Q1

1

```
---------------------------------------------
```

2

```
SELECT inst_name from instructor
where salary > ANY(
select salary from instructor
WHERE dept_name = 'Biology');
---------------------------------------------
```

3

```
SELECT dept_name from department WHERE dept_name like '%i%';
---------------------------------------------
```

Q2

1

```
SELECT inst_name from instructor WHERE salary > 70000;
---------------------------------------------
```

2

```
CREATE VIEW SimpleInstructorCourse AS
SELECT
  Instructor.inst_name AS inst_name,
  Course.title AS course_title
FROM Instructor
JOIN teacher ON Instructor.instrutor_id = teacher.inst_id
JOIN Course ON teacher.course_id = Course.course_id;
---------------------------------------------
```

3

```
SELECT inst_name FROM instructor where LENGTH(inst_name) = 5;
---------------------------------------------
```

Q3

1 Create a view to find instructor name and course for instructors in IT department

```
CREATE VIEW courseview as
SELECT
instructor.inst_name as inst_name,
course.title as course_title
From instructor
JOIN teacher on instructor.instrutor_id = teacher.inst_id
JOIN course on teacher.course_id = course.course_id
WHERE instructor.dept_name ='IT';
---------------------------------------------
```

2 Find titles along with department where department must end with " y "

```
SELECT dept_name from department WHERE dept_name like '%y' ;

---------------------------------------------
```

3 Find the names of all instructors whose salary is greater than at least one instructor in biology dept

```
SELECT inst_name from instructor
where salary > ANY(
select salary from instructor
WHERE dept_name = 'Biology');
---------------------------------------------
```

4 Find the titles along with department name of biology department.

```
SELECT title, dept_name from course WHERE dept_name ='Biology' ;
```

Q4

1Find the average salary of the instructors who are in music dept.

```
SELECT AVG(salary) from instructor WHERE dept_name =’music’ ;
```

---

2 Find the average salary of the instructors all dept.

```
SELECT dept_name,AVG(salary) from instructor GROUP by dept_name;
```

---

3 Find out department name with average salary in each department where average salary is greater than 40000

```
SELECT dept_name,AVG(salary) from instructor GROUP By dept_name HAVING AVG(salary)>40000;
```

Q5

1 Find the names of all instructors in music dept who have salary greater than 50000

```
SELECT salary from instructor Where dept_name=’music’ HAVING salary >50000;
```

---

2 Find the details of instructors who are teaching some courses

```
SELECT DISTINCT i.*
from instructor i
Join teacher t On i.instrutor_id=t.inst_id;
```

---

3 List all instructors along with the courses that they teach.

```
SELECT
i.inst_name AS instructor_name,
c.title AS course_title
FROM Instructor i
JOIN teacher t ON i.instrutor_id = t.inst_id
JOIN Course c ON t.course_id = c.course_id;
```

---

4 List instructors in descending order.

```
SELECT *  FROM Instructor ORDER BY inst_name DESC;
```

Q6

1 Find the names of instructors who are working in IT dept.

```
SELECT inst_name FROM Instructor where dept_name=’IT’;
```

---

2 Create a view to find out only instructors who have taught some course.

```
CREATE VIEW Instructors_Taught_Courses AS
SELECT DISTINCT i.*
FROM Instructor i
JOIN teacher t ON i.instrutor_id = t.inst_id;
```

---

3 Give the increment of rs. 10000 to instructors whose salary is less than 40000 else give increment of rs.20000.

```
UPDATE Instructor
SET salary = salary + CASE
      WHEN salary < 40000 THEN 10000
      ELSE 20000
   END;
```

---

4 Find the average salary of the instructors all dept.

```
SELECT dept_name,AVG(salary) from instructor GROUP by dept_name;
```

7

1 Find the average salary of the instructors all dept.

```
SELECT dept_name,AVG(salary) from instructor GROUP by dept_name;
```

---

2 Find number of instructors with department name in each department

```
SELECT dept_name, COUNT(*) AS instructor_count
FROM Instructor
GROUP BY dept_name;
```

---

3 Find the names of all departments whose name includes substring " i ".

```
SELECT dept_name from department WHERE dept_name like '%i%';
```

---

4 List the entire instructor relation in descending order

```
SELECT * FROM Instructor ORDER BY inst_name DESC;
```

8

1 Find the name of students who have taken some courses

```
SELECT DISTINCT s.sname FROM Student s JOIN Takes t ON s.sid = t.sid;
```

---

2 Find the details of the students who are in Computer department

```
SELECT * FROM Student WHERE dept_name = 'Computer';
```

---

3 Find the names of all departments whose name includes substring " a ".

```
SELECT dept_name FROM Department WHERE dept_name LIKE '%a%';
```

9

1 Find average marks of each student, along with the name of student

```
SELECT s.Name, AVG(m.Marks) AS Average_Marks
FROM Student s
JOIN Marks m ON s.RollNo = m.RollNo
GROUP BY s.RollNo, s.Name;
```

---

2 Find how many students have failed in the subject "DBMS"

```
SELECT COUNT(DISTINCT m.RollNo) AS Failed_Students
FROM Marks m
JOIN Subject s ON m.SubCode = s.SubCode
WHERE s.SubName = 'DBMS' AND m.Marks < 40;
```

---

3 Find the number of students who are passed in “OS”

```
SELECT COUNT(DISTINCT m.RollNo) AS Passed_Students
FROM Marks m
JOIN Subject s ON m.SubCode = s.SubCode
WHERE s.SubName = 'OS' AND m.Marks >= 40;
```

---

4 Find the maximum marks of the subject “TOC”

```
SELECT MAX(m.Marks) AS Max_Marks
FROM Marks m
JOIN Subject s ON m.SubCode = s.SubCode
WHERE s.SubName = 'TOC';
```

10

1 Find the names of suppliers who supply some red parts

```
SELECT DISTINCT s.Sname
FROM Supplier s
JOIN Catalog c ON s.Sid = c.Sid
JOIN Parts p ON c.Pid = p.Pid
WHERE p.color = 'red';
```

---

2 Find the names of all parts whose cost is more than Rs.250

```
SELECT DISTINCT p.Pname
FROM Parts p
JOIN Catalog c ON p.Pid = c.Pid
WHERE c.cost > 250;
```

---

3 Find name of all parts whose color is green

```
SELECT Pname FROM Parts WHERE color = 'green';
```

---

4 Find number of parts supplied by each supplier

```
SELECT s.Sname, COUNT(c.Pid) AS NumberOfParts
FROM Supplier s
JOIN Catalog c ON s.Sid = c.Sid
GROUP BY s.Sname;
```

11

1

2

3

4
