**Question-1**

create table emp (ename varchar(10) primary key not null, dept\_name varchar

(20), designation varchar(20), salary number(7), date\_of\_join Date );

insert into emp values('karan','accounting','director',50000,'17-nov-2012');

insert into emp values('farah','research','analyst',30000,'03-dec-1991');

insert into emp values('scindia','research','analyst',30000,'09-dec-2002');

insert into emp values('joy','research','manager',29750,'02-apr-2011');

insert into emp values('bhaskar','sales','manager',28500,'01-may-1999');

insert into emp values('chander','accounting','manager',24500,'09-jun-2000');

insert into emp values('anil','sales','salesman',16000,'20-feb-1991');

insert into emp values('tomar','sales','salesman',15000,'08-sep-2001');

insert into emp values('mlind','accounting','clerk',13000,'23-jan-2002');

insert into emp values('saxena','sales','salesman',12500,'28-sep-1999');

insert into emp values('anand','research','clerk',11000,'12-jan-1993');

insert into emp values('george','sales','clerk',9500,'03-dec-1990');

insert into emp values('suresh','research','clerk',8000,'17-dec-1992');

select ename from emp where salary<20000;

select \* from emp where dept\_name='sales' and designation='manager';

select \* from emp where ename like 's%';

select count(dept\_name) total\_no from emp where dept\_name='research';

select \* from emp where date\_of\_join > '1-jan-2010';

select count(\*) from emp where salary between 8000 and 12500;

select \* from emp order by ename;

select ename from emp where designation= 'salesman' and date\_of\_join> '1-aug-1990';

select ename from emp where designation= 'clerk';

select count(designation) from emp where dept\_name='sales' ;

select count(designation) from emp where dept\_name='sales' and designation='salesman';

select count(\*) from emp;

select ename from emp where date\_of\_join between '1-jan-1997' and '31-dec-2010';

select \* from emp order by salary desc;

**question-2**

create table studies (pname varchar(20),splace varchar(20),course varchar(20), ccost number(10));

create table software (pname varchar(20),title varchar(20),devin varchar(20),scost number(10),dcost number(10),sold number(10));

create table programmer (pname varchar(20),dob date,doj date,sex char(1),pr

of1 varchar(10),prof2 varchar(10),sal number(10));

Insert into studies values (‘rakesh’,’pentafour’,’pgdca’,10000);

Insert into studies values (‘arvind’,’pentafour’,’dca’,14000);

Insert into studies values (‘mukesh’,’paragathi’,’pgdca’,12000);

Insert into studies values (‘ritika’,’paragathi’,’dca’,16000);

Insert into studies values (‘tanya’,’paragathi’,’dca’,18000);

Insert into software values (‘rakesh’,’microsoft excel’,’c’,5000,3000,5000);

Insert into software values (‘rakesh’,’microsoft word’,’oracle’,8000,7000,6000);

Insert into software values (‘arvind’,’microsoft excel’,’vb’,9000,8000,3000);

Insert into software values (‘mukesh’,’microsoft word’,’vb’,10000,9000,2000);

Insert into software values (‘ritika’,’microsoft excel’,’c++’,8000,9000,7000);

Insert into programmer values (‘rakesh’,’10-aug-1997’,’10-apr-2010’,’m’,’c’,’pascal’,50000);

Insert into programmer values (‘ritika’,’6-aug-1997’,’15-apr-2011’,’f’,’c++’,’dbms’,80000);

Insert into programmer values (‘tanya’,’5-apr-1998’,’10-jan-2012’,’f’,’pascal’,’dbms’,70000);

Insert into programmer values (‘mukesh’,’8-apr-1995’,’20-aug-2009’,’m’,’c’,’sql’,60000);

Insert into programmer values (‘arvind’,’2-jan-1993’,’15-may-2005’,’m’,’c++’,’sql’,90000);

update studies set ccost=14000 where pname='arvind';

update software set devin='oracle' where devin='c++';

SELECT avg(scost) from software where devin='oracle';

select avg(ccost) from studies;

select \* from programmer where prof1='c' or prof2='c';

select count(\*) from programmer where prof1='c' or prof1='pascal';

select count(\*) from programmer where prof1='c' or prof1='pascal' or prof2='pascal' or prof2='c' ;

select count(\*) from programmer where not(prof1='c' or prof1='c++' or prof2='c' or prof2='c++');

select max(trunc((sysdate-dob)/365.25)) as oldest\_age from programmer where sex='m';

select avg(trunc((sysdate-dob)/365.25)) avg\_age from programmer where sex='f';

select pname,trunc((sysdate-doj)/365.25) as experience from programmer order by experience desc ;

select pname from programmer where dob like '%AUG%';

select count(\*) from programmer where sex='f';

select avg(sal) avg\_salary from programmer;

select \* from programmer where not(prof1='c' or prof1='c++' or prof1='pascal');

select \* from programmer where not(prof1='c' or prof1='c++');

select pname,max(scost) from software group by pname;

select ('Mr. '||pname || ' - has ' || trunc((sysdate-doj)/365.25) ||' years of experience') as programmer from programmer where sex='m';

**question-5**

create table customers (cnum number(6) primary key not null,cname varchar2(

12),city varchar2(10),rating number(6),snum number(6));

create table orders (onum number(6) primary key not null,amount number(6,2)

,odate date,cnum number(6),snum number(6));

insert into customers values (2002,'gita','rome',200,1003);

insert into customers values (2003,'lalit','surat',200,1002);

insert into customers values (2004,'govind','bombay',300,1002);

insert into customers values (2006,'chirag','london',100,1001);

insert into customers values (2008,'chinmay','surat',300,1007);

insert into customers values (2007,'pratik','rome',100,1004);

insert into orders values (3001,18.69,'10-mar-97',2008,1007);

insert into orders values (3003,767.19,'10-mar-97',2001,1001);

insert into orders values (3005,5160.45,'10-mar-97',2003,1002);

insert into orders values (3006,1098.16,'10-mar-97',2008,1007);

insert into orders values (3009,1713.23,'10-apr-97',2002,1003);

insert into orders values (3007,75.75,'10-apr-97',2004,1002);

insert into orders values (3008,4723.00,'10-may-97',2006,1001);

insert into orders values (3010,1309.95,'10-jun-97',2004,1002);

insert into orders values (3011,9891.88,'10-jun-97',2006,1001);

select snum,max(amount) from orders where snum=1002 or snum=1007 group by snum;

select count(\*) no\_of\_orders from orders where odate='10-mar-1997';

select sum(amount) from orders;

select avg(amount) from orders;

select count(snum) no\_of\_salesmen from orders where odate='10-mar-1997';

select count(snum) no\_of\_salesmen from orders where odate=sysdate;

select snum,max(amount) largest\_order from orders where odate='10-mar-1997' group by snum;

select snum,max(amount) largest\_order from orders group by snum;

select count(city) from customers group by city;

select count(distinct city) total\_distinct\_city from customers;

select min(amount),cnum from orders group by cnum;

select count(snum),odate from orders group by odate;

select min(cname) from customers where cname like 'g%';

select snum,max(amount) largest\_order from orders group by snum,odate;

**question-4**

Create table dept(deptno number(2) primary key not null,dname varchar(14),loc varchar(13));

create table emp1 (empno number(4) primary key not null,ename varchar2(10),

job varchar2(9),mgr number(4),hiredate date,sal number(7,2),comm number(7,2),dep

tno number(2),foreign key (mgr) references emp1(empno),foreign key (deptno) refe

rences dept(deptno));

insert into dept values(5,'research','delhi');

insert into dept values(6,'IT','bihar');

insert into dept values(7,'HR','noida');

insert into dept values(8,'research','noida');

insert into dept values(9,'management','haryana');

insert into emp1 values('100','ritika','j01',null,'8-aug-2019',50000,20000.25,5);

insert into emp1 values('101','tanya','j02',100,'10-apr-2018',70000,30000.75,6);

insert into emp1 values('102','rahul','j03',101,'15-jan-2017',60000,25000.25,7);

insert into emp1 values('103','mohit','j04',102,'16-aug-2019',75000,40000.25,7);

update emp1 set job='j02' where job='j03';

select e.ename emp\_name,m.ename mgr\_name from emp1 e,emp1 m where e.mgr=m.empno;

select max(sal) from emp1 group by job;

select \* from emp1 where sal > (select min(sal) from emp1 where deptno=7);

select \* from emp1 where (select count(\*) from emp1 where deptno=7) > 1;

select \* from emp1 where exists(select count(\*) from emp1 where deptno=7);

select \* from emp1 where sal > (select max(m.sal) from emp1 e, emp1 m where e.mgr=m.empno);

select ename from emp1 where hiredate in(select max(hiredate) from emp1 group by deptno);

select max(sum(sal)) from emp1 group by deptno;

select ename from emp1 e where e.sal > (select avg(sal) from emp1 f where e.deptno=f.deptno group by deptno);

select count(empno),extract(year from hiredate) from emp1 group by extract(year from hiredate);

select extract(year from hiredate) "year" from emp1 group by extract(year f

rom hiredate) having count(empno)=(select max(count(empno)) from emp1 group by e

xtract(year from hiredate));

select ename,to\_char(trunc(months\_between(sysdate,hiredate)/12)) "years" ,t

o\_char(trunc(mod(months\_between(sysdate,hiredate),12))) "months" from emp1;

select ename,to\_char(trunc(months\_between(sysdate,hiredate)/12))|| 'years',

to\_char(trunc(mod(months\_between(sysdate,hiredate),12)))|| 'months' from emp1;

SELECT \* FROM EMP1 WHERE EMPNO IN ( SELECT EMPNO FROM EMP1 MINUS SELECT MGR FROM EMP1);

SELECT DISTINCT(A.ENAME) FROM EMP1 A, EMP1 B WHERE A.EMPNO = B.MGR;

SELECT ENAME FROM EMP1 WHERE EMPNO IN (SELECT MGR FROM EMP1);

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SELECT ENAME, SAL FROM EMP A WHERE &N = (SELECT COUNT (DISTINCT(SAL)) FROM EMP B WHERE A.SAL<=B.SAL);