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BHARATIYA VIDYA BHAVAN'S

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(Autonomous College Affiliated to University of Mumbai)

Duration: 1 hour **UCID:** 2024510013
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:** **Student** (snum:number,sname:string, major:string, level:string, age:number) **Class** (cname:string,meet_at:number, room:number,not null, fid:number) **Enrolled** (snum:number, cname:string) **Faculty** (fid,:numberfname:string,not null, deptid:number) a) Create the above tables by properly specifying the primary keys and the foreign keys and named constraints. b)Enter atleast five tuples for each relation. c) Write SQL query to display student's name and major who has entrolled for the class FYMCA. d) Write SQL query to count total number of students and faculties for each ~~department~~. class e) Write SQL query to rename Student to Student123	**10**
B)	Write a PL/SQL function to find out number of students starts with A.	**10**
C)	Write a PL/SQL trigger that will raise an exception if newly inserted student's age is less than 18.	**5**

* create Schema ESE;
* use ESE;
* Create table Student (~~snum~~ snum int primary key not null constraint checksnumIfzero check (snum > 0),
  sname varchar (255),
  major varchar (255),
  level varchar (255),
  age int constraint checkAgeZero check (age > 0));
* create table class (cname varchar primary key not null,
  meet_at decimal (10,2) constraint checkmeetATIfZero check (meet_at > 0)
  room int not null, fid int, foreign key (fid) references faculty(fid)
* create table faculty (fid int primary key not null constraint checkfidIfzero (fid > 0), fname varchar(255) not null,
  depid int constraint checkDeptIdIfzero check (depid > 0)

* create table Enrolled(snum int, cname varchar(255), foreign key (snum) references Student(snum), foreign key (cname) references class(cname));
* insert into Student123 values(2024510013, 'Tejas Desai', 'moderate', 22);
* insert into faculty values(2401, 'maroj', 1);
* insert into class values('fymcA', 8.30, 507, 2401);
* insert into Enrolled values(2024510013, 'fymcA');
* select sname, major from student where snum in (select snum from enrolled where cname like '%fymcA%')
* Select count(sname), e.cname from student s join enrolled e on e.snum = s.snum group by e.cname.
* Select c.name, count(fname) from faculty f join class c on c.fid = f.fid grap by c.cname.
* Alter table student rename Student123;
* Delimiter $$ create function get_names_starting_with_A()
returns text deterministic
begin declare result text; select Group_concat(sname) into result
from student123 where sname like 'A%';
return result; End $$
Delimiter ;
* Delimiter $$
create trigger trg_agevalidation
before insert on student123 for each row
Begin
If new.age < 18 Then
Signal SQLstate '45000'
set message_text = 'Age must be at least 18';
End If
End $$
Delimiter ;