOGGING mode to reduce redo operations: changes will be written into redo log files any way.

D: Conventional path INSERT will update redo log files. Only direct load path can avoid redo log files modification.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 873-876. Chapter 18: Tuning Memory and Operating System Use

QUESTION 34 Which two statements about database blocks are true? (Choose two)

- A. DSS environment prefer a large block size
- B. Small block sizes result in more block contention.
- C. Random access to large objects favors a large block size.
- D. You can reduce the number of block visits by packing rows as closely as possible into blocks.
- E. To change the database block size, you must shut down the instance and perform a STARTUP RESETLOGS after you make the change.

Answer: A, D

Explanation: The key feature of a decision support system is fast access to large amounts of data, so DSS environment prefer a large database block size. Also remember that you can reduce the number of block visits by packing rows as closely as possible into blocks, so Oracle will need less table scans to retrieve all needed blocks.

Incorrect Answers:

B: Small block sizes will not result in more block contention.

C: Random access to large objects will work better with small block size. It happens often in OLTP systems. For full scans large block size is more preferable (DSS systems).

E: To change the database block size, you must rebuild database. Shutdown the instance and STARTUP with RESETLOGS option will not change database block size.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 793-796. Chapter 17: Tuning Database Applications

QUESTION 35 The ORDERS table has millions of rows and is accessed very often with an index (ORDID_NDX) on a primary key (ORD_ID). Where should ORDERS and ORDID_NDX be stored?

- A. Same table space
- B. Different table space on the same disk
- C. Table space containing a rollback segment
- D. Different table spaces on different disks

Answer: D

Explanation: For better performance the ORDERS table and the ORDID_NDX index must be stored in different table spaces on different disks.

Incorrect Answers:

A: If these objects will be in the same table space it will cause performance degradation.

B: Different table spaces on the same disk will still require extensive I/O operations contention, because Oracle will try to retrieve index and data blocks from one disk device in one time.

C: It's not recommended to put data or index table spaces on disk, where rollback segments are located: it will cause I/O contention.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 844. Chapter 18: Tuning Memory and Operating System Use

QUESTION 36 Which two statements about row migration are true? (Choose two)

- A. Row migration is caused by a PCTREE value set too low.
- B. Row migration can be resolved using the ANALYZE command.
- C. Row migration can be reduced by choosing a larger block size.
- D. Row migration means that row pieces are stored in different blocks.
- E. Queries that use an index to select migrated rows perform additional I/O

Answer: A, B

Explanation: Higher PCTFREE values represent a proactive solution to row chaining and migration. The ANALYZE OBJECT_NAME LOST CHAINED ROWS INTO CHAINED_ROWS command is used to determine whether there are chained rows in the database.

Incorrect Answers:

C: Row migration cannot be reduced by choosing a larger block size, because it's impossible to predict size for all updates for rows.

D: Row migration occurs when a user process updates a row in an already crowded data block, forcing Oracle

to move the row out of that block and into another one that can accommodate the row. Row chaining means that row pieces are stored in different blocks. It happens when Oracle attempts to migrate the row but cannot find a block large enough to fit the entire row, so it breaks the row into two or more parts and stores parts separately.

E: Queries that use an index to select migrated rows will not perform additional I/O, because row fits one database block. To select chained rows queries will perform more I/O operations to retrieve all data they need. Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 915-916. Chapter 19: Tuning Disk Utilization

QUESTION 37 What are three indications of contention for this rollback segment header? (Choose three)

- A. A nonzero value in the WAITS column of the V\$ROLLSTAT view
- B. A nonzero value in the UNDO_HEADER column of the V\$WAITSTAT view
- C. A nonzero value in the ROLL_SEG_WAITS column of the V\$ROLLSEGS view
- D. A nonzero value in the UNDO_HEADER_WAITS column of the V\$ROLLBACK_SEGS view
- E. A nonzero value in the Undo Segment To Slot event of the V\$SYSTEM_EVENT view

Answer: A, B, E

Explanation: A nonzero value in the WAITS column of the V\$ROLLSTAT view, a nonzero value in the UNDO_HEADER column of the V\$WAITSTAT view and a nonzero value in the Undo Segment Tx Slot event of the V\$SYSTEM_EVENT view indicate contention for the rollback segment header.

Incorrect Answers:

C: There is no V\$ROLLSEGS view in Oracle.

D: There is no V\$ROLLBACK_SEGS view in Oracle.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 904-911. Chapter 19: Tuning Disk Utilization

QUESTION 38 When tables are stored in locally managed table spaces, where is extent allocation information stored?

- A. Memory
- B. Data dictionary
- C. Temporary table space
- D. Corresponding table space itself

Answer: D

Explanation: Extent allocation information is stored in corresponding table space itself, if tables are stored in locally managed table space.

Incorrect Answers:

A: Extent allocation information is not stored in memory for locally managed table spaces.

B: Extent allocation information is stored in data dictionary if tables use data-dictionary managed table spaces.

Oracle use data-dictionary managed table spaces by default.

C: Extent allocation information is NEVER stored in temporary table space.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 1146. Chapter 18: Oracle8i New Features

Topics

QUESTION 39 What is one difference between I/O slaves and DBWn processes for the DB Writer?

- A. In Oracle8i, I/O slaves are not available; only DBWn processes are available.
- B. I/O slaves perform the write function only, while DBWn processes also perform data-gathering activity.
- C. I/O slaves will work only with synchronous I/O, whereas DBWn processes are available only with asynchronous I/O
- D. I/O slaves will work only with asynchronous I/O, whereas DBWn processes are available only with

synchronous I/O

Answer: B

Explanation: DBWn processes also perform data-gathering activity, not only write data blocks into data files, as I/O slaves do.

Incorrect Answers:

A: I/O slaves are available in Oracle8i.

C: I/O slaves will work not only with synchronous I/O, but with asynchronous I/O also. That's why I/O slaves are used to improve performance.

D: I/O slaves will work not only with asynchronous I/O, but with synchronous I/O also.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 846-848. Chapter 18: Tuning Memory and Operating System Use

QUESTION 40 What is the main reason for a row overflow area when creating index-organized tables?

A. Avoid row chaining and migration.

B. Keep the b-tree structure densely clustered.

C. Speed up full table scans and fast full index scans.

D. Improve performance when the index-organized table is clustered.

Answer: B

Explanation: Row overflow area is used during creating index-organized tables to keep the B-tree structure densely clustered.

Incorrect Answers:

A: Row overflow is not used to avoid row chaining and migration. For these problems you need to update PCTFREE parameter or use ANALYZE command.

C: This area will not help you to speed up full table scans and fast full index scans.

D: Index-organized table cannot be clustered.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 791-793. Chapter 17: Tuning Database Application

QUESTION 41 Which statement about the amount of undo generated is true?

A. The amount is the same for any DML operation.

B. Deletes are inexpensive, because only the ROWID must be stored.

C. Inserts are inexpensive, because only the ROWID must be stored.

D. Update are inexpensive, because only the new column value must be stored.

Answer: C

Explanation: Inserts are inexpensive for undo changes because only the new ROWID must be stored.

Incorrect Answers:

A: The amount of generated is different for different DML operations.

B: For deletes not only ROWID of deleted rows must be stored in generated undo.

D: For updates not only the new, but old value for column must be also stored.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 904-911. Chapter 19: Tuning Disk Utilization

QUESTION 42 You just created a resource plan and placed this line in the init.ora

```
RESOURCE_MANAGER_PLAN = day_oltp
```

What does 'day_oltp' specify?

A. Resource plan.

B. Plan directive.

- C. Consumer group.
- D. Resource manager privilege.

Answer: A

Explanation: 'Day_oltp' line specifies the resource plan.

Incorrect Answers:

B: This line does not specify plan directive.

C: RESOURCE_MANAGER_PLAN parameter does not specify consumer group.

D: Resource manager privilege is not related with RESOURCE_MANAGER_PLAN parameter in init.ora file. Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 1149. Chapter 18: Oracle8i New Features Topics

QUESTION 43 Why do these steps eliminate row migration?

Step 1: Run ANALYSE TABLE LIST CHAINED ROWS command

Step 2: Copy the rows to another table

Step 3: Delete the rows from the original table

Step 4: Insert the rows from step 2 back into the original table.

- A. Migration only occurs during an UPDATE operation.
- B. The migrated rows are removed with the DELETE command.
- C. Migration is automatically removed with the ANALYZE command.

Answer: A

Explanation: These steps will eliminate row migration because it happens only during an UPDATE operation.

Incorrect Answers:

B: The migrated rows will be inserted again after deleting into the original table, but they will fit database blocks, because migration happens only after an UPDATE operation, not after INSERT.

C: ANALYZE command will not fix migration problem automatically.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 915-916. Chapter 19: Tuning Disk Utilization

QUESTION 44 After running a query using V\$DISPATCHER, you increase the number of dispatchers. What would cause you to take this action?

- A. Users are waiting on a listener process.
- B. Users are waiting on dispatch processes.
- C. Users are waiting on shared server processes.
- D. Users are waiting on their dedicated connection process.

Answer: B

Explanation: If V\$DISPATCHER view shows you that users are waiting on dispatch process, you need to increase the number of dispatchers running for Oracle instance.

Incorrect Answers:

A: V\$DISPATCHER view have nothing to do with a listener process.

C: Users do not work with shared server processes directly, users use dispatchers in MTS environment to connect to database.

D: Users do not wait for dedicated connection process, because Oracle will launch the new dedicated process if there is no more idle dedicated process for user and number of dedicated processes did not exceed PROCESSES parameter value in init.ora file.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 842-849. Chapter 18: Tuning Memory and Operating System Use

QUESTION 45 Which three statements regarding the SECONDS_IN_WAIT value for the log buffer space event in the V\$SESSION_WAIT view are true? (Choose three)

- A. A SECONDS_IN_WAIT value close to zero is ideal.
- B. A nonzero value in the SECONDS_IN_WAIT may indicate disk I/O contention on the redo log files.
- C. The SECONDS_IN_WAIT value of the log buffer space event indicates time spent waiting for space in the redo log buffer.
- D. A nonzero value in the SECONDS_IN_WAIT may be an indication the redo log buffers are too large and log switches are not occurring fast enough.

Answer: A, B, C

Explanation: There are three true statements in this list: a SECONDS_IN_WAIT value close to zero is ideal, a nonzero value in the SECONDS_IN_WAIT may indicate disk I/O contention on the redo log files, the SECONDS_IN_WAIT value indicates time spent waiting for space in the redo log buffer.

Incorrect Answers:

D: A nonzero value in the SECONDS_IN_WAIT cannot indicate the redo log buffers are too large.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 760-762. Chapter 16: Introducing Database Tuning

QUESTION 46 Which two parameters significantly impact the manual stripe size of data files? (Choose two)

- A. DB_BLOCK_SIZE
- B. REDO_LOG_BUFFERS
- C. DB_BLOCK_BUFFERS
- D. DB_BLOCK_MAX_DIRT_TARGET
- E. DB_FILE_MULTIBLOCK_READ_COUNT

Answer: A, E

Explanation: DB_BLOCK_SIZE and DB_FILE_MULTIBLOCK_READ_COUNT parameters significantly impact the manual stripe size of data files.

Incorrect Answers:

B: REDO_LOG_BUFFERS parameter is not related with the manual stripe size of data files.

C: DB_BLOCK_BUFFERS do not impact the stripe size of data files.

D: There is no DB_BLOCK_MAX_DIRT_TARGET parameter in Oracle

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 842-846. Chapter 18: Tuning Memory and Operating System Use

QUESTION 47 What are the two main benefits of index-organized tables? (Choose two)

- A. More concurrency.
- B. Faster full table scans.
- C. Fast primary key-based access.
- D. Less contention on the segment header.
- E. No duplication of primary key values storage.

Answer: C, E

Explanation: Index-organized tables provide fast primary key-based access and no duplication of primary key values storage.

Incorrect Answers:

A: Index-organized tables do not provide additional concurrency.

B: IOT is not used for faster full table scans.

D: Less contention on the segment header is not main benefit of IOT.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 792. Chapter 17: Tuning Database Applications

QUESTION 48 Which view shows the number of full table scan?

- A. V\$SYSSTAT
- B. V\$FILESTAT
- C. V\$SESSIONS
- D. V\$DATAFILE

Answer: A

Explanation: V\$SYSSTAT view shows the number of full table scans. This view contains general statistics for the instance by name.

Incorrect Answers:

B: V\$FILESTAT view is used to check I/O bottlenecks on data files.

C: V\$SESSIONS view lists session information for each current session. Links SID to other session attributes. Contains rows lock information.

D: V\$DATAFILE dictionary view shows information about data files of Oracle database.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 766-767. Chapter 16: Introducing Database Tuning

QUESTION 49 Which two views would you query to monitor sessions related statistics? (Choose two)

- A. V\$SESSTAT
- B. V\$SESSION_EVENT
- C. V\$SESSION_STATS
- D. V\$SESSION_STATUS
- E. V\$WAITS_PER_SESSION

Answer: A, B

Explanation: V\$SESSTAT and V\$SESSION_EVENT views are used to monitor sessions related statistics.

V\$SESSTAT lists user session statistics, requires join to V\$STATNAME and V\$SESSION views.

V\$SESSION_EVENT view lists information on waits for an event by a session.

Incorrect Answers:

C: There is no V\$SESSION_STATS view in Oracle.

D: V\$SESSION_STATUS view does not exist in Oracle.

E: There is no V\$WAITS_PER_SESSION view in Oracle.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 767-768. Chapter 16: Introducing Database Tuning

QUESTION 50 When a parallel query is used to perform a sort, what is the total amount of memory a factor to?

- A. SORT_AREA_SIZE * 2
- B. SORT_AREA_SIZE * degree of parallelism.
- C. SORT_AREA_SIZE * 2 * degree of parallelism.
- D. SORT_AREA_SIZE * divided up equally among the parallel query servers.
- E. SORT_AREA_SIZE * parallel query server take turns at using the memory.

Answer: C

Explanation: SORT_AREA_SIZE * 2 * degree of parallelism is correct formula to calculate the total amount of memory to perform a sort.

Incorrect Answers:

- A: This formula does not represent correct amount of memory to perform a sort.
- B: This amount needs to be multiplied on 2 to be correct amount of memory for sorts.
- D: This formula has nothing to do with parallel query servers.
- E: This formula has nothing to do with parallel query server.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 956-961. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 51 How are deadlocks resolved within Oracle?

- A. The DBA must terminate the waiting session.
- B. The DBA must terminate the blocking session.
- C. Oracle detects deadlocks automatically and rolls back the statement which detects the deadlock.
- D. Top Sessions monitors long running transactions and terminates any session which holds a lock longer than the limit specified by LOCK_THRESHOLD

Answer: C

Explanation: Oracle detects deadlocks automatically and rolls back the statement which detects the deadlock.

Incorrect Answers:

- A: The DBA should not do anything if deadlocks are resolved within Oracle.
- B: The DBA should not do anything if deadlocks are resolved within Oracle.
- D: Top Sessions utility only monitors sessions, it will not terminate any session automatically.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 942-945. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 52 When a deadlock occurs, what should be used to diagnose the problem and determine how to prevent the deadlock from occurring again?

- A. Performance manager.
- B. ORA 000600 error message.
- C. The resulting trace file.

Answer: C

Explanation: The resulting trace file should be used to diagnose the problem and determine how to prevent the deadlock from occurring again in the future. When Oracle's deadlock detection mechanisms discover a deadlocking situation on the database, they write a message to the ALERT log for the Oracle instance. The DBA should take note of the "deadlock detected while waiting for a resource" error messages, and any included process information from the ALERT log sent to assist the DBA in determining the cause of the deadlock.

Incorrect Answers:

- A: Performance manager will not help to diagnose deadlock situation in the Oracle database.
- B: ORA 00600 error message may be related with deadlock, but not in all cases, so this indicator cannot be used for deadlock diagnose.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 942-945. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 53 When the archive process encounters an error, which parameter determines the directory where trace files are written?

- A. UTL_FILE_DIR
- B. CORE_DUMP_DEST

- C. LOG_ARCHIVE_DEST
D. BACKGROUND_DUMP_DEST

Answer: D

Explanation: BACKGROUND_DUMP_DEST parameter determines the directory where trace file will be written when the archive process encounters an error. The location of your ALERT log and background trace files depends on the directory specified for the BACKGROUND_DUMP_DEST parameter for your instance. Both the background process trace files and the ALERT log will be found in this directory.

Incorrect Answers:

A: UTL_FILE_DIR parameter represents directory for different purpose, not for background processes trace files.

B: CORE_DUMP_DEST parameter shows directory for core files, not for trace files.

C: LOG_ARCHIVE_DEST directory is used for archived redo log files.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 754-759 Chapter 16: Introducing Database Tuning

QUESTION 54 To control fragmentation of your shared pool space, when is the best time for you to pin objects with the DBMS_SHARED_POOL package?

- A. Immediately after instance startup.
B. After an object has been used for the first time.
C. When the V\$LIBRARYCACHE view contains higher values in the RELOADS column than in the PINS column.
D. When the sum of values in the SHARABLE_MEMORY column of the V\$DB_OBJECT_CACHE view exceeds the value of the SHARED_POOL_SIZE initialization parameter.

Answer: A

Explanation: It's better to pin objects with the DBMS_SHARED_POOL package to control fragmentation of your shared pool space immediately after instance startup.

Incorrect Answers:

B: If an object has been used for the first time, it's in shared pool already, you don't need load it with DBMS_SHARED_POOL package. May be it have been unloaded already because of heavy usage of shared pool and you will need to load it again, but this can cause shared pool space fragmentation.

C: When the V\$LIBRARYCACHE view contains higher values in the RELOADS column than in the PINS column, you need increase you shared pool size first to avoid additional physical reads from the disk. After that you can restart instance and pin the object into the shared pool.

D: If values in the SHARABLE_MEMORY column of the V\$DB_OBJECT_CACHE view exceeds the value of the SHARED_POOL_SIZE initialization parameter, you will not be able to pin this object into shared pool, because there is not enough space for it in shared pool. You need increase SHARED_POOL_SIZE parameter, restart the instance and pin the object into the shared pool.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 855-857. Chapter 18: Tuning Memory and Operating System Use

QUESTION 55 Which type of change to an application is most likely to improve the performance of the library cache?

- A. Adding more frequent COMMIT statements.
B. Replacing bind variables with constants.
C. Reusing as much generic code as possible.
D. Replacing database constraints with triggers.

Answer: C

Explanation: To improve the performance of the library cache you need use as much generic code as possible, so it will not be reloaded and re-parsed for new SQL statements.

Incorrect Answers:

A: More frequent COMMIT statements will not improve the performance of the library cache.

B: Replacing bind variables with constants can improve the performance of the library cache, but not in all cases.

D: Replacing database constraints with triggers have nothing to do with the library cache performance.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 853-854. Chapter 18: Tuning Memory and Operating System Use

QUESTION 56 The cost-based optimizer can choose between a nested loops join and a sort merge join operation. All tables are analyzed and the OPTIMIZER_MODE is set to FIRST_ROWS. Which execution plan will be the result?

A. The sort-merge join.

B. The nested loops join.

C. This depends on some sort parameter values.

D. This depends on the number of rows in each table.

Answer: B

Explanation: If OPTIMIZER_MODE is set to FIRST_ROWS and all tables are analyzed, cost-based optimizer will choose the nested loops join, not a sort-merge join operation for the execution plan. The FIRST_ROWS goal optimizes Oracle to give the best response time for online applications, such as Oracle Forms, other GUI tools, or SQL*Plus queries where users are waiting to see some data, but don't necessarily need the best overall time for returning all rows of output from the query. With this setting, the RDBMS will prefer to use full table scans and nested loop join operations in the execution plan.

Incorrect Answers:

A: The nested loops join will be selected, not the sort-merge join operation.

C: Oracle optimizer will choose the nested loops join regardless other sort parameter values.

D: Oracle optimizer will choose the nested loops join regardless the number of rows in each table.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 852-854. Chapter 18: Tuning Memory and Operating System Use

QUESTION 57 What is a potential reason for a "snapshot too old" error message?

A. You did not refresh your snapshots in time.

B. An ITL entry in a data block has been reused.

C. Are rollback segment extent sizes are too large.

D. Your online redo log files are not big enough to snap your largest transactions.

Answer: B

Explanation: You can receive a "snapshot too old" message if an ITL entry in a data block has been reused.

Incorrect Answers:

A: This error does not related with snapshots themselves, it's rollback segment error.

C: If rollback segments extents sizes are large you will less possibly receive this error message.

D: Sizes of online redo log files are not related with sizes of transactions, all changes will be written into online redo log files regardless of transaction size.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 904-911. Chapter 19: Tuning Disk Utilization

QUESTION 58 You are attempting to size the KEEP buffer pool and issue ANALYZE. . . . ESTIMATE STATISTICS commands. Which three data dictionary tables should you query to obtain the total number of blocks required for an object? (Choose three)

- A. DBA_TABLES
- B. DBA_INDEXES
- C. DBA_SEGMENTS
- D. DBA_CLUSTERS

Answer: A, B, D

Explanation: DBA_TABLES, DBA_INDEXES and DBA_CLUSTERS data dictionary tables provide you the total number of blocks required for an object to size the KEEP buffer pool.

Incorrect Answers:

C: DBA_SEGMENTS shows information about segments, not about logical objects, so you cannot use this view to obtain the information you want to know.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 870-873. Chapter 18: Tuning Memory and Operating System Use

QUESTION 59 The USERS table has thousands of rows and is accessed very often with an index (USERID_NDX) on a primary key (USER_ID). Where should USERS and USERID_NDX be stored?

- A. Same table space.
- B. SYSTEM table space.
- C. Same table space on different disks.
- D. Different table space on different disks.

Answer: D

Explanation: For better performance the USERS table and the USERID_NDX index must be stored in different table spaces on different disks.

Incorrect Answers:

A: If these objects will be in the same table space it will cause performance degradation.

B: SYSTEM table space is used to store only data dictionary objects, not for user tables or indexes.

C: It's not recommended to put data and index data in one table space: it will cause I/O contention, because Oracle will try to retrieve index and data blocks from one table space in one time.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 844. Chapter 18: Tuning Memory and Operating System Use

QUESTION 60 You are creating a new rollback segment. Why should you choose the same value for the NEXT and INITIAL attributes?

- A. That depends on the PCTINCREASE value you specify.
- B. To avoid contention on the rollback segment header.
- C. Rollback segment extents are used in a circular way.
- D. Because you get an error message if you specify different values.

Answer: C

Explanation: Rollback segment extents are used in a circular way, so the NEXT and INITIAL attributes are the same for rollback segment.

Incorrect Answers:

A: PCTINCREASE parameter for rollback segments is zero always.

B: Value for the NEXT and INITIAL attributes are the same for the rollback segment, it does not relate with contention on the rollback segment header.

D: You should choose the same value for the NEXT and INITIAL attributes because rollback segments extents are used in a circular way, not because of error message.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 904-911. Chapter 19: Tuning Disk Utilization

QUESTION 61 What should be your main redo log buffer tuning goal?

- A. Avoid space waits situations in the redo log buffer.
- B. Make the redo log buffer at least as large as the buffer cache.
- C. Mirror redo log files and store group members on different disks.
- D. Make sure that the LGWR process is faster than the database writer processes.

Answer: A

Explanation: The main redo log buffer tuning goal is to avoid space waits situations in the redo log buffer.

Incorrect Answers:

B: The redo log buffer does not need to be at least as large as the buffer cache, it will decrease performance only.

C: Redo log files need to be mirrored and different members of groups need to be stored on different disks, but this is not main redo log buffer tuning goal.

D: There is not so close correlation between the LGWR process and the database writer process. The LGWR process can work slower than the DBWR.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 873-876. Chapter 18: Tuning Memory and Operating System Use

QUESTION 62 You need some extra space in your database, so you issue the ALTER TABLE my_table DEALLOCATE UNUSED command. What happens?

- A. All empty blocks of MY_TABLE are deallocated.
- B. All blocks above the high-water mark of MY_TABLE are deallocated.
- C. All blocks below the high-water mark of MY_TABLE are deallocated.
- D. The high-water mark of MY_TABLE is recalculated and stored in the segment header.

Answer: B

Explanation: After issue the ALTER TABLE ... DEALLOCATE UNUSED command all blocks above the high-water mark of table will be deallocated.

Incorrect Answers:

A: All blocks, including empty ones, below the high-water mark of table will still be in use.

C: All blocks below the high-water mark of table will still be in use.

D: You can reset the high-water mark of table with TRUNCATE command, but not with ALTER TABLE.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 918-921. Chapter 19: Tuning Disk Utilization

QUESTION 63 The database is set up to run Multithreaded Server. Which view would show contention for server processes?

- A. V\$QUEUE
- B. V\$CIRCUIT
- C. V\$SESSION
- D. DBA_USERS
- E. V\$CONNECTION

Answer: A

Explanation: V\$QUEUE view is used show contention for server processes in MTS configuration.

Incorrect Answers:

- B: V\$CIRCUIT view is not used to show contention for server processes. This view shows information for users with shared server connections.
- C: V\$SESSION view lists session information for each current session. Links SID to other session attributes. Contains rows lock information.
- D: DBA_USERS view shows information about all users of Oracle database.
- E: There is no V\$CONNECTION view in Oracle.
- Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 858-859. Chapter 18: Tuning Memory and Operating System Use

QUESTION 64 Which class of data describes to Oracle Expert how the database is used in daily operations?

- A. Schema class
- B. Workload class
- C. Instance class
- D. Environment class

Answer: B

Explanation: Workload class in Oracle Expert describes how the database is used in daily operations.

Incorrect Answers:

- A: Schema class is used to describe schema structure, not database daily operations usage.
- C: Instance class is not used for these purposes.
- D: Environment class of Oracle Expert is not used for these purposes.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 961-968. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 65 On a database that is running Multithreaded server, which view would you query to get information for users with shared server connections?

- A. V\$CIRCUIT
- B. DBA_USERS
- C. DBA_CIRCUIT
- D. V\$DISPATCHER_USERS
- E. DBA_DISPATCHERS_USERS

Answer: A

Explanation: V\$CIRCUIT view shows information for users with shared server connections

Incorrect Answers:

- B: DBA_USERS view shows information about all users of Oracle database.
- C: There is no DBA_CIRCUIT view in Oracle.
- D: V\$DISPATCHER_USERS view does not exist in Oracle.
- E: There is no DBA_DISPATCHERS_USERS view in Oracle.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 858-859. Chapter 18: Tuning Memory and Operating System Use

QUESTION 66 To provide more free lists for a number of your database segments, what is one of your options?

- A. Modify them with the INSERT__FREELIST command.
- B. Drop and re-create them with the required FREELIST value.
- C. Change the default storage parameter of the table space(s) where they are stored.
- D. Modify the FREELIST_LIMIT parameter in your installation file and restart the instance.

Answer: B

Explanation: There is one option to change number of free lists for the database segment: drop and recreate the database segment with required FREELIST value. Oracle maintains list of blocks that have space available for data insertion for all tables, called FREELISTS.

Incorrect Answers:

A: This command will not change free list value for the database segment.

C: Change of the default storage parameter for the table space will not modify free list parameter for the database segment.

D: There is no FREELIST_LIMIT parameter in the installation file.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 945-947. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 67 Which statement is true when connecting to the Oracle instance using the multithreaded server configuration?

A. The User Global Area (UGA) may only contain sort areas.

B. The User Global Area (UGA) may be accessible to dedicated servers.

C. The User Global Area (UGA) components may reside in the large pool.

D. The User Global Area (UGA) components may reside in the buffer cache.

Answer: C

Explanation:

User Global Area (UGA) components may reside in the large pool in MTS configuration.

Incorrect Answers:

A: UGA stands for User Global Area, and it represents the amount of memory allocated in Oracle for a user session. So it may contain not only sort areas.

B: In dedicated configuration session information, such as private SQL area, is stored in the memory allocated to the user process and it is called the PGA, or Program Global Area.

D: The UGA components may not reside in the buffer cache by definition.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 858-859. Chapter 18: Tuning Memory and Operating System Use

QUESTION 68 Summing the system statistics, (db block gets + consistent gets) gives the total number of requests. What is the other system, statistic required to calculate the buffer cache hit ratio?

A. Physical reads.

B. Session logical reads.

C. Table scan blocks gotten.

D. DBWR buffers scanned.

Answer: A

Explanation: To calculate the buffer cache hit ration you need also to know physical reads. Formula for calculation is: $1 - \text{physical reads} / (\text{db_block gets} + \text{consistent gets})$.

Incorrect Answers:

B: Session logical reads statistic is not required to calculate the buffer cache hit ratio.

C: Table scan blocks gotten statistic is not used to calculate the buffer cache hit ratio.

D: DBWR buffer scans statistic is not required for this purpose also.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 859-863. Chapter 18: Tuning Memory and Operating System Use

QUESTION 69 Which statement about the LOG_BUFFER initialization parameter is true?

- A. The LOG_BUFFER parameter can be changed dynamically.
- B. The minimum value for the LOG_BUFFER parameter is 512KB.
- C. The LOG_BUFFER parameter value must be a multiple of the database block size.
- D. The LOG_BUFFER parameter value must be a multiple of the operating system lock size.

Answer: C

Explanation: The LOG_BUFFER parameter value must be a multiple of the database block size, DB_BLOCK_SIZE parameter.

Incorrect Answers:

- A: The LOG_BUFFER parameter cannot be changed dynamically. You can edit this parameter, but it will be changed only after instance restart.
- B: The minimum value for the LOG_BUFFER parameter is not 512 KB, it can be less.
- D: The LOG_BUFFER parameter value must be a multiple of the database block size, not operating system block size.

QUESTION 70 You determined that the values for REQUEST_FAILURES as seen from V\$SHARED_POOL_RESERVED is more than zero and always increasing. Which two actions would be appropriate? (Choose two)

- A. Decrease the value for LARGE_POOL_SIZE parameter.
- B. Increase the value for LARGE_POOL_SIZE parameter.
- C. Increase the value for SHARED_POOL_SIZE parameter.
- D. Decrease the value for SHARED_POOL_SIZE parameter.
- E. Increase the value for SHARED_POOL_RESERVED_SIZE parameter.
- F. Decrease the value for SHARED_POOL_RESERVED_SIZE parameter.

Answer: C, E

Explanation: The V\$SHARED_POOL_RESERVED dynamic performance view is designed to assist in tuning shared-pool reserved-list configuration. An important column is REQUEST_FAILURES, indicating the number of shared pool space requests that weren't granted. If value for this column is always increasing, you should increase SHARED_POOL_SIZE and SHARED_POOL_RESERVED_SIZE.

Incorrect Answers:

- A: The LARGE_POOL_SIZE parameter is not related with V\$SHARED_POOL_RESERVED view.
 - B: The LARGE_POOL_SIZE parameter is not related with V\$SHARED_POOL_RESERVED view.
 - D: You should increase, not decrease the SHARED_POOL_SIZE parameter.
 - F: You should increase, not decrease the SHARED_POOL_RESERVED_SIZE parameter.
- Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 857-858. Chapter 18: Tuning Memory and Operating System Use

QUESTION 71 Why can you NEVER achieve a value of zero in the GETMISSES column of V\$ROWCACHE?

- A. The database buffer cache can never be empty.
- B. Recursive SQL has to be reparsed each time it is used.
- C. Object definitions must be loaded into the shared pool following instance startup.
- D. An object cannot be pinned in the shared pool with the DBMS_SHARED_POOL package until it has been at least once.

Answer: C

Explanation: It's NEVER possible to achieve a zero value in the GETMISSES column of V\$ROWCACHE view

because at least some object definitions must be loaded from the data dictionary into the shared pool immediately after instance startup.

Incorrect Answers:

A: The database buffer cache is not the same as the data dictionary cache.

B: Recursive SQL are stored in the library cache, not in the data dictionary cache.

D: An object can be pinned in the shared pool with the DBMS_SHARED_POOL. It does not matter whether this object have been in the shared pool or not.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 852-854. Chapter 18: Tuning Memory and Operating System Use

QUESTION 72 Which action could result in less frequent checkpoints?

A. Increasing the number of redo log groups.

B. Increasing the value of DB_BLOCK_SIZE parameter.

C. Decreasing the value of the REDO_LOG_BUFFERS parameter.

D. Increasing the value of the FAST_START_IO_TARGET parameter.

Answer: D

Explanation: The frequency of checkpoints will be decreased if the value of the FAST_START_IO_TARGET will be increased: Oracle will need more time to recover database after instance crash.

Incorrect Answers:

A: The number of redo log groups has no relation with frequency of checkpoints.

B: DB_BLOCK_SIZE buffer has nothing to do with checkpoints.

D: By decreasing the value of the REDO_LOG_BUFFERS you will INCREASE frequency of checkpoints because redo log files will be filled with updates more quickly.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 902. Chapter 19: Tuning Database Utilization

QUESTION 73 Which two statements about database blocks are true? (Choose two)

A. OLTP environments prefer a large block size

B. Small block size results in more block contention

C. Sequential access to large amounts of data favors a large block size

D. You can reduce the number of block visits by packaging rows as closely as possible into blocks.

E. To change the database block size, you must shut down the instance and perform a STARTUP RESETLOGS after you make the change.

Answer: C, D

Explanation: The key feature of a decision support system is fast sequential access to large amounts of data, so DSS environment prefer a large database block size. Also remember that you can reduce the number of block visits by packing rows as closely as possible into blocks, so Oracle will need less table scans to retrieve all needed blocks.

Incorrect Answers:

A: Random access to large objects will work better with small block size. It happens often in OLTP systems. For full scans large block size is more preferable (DSS systems).

B: Small block sizes will not result in more block contention.

E: So change the database block size, you must rebuild database. Shutdown the instance and STARTUP with RESETLOGS option will not change database block size.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 793-796. Chapter 17: Tuning Database Applications

QUESTION 74 Sometimes the LGWR process must wait because DBWn has not compressed check pointing a file. How do you identify this situation?

- A. Check the V\$SESSION_WAIT view for the 'log buffer space' event.
- B. Check the alert.log file for the message "CHECKPOINT NOT COMPLETE"
- C. Check the 'redo buffer allocation retries' statistic in the V\$SYSSTAT view
- D. Check the 'log file switch (checkpoint complete)' event in the V\$SYSTEM_EVENT view

Answer: B

Explanation: To identify this situation you need to check alert log file, it will be message: "CHECKPOINT NOT COMPLETE".

Incorrect Answers:

A: V\$SESSION_WAIT view is used to show list the resources or events for which active sessions are waiting, where WAIT_TIME = 0 for current events.

C: V\$SYSSTAT view contains general statistics for the instance by name.

D: V\$SYSTEM_EVENT view is used to show total waits for an event.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 902. Chapter 19: Tuning Disk utilization

QUESTION 75 You want to reduce the amount of redo generated for your database. What are three ways to achieve this goal? (Choose three)

- A. Use NOLOGGING mode in SQL statements.
- B. Use direct load UPDATE to NOLOGGING mode.
- C. Use direct path loading without archiving.
- D. Use direct path loading with archiving using NOLOGGING mode.
- E. Start your instance with the NOLOGGING initialization parameter.

Answer: A, C, D

Explanation: To avoid redo information generating you can use NOLOGGING mode in SQL statements, use direct path loading without archiving and direct path loading with archiving using NOLOGGING mode.

Incorrect Answers:

B: There is no direct load UPDATE to NOLOGGING mode in Oracle.

E: There is no NOLOGGING initialization parameter in Oracle.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 873-876. Chapter 18: Tuning Memory and Operating System Use

QUESTION 76 The alert log file for a database instance indicates that the checkpoints are frequently failing to complete. Which action would be a remedy in this situation?

- A. Increase the number of archiver (ARCn) processes.
- B. Increasing the number of members for all log groups.
- C. Increasing the number of log writer (LGWR) processes.
- D. Increasing the number of database writer (DBWn) processes.

Answer: D

Explanation: It's possible that sometimes the LGWR process must wait because DBWn has not compressed check pointing a file. To avoid this situation you need to increase the number of database writer (DBWn) processes.

Incorrect Answers:

A: You may also find that contention exists between your ARCH and LGWR processes during checkpoints at log switches. To resolve this performance problem, you must do the following. Place your redo log files on separate disk resources so that ARCH can copy the recently filled online log to the archive destination. Also,

place your archive destination on yet another separate disk resource, away from all the online redo logs. But question says nothing about log switches, so you can consider this answer as incorrect, because other answer is correct.

B: The number of members for all log groups has no influence on the frequency of checkpoints.

C: By increasing the number of log writer (LGWR) processes you will not fix problem, because it is related with database writer processes: they don't have enough time to write all dirty buffers into data files.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 902. Chapter 19: Tuning Disk utilization

QUESTION 77 What are free lists used to identify?

- A. Blocks available for inserts.
- B. Free extents in a table space.
- C. Blocks beyond the high water mark in a segment.
- D. Segments belonging to a Parallel Server instance.

Answer: A

Explanation: Free lists are used to identify blocks available for inserts.

Incorrect Answers:

- B: Free lists do not identify free extents in a table space.
- C: They also have nothing to do with blocks beyond the high water mark in a segment.
- D: Free lists do not relate with segments belonging to a Parallel Server instance.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 945-947. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 78 What should you confirm before changing the CURSOR_SPACE_FOR_TIME parameter in your initialization file to TRUE?

- A. The TIMED_STATISTICS parameter is set to TRUS
- B. The hit percentage in the buffer cache is at least 95%
- C. The OPEN_CURSORS parameter is set to at least twice the default value.
- D. The value in the RELOADS column of V\$LIBRARYCACHE is consistently zero.

Answer: D

Explanation: The CURSOR_SPACE_FOR_TIME init.ora parameter influences library cache activity. When a user needs to parse and execute a SQL statement, Oracle may eliminate an existing SQL execution plan from the library cache to make room for the new one if CURSOR_SPACE_FOR_TIME is set to FALSE, the default. However, the problem here is that another process may need the execution plan to be eliminated to make room. If you set

CURSOR_SPACE_FOR_TIME to TRUE, Oracle will not eliminate a parsed execution plan from the library cache until all open cursor user processes and applications using the execution plan have been closed. Library cache performance can be improved by setting CURSOR_SPACE_FOR_TIME to TRUE. However, you must be careful only to do so when your library-cache hit ratio is 100 %. If an execution miss occurs on your database when this parameter is set to TRUE and all execution plans in the library cache are associated with open cursors, your users will receive errors saying there is not enough shared memory in your database.

Incorrect Answers:

- A: The TIMED_STATISTICS parameter does not relate with CURSOR_SPACE_FOR_TIME parameter.
- B: The hit percentage in the library cache must be 100 %, it is not related with percentage in the buffer cache.
- C: There is no restriction on OPEN_CURSORS parameter for CURSOR_SPACE_FOR_TIME parameter value setting to TRUE.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 851. Chapter 18: Tuning Memory and Operating System Use

QUESTION 79 Data dictionary information is held in memory longer than library cache data. Which is most likely to be true as a consequence of this?

- A. You do not need to monitor library cache usage.
- B. You have to tune the database buffer cache regularly.
- C. You have to tune the library cache and dictionary cache independently.
- D. Good hit ratios in the library cache imply acceptable hit ratios in the dictionary cache.
- E. Good hit ratios in the dictionary cache imply acceptable hit ratios on the database buffer cache.

Answer: D

Explanation: Good hit ratios in the library cache imply acceptable hit ratios in the dictionary cache if data dictionary information is held in memory longer than library cache data.

Incorrect Answers:

- A: You need to monitor library cache usage any way to improve its performance.
- B: There is no direct relation between time of data dictionary information holding and database buffer tuning.
- C: The library cache and dictionary cache are related very closely, so it's impossible to tune them independently.
- E: The dictionary cache will not imply acceptable hit ratios on the database buffer cache: they do not correlate directly.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 849-855. Chapter 18: Tuning Memory and Operating System Use

QUESTION 80 User SCOTT creates an index with this statement;

```
CREATE INDEX emp_indx On employee (empno);
```

In which table space would the index be created?

- A. SYSTEM table space.
- B. Scott's default table space.
- C. Table space will rollback segments.
- D. Same table space as the EMPLOYEE table.

Answer: B

Explanation: Index EMP_INDX will be created in Scott's default table space by default in Oracle8i.

Incorrect Answers:

- A: It's only possible if Scott has SYSTEM table space as default table space, but question does not mention about this fact.
- C: Index will be created in Scott's default table space, not in RBS table space.
- D: Index will be created in Scott's default table space, not in the same table space as the EMPLOYEE table uses.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 917-918. Chapter 19: Tuning Disk utilization

QUESTION 81 When setting multiple LRU latches in your initialization parameter file, what might you also consider setting?

- A. One buffer pool for each latch.
- B. One DBWn process for each latch.
- C. At one shared server for each latch.
- D. At least two DBWn processes for each latch.

Answer: B

Explanation: It's reasonable to consider to set one DBWn process for each latch when setting multiple LRU latches in your initialization parameter file. The LRU (least-recently-used) latch controls the server process's access to write new buffers into the buffer cache. Oracle automatically sets the number of LRU latches to be one-half the number of CPUs on the system. When your host machine has only one processor, one LRU latch is sufficient. Contention for the LRU latch can impede database performance when a large number of CPUs are available on the host system, when only one DBW0 process is available on the database, or when the load between multiple DBWn processes is unequally distributed.

Incorrect Answers:

A: S latch should have no less than 50 buffers in its set.

C: There is no direct relation between shared servers and latches in Oracle.

D: Each latch requires at least one, not two, DBWn process.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 855-856. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 82 What can you use the values in the GETS and GETMISSES columns of V\$ROWCACHE to determine the hit ratio for?

A. Library cache.

B. Dictionary cache.

C. Entire shared pool.

D. Large objects such as PL/SQL packages.

Answer: B

Explanation: The V\$ROWCACHE view statistics is used to tune dictionary cache. You calculate the hit ratio using the formula : $\text{sum (GETS - GETMISSES) / sum (GETS) * 100}$. An ideal hit ratio for dictionary-cache activity is 99 percent or higher.

Incorrect Answers:

A: The V\$ROWCACHE view is not used to tune the library cache. The V\$LIBRARYCACHE view is used for this purpose.

C: With V\$ROWCACHE you can tune only data dictionary cache, not entire shared pool cache.

D: This view is not used to determine the hit ratio for large objects such as PL/SQL packages.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 852-858. Chapter 18: Tuning Memory and Operating System Use

QUESTION 83 You pinned an object in the shared pool using the DBMS_SHARED_POOL package. Which command could you use to unpin this object, assuming you are in a SQL*Plus session?

A. ALTER SYSTEM FLUSH SHARED_POOL;

B. EXECUTE dbms_shared_pool.unpin;

C. EXECUTE dbms_shared_pool.unkeep;

D. EXECUTE dbms_library_cache.unpin;

Answer: C

Explanation: To unpin this object you need to use "EXECUTE dbms_shared_pool.unkeep" command.

Incorrect Answers:

A: This command just will flush the shared pool: all space in the shared pool is then freed temporarily for new statements to parse, which temporarily reduces performance for other statements running on the system.

B: There is no UNPINNING procedure or function in dbms_shared_pool package.

D: There is no dbms_library_cache package in Oracle.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 855-857. Chapter 18: Tuning Memory and Operating System Use

QUESTION 84 Which two parameters could result in problems when starting more shared servers? (Choose two)

- A. PROCESSES
- B. MTS_MAX_SERVERS
- C. MTS_MAX_PROCESSES
- D. MTS_MAX_DISPATCHERS
- E. PARALLEL_MAX_SERVERS

Answer: A, B

Explanation: There are two parameters in initialization parameters file that can cause problems when starting more shared servers: PROCESSES and MTS_MAX_SERVERS.

Incorrect Answers:

C: There is no MTS_MAX_PROCESSES parameter in Oracle.

D: The MTS_MAX_DISPATCHER parameter will not cause any problems when starting more shared servers.

E: The PARALLEL_MAX_SERVERS parameter is not related directly with shared servers to cause problems.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 858-859. Chapter 18: Tuning Memory and Operating System Use

QUESTION 85 When does Oracle allocate memory for the large pool during instance startup?

- A. When the PARALLEL_AUTOMATIC_TUNNING is set to FALSE
- B. When oracle is configured to use the Multithreaded Server.
- C. When the LARGE_POOL_SIZE parameter is set to a valid value.
- D. When the large pool has a default value and is automatically allocated on instance startup.

Answer: C

Explanation: When the LARGE_POOL_SIZE parameter is set to a valid value Oracle allocates memory for the large pool during instance startup. If value is wrong, large pool will not be allocated.

Incorrect Answers:

A: There is no correlation with PARALLEL_AUTOMATIC_TUNNING parameter and large pool. This parameter enables intelligent defaults for parallel execution parameters.

B: Large pool can be used with the Dedicated Server mode also, not only with the Multithreaded Server.

D: The large pool is optional structure of memory and does not have a default value.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 857-858. Chapter 18: Tuning Memory and Operating System Use

QUESTION 86 Which procedure of the DBMS_RESOURCE_MANAGER package would first need to be performed when creating a new resource object?

- A. CREATE_PLAN
- B. CREATE_PENDING_AREA
- C. CREATE_CONSUMER_GROUP
- D. CREATE_PLAN_DIRECTIVE

Answer: B

Explanation: The DBMS_RESOURCE_MANAGER package would first need CREATE_PENDING_AREA procedure to be performed when creating a new resource object.

Incorrect Answers:

A: CREATE_PLAN procedure will be used after CREATE_PENDING_AREA procedure.

C: CREATE_CONSUMER_GROUP will be used later, it is not first one.

D: CREATE_PLAN_DIRECTIVE will be used also later.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 1149. Chapter 24: Oracle8i New Features Topics

QUESTION 87 What can database resource manager help you to limit for a set of users?

A. Amount of I/O performed.

B. Maximum connection time.

C. Number of concurrent sessions.

D. Number of Parallel Query servers available.

Answer: D

Explanation: The database resource manager can help you to limit the number of Parallel Query servers available for a set of users.

Incorrect Answers:

A: The database resource manager cannot control amount of I/O operations to be performed for a set of users.

B: The database resource manager will not help you to limit maximum connection time for a set of users.

C: The database resource manager cannot control the number of concurrent sessions for a set of users.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 1149. Chapter 24: Oracle8i New Features Topics

QUESTION 88 Which single dynamic view is the most useful for determining buffer cache performance when using multiple buffer pools?

A. V\$SYSSTAT

B. V\$BUFFER_POOL

C. V\$SYSTEM_EVENT

D. V\$BUFFER_POOL_STATISTICS

Answer: D

Explanation: The V\$BUFFER_POOL_STATISTICS view is the most useful for determining buffer cache performance when using multiple buffer pools. You can use this view to calculate buffer-cache hit ratios for your multiple buffer pools.

Incorrect Answers:

A: Determining the buffer-cache hit ratio depends on the proper use of the performance view V\$SYSSTAT, but V\$BUFFER_POOL_STATISTICS will provide more useful information for determining buffer cache performance when using multiple buffer pools.

B: The V\$BUFFER_POOL view will work also, but it is not so informative for multiple buffer pools as the V\$BUFFER_POOL_STATISTICS view.

C: The V\$SYSTEM_EVENT view is used for information on total waits for an event.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 872. Chapter 18: Tuning Memory and Operating System Use

QUESTION 89 Which three types of tuning session scopes can Oracle Expert provide? (Choose three)

A. Session

B. Instance

C. Structure

D. Application

E. Operating system

Answer: B, C, D

Explanation: Oracle Expert collects data in many different areas, such as the application, instance configuration, structure changes, and overall workload on the production machine hosting Oracle.

Incorrect Answers:

A: Oracle Expert does not provide session level tuning.

E: Oracle Expert does not provide operation system level tuning.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 962-963. Chapter 20: Tuning Other Areas of the Oracle Database

QUESTION 90 Which view would you query to monitor cumulative total waits for all events and all sessions?

A. V\$SYS_EVENTS

B. V\$SYSTEM_EVENT

C. V\$SESSION_WAIT

D. V\$SYSTEM_STATUS

Answer: B

Explanation: The V\$SYSTEM_EVENT view is used for information on total waits for an event, so I will query this view to monitor cumulative total waits for all events and all sessions..

Incorrect Answers:

A: There is no V\$SYS_EVENTS view in Oracle.

C: The V\$SESSION_WAIT view is used to list the resources or events for which active sessions are waiting, where WAIT_TIME = 0 for current events.

D: There is no V\$SYSTEM_STATUS view in Oracle.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 766-767. Chapter 16: Introducing Database Tuning

QUESTION 91 Which statement is true when evaluating the buffer cache hit ratio?

A. Minimizing physical reads will improve the buffer cache hit.

B. The buffer cache hit ratio is unaffected by data or application design.

C. The buffer cache hit ratio will improve with the use of full table scans.

D. The buffer cache hit ratio will always improve when the number of db block buffers in the SGA is increased.

Answer: A

Explanation: The main goal in the buffer cache tuning is minimize physical reads.

Incorrect Answers:

B: The buffer cache hit ratio is definitely affected by data or application design.

C: The buffer cache hit ratio will degrade with the use of full table scans.

D: There is some amount of db block buffers in the SGA after reaching it the buffer cache will be degrade, not improve. That's why we use V\$RECENT_BUCKET view statistics to find optimal number of db block buffers in the SGA.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 859-873. Chapter 18: Tuning Memory and Operating System Use

QUESTION 92 Which two statements regarding OLTP systems are true? (Choose two)

A. Use literals for optimally shared SQL rather than bind variables to keep the overhead of parsing to a minimum.

B. To avoid the performance load of dynamic space allocation, allocate space explicitly so tables, clusters and

indexes.

C. B-tree indexing is preferred to bitmap indexing, because of locking issues affecting DML operations.

D. Use hash clusters especially on tables that are heavily inserted into, because of the use of space and the number of blocks that need to be visited.

E. Use application code to enforce business rules instead of constraints, because constraints are extremely expensive to process.

Answer: B, C

Explanation: It's better to allocate space explicitly to tables, clusters and indexes in OLTP system to avoid the performance load of dynamic space allocation. B-tree indexing is preferred to bitmap indexes in OLTP systems, because of locking issues affecting DML operations. Most of DML operations related with bitmap indexes will require high-level locking due to low cardinality nature of bitmap indexes and it will cause performance issues because of high level of DML operations in OLTP systems.

Incorrect Answers:

A: OLTP works mostly with bind variables due to nature of OLTP system, so it's impossible to work only with literals.

D: It's not reasonable to use hash clusters for tables with heavy inserts.

E: Constraints are cheaper to process if compare them with business rules in application code.

Oracle 8, DBA Certification Exam Guide, Jason S. Couchman, p. 793-795. Chapter 18: Tuning Memory and Operating System Use