

作业 2-SQL

1.

(a)

select maker from (select * from product where type='PC') as p1
except (select * from product where type='Laptop') ;

(b)

select p1.maker from (select distinct maker from product where type= 'pc') as p1 left join
(select distinct maker from product where type = 'laptop') as p2
using(maker) where p2.maker is null;

(c)

select distinct maker from product where type='pc' and maker not in (select distinct maker
from product where type = 'laptop');

(d)

select distinct maker from product as s where s.type= 'pc' and not exists (select *from
product as t where s.maker = t.maker and t.type = 'laptop');

2.

(a)

select s.model from (printer as s join (select *from printer where printer.model='3002') as t
on (s.price > t.price));

(b)

select model from printer where price > (select price from printer where model = '3002');

(c)

select model from printer as s where exists (select *from printer as t where t.model= '3002'
and s.price > t.price);

3.

(a)

select s.model from pc as s left join pc as t on (s.speed > t.speed) where t.model is null;

(b)

select model from pc where speed in (select min(speed) from pc);

(c)

select model from pc where speed <= all (select speed from pc);

(d)

```
select model from pc as s where not exists(select *from pc as t where s.speed > t.speed);
```

4.

(a)

```
select p1.maker from(
((select maker, speed from (product join pc on (product.model = pc.model and speed >1.8)))
as p1 join
(select maker, speed from(product join pc on (product.model = pc.model and speed>1.8)))
as p2 on (p1.maker = p2.maker and p1.speed >p2.speed)) join
select maker, speed from(product join pc on (product.model = pc.model and speed>1.8)))
as p3 on (p2.maker = p3.maker and p2.speed >p3.speed));
```

(b)

```
select maker from(
select distinct maker, speed from product join pc on
(product.type = 'pc' and product.model = pc.model and pc.speed>1.8))
as t group by maker having count(*) >=3;
```

(c)

```
select maker from(select distinct maker, speed from product join pc on (product.model
=pc.model and pc.speed>1.8)) as t group by maker having count(*) >=3;
```

5.

(a)

```
select distinct maker, printer.type from(( select * from product where product.type ='printer')
as s join printer using (model)) group by maker having count(*)=2;
```

(b)

```
select distinct maker from
(select maker, printer.type from product join printer using (model)) as s
where exists ( select *from
(select maker, printer.type from product join printer using (model)) as t
where s.maker = t.maker and s.type != t.type);
```

6.

```
select distinct maker from product as p1 where not exists(
select *from product as p2 where p2.maker = 'A' and not exists(
select *from product as p3 where p1.maker = p3.maker
and p3.type = p2.type));
```