1. List the teachers who have NULL for their department.

SELECT name

FROM teacher

WHERE dept IS NULL

2. Note the INNER JOIN misses the teachers with no department and the departments with no teacher.

SELECT teacher.name, dept.name

FROM teacher

INNER JOIN dept

ON teacher.dept = dept.id

3. Use a different JOIN so that all teachers are listed.

SELECT teacher.name, dept.name

FROM teacher

LEFT JOIN dept

ON teacher.dept = dept.id

4. Use a different JOIN so that all departments are listed.

SELECT teacher.name, dept.name

FROM teacher

RIGHT JOIN dept

ON teacher.dept = dept.id

5. Use COALESCE to print the mobile number. Use the number '07986 444 2266' if there is no number given. **Show teacher name and mobile number or '07986 444 2266'**

SELECT name, COALESCE(mobile, '07986 444 2266')

FROM teacher

6. Use the COALESCE function and a LEFT JOIN to print the teacher **name** and department name. Use the string 'None' where there is no department.

SELECT teacher.name, COALESCE(dept.name, 'None') as deptname

FROM teacher

LEFT JOIN dept

ON teacher.dept = dept.id

7. Use COUNT to show the number of teachers and the number of mobile phones.

SELECT COUNT(name), COUNT(mobile)

FROM teacher

8. Use COUNT and GROUP BY **dept.name** to show each department and the number of staff. Use a RIGHT JOIN to ensure that the Engineering department is listed.

SELECT dept.name, COUNT(teacher.name)

FROM teacher

RIGHT JOIN dept ON (teacher.dept) = (dept.id)

GROUP BY dept.name

9. Use CASE to show the **name** of each teacher followed by 'Sci' if the teacher is in **dept** 1 or 2 and 'Art' otherwise.

SELECT name, CASE

WHEN teacher.dept = 1 THEN 'Sci'

WHEN teacher.dept = 2 THEN 'Sci'

ELSE 'Art'

END as name

FROM teacher

10. Use CASE to show the name of each teacher followed by 'Sci' if the teacher is in dept 1 or 2, show 'Art' if the teacher's dept is 3 and 'None' otherwise.

SELECT name, CASE

WHEN teacher.dept = 1 THEN 'Sci'

WHEN teacher.dept = 2 THEN 'Sci'

WHEN teacher.dept = 3 THEN 'Art'

ELSE 'None'

END as deptname

FROM teacher