

a) a. Create table DEPARTMENT

```
CREATE TABLE DEPARTMENT(DEPTCODE VARCHAR2(4) NOT NULL PRIMARY  
KEY,DEPTNAME VARCHAR2(15) NOT NULL,HOD VARCHAR2(4) NOT  
NULL,CHECK(DEPTCODE IN ('CSE','IT', 'CA', 'CHEM', 'MTHS', 'PHYS', 'HUM', 'BBA')));
```

```
CREATE TABLE FACULTY(FACULTYCODE VARCHAR2(4) NOT NULL PRIMARY KEY,  
CHECK(FACULTYCODE LIKE 'F%'),  
FACULTYNAME VARCHAR2(15) NOT NULL,  
DATEOFJOIN DATE NOT NULL,  
DEPTCODE VARCHAR2(4) NOT NULL,  
CHECK (DEPTCODE IN ('CSE','IT','MCA','CA','CHEM','MTHS','PHYS','HUM','BBA')));
```

B. Insert appropriate values in the above table.

```
INSERT INTO DEPARTMENT VALUES('CSE','COMPUTER','AK');  
INSERT INTO DEPARTMENT VALUES('PHYS','ELECTRONIC','IM');  
INSERT INTO DEPARTMENT VALUES('IT','INFOTECH','SS');  
INSERT INTO DEPARTMENT VALUES('BBA','COMPAPP','SC');  
INSERT INTO DEPARTMENT VALUES('HUM','HUMANITIES','DC');  
INSERT INTO DEPARTMENT VALUES('MTHS','MATHS','KKS');
```

```
INSERT INTO FACULTY VALUES('FHH','ANANYA  
MAM',TO_DATE('15-02-1985','DD-MM-YYYY'),'CSE');  
INSERT INTO FACULTY VALUES('FAA','IVY  
MAM',TO_DATE('25-08-1985','DD-MM-YYYY'),'IT');  
INSERT INTO FACULTY VALUES('FBB','PHULTULI  
MAM',TO_DATE('03-08-1999','DD-MM-YYYY'),'CSE');  
INSERT INTO FACULTY VALUES('FCC','PAPRI  
MAM',TO_DATE('13-05-2015','DD-MM-YYYY'),'PHYS');  
INSERT INTO FACULTY VALUES('FDD','KKS  
MAM',TO_DATE('15-02-2005','DD-MM-YYYY'),'MTHS');  
INSERT INTO FACULTY VALUES('FEE','DCD  
MAM',TO_DATE('14-05-1998','DD-MM-YYYY'),'HUM');
```

```
SQL> select * from faculty;
```

FACU	FACULTYNAME	DATEOFJO	DEPT	SALARY
FHH	ANANYA MAM	15-02-85	CSE	50000.5
FAA	IVY MAM	25-08-85	IT	50000.5
FBB	PHULTULI MAM	03-08-99	CSE	50000.5
FCC	PAPRI MAM	13-05-15	PHYS	50000.5
FDD	KKS MAM	15-02-05	MTHS	50000.5
FEE	DCD MAM	14-05-98	HUM	50000.5

6 rows selected.

```
SQL> select* from department  
2 ;
```

DEPT	DEPTNAME	HOD
CSE	COMPUTER	AK
PHYS	ELECTRONIC	IM
IT	INFOTECH	SS
BBA	COMPAPP	SC
HUM	HUMANITIES	DC
MTHS	MATHS	KKS

6 rows selected.

C. Add constraint : DeptCode of Faculty is foreign key and references DeptCode in Department

```
alter table FACULTY add FOREIGN KEY (DEPTCODE) REFERENCES  
DEPARTMENT(DEPTCODE);
```

D. Find the names of faculties of CSE Department.

```
SELECT FACULTYNAME FROM FACULTY WHERE DEPTCODE = 'CSE';
```

```
FACULTYNAME  
-----  
ANANYA MAM  
PHULTUL MAM
```

E. Find the number of faculties in the Computer application department

```
SELECT COUNT(*) FROM FACULTY WHERE DEPTCODE= 'CA';
```

```
COUNT(*)  
-----  
0
```

F. Show the names of the heads of departments with department name.

```
SELECT DEPTCODE ,HOD FROM DEPARTMENT;
```

```
DEPT HOD
-----
CSE   AK
PHYS  IM
IT     SS
BBA   SC
HUM   DC
MTHS  KKS
```

```
6 rows selected.
```

G. Find the number of faculties who joined in August.

```
SELECT FACULTYNAME FROM FACULTY WHERE DATEOFJOIN LIKE '%-08-%';
```

```
FACULTYNAME
-----
IVY MAM
PHULTULI MAM
```

H. Add an extra attribute to the faculty table - Salary Number(8,2)

```
alter table FACULTY add SALARY Number(8,2);
```

I. Insert values into the corresponding field Salary Number(8,2).

```
update FACULTY set SALARY= 50000.50;
```

J. Find the name and salary of the faculty who earn more than 8000.

```
SELECT FACULTYNAME FROM FACULTY WHERE SALARY >=8000;
```

```
SQL> SELECT FACULTYNAME FROM FACULTY WHERE SALARY >=8000;

FACULTYNAME
-----
ANANYA MAM
IVY MAM
PHULTULI MAM
PAPRI MAM
KKS MAM
DCD MAM

6 rows selected.
```

K. Find the name, department of the faculties who earn between 8000 and 12000.

```
SQL> SELECT FACULTYNAME, DEPTNAME FROM DEPARTMENT D INNER JOIN FACULTY F ON D.DEPTCODE=F.DEPTCODE WHERE F.SALARY BETWEEN 6000 AND 120000;
```

FACULTYNAME	DEPTNAME
ANANYA MAM	COMPUTER
IVY MAM	INFOTECH
PHULTULI MAM	COMPUTER
PAPRI MAM	ELECTRONIC
KKS MAM	MATHS
DCD MAM	HUMANITIES

6 rows selected.