

**Question1**

- a. `SELECT * FROM departments  
WHERE DEPARTMENT_ID IN  
(SELECT DEPARTMENT_ID  
FROM Employee_A3  
WHERE EMPLOYEE_ID IN  
(SELECT EMPLOYEE_ID  
FROM job_history  
GROUP BY EMPLOYEE_ID  
HAVING COUNT(EMPLOYEE_ID) > 1)  
GROUP BY DEPARTMENT_ID  
HAVING MAX(SALARY) > 7000);`
- b. `SELECT *  
FROM Employee_A3  
WHERE department_id NOT IN  
(SELECT department_id  
FROM departments  
WHERE manager_id BETWEEN 100 AND 200);`
- c. `SELECT last_name  
FROM Employee_A3  
WHERE department_id IN  
(SELECT department_id  
FROM departments  
WHERE department_name LIKE 'IT%')  
AND salary >  
(SELECT avg(salary)  
FROM Employee_A3)`
- d. `SELECT * FROM Employee_A3  
WHERE employee_id NOT IN  
(SELECT employee_id  
FROM job_history);`

**Question 2**

`with popular_product as  
(select c.item_name, d.store_location, count(c.item_name) as no_of_items,  
row_number() over (partition by store_location order by (c.item_name)) as row_num from store  
as d right join  
(select a.customer_name, a.store_ID, b.item_name from customer_sales as a left join  
product_data as b  
on a.item_code= b.item_code) as c  
on c.store_id= d.store_ID  
group by c.item_name, d.store_location)  
select item_name, store_location, no_of_items  
from popular_product`

where row\_num=1;

### Question 3

```
select customer_ID, month,  
sales, sum(sales) over (order by month)  
as cum_sales  
from Q4
```

(or)

```
select customer_id, MONTH,  
sum(sales) over (partition by year (month) order by month(month))  
as cum_sales  
from q4
```

### Question 4

```
select * from Orders  
select * from Product_Details  
select * from Customers  
select * from Order_Details
```

```
select a.customerID, a.country, b.orderID into new_tab  
from Customers as a left join Order_Details as b  
on a.customerID=b.customerID
```

```
select * from new_tab
```

```
with abcd as (select e.productname, a.country, sum(e.quantity) as total_quant,  
row_number() over (partition by country order by (e.quantity))as row_num2 from new_tab as a  
right join  
(select b.quantity, c.productname, b.orderID, c.price from orders as b left join Product_Details as  
c  
on b.ProductID= c.ProductID) as e  
on a.orderID= e.orderID  
group by e.productname, a.country, e.Quantity)  
select productname, country  
from abcd  
where row_num2=2
```

### Question5

```
create function sum_of_price2 (@price as int)  
returns table  
as  
return
```

```
(with mno as (select a.price, b.Quantity, a.ProductName,  
(b.Quantity*a.Price) as total_price  
from Product_Details as a right join orders as b  
on a.ProductID=b.ProductID)  
select * from mno where totalprice>@price)
```

```
select * from sum_of_price2(10000)
```