10-08-2012

Friday

<u>**DBMS LAB RECORD-**</u>

Submitted by,   Submitted to,

Sanal R   **Mr. JOHN C JOHN**
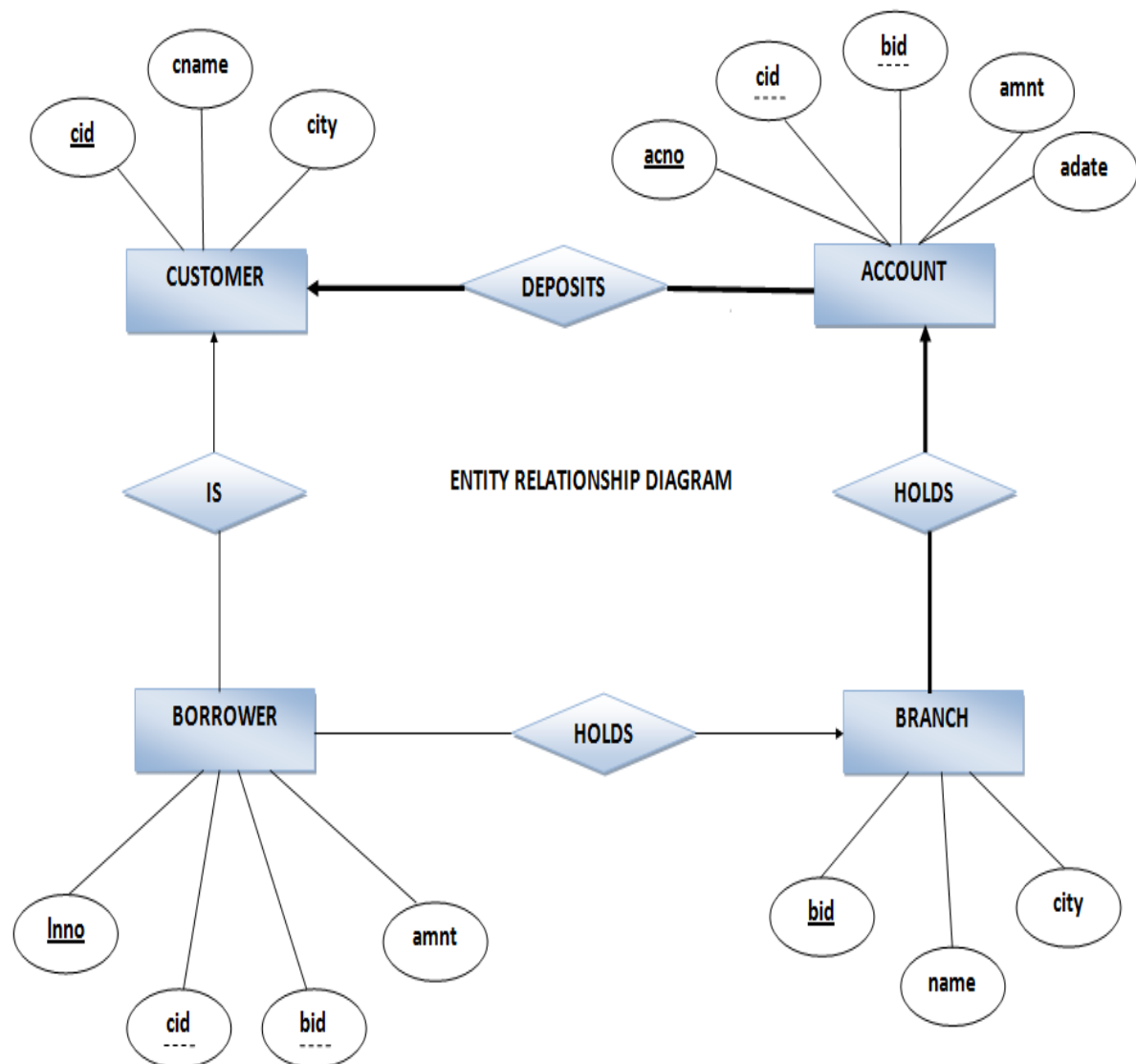
No:22   (Dept.Of MCA)

<u>S4MCA</u>   <u>Govt.RIT,KTM</u>

PROGRAM NO:1   DATE:05/07/2012

AIM:

Create a bank database according to the following specification

Account(accno,cid,bid,amount,adate)

Customer(cid,cname,city)

Borrower(loanno,cid,bid,amount)

Branch(bid,bname,city) . And give SQL query for solving following problmes ?Also draw E-R diagram?

ENTITY RELATIONSHIP DIAGRAM

CUSOMER TABLE

SQL> create table customer(cid number(5) primary key, cname varchar2(20),city varchar2(20));

Table created.

SQL> desc customer;

Name	Null?	Type
CID	NOT NULL	NUMBER(5)
CNAME		VARCHAR2(20)
CITY		VARCHAR2(20)

SQL> select * from customer;

CID	CNAME	CITY
222	Manoj	Trivandrum
223	Arun	Pta
101	Ajil	Kannur
102	Amal	Kochi
201	Mohan	Calicut
202	Anish	Pta
301	Nirmal	Kochi
302	Swathy	Kochi
401	Anu	Palakkad
402	Amal	Kollam

BRANCH TABLE

SQL> create table branch(bid number(5) primary key,bname varchar2(20),city varchar2(20));

Table created.

SQL> desc branch;

Name	Null?	Type
BID	NOT NULL	NUMBER(5)
BNAME		VARCHAR2(20)
CITY		VARCHAR2(20)

SQL> select * from branch;

BID	BNAME	CITY
165	Pattam	Trivandrum
111	Manamchira	Calicut
121	Eroad	Kochi
112	Mg_road	Pta
145	Kaloor	Kochi
122	Koilandi	Calicut
132	Kattappana	Edukki
144	Kottayam	Kottayam

ACCOUNT TABLE

SQL> create table account(ac_no number(5) primary key,cid number(5),bid number(5),amount number(10),adate varchar2(10), foreign key(cid) references customer on delete cascade,foreign key(bid) references branch on delete cascade);

Table created.

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SQL> desc account;

Name	Null?	Type
AC_NO	NOT NULL	NUMBER(5)
CID		NUMBER(5)
BID		NUMBER(5)
AMOUNT		NUMBER(10)
ADATE		VARCHAR2(10)

SQL> select * from account;

AC_NO	CID	BID	AMOUNT	DATE
112	101	144	50000	17/05/1999
213	102	111	100000	18-05-2000
314	201	121	50000	17-08-2001
777	222	165	500000	02-02-2010
615	301	145	90000	09-12-2010
767	302	145	10000000	03-04-2011
934	401	122	4000	09-08-2012
943	402	144	9000	11-11-2012
888	401	111	9000	02-02-2010
912	222	144	900000	06-02-2010
122	102	112	8000	09-09-2000
989	202	112	98989	09-08-2011
333	222	111	5000	09/08/2012
444	222	165	20000	08/04/2009
555	223	112	20000	02/02/2012

BORROWER TABLE

SQL> create table borrower(loan_no number(5) primary key,cid number(5),bid number(5),amount number(7),foreign key(cid) references customer on delete cascade,foreign key(bid) references branch on delete cascade);

Table created.

SQL> desc borrower;

Name	Null?	Type
LOAN_NO	NOT NULL	NUMBER(5)
CID		NUMBER(5)
BID		NUMBER(5)
AMOUNT		NUMBER(7)

SQL> select *from borrower;

LOAN_NO	CID	BID	AMOUNT
1515	201	111	200000
1111	202	121	100000
1121	102	112	200000
1113	402	111	500000
1414	302	145	50000

1.Give names of customers living in kochi city?

   SQL> select cname from customer where city='kochi';

   Ans.

CNAME
Amal
Nirmal
Swathy

2.Give name of depositors have been account at mg road?

   SQL> select bname from branch where city='kochi';

   Ans.

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BNAME
Eroad
Kaloor

3.Give names of depositors have been account at mg road?

SQL> select c.cname from customer c,account a,branch b where c.cid=a.cid and b.bid=a.bid and b.bname='mg_road';

Ans.

CNAME
Amal
Arun
Anish

4.Give names of customers having loan and living in city Calicut?

SQL> select c.cname from customer c,borrower b where c.cid=b.cid and c.city='calicut';

Ans.

CNAME
Mohan

5.List the customers having deposit in the branch where average deposit in the branch is more than 32000?

SQL> select cname from customer where cid in(select cid from account where bid in(select bid from account group by bid having avg(amount)>32000));

Ans.

CNAME
Manoj
Arun
Mohan
Amal
Amal
Nirmal
Ajil
Anish
Anu

Swathy

6.List all the branches having sum of deposit more than 5000?

SQL> select b.bname,sum(a.amount) from account a,branch b where a.bid=b.bid group by b.bname having sum(a.amount)>5000;

Ans.

BNAME	SUM(A.AMOUNT)
kottayam	959000
eroad	50000
pattam	520000
kaloor	10090000
manamchira	114000
mg_road	126989

7.List the branch having sum of deposit more than 32000 and located in city Trivandrum?

SQL> select b.bname,sum(a.amount) from account a,branch b where a.bid=b.bid and b.city='trivandrum' group by b.bname having sum(a.amount)>32000;

Ans.

BNAME	SUM(A.AMOUNT)
pattam	520000

8.List the name of customers having maximum deposit?

SQL> select c.cname from customer c,account a,branch b where a.cid=c.cid and a.bid=b.bid and a.amount=(select max(a1.amount) from account a1);

Ans.

CNAME
Swathy

9.List the name of branch having largest no of depositors?

SQL>select bname from branch where bid in(select bid from account group by bid having count(bid)>=all(select count(cid) from account group by bid));

Ans.

BNAME
Kottayam
Mg_road
Manamchira

10.List the name of customers having largest no of deposits?

SQL> select cname from customer where cid in(select cid from account group by cid having count(cid)>=all(select count(cid) from account group by cid));

Ans.

CNAME
Manoj

11.Give the names of cities in which maximum branches are allocated?

SQL> select city from branch group by city having count(bid)>=all(select count(bid) from branch group by city);

Ans.

CITY
Calicut
Kochi

12.Give name of branch where no of depositors more than 2?

SQL> select b.bname,count(a.cid) from account a,branch b where a.bid=b.bid group by b.bname having count(a.cid)>2;

Ans.

BNAME	COUNT(A.CID)
kottayam	3
manamchira	3
mg_road	3

13.List all customers who are depositors but not borrowers?

SQL> select cname from customer where cid in(select cid from account where cid not in(select cid from borrower));

Ans.

CNAME
Manoj
Ajil
Arun
Anu
Nirmal

14.List customers who are depositors or borrowers and living in city kochi?

SQL> select cname from customer where city='kochi' and cid in(select cid from account where cid in(select cid from borrower));

Ans.

CNAME
Amal
Swathy

15.List the amount of total loan?

SQL> select sum(amount) as loan_amount from borrower;

Ans.

LOAN_AMOUNT
1050000

16.Give name of customers having highest deposit in branch where arun is having deposit?

SQL> select cname from customer where cid in(select cid from account where amount=(select max(amount) from account where bid in(select bid from account where cid in(select cid from customer where cname='arun'))));
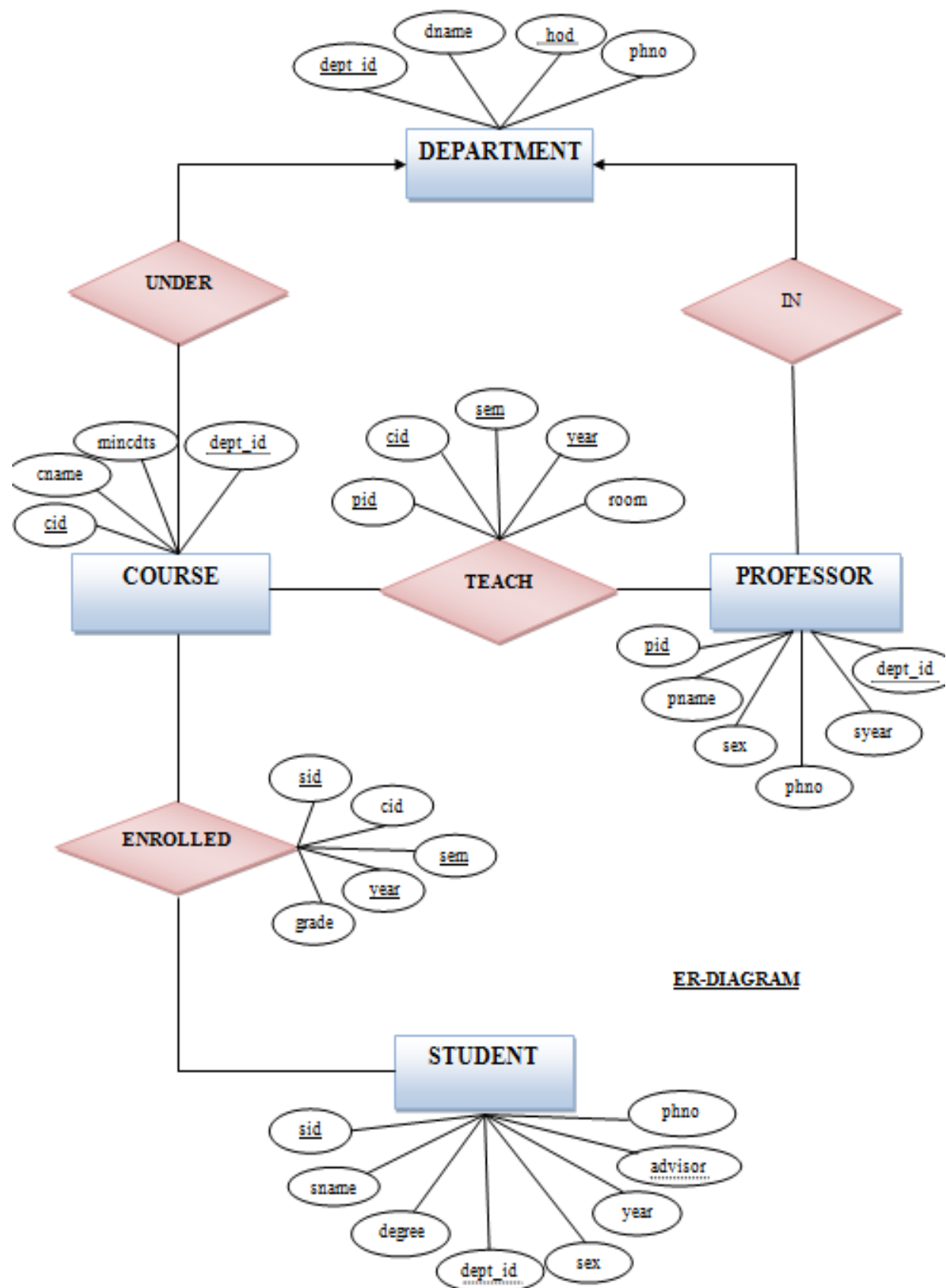
Ans.

CNAME
Anish

PROGRAM NO:2   DATE:14/07/2012

AIM :

A student is described by unique roll no,name,degree,year,sex,department no and asvisor. Department have department no which is unique,name,hod and phone no.

A professor is described by employee id which is unique,name,sex,start year,department no,phone no. Department offers courses which is described by unique course id,name,min.credits,and offering department.

A student can enrol for a course which is described by roll no,course id,semester,year, and grade. Database also stores information about professors teaching for different courses which is described by employee id,course id,sem,year and class room.

Create a schema with required integruity constraints,Insert tuples into tables? Also draw the ER Diagram?

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ENTITY RELATIONSHIP DIAGRAM

ER-DIAGRAM

DEPARTMENT TABLE

SQL> create table department(deptno number(5) primary key,dname varchar2(15),hod number(15),phno varchar2(15));

Table created.

SQL> desc department;

```
 Name                              Null?        Type

 --------------------------------  -----------  ----------------

  DEPTNO                   NOT NULL NUMBER(5)

  DNAME                            VARCHAR2(15)

  HOD                              NUMBER(15)

  PHNO                             VARCHAR2(15)
```

SQL> select * from department;

DEPTNO	DNAME	PHNO	HOD
301	Mechanical	2764533	201
302	CSE	2768990	202
303	MCA	2674563	203

PROFESSOR TABLE

SQL> create table professor(pid number(5) primary key,pname varchar2(15),sex char(2),syear number(4),deptno number(5),phno varchar2(15),foreign key(deptno) references department on delete cascade);

Table created.

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SQL> desc professor;

Name	Null?	Type
PID	NOT NULL	NUMBER(5)
PNAME		VARCHAR2(15)
SEX		CHAR(2)
SYEAR		NUMBER(4)
DEPTNO		NUMBER(5)
PHNO		VARCHAR2(15)

SQL> select * from professor;

PID	PNAME	SEX	SYEAR	DEPTNO	PHNO
201	Santhosh	M	1985	301	9846367456
202	Lalitha	F	1990	302	9645372234
203	Sunil	M	1990	303	0476-4567878
204	Manoj	M	1995	303	0476-4567878
205	Devi	F	2000	302	98632675232
206	Anjana	F	2005	301	9567529657
207	Sajan	M	1992	303	0476-4567878
208	John	M	2010	303	0476-45678788
209	Mohanan	M	2005	302	98477654322

COURSE TABLE

SQL> create table course(cid number(5) primary key,cname varchar2(15),mincdts number(3),deptno number(5) references department(deptno) on delete cascade);

Table created.

SQL> desc course;

Name   Null?   Type

-------------------------------- -------------------------------------

 CID   NOT NULL NUMBER(5)

 CNAME   VARCHAR2(15)

 MINCDTS   NUMBER(3)

 DEPTNO   NUMBER(5)

SQL> select * from course;

CID	CNAME	MINCDTS	DEPTNO
401	BTech	60	301
402	MTech	50	302
403	MCA	45	303

STUDENT TABLE

SQL> create table student(sid number(5) primary key,sname varchar2(15),degree varchar2(15),year number(4),sex char(2),deptno number(5) references department on delete cascade,advisor number(5) references professor(pid),phno varchar2(15));

Table created.

SQL> desc student;

Name   Null?   Type

-------------------------------- -------------- ---------------------

 SID   NOT NULL   NUMBER(5)

 SNAME   VARCHAR2(15)

 DEGREE   VARCHAR2(15)

 YEAR   NUMBER(4)

 SEX   CHAR(2)

DEPTNO	NUMBER(5)
ADVISOR	NUMBER(5)
PHNO	VARCHAR2(15)

SQL> select * from student;

SID	SNAME	DEGREE	YEAR	SE	DEPTNO	ADVISOR	PHNO
101	Manoj	BTech	2010	M	301	206	964537232
102	Sanu	MCA	2012	M	303	204	987656764
103	Mohan	MCA	2012	M	303	204	984556372
104	Sonia	MCA	2012	F	303	204	983425617
105	Akhil	BTech	2010	M	301	206	964537889
106	Jayan	BTech	2012	M	302	205	987667876
107	Nikhila	BTech	2012	F	302	205	987789737
108	Sreela	BTech	2012	F	302	205	96453324
109	Gayathri Mohan	MCA	2012	F	303	204	9847756433
111	Aromal	MTech	2012	M	301	204	945727896

ENROLLED TABLE

SQL> create table enrolled(sid number(5),cid number(5),sem number(2),year number(4),grade char(2),primary key(sid,cid,sem,year),foreign key(sid) references student on delete cascade,foreign key(cid) references course on delete cascade);

Table created.

SQL> desc enrolled;

Name	Null?	Type
SID	NOT NULL	NUMBER(5)
CID	NOT NULL	NUMBER(5)
SEM	NOT NULL	NUMBER(2)
YEAR	NOT NULL	NUMBER(4)

SQL> select * from enrolled;

SID	CID	SEM	YEAR	GRADE
101	401	2	2012	A
102	403	4	2012	B
103	403	4	2012	A
104	401	2	2012	A
105	403	4	2010	A
106	402	5	2012	A
107	402	5	2012	B

TEACH TABLE

SQL> create table teach(pid number(5),cid number(5),sem number(2),year number(4),classroom number(3),primary key(pid,cid,sem,year),foreign key(pid) references professor on delete cascade,foreign key(cid) references course on delete cascade);

Table created.

SQL> desc teach;

```
 Name                          Null?             Type

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 PID                           NOT NULL    NUMBER(5)

 CID                           NOT NULL    NUMBER(5)

 SEM                           NOT NULL    NUMBER(2)

 YEAR                          NOT NULL    NUMBER(4)

 CLASSROOM                                 NUMBER(3)
```

SQL>select * from teach;

PID	CID	SEM	YEAR	CLASSROOM
204	401	2		501
205	402	4		502
206	403	5		503
204	402	4		502
204	403	5		503
205	401	2		501

1)Delete tuples from professor table with start year as 1992?

Ans.

SQL> delete from professor where syear=1992;

1 rows deleted.

2) Change phone no of allprofessors working in mca department to 0476-4567878?

Ans.

SQL> update professor set phno='0476-4567878' where deptno=(select deptno from department where dname='MCA');

3 rows updated.

3)List the name of professors who joined after 1990 in alphabetic order?

Ans.

SQL> select pname from professor where syear>1990 order by pname;

PNAME
Anjana
Devi
John
Manoj
Mohan
Mohanan
Sunil

4)Obtain roll nos. of students who do not have phone nos?

SQL> select sid from student where phno is null;

SID
111

 5)Obtain name of professors who have joined between 1990 and 2000?

Ans.

SQL> select pname from professor where syear between 1990 and 2000;

PNAME
Lalitha
Sunil
Manoj
Devi
Mohan

6)Obtain the roll no,name of all women students in mca department?

Ans.

SQL> select sname,sid from student where sex='F' and (deptno=(select deptno from department where dname='MCA'));

SNAME	SID
Gayathri Mohan	109
Sonia	104

7)Get the employee id,name and phone no of professors in the mca dept. who have joined after 2000?

Ans.

SQL> select pid,pname,phno from professor where syear>2000 and (deptno=(select deptno from department where dname='MCA'));

PID	PNAME	PHNO
208	John	0476-45678788

8)Get the roll no,name of students in the cse department along with their advisor name and phone no?

Ans.

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SQL> select s.sid,s.sname,p.pname,p.phno from student s,professor p,department d where s.deptno=d.deptno and s.deptno=d.deptno and s.advisor=p.pid and s.deptno=(select deptno from department where dname='CSE');

SID	SNAME	PNAME	PHNO
106	Jayan	Devi	98632675232
107	Nikhila	Devi	98632675232
108	Sreela	Devi	98632675232

9)Get the roll no,name of students whose gender is same as their advisors?

Ans.

SQL> select sid,sname from student where advisor in(select pid from professor where sex='F');

SID	SNAME
101	Manoj
105	Akhil
106	Jayan
107	Nikhila
108	Sreela

10)Get the employee id and name of the senior most professors?

Ans.

SQL> select pid,pname from professor where syear<=all(select min(syear) from professor);

PID	PNAME
201	Santhosh

11)Get the roll no and name of the students whose gender is same as their advisors?

Ans.

SQL> select s.sid,s.sname from student s,professor p where s.advisor=p.pid and s.sex=p.sex;

SID	SNAME
102	Sanu
103	Mohan
107	Nikhila
108	Sreela
111	Aromal

12) get the employee id and name of professors who advise atleast one women student?

Ans.

SQL> select pid,pname from professor where pid in(select pid from student where sex='F'group by advisor);

PID	PNAME
201	Santhosh
202	Lalitha
203	Sunil
204	Manoj
205	Devi
206	Anjana
207	Mohan
208	John
209	Mohanan

13)Obtain the department id and name of departments that do not offer a course having total credit of 50?

Ans.

SQL> select c.deptno,d.dname from course c,department d where d.deptno=c.deptno and c.mincdts<>50;

DEPTNO	DNAME
301	Mechanical
303	MCA

14)Obtain department id,name of department whose courses are all of 50 credit courses?

Ans.

SQL> select c.deptno,d.dname from course c,department d where d.deptno=c.deptno and c.mincdts=50;

DEPTNO	DNAME
302	CSE

15)Obtain the roll nos of students who are currently enrolled for either btech or mca course(Use union and also obtain the result with AND,OR Operators)?

Ans.

SQL> select sid from enrolled where cid in(select cid from course where cname='MCA')
union select sid from enrolled where cid in(select cid from course where cname='BTech');

SID
101
102
103
104
105

16)Obtain the roll nos of students who are currently not enrolled for mtech course?

Ans.

SQL> select sid,sname from student where degree='MTech' and sid not in (select sid from
enrolled);

SID	SNAME
111	Aromal

**17)obtain the name,department id and the total no of courses offered by each
department?**

Ans.

SQL> create view v1(did,total) as (select deptno,count(cid) from course group by deptno);

View created;

SQL>select v.did,v.total,v.dname from department d,v1 v where d.deptno=v.did;

DID	TOTAL	DNAME
303	1	MCA
301	1	Mechanical
302	1	CSE

**18)Report the total enrolment in each course in the second sem of 2012 include only the
courses with a minimum enrolment of 60?**

Ans.

SQL> select count(sid) from enrolled where sem=2 and year=2012 group by cid having cid
in(select cid from course where mincdts=60);

COUNT(SID)
2

19) Obtain roll nos and names of all students whose names end with Mohan?

Ans.

SQL> select sid,sname from student where sname like '%Mohan';

SID	SNAME
109	Gayathri Mohan
103	Mohan

20) Create a view which contains name ,employee id and phone nos of professors who joined in cse department in or after 2000?

Ans.

SQL> create view professorOnCse(pid,pname,phno) as select pid,pname,phno from professor where syear>=2000 and deptno in(select deptno from department where dname='CSE');

View created;

21)Use the created view to obtain the names of professors in cse department who joined after 2000 and whose name starts with M or ends with n?

Ans.

 SQL> select pname from professorOnCse where pname like 'M%n';

PNAME
Mohanan

PROGRAM NO:3   **DATE:26/07/2012**

AIM

A data base is being constructed for worlds of cricket championship. A team in the championship is the country in a continent. The jourcy colour of each team is unique.
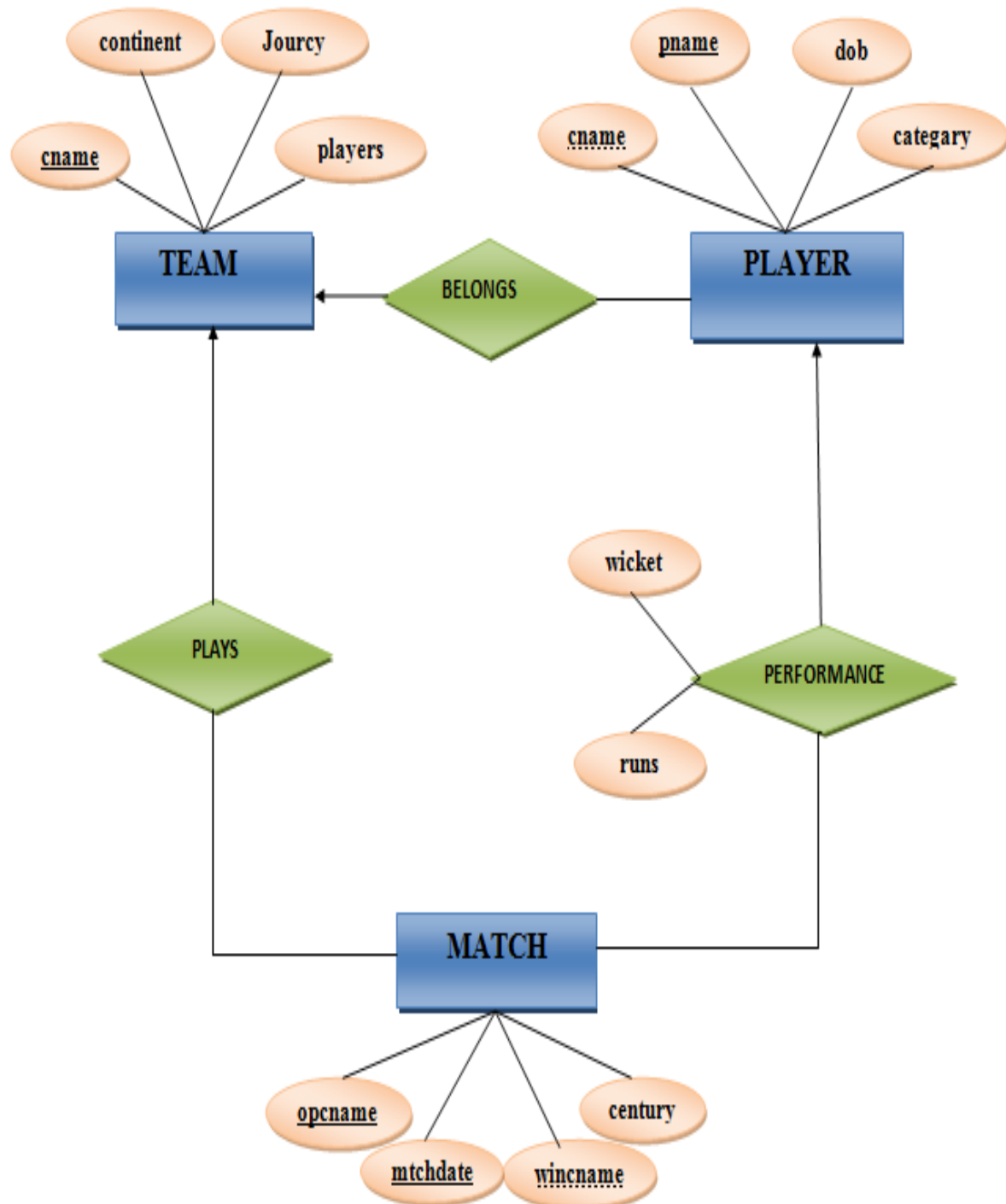
A team has no. of players each of whose dob and category must be recorded in the data base along with other details .

Every match in the championship is scheduled prior to the beginning of the championship. The team which won a match and the total no of centuries scored in the match is recorded.

The performance of a player in a match is measured in no of runs scored and wickets taken in the match.

Represent the data base with ER model, by clearly identifying entities ,cardinality and all the attributes .

Derive relational schema from the ER model for each table by clearly identifying all columns ,primary and foreign keys. Based on the relational schema express the following queries in SQL?

ENTITY RELATIONSHIP DIAGRAM

ER DIAGRAM

TEAM TABLE

SQL> create table team(cname varchar2(20) primary key,continent varchar2(20),nop number(3),jcolor varchar2(20));

Table created.

SQL> desc team;

Name	Null?	Type
CNAME	NOT NULL	VARCHAR2(20)
CONTINENT		VARCHAR2(20)
NOP		NUMBER(3)
JCOLOR		VARCHAR2(20)

SQL> select * from team;

CNAME	CONTINENT	NOP	JCOLOR
India	Asia	4	Blue
Pakistan	Asia	4	Green
Australia	Australia	4	Gree&gold

PLAYER TABLE

SQL> create table player(pname varchar2(20),cname varchar2(20) references team(cname) on delete cascade,dob date,category varchar2(10),primary key(pname,cname));

Table created.

SQL> desc player;

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Name	Null?	Type
PNAME	NOT NULL	VARCHAR2(20)
CNAME	NOT NULL	VARCHAR2(20)
DOB		DATE
CATEGORY		VARCHAR2(10)

SQL> select * from player;

PNAME	CNAME	DOB	CATEGORY
Sachin	India	12-SEP-78	A
Kohli	India	12-AUG-80	B
Sevag	India	09-JUL-72	BO
Gambhir	India	09-MAR-88	B
Afridi	India	12-MAR-79	A
Shezad	Pakistan	10-JAN-82	A
Imran Nazir	Pakistan	10-FEB-83	B
Imran Hazern	Pakistan	10-DEC-73	BO
Michael Hazzi	Australia	12-MAR-75	A
Ponding	Australia	12-JAN-75	B
Christ	Australia	12-JAN-68	BO
Warnor	Australia	12-MAR-67	A
Clarke	Australia	12-JUN-77	BO

MATCH TABLE

SQL> create table match(opcname varchar2(20),matchdate date,wcname varchar2(20)
references team(cname) on delete cascade,centuries number(5),primary
key(opcname,matchdate));

Table created.

SQL> desc match;

```
 Name                          Null?         Type

 -------------------------------  ------------  -----------------------

 OPCNAME                       NOT NULL    VARCHAR2(20)

 MATCHDATE                     NOT NULL    DATE

 WCNAME                                     VARCHAR2(20)

 CENTURIES                                  NUMBER(5)
```

SQL> select * from match;

OPCNAME	MATCHDATE	WCNAME	CENTURIES
Pakistan	22-JAN-12	India	2
Australia	22-FEB-12	Pakistan	1
Australia	22-MAR-12	India	0
Pakistan	22-APR-12	Australia	0

PERFORMANCE TABLE

SQL> create table performance(opcname varchar2(20),matchdate date,pname
varchar2(20),cname varchar2(20),wicket number(5),noruns number(5),foreign
key(opcname,matchdate) references match(opcname,matchdate),foreign key(pname,cname)
references player(pname,cname),primary key(opcname,matchdate,pname,cname));

Table created.

Dept. of MCA

SQL> desc performance;

Name	Null?	Type
OPCNAME	NOT NULL	VARCHAR2(20)
MATCHDATE	NOT NULL	DATE
PNAME	NOT NULL	VARCHAR2(20)
CNAME	NOT NULL	VARCHAR2(20)
WICKET		NUMBER(5)
NORUNS		NUMBER(5)

SQL> select * from performance;

OPCNAME	MATCHDATE	PNAME	CNAME	WICKET	NORUNS
Pakistan	22-JAN-12	Sachin	India	1	200
Australia	22-MAR-12	Sevag	India	2	42
Pakistan	22-JAN-12	Kohli	India	2	49
Australia	22-MAR-12	Gambhir	India	1	66
Australia	22-FEB-12	Afridi	Pakistan	2	22
Australia	22-FEB-12	Shezad	Pakistan	2	61
Australia	22-FEB-12	Imran Nazir	Pakistan	2	70
Australia	22-FEB-12	ImranHazern	Pakistan	1	100
Pakistan	22-APR-12	Ponding	Australia	1	82
Pakistan	22-APR-12	Christ	Australia	2	33
Pakistan	22-APR-12	Warnor	Australia	1	48
Pakistan	22-APR-12	Clarke	Australia	1	54

1)Find the names of all players in a team having jourcy colour Blue?

 Ans.

SQL> select pname from player where cname in(select cname from team where jcolor='Blue');

PNAME
Gambhir
Kohli
Sachin
Sevag

2)Find the name of continent from where largest no of teams are participated in the championship?

Ans.

SQL> select continent,count(continent) as no_of_teams from team group by continent having count(continent)>=all(select count(continent) from team group by continent);

CONTINENT	NO_OF_TEAMS
Asia	2

3)Find the no of Bowlers in the Indian team?

Ans.

SQL> select count(pname) as Indian_Bowlers from player where category='BO' and cname='India';

INDIAN_BOWLERS
1

4)Find the name of teams which have large no of bowlers?

Ans.

 SQL> select t.cname from team t,player p where t.cname=p.cname and p.categary='BO'group by t.cname having count(p.pname)>=all(select count(pname) from player where categary='BO'group by cname);

CNAME
Australia

5) Find the name of players who have born before 16/10/1990?

Ans.

SQL> select pname from player where dob<'16/oct/1970';

PNAME
Christ
Warnor

6)Find the names of players more than 30 years old?

Ans.

SQL> select pname from player where months_between(sysdate,dob)>=360 and months_between(sysdate,dob)<=372;

PNAME
Shezad

7)Find the name of each player and the no of centuries he scored?

Ans.

SQL> select pname,round(sum(noruns)/100) as centuries from performance where noruns>=100 group by pname;

PNAME	CENTURIES
Imran Hazern	1
Sachin	2

8)Find the man of the series of the championship?

 Ans.

SQL> select pname from performance where noruns>=all(select noruns from performance);

PNAME
Sachin

9)Find the name of the team which failed in most of matches?

Ans.

SQL> select opcname,count(opcname) as no_of_failure from match group by opcname having count(opcname)>=all(select count(opcname) from match group by opcname);

OPCNAME	NO_OF_FAILURE
Australia	2
Pakistan	2

10) Find the name of the team who have scored more than 200 runs in the championship?

Ans.

SQL> select cname,sum(noruns) as score from performance group by cname having sum(noruns)>200;

CNAME	SCORE
Pakistan	253
India	357
Australia	217

11) Name of the bowler from asian continent who has taken least no of wickets?

Ans.

SQL> select p.pname from player p,performance p1,team t where t.cname=p.cname and t.cname=p1.cname and p.pname=p1.pname and t.continent='Asia' and p1.wicket<=all(select wicket from performance);

PNAME
Sachin
Gambhir
Imran Hazern

12) Name of the teams blongs to a…a?

Ans.

SQL> select cname from team where continent like 'A%a';

CNAME
India
Pakistan
Australia

13)Date of the match on which least no of runs scored?

Ans.

SQL> select matchdate,sum(noruns) as total_runs from performance group by matchdate having sum(noruns)<=all(select sum(noruns) from performance group by matchdate);
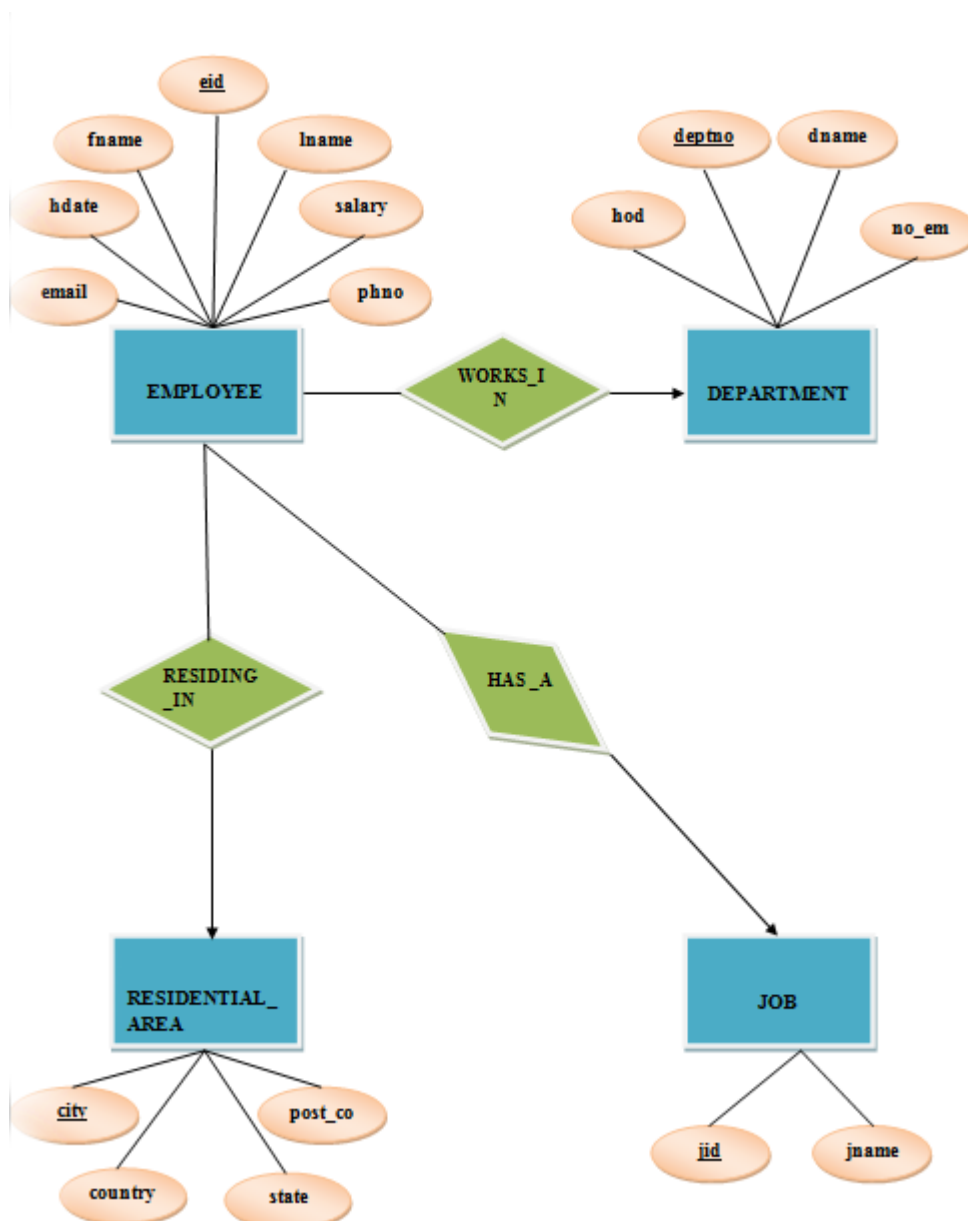
MATCHDATE	TOTAL_RUNS
22-MAR-12	108

14)Duration in months of the championship?

Ans.

SQL> select months_between('22-apr-2012','22-jan-2012') as duration from dual;

DURATION
3

PROGRAM NO:4   DATE:02/08/2012

AIM:

Create a Data Base for employee information system for an organization . Each employee in the organization can be described with unique employee id, first name, last name ,email id, phone no, hire date, salary etc. Each employee occupies a job in the organizational hierarchy and each employee belongs to a division or department of the organization. Each division or department is headed by a manager. Employee is residing in various cities of the cities, which belongs to a state and has unique postal code. Draw the ER Diagram for representing the Data Base. Derive relational schema from ER model & express the following query in sql?

ENTITY RELATIONSHIP DIAGRAM

EMPLOYEE TABLE

SQL> create table employee(eid number(5) primary key,jid number(5) references job on delete cascade,deptno number(5) references depart on delete cascade,fname varchar2(20),lname varchar2(20),salary number(7),hdate date,email varchar2(20),phno number(12),city varchar2(25) references res_area on delete cascade);

Table created.

SQL> desc employee;

Name	Null?	Type
EID	NOT NULL	NUMBER(5)
JID		NUMBER(5)
DEPTNO		NUMBER(5)
FNAME		VARCHAR2(20)
LNAME		VARCHAR2(20)
SALARY		NUMBER(7)
HDATE		DATE
EMAIL		VARCHAR2(20)
PHNO		NUMBER(12)
CITY		VARCHAR2(25)

SQL> select * from emp_info;

EID JID   DEPTNO FNAME   LNAME SALARY HDATE   EMAIL
PHNO CITY

---------- --------- -------------------- ---------- -------- ------------- -------- -----------

    1   22   32 Lakshman   Sarma

 54996 09-AUG-99 lks@gmail.com   9847756342 TVM

    2   22   33 Mohan   Varma

 44004 04-JAN-09 mva@gmail.com   9847756432 KLM

    3   22   34 John   Cyril

54996 05-SEP-05 jcj@gmail.com   9874437456 CTA

    4   22   35 gayathri   MOHAN

33000 05-JUN-11 gm@gmail.com   9845563728 Tci

JOB TABLE

SQL> create table job(jid number(5) primary key,jname varchar2(25));

Table created.

SQL> desc job;

 Name   Null?   Type

 --- -------- -------------

 JID   NOT NULL NUMBER(5)

 JNAME   VARCHAR2(25)

SQL> select * from job;

JID	JNAME
22	Manager
23	Purchase Manager
24	Information Officer
25	Executive Staff

DEPARTMENT TABLE

SQL> create table depart(deptno number(5) primary key,dname varchar2(20),hod number(5),noemp number(5));

Table created.

SQL> desc depart;

Name	Null?	Type
DEPTNO	NOT NULL	NUMBER(5)
DNAME		VARCHAR2(20)
HOD		NUMBER(5)
NOEMP		NUMBER(5)

SQL> select * from depart;

DEPTNO	DNAME	HOD	NOEMP
32	Finance&Account		5
33	Marketing&Sales		5
34	HR&Admin		5
35	Technical		6

RESIDENTIAL-AREA TABLE

SQL> create table res_area(city varchar2(25) primary key,state varchar2(20),country varchar2(20),postcode number(15) unique);

Table created.

SQL> desc res_area;

Name	Null?	Type
CITY	NOT NULL	VARCHAR2(25)
STATE		VARCHAR2(20)
COUNTRY		VARCHAR2(20)
POSTCODE		NUMBER(15)

SQL> select * from res_area;

CITY	STATE	COUNTRY	POSTCODE
TVM	Kerala	India	691583
KLM	Kerala	India	691582
CTA	Hyderabad	India	691005
Trichi	Tamilnadu	India	691223

Dept. of MCA

1)Create a new user with a password?

Ans.

SQL>create user john identified by john;

User created.

2)Change the password of the user?

Ans.

SQL>alter user john identified by sir;

User altered.

3)Grant previlage to the user to create,sequences,procedures,triggers etc?

Ans.

SQL>grant connect,resource to john;

User granted.

4)Display whole users in the system?

Ans.

SQL> select * from all_users;

USERNAME	USER_ID CREATED
SCOTT	54 30-AUG-05
MGMT_VIEW	53 30-AUG-05
MDDATA	50 30-AUG-05
SYSMAN	51 30-AUG-05
MDSYS	46 30-AUG-05
SI_INFORMTN_SCHEMA	45 30-AUG-05
ORDPLUGINS	44 30-AUG-05
ORDSYS	43 30-AUG-05
OLAPSYS	47 30-AUG-05
ANONYMOUS	39 30-AUG-05
XDB	38 30-AUG-05

Dept. of MCA

5)Revoke the granted previlage from the user?

Ans.

SQL>revoke connect,resource from john;

Revoke complete.

6)Grant previlage to the user with provision to grant previlage to other users?

Ans.

SQL>grant dba to john with admin option;

User granted.

7)Create the required tables for the relation schema described in question with all necessary constraints?

Ans.

SQL> Table created.

8)Create a sequence starting with 1 incement by 1 with a max value of 50?

Ans.

SQL> create sequence seq minvalue 1 maxvalue 50 start with 1 increment by 1;

Sequence created.

9)Add new employees to the Data Base with use of sequence?

Ans.

SQL>insert into employee values(seq.nextval,&jid,&deptno ,'&fname','&lname',&salary,'&hdate','&email',&phno,'&city');

Rows inserted

10)Roll Back the entire transaction?

Ans.

SQL>rollback;

Rollback complete.

11)Display the annual salary for employees?

Ans.

SQL>

select eid, salary*12 as anual_salary from employee;

EID	ANUAL_SALARY
1	660000
2	528000
3	660000
4	396000

12)Display the current user and system date?

Ans.

SQL> select user,sysdate from dual;

USER	SYSDATE
SCOTT	05-AUG-12

13)Display the name of all departments with row no?

Ans.

SQL> select rownum,deptno,dname from department;

ROWNUM	DEPTNO	DNAME
1	32	Finance&Account
2	33	Marketing&Sales
3	34	HR&Admin
4	35	Technical

14)Add two records into data base?

Ans.

SQL>insert into employee
values(&eid,&jid,&deptno,'&fname','&lname',&salary,'&hdate','&email',&phno,'&city');

Rows inserted.

15)Create a save point?

Ans.

SQL> savepoint here;

Savepoint created.

16)Change the name of table describing employee information to some other name?

Ans.

SQL> alter table employee rename to emp_info;

Table altered.

17)Increase salary by 10%?

Ans.

SQL> update emp_info set salary=salary+((salary*10)/100);

4 rows updated.

18)Rollback the transaction up to the savepoint?

Ans.

SQL> roll back to here;

Rollback complete.

19)Display all employees that have the same no of letters in the first name and last name?

Ans.

SQL> select eid,fname,lname,length(fname) as length from emp_info where length(fname)=length(lname);

EID	FNAME	LNAME	LENGTH
2	Mohan	Varma	5

20)Display managers of whole department with first name as all small letters,last name as all capital letters and residential cities are first letter capital and remaining lower case?

Ans.

SQL> select e.eid,e.fname,e.lname,d.hod,d.dname from emp_info e,depart d where e.eid=d.hod and fname like lower(fname) and lname like upper(lname) and city like initcap(city);

EID	FNAME	LNAME	HOD	DNAME
4	gayathri	MOHAN	4	Technical

21)Describe the salary of all employees in the format '$99,999'?

Ans.

SQL> select eid,to_char(salary,'$99,999') as salary from emp_info;

EID	SALARY
1	$54,996
2	$44,004
3	$54,996
4	$33,000

22)List the last date of feb 2012 and date of first Monday after this date?

Ans.

SQL>select last_day('01/feb/2012'),next_day('01/feb/2012',2) from dual;

LAST_DAY	NEXT_DAY
29-FEB-12	06-FEB-12

23)Display the squared values of employee id?

Ans.

SQL>select eid*eid as square_eid from emp_info;

SQUARE_EID
1
4
9
16

24)Display the employees works in sales department in the following format

Mr/Ms____ ____ works at department of the company and residing at ____?

Ans.

SQL> select 'Mr/Ms ',e.fname,e.lname,'works at',d.dname,'department of the company and residing at ',city from emp_info e,depart d where d.deptno=e.deptno;

Mr/Ms Lakshman   Sarma   works at   Finance&Account

department of the company and residing at TVM

Mr/Ms Mohan   Varma   works at   Marketing&Sales

department of the company and residing at KLM

Mr/Ms John   Cyril   works at   HR&Admin

department of the company and residing at CTA

Mr/Ms gayathri   MOHAN   works at   Technical

department of the company and residing at Tci

25)List out the details of employee who has got more than one year experience?

Ans.

SQL> select eid,fname,lname from emp_info where months_between(sysdate,hdate)>12;

EID	FNAME	LNAME
1	Lakshman	Sarma
2	Mohan	Varma
3	John	Cyril
4	gayathri	MOHAN

26)Display the hire date in the format mm/dd/yyyy?

Ans.

SQL> select eid,to_char(hdate,'mm/dd/yyyy') as hire_date from emp_info;

EID	HIRE_DATE
1	08/09/1999
2	01/04/2009
3	09/05/2005
4	06/05/2011

27)Display the details of employee with odd nod eid?

Ans.

 SQL> select eid as odd_eid from emp_info where mod(eid,2)<>0;

ODD_EID
1
3

28)Display the name and hiring date for purchase manager in the format

Lakshman _____ was hired on 30 th of aug 2011?

Ans.

SQL>

Lakshman   Sarma   was hired on 09th of august   , 1999

Mohan   Varma   was hired on 04th of january   , 2009

John   Cyril   was hired on 05th of september , 2005

gayathri   MOHAN   was hired on 05th of june   , 2011

29)Display the dept id and name of departments having atlest 3 employees?

Ans.

SQL> select deptno,dname from depart where noemp>=3;

DEPTNO	DNAME
32	Finance&Account
33	Marketing&Sales
34	HR&Admin
35	Technical

30)Details of departments which has highest no of employee?

Ans.

SQL> select * from depart where noemp>=all(select noemp from depart);

DEPTNO	DNAME	HOD	NOEMP
35	Technical	4	6

31)List out the top 3 earners?

Ans.

SQL> select eid,salary from emp_info where rownum=1 or rownum=2 or rownum=3 order by salary;

EID	SALARY
2	44004
3	54996
1	54996