MID LEVEL ORACLE DBA INTERVIEW QUESTIONS

SAMPLE QUESTIONS

Question 1. what is difference between Co-related sub query and nested sub query?

Answer:
Co-related sub query is one in which inner query is evaluated only once and from that result outer query is evaluated.

Nested query is one in which Inner query is evaluated for multiple times for getting one row of that outer query.

ex. Query used with IN() clause is Co-related query.
Query used with = operator is Nested query

Question 2. How do I write a cron which will run a SQL query and mail the results to a group?

Answer:
Use DBMS_JOB for scheduling a cron job and DBMS_MAIL to send the results through email.

Question 3. What operator performs pattern matching

Answer:
LIKE operator

Question 4. What is the use of the DROP option in the ALTER TABLE command

Answer:
It is used to drop constraints specified on the table.

Question 5. Which date function is used to find the difference between two dates

Answer:
MONTHS_BETWEEN

Question 6. What is the advantage of specifying WITH GRANT OPTION in the GRANT command

Answer:
The privilege receiver can further grant the privileges he/she has obtained from the owner to any other user.

Question 7. What is the use of CASCADE CONSTRAINTS

Answer:
When this clause is used with the DROP command, a parent table can be dropped even when a child table exists.

Question 8. Which function is used to find the largest integer less than or equal to a specific value

Answer:
FLOOR

Question 9. **What operator tests column for the absence of data**

Answer:
IS NULL operator

Question 10. **What are the steps involved in Database Startup?**

Answer:
Start an instance, Mount the Database and Open the Database.

Question 11. **What are the steps involved in Database Shutdown?**

Answer:
Close the Database, Dismount the Database and Shutdown the Instance.

Question 12. **What is Restricted Mode of Instance Startup?**

Answer:
An instance can be started in (or later altered to be in) restricted mode so that when the database is open connections are limited only to those whose user accounts have been granted the RESTRICTED SESSION system privilege.

Question 13. **What are the different modes of mounting a Database with the Parallel Server?**

Answer:
Exclusive Mode If the first instance that mounts a database does so in exclusive mode, only that Instance can mount the database.

Parallel Mode If the first instance that mounts a database is started in parallel mode, other instances that are started in parallel mode can also mount the database.

Question 14. **What is Full Backup?**

Answer:
A full backup is an operating system backup of all data files, on-line redo log files and control file that constitute ORACLE database and the parameter.

Question 15. **Can Full Backup be performed when the database is open?**

Answer:
No.

Question 16. **What is Partial Backup?**

Answer:
A Partial Backup is any operating system backup short of a full backup, taken while the database is open or shut down.

Question 17. 144. What is On-line Redo Log?

Answer:
The On-line Redo Log is a set of tow or more on-line redo files that record all committed changes made to the database. Whenever a transaction is committed, the corresponding redo entries temporarily stores in redo log buffers of the SGA are written to an on-line redo log file by the background process LGWR. The on-line redo log files are used in cyclical fashion.

Question 18. What is Mirrored on-line Redo Log?

Answer:
A mirrored on-line redo log consists of copies of on-line redo log files physically located on separate disks, changes made to one member of the group are made to all members.

Question 19. What is Archived Redo Log?

Answer:
Archived Redo Log consists of Redo Log files that have archived before being reused.

Question 20. What are the advantages of operating a database in ARCHIVELOG mode over operating it in NO ARCHIVELOG mode?

Answer:
Complete database recovery from disk failure is possible only in ARCHIVELOG mode.
Online database backup is possible only in ARCHIVELOG mode.

Question 21.: What is Log Switch?

Answer:
The point at which ORACLE ends writing to one online redo log file and begins writing to another is called a log switch.

Question 22. What are the steps involved in Instance Recovery?

Answer:
Rolling forward to recover data that has not been recorded in data files, yet has been recorded in the on-line redo log, including the contents of rollback segments.

Rolling back transactions that have been explicitly rolled back or have not been committed as indicated by the rollback segments regenerated in step a.
Releasing any resources (locks) held by transactions in process at the time of the failure.

Resolving any pending distributed transactions undergoing a two-phase commit at the time of the instance failure.

Question 23. **Do you need a commit after DDL statements?**

Answer:
DDL IS A AUTO COMMIT, YOU DON'T NEED TO COMMIT AGAIN

Question 24. **How would you pass hints to the SQL processor?**

Answer:
USING COMMENT LINES WITH (+) SIGN YOU CAN PASS THE HINTS TO SQL ENGINE
For example à   /* +PARALLEL( ) */

Question 25. **what is the difference between group by and order by?**

Answer:
group by is used when we use aggregate functions on the columns in a query the other columns should be in group by query
example:
select empno,ename,sum(sal) from emp
group by empno,ename

Order by is used to sort values either in ascending or descending order

Question 26. A DBA had to remove some Archivelogs to free up space in filesystem. Now when the RMAN job starts to backup Archivelogs, it complains about missing Archivelogs that were deleted by DBA. To resolve the issue and continue backing up remainder of Archivelogs, which RMAN command can be used so it won't complain about missing Archivelogs.

Answer:
Crosscheck command

Question 27. Which RMAN command is used to create an exact replica of a database in new host?

Answer:
DUPLICATE DATABASE

Question 28. How do you install Statspack?

Answer:
By running $ORACLE_HOME/rdbms/admin/spcreate.sql script

Question 29. Process you follow to start looking into Performance issue at database level
(If the application is running very slow, at what points do you need to go about the database in order to improve the performance?)

Answer:
- Run a TOP command in Unix to see CPU usage (identify CPU killer processes)
- Run VMSTAT, SAR, and PRSTAT command to get more information on CPU and memory usage and possible blocking

- Run STATSPACK report to identify:
    1. TOP 5 WAIT EVENTS
    2. RESOURCE intensive SQL statements
- See if STATISTICS on affected tables needs to be re-generated
- IF poorly written statements are culprit, run a EXPLAIN PLAN on these statements and see whether new index or use of HINT brings the cost of SQL down.

Question 30. Explain below wait events in STATSPACK report
DB SCATTERED READ, DB SEQUENTIAL REAL, ENQUEUE

Answer:
DB SCATTERED READ   - FULL TABLE SCAN
DB SEQUENTIAL REAL   - IO
ENQUEUE   - LOCKING

Question 31. List five most important parameter in 9i affecting performance

Answer:
CURSOR_SHARING
DB_CACHE_SIZE
PGA_AGGREGATE_TARGET
DB_16K_CACHE_SIZE, DB_8K_CACHE_SIZE, DB_2K_CACHE_SIZE

Question 32. What is PGA_AGGREGATE_TARGET?

Answer:
This parameter controls the maximum amount of memory PGA which can be used by the queries when WORKAREA_SIZE_POLICY is set to Auto.

The value you can be set in Bytes, kilobytes (K), megabytes (M) or gigabytes (G). The default value is 0

This parameter also has an effect on the execution plans of the cost based optimizer. The optimizer uses the value of the parameter PGA_AGGREGATE_TARGET to derive an estimate for the minimum and maximum amount of memory which should be available at run-time for each sort, hash-join and bitmap operator in the query. Based on this minimum and maximum value, the optimizer selects the best plan.

Question 33. How do you analyze table partition using Oracle provided package?

Answer:
DBMS_STATS.GATHER_TABLE_STATS with GRANULARITY => 'PARTITION' OPTION

Question 34. You see a wait on LMS process in statspack, what does that mean?

Answer:
A. Wait is due to Data Guard Broker.

Question 35. Name three advisory statistics you can collect.

Answer:
SHARED_POOL_ADVICE
PGA_TARGET_ADVICE
DB_CACHE_ADVICE

Question 36. Explain procedure to Change CHARACTERSET of a database.

Answer:
Can't change CHARACTERSET of a database, you will need to re-create the database with appropriate CHARACTERSET.

Question 37. If you had a tablespace, TEST_TABLESPACE, which consists of three files: TEST01.dbf, TEST02.dbf, and TEST03.dbf, and someone accidentally used the Unix command "rm" to delete the file TEST02.dbf, what else would you need in order to recover all the data that was present in TEST_TABLESPACE at the time that TEST02.dbf was deleted?

Answer:
All Archivelogs

Question 38. How do you put database is ARCHIVELOG mode, explain procedure

Answer:
1. Modify init.ora parameter START_ARCHIVE=TRUE
2. SQL> SHUTDOWN IMMEDIATE;
3. STARTUP MOUNT;
4. ALTER DATAVASE ARCHIVELOG;
5. ALTER DATABASE OPEN;

Question 39. How can you tell if an index on particular table is USED or NOT USED in 9i?

Answer:
By turning MONITORING ON that index and querying into INDEX_USAGE table

Question 40. Explain FORCE LOGGING feature in 9i.

Answer:
By setting FORCE LOGGING to TRUE, all transactions will generate REDO. This is used for Data Guard, so no data will be missed (i.e. transactions that were run with NOLOGGING option) in Standby database