BHARATIYA VIDYA BHAVAN'S

# SARDAR PATEL INSTITUTE OF TECHNOLOGY

MUNSHI NAGAR, ANDHERI (WEST), MUMBAI – 400 058, India
(Autonomous College Affiliated to University of Mumbai)

Executed

**Duration: 1 hour** Vivek Tiwari **UCID:** 2023510059
**Marks: 25 Marks**
**General Instructions:**
*Viva will be taken at the time of practical as well as after the practical if required.*
*The figures to the right indicate full marks.*
*If you are using any additional information, state it clearly.*
*Once you finish with the code show it to the examiner for testing. Write your answer in Word file and upload it on Moodle.*

| | | |
|---|---|---|
| **Q. 1 A)** | **Consider the University database given below. The primary keys are underlined and the data types are specified:**<br>**Student** (snum:number,sname:string, major:string, level:string, age:number)<br>**Class** (cname:string,meet_at:number, room:number,not null, fid:number)<br>**Enrolled** (snum:number, cname:string)<br>**Faculty** (fid,:numberfname:string,not null, deptid:number)<br><br>a) Create the above tables by properly specifying the primary keys and the foreign keys and named constraints.<br>b)Enter atleast five tuples for each relation.<br>c) Write SQL query to grant insert and delete privilege to RMAN user on Class relation.<br>d) Write SQL query to display Student details in which faculty Anita is teaching.<br>e) Write SQL query to revoke all the permission from RMAN on Student relation. | **10** |
| **B)** | Write a PL/SQL function to print table of a given number.<br>Eg: 12 x 1 =12 | **10** |
| **C)** | Write a PL/SQL code to display total number of students and teachers for each class. | **5** |

1. A) - Create table Student (sname int PRIMARY KEY, sname varchar(20), major varchar(20), level varchar(20), age int );
- create table class (cname varchar (20) Primary Key , meet_at time , room int not null , fid int , foreign key (fid) references faculty (fid));
- create table enrolled (snum int , cname varchar(20) , foreign key (snum) references student (snum) , foreign key (cname) references class (cname));
- create table faculty (fid int primary key , fname varchar(20) not null, deptid int );

B) - insert into student values
(1,'Vivek', 'MCA', 'First year', 22),
(2,'Tarn', 'EXTC', 'Fourth Year', 25),
(3,'sugam', 'CSE', 'First year', 23),
(4,'vaibhav', 'MTech', 'Second year', 19),
(5,'Niraj', 'MBA', 'Third Year', 20),
(6,'Gopal', 'IT', 'Second year', 21);

- insert into class values

```
('DBMS',        '12:00', 403, 10),
('Linear Algebra', '10:00', 301, 20),
('Computer Networks', '11:00', 102, 30),
('Web Technology', '14:00', 201, 40),
('Software Testing', '15:00', 409, 50),
('Data structures', '11:00', 202, 50);
```

Insert into enrolled values

```
(1, 'DBMS'),
(2, 'Linear Algebra'),
(3, 'Web Technology'), 'Computer Networ
(4, 'Software Testing'), 'Web Tech'),
(5, 'Software Testing'),
(6, 'Data Structures');
```

C. create user RMAN;
GRANT All Privileges ON ese_59.class to 'RMAN';

D. ~~select~~ * ~~from~~ student ~~where (select~~ fname from faculty

D. select * from class where fid in (select fid from faculty where fname = 'Anita');

E. flush privileges;

(C) CREATE DEFINER = 'root@localhost' Procedure 'display Students Teachers' ()
BEGIN
select count (Snum) from student;
select count (fid) from faculty;
END