Questions on various clauses:

**1.Which is the subset of SQL commands used to manipulate Oracle Database structures, including tables?**Data Definition Language (DDL)   
**2. What operator performs pattern matching?**   
LIKE operator   
**3. What operator tests column for the absence of data?**IS NULL operator   
**4. Which command executes the contents of a specified file?**START <filename> or @<filename>   
**5. What is the parameter substitution symbol used with INSERT INTO command?**   
&

**6. Which command displays the SQL command in the SQL buffer, and then executes it?** RUN

**7. What are the wildcards used for pattern matching?**for single character substitution \_ and % for multi-character substitution   
**8. State true or false. EXISTS, SOME, ANY are operators in SQL.**True   
**9. State true or false. !=, <>, ^= all denote the same operation.**True

**10. What are the privileges that can be granted on a table by a user to others?**   
Insert, update, delete, select, references, index, execute, alter, all   
**11. What command is used to get back the privileges offered by the GRANT command?** REVOKE   
**12. Which system tables contain information on privileges granted and privileges obtained?** USER\_TAB\_PRIVS\_MADE, USER\_TAB\_PRIVS\_RECD

**13. Which system table contains information on constraints on all the tables created?**   
USER\_CONSTRAINTS   
**14. TRUNCATE TABLE EMP; DELETE FROM EMP; Will the outputs of the above two commands differ?** Both will result in deleting all the rows in the table EMP.   
**15. What is the difference between TRUNCATE and DELETE commands?**TRUNCATE is a DDL command whereas DELETE is a DML command. Hence DELETE operation can be rolled back, but TRUNCATE operation cannot be rolled back. WHERE clause can be used with DELETE and not with TRUNCATE.

**16. What command is used to create a table by copying the structure of another table?**Answer : CREATE TABLE .. AS SELECT command Explanation :To copy only the structure, the WHERE clause of the SELECT command should contain a FALSE statement as in the following. CREATE TABLE NEWTABLE AS SELECT \* FROM EXISTINGTABLE WHERE 1=2; If the WHERE condition is true, then all the rows or rows satisfying the condition will be copied to the new table.

**17. What will be the output of the following query?**SELECT REPLACE(TRANSLATE(LTRIM(RTRIM('!! ATHEN !!','!'), '!'), 'AN', '\*\*'),'\*','TROUBLE') FROM DUAL;   
TROUBLETHETROUBLE   
**18. What will be the output of the following query?**SELECT DECODE(TRANSLATE('A','1234567890','1111111111'), '1','YES', 'NO' ); Answer : NO Explanation :   
The query checks whether a given string is a numerical digit.   
**19. What does the following query do?**SELECT SAL + NVL(COMM,0) FROM EMP; This displays the total salary of all employees. The null values in the commission column will be replaced by 0 and added to salary.   
**20. Which date function is used to find the difference between two dates?**MONTHS\_BETWEEN   
**21. Why does the following command give a compilation error?**DROP TABLE &TABLE\_NAME;   
Variable names should start with an alphabet. Here the table name starts with an '&' symbol.   
**22. What is the advantage of specifying WITH GRANT OPTION in the GRANT** **command?**The privilege receiver can further grant the privileges he/she has obtained from the owner to any other user.   
**23. What is the use of the DROP option in the ALTER TABLE command?**   
It is used to drop constraints specified on the table.   
**24. What is the value of ‘comm’ and ‘sal’ after executing the following query if the initial value of ‘sal’ is 10000?**

UPDATE EMP SET SAL = SAL + 1000, COMM = SAL\*0.1; sal = 11000, comm = 1000

**25. What is the use of DESC in SQL?**Answer : DESC has two purposes. It is used to describe a schema as well as to retrieve rows from table in descending order. Explanation : The query SELECT \* FROM EMP ORDER BY ENAME DESC will display the output sorted on ENAME in descending order.   
**26. What is the use of CASCADE CONSTRAINTS?**When this clause is used with the DROP command, a parent table can be dropped even when a child table exists.   
**27. Which function is used to find the largest integer less than or equal to a specific value?**   
FLOOR   
**28. What is the output of the following query?**SELECT TRUNC(1234.5678,-2) FROM DUAL; 1200

**SQL – QUERIES**I. SCHEMAS

Table 1 :

STUDIES

PNAME (VARCHAR),

SPLACE (VARCHAR),

COURSE (VARCHAR),

CCOST (NUMBER)

Table 2 :

SOFTWARE

PNAME (VARCHAR),

TITLE (VARCHAR),

DEVIN (VARCHAR),

SCOST (NUMBER),

DCOST (NUMBER),

SOLD (NUMBER)

Table 3 :

PROGRAMMER

PNAME (VARCHAR),

DOB (DATE),

DOJ (DATE),

SEX (CHAR),

PROF1 (VARCHAR),

PROF2 (VARCHAR),

SAL (NUMBER)

LEGEND :

PNAME – Programmer Name,

SPLACE – Study Place,

CCOST – Course Cost,

DEVIN – Developed in,

SCOST – Software Cost,

DCOST – Development Cost,

PROF1 – Proficiency 1

**QUERIES :**1. Find out the selling cost average for packages developed in Oracle.   
2. Display the names, ages and experience of all programmers.   
3. Display the names of those who have done the PGDCA course.   
4. What is the highest number of copies sold by a package?   
5. Display the names and date of birth of all programmers born in April.   
6. Display the lowest course fee.   
7. How many programmers have done the DCA course.   
8. How much revenue has been earned through the sale of packages developed in C.   
9. Display the details of software developed by Rakesh.   
10. How many programmers studied at Pentafour.   
11. Display the details of packages whose sales crossed the 5000 mark.   
12. Find out the number of copies which should be sold in order to recover the development cost of each package.   
13. Display the details of packages for which the development cost has been recovered.   
14. What is the price of costliest software developed in VB?   
15. How many packages were developed in Oracle ?   
16. How many programmers studied at PRAGATHI?   
17. How many programmers paid 10000 to 15000 for the course?   
18. What is the average course fee?   
19. Display the details of programmers knowing C.   
20. How many programmers know either C or Pascal?   
21. How many programmers don’t know C and C++?   
22. How old is the oldest male programmer?   
23. What is the average age of female programmers?   
24. Calculate the experience in years for each programmer and display along with their names in descending order.   
25. Who are the programmers who celebrate their birthdays during the current month?

1. How many female programmers are there?   
   27. What are the languages known by the male programmers?   
   28. What is the average salary?   
   29. How many people draw 5000 to 7500?   
   30. Display the details of those who don’t know C, C++ or Pascal.   
   31. Display the details of costliest package developed by each programmer.   
   32. Produce the following output for all the male programmers   
   'Ram has 6 Years of experience and Seeta has 4 years years of experience'

select pname || ' has ' || round(months\_between(sysdate,dob)/12) ||' Years of expirence and ' from programmer where pname in ('kiran','yogesh');

II . SCHEMA :   
  
Table 1 : DEPT   
  
DEPTNO (NOT NULL , NUMBER(2)),

DNAME (VARCHAR2(14)),   
LOC (VARCHAR2(13)   
  
Table 2 : EMP   
  
EMPNO (NOT NULL , NUMBER(4)),

ENAME (VARCHAR2(10)),   
JOB (VARCHAR2(9)),

MGR (NUMBER(4)),

HIREDATE (DATE),   
SAL (NUMBER(7,2)),

COMM (NUMBER(7,2)),

DEPTNO (NUMBER(2))   
  
MGR is the empno of the employee whom the employee reports to. DEPTNO is a foreign key.

**QUERIES**

1. List all the employees who have at least one person reporting to them.

select empid,mgr,ename from emp1 where empid <> mgr;

2. List the employee details if and only if more than 10 employees are present in department no 10.

select ename from emp1 where deptno=(select deptno from emp1 where deptno=10 group by deptno having count(\*)>10);

3. List the name of the employees with their immediate higher authority.

select ename,empid,job from emp1 e where exists (select ename,empid from emp1 e1 where e.empid=e1.mgr);

4. List all the employees who do not manage any one.

select \* from emp1 e where not exists (select ename,empid from emp1 e1 where e.empid =e1.mgr);

5. List the employee details whose salary is greater than the lowest salary of an employee belonging to deptno 20.

select \* from emp1 where sal >(select max(sal) from emp1 where deptno=20 group by 20);

1. List the details of the employee earning more than the highest paid manager.

select ename,job from emp1 e where sal >(select max(sal) from emp1 where job='manager' );

7. List the highest salary paid for each job.

select job,max(sal) from emp1 group by job;

8. Find the most recently hired employee in each department.

select \* from emp1 where hdate=(select max(hdate) from emp1);

9. In which year did most people join the company? Display the year and the number of employees.

10. Which department has the highest annual remuneration bill?

11. Write a query to display a ‘\*’ against the row of the most recently hired employee.

select lpad(ename,length(ename),'\*') from emp1 where hdate=(select max(hdate) from emp1);

12. Write a correlated sub-query to list out the employees who earn more than the average salary of their department.

Select ename from emp1 e where sal>=(select avg(sal) from emp1 e1 where e.dno=e1.dno);  
13. Find the nth maximum salary.

select \* from (select ename,sal,dense\_rank() over(order by sal desc) as rnk from emp1) where rnk=5 ;

14. Select the duplicate records (Records, which are inserted, that already exist) in the EMP table.   
15. Write a query to list the length of service of the employees (of the form n years and m months).