

## Solutions

1.

a. *Display the course ID and course name for all courses with an ISM prefix.*

**Query:**

```
SELECT CourseID, CourseName
      FROM Course
     WHERE CourseID LIKE 'ISM%';
```

b. *Display all courses for which Professor Berndt has been qualified.*

**Query:**

```
SELECT Course.CourseID, CourseName
      FROM Faculty, Course, Qualified
     WHERE Faculty.FacultyName = 'Berndt'
           AND Faculty.FacultyID= Qualified.FacultyID
           AND Course.CourseID=Qualified.CourseID;
```

c. *Display the class roster, including student name, for all students enrolled in section 2714 of ISM 4212.*

**Query:**

```
SELECT Student.StudentID, StudentName,
       Section.CourseID, Registration.SectionNo, Semester
      FROM Student, Registration, Section
     WHERE Section.SectionNo= Registration.SectionNo
           AND Student.StudentID= Registration.StudentID
           AND Registration.SectionNo=2714
     ORDER BY StudentName;
```

2. *Which instructors are qualified to teach ISM 3113?*

**Query:**

```
SELECT Faculty.FacultyName
      FROM Faculty, Qualified
     WHERE Qualified.FacultyID=Faculty.FacultyID
           AND Qualified.CourseID='ISM 3113';
```

3. Is any instructor qualified to teach ISM 3113 and not qualified to teach ISM 4930?

**Query:**

```
SELECT Faculty.FacultyID, Faculty.FacultyName
FROM Faculty, Qualified
WHERE Qualified.FacultyID=Faculty.FacultyID
AND Qualified.CourseID='ISM 3113'
MINUS
SELECT Faculty.FacultyID, Faculty.FacultyName
FROM Faculty, Qualified
WHERE Qualified.FacultyID=Faculty.FacultyID
AND Qualified.CourseID='ISM 4930'
```

4.

a. How many students are enrolled in section 2714 during semester I-2008?

**Query:**

```
SELECT COUNT (DISTINCT (StudentID))
FROM Registration
WHERE SectionID = 2714
AND Semester = 'I-2008';
```

b. How many students are enrolled in ISM 3113 during semester I-2008?

**Query:**

```
SELECT COUNT (DISTINCT (StudentID))
FROM Section, Registration
WHERE Section.SectionNo = Registration.SectionNo
AND CourseID = 'ISM 3113'
AND Semester = 'I-2008';
```

5. Which students were not enrolled in any courses during semester I-2008?

**Query:**

```
SELECT DISTINCT StudentID, Student_NAME
FROM Student
WHERE NOT EXISTS
(SELECT * FROM Registration
WHERE Student.StudentID =
Registration.StudentID
AND Semester= 'I-2008');
```