

```
SQL>
SQL> -- Question 1
SQL> -- a. Find Name of person in committees who is not a member
SQL> SELECT committees.name FROM committees
  2  LEFT JOIN member
  3      ON committees.name = member.name
  4  WHERE member.name IS NULL;
```

```
NAME
-----
Hritik
```

```
SQL>
SQL> -- b. Find the Name of member who is not in committees list
SQL> SELECT member.name FROM member
  2  LEFT JOIN committees
  3      ON member.name = committees.name
  4  WHERE committees.name IS NULL;
```

```
NAME
-----
Rakesh
```

```
SQL>
SQL> -- c. Find the name of person in committees having same age
SQL> --      (Add column age in committees and set value 20,20,30 respectively)
SQL> ALTER TABLE committees ADD age NUMBER(2);
```

Table altered.

```
SQL> UPDATE committees SET age = 20 WHERE committee_id = '101';
```

```
1 row updated.
```

```
SQL> UPDATE committees SET age = 20 WHERE committee_id = '102';
```

```
1 row updated.
```

```
SQL> UPDATE committees SET age = 30 WHERE committee_id = '103';
```

```
1 row updated.
```

```
SQL>
SQL> SELECT a.name FROM committees a, committees b
      2  WHERE a.age = b.age AND a.name <> b.name;
```

```
NAME
-----
Suresh
Ramesh
```

```
SQL>
SQL>
SQL> -- Question 2
SQL> -- Find the roll number and names of students who have taken atleast one course taught by his or her advisor.
SQL> SELECT DISTINCT(student.rollNo), student.name FROM student
      2  INNER JOIN enrollment
      3      ON student.rollNo = enrollment.rollNo
      4  INNER JOIN teaching
```

```
5      ON student.advisor = teaching.empId
6 WHERE enrollment.courseId = teaching.courseId;
```

```
ROLLN NAME
-----
```

```
10076 Duan
10481 Grosch
10204 Mediratta
10663 Okaf
15883 Marques
10917 Morales
14869 Palmer
15487 Januszewski
16057 Wicki
11377 Jr
107   Shabuno
10834 More
15457 Arinb
```

13 rows selected.

SQL>

SQL>

SQL> -- Question 3

SQL> -- What are those courses that are either pre-requisites of 608 or pre-requisites of

SQL> -- the prerequisites of the course 608(give course numbers, and course names)?

SQL> SELECT DISTINCT(course.courseId), course.cname FROM course

```
2 INNER JOIN prerequisite
```

```
3      ON course.courseId = prerequisite.preReqCourse
```

```
4 WHERE prerequisite.courseId = '608'
```

```
5      OR prerequisite.courseId IN (SELECT preReqCourse FROM prerequisite WHERE courseId = '608');
```

```
COURSEID CNAME
```

```
-----
```

```
421      Aquatic Chemistry
```

```
634      Astronomy
```

```
864      Heat Transfer
```

```
SQL>
```

```
SQL>
```

```
SQL> -- Question 4
```

```
SQL> -- Find all the students who have not taken any course offered by the teachers of course 319
```

```
SQL> SELECT DISTINCT(student.rollNo), student.name FROM student
```

```
2  INNER JOIN enrollment
```

```
3      ON student.rollNo = enrollment.rollNo
```

```
4  LEFT JOIN (SELECT a.courseId FROM teaching a, teaching b WHERE a.empId = b.empId AND b.courseId = '319') c
```

```
5      ON c.courseId = enrollment.courseId
```

```
6  MINUS
```

```
7  SELECT DISTINCT(student.rollNo), student.name FROM student
```

```
8  INNER JOIN enrollment
```

```
9      ON student.rollNo = enrollment.rollNo
```

```
10 INNER JOIN (SELECT a.courseId FROM teaching a, teaching b WHERE a.empId = b.empId AND b.courseId = '319') c
```

```
11      ON c.courseId = enrollment.courseId;
```

```
ROLLN  NAME
```

```
-----
```

```
10267 Rzecz
```

```
10269 Hilberg
```

```
10454 Ugarte
```

```
10556 Reed
```

```
15457 Arinb
15487 Januszewski
15517 Anis
15613 Umehara
15698 Dink
15726 Neuhold
15883 Marques
16057 Wicki
163   Bandekar
```

62 rows selected.

SQL>

SQL>

SQL> -- Question 5

SQL> -- Find roll no of students who have got S grade in all prerequisites of the course 760

SQL> SELECT DISTINCT(enrollment.rollNo) FROM enrollment

2 INNER JOIN (SELECT DISTINCT(preReqCourse) FROM prerequisite WHERE courseId = '760') a

3 ON enrollment.courseId = a.preReqCourse

4 WHERE enrollment.grade = 'S';

ROLLN

-----

13408

10454

1367

15030

SQL>

SQL>

```
SQL> -- Question 6
```

```
SQL> -- Find name and roll no of student who have taken course multiple times
```

```
SQL> SELECT DISTINCT(student.rollNo), student.name FROM student
```

```
2  INNER JOIN (SELECT a.rollNo FROM enrollment a, enrollment b
```

```
3      WHERE a.rollNo = b.rollNo AND a.courseId = b.courseId AND (a.sem <> b.sem OR a.year <> b.year)) e
```

```
4      ON student.rollNo = e.rollNo;
```

```
no rows selected
```

```
SQL>
```