| (1) | **select** title
from course
where dept_name = 'Comp. Sci.' **and** credits = 3;

```
+--------------------------+
| title |
+--------------------------+
| Robotics |
| Image Processing |
Database System Concepts	 +--------------------------+ 3 rows in set (0.00 sec) ```
(2)	**select takes.ID** **from instructor, takes, teaches** **where takes.course_id = teaches.course_id** **and takes.year = teaches.year** **and takes.semester = teaches.semester** **and takes.sec_id = teaches.sec_id** **and teaches.ID = instructor.ID** **and instructor.name = 'Einstein'** ``` +-------+ | ID | +-------+ | 44553 | +-------+ 1 row in set (0.00 sec) ```
(3)	**select distinct max(salary) as salary** **from instructor;** ``` +----------+ | salary | +----------+ | 95000.00 | +----------+ 1 row in set (0.00 sec) ```
(4)	**select dept_name, max(salary) as max_salary** **from instructor** **group by dept_name;**

```
+------------+------------+
| dept_name  | max_salary |
+------------+------------+
| Biology    |   72000.00 |
| Comp. Sci. |   92000.00 |
| Elec. Eng. |   80000.00 |
| Finance    |   90000.00 |
| History    |   62000.00 |
| Music      |   40000.00 |
| Physics    |   95000.00 |
+------------+------------+
7 rows in set (0.00 sec)
```

(5)

```
select course_id, count(distinct ID) as count
from takes
where year=2009 and semester='Fall'
group by course_id;
```

```
+-----------+-------+
| course_id | count |
+-----------+-------+
| CS-101    |     6 |
| CS-347    |     2 |
| PHY-101   |     1 |
+-----------+-------+
3 rows in set (0.00 sec)
```

(6)

```
select course_id, count(distinct ID) as count
from takes
where year=2009 and semester='Fall'
group by course_id
order by count desc limit 1 ;
```

```
+-----------+-------+
| course_id | count |
+-----------+-------+
| CS-101    |     6 |
+-----------+-------+
1 row in set (0.00 sec)
```

(7)

```
select distinct(ID)
from instructor
where ID not in (select distinct(ID)
                 from teaches);
```

```
+-------+
| ID    |
+-------+
| 76543 |
| 58583 |
| 33456 |
+-------+
3 rows in set (0.00 sec)
```

(8)

select name, salary
from instructor
where salary >= all (select salary
                          from instructor);

```
+----------+----------+
| name     | salary   |
+----------+----------+
| Einstein | 95000.00 |
+----------+----------+
1 row in set (0.00 sec)
```

(9)

Select course_id ,max(count)
from (select count(distinct ID) as count, course_id
  from takes
  where year=2009 and semester='Fall'
      group by course_id, sec_id) as new;

```
+-----------+------------+
| course_id | max(count) |
+-----------+------------+
| CS-101    |          6 |
+-----------+------------+
1 row in set (0.00 sec)
```