## 课后练习及答案

1.取得每个部门最高薪水的人员名称

2.哪些人的薪水在部门的平均薪水之上

3.取得部门中 (所有人的) 平均的薪水等级

4.取得平均薪水最高的部门的部门编号

5.取得平均薪水最高的部门的部门名称

6.取得薪水最高的第六到第十名员工

**参考答案：（**基于标准的员工表(emp)、部门表(dept)和薪水等级表(salgrade)结构**）**

1.SELECT e.ename, e.deptno, e.sal

FROM emp e

JOIN (

SELECT deptno, MAX(sal) AS max\_sal

FROM emp

GROUP BY deptno

) t ON e.deptno = t.deptno AND e.sal = t.max\_sal;

2.SELECT e.ename, e.sal, t.avgsal, e.deptno

FROM emp e

JOIN (

SELECT deptno, AVG(sal) AS avgsal

FROM emp

GROUP BY deptno

) t ON e.deptno = t.deptno AND e.sal > t.avgsal;

3. SELECT d.deptno AS '部门编号',

d.dname AS '部门名称',

AVG(s.grade) AS '平均的薪资等级'

FROM emp e

JOIN salgrade s ON e.sal BETWEEN s.losal AND s.hisal

JOIN dept d ON e.deptno = d.deptno

GROUP BY e.deptno

ORDER BY d.deptno ASC;

4. SELECT deptno

FROM emp

GROUP BY deptno

ORDER BY AVG(sal) DESC

LIMIT 1;

5. SELECT d.dname

FROM emp e

JOIN dept d ON e.deptno = d.deptno

GROUP BY e.deptno

ORDER BY AVG(e.sal) DESC

LIMIT 1;

6. SELECT \*

FROM (

SELECT ename, sal,

ROW\_NUMBER() OVER (ORDER BY sal DESC) AS salary\_rank

FROM emp

) ranked\_emp

WHERE salary\_rank BETWEEN 6 AND 10;

7. SELECT d.dname

FROM (

SELECT e.deptno, AVG(s.grade) AS avg\_grade

FROM emp e

JOIN salgrade s ON e.sal BETWEEN s.losal AND s.hisal

GROUP BY e.deptno

ORDER BY avg\_grade ASC

LIMIT 1

) lowest\_grade\_dept

JOIN dept d ON lowest\_grade\_dept.deptno = d.deptno;

8.SELECT \*

FROM emp

ORDER BY hiredate DESC

LIMIT 5;