Q.1.

| **Table: Salesman** |  |  |  |  |  | **Table: Department** |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Emp\_Id | First\_Name | Last\_Name | Salary | Dept\_Id |  | Dept\_Id | Department\_Name |
| 59551 | David | Gower | $239,800 | 3 |  | 1 | SCM |
| 28257 | Rajesh | Sharma | $600,453 | 1 |  | 2 | Sales |
| 39242 | Marshal | Quinn | $240,219 | 1 |  | 3 | Finance |
| 92520 | Arnold | Rowen | $100,566 | 2 |  |  |  |
| 85040 | Michael | Atherton | $676,880 | 3 |  |  |  |
| 36964 | Rob | Stark | $706,799 | 3 |  |  |  |
| 64297 | Robert | Baratheon | $533,853 | 2 |  |  |  |
| 85909 | Jon | Snow | $654,964 | 1 |  |  |  |
| 10324 | Jamie | Lannister | $548,932 | 3 |  |  |  |

1. Query to get all the employees records with the 3rd highest salary in each department

Output: Dept\_id, Emp\_Id, Salary

Q.2. Convert the following table in required output format

| Category | Year | Sales |
| --- | --- | --- |
| C1 | 2021 | 10 |
| C1 | 2022 | 20 |
| C1 | 2023 | 25 |
| c2 | 2021 | 12 |
| c2 | 2022 | 19 |
| c2 | 2023 | 31 |

Output:

| Category | 2021\_sales | 2022\_sales | 2023\_sales |
| --- | --- | --- | --- |
| C1 | 10 | 20 | 25 |
| C2 | 12 | 19 | 31 |

Q.3. Table Name-Team

Id Team\_name

1 India

2 Pakistan

3 SriLanka

4 Africa

5 Australia.

Write a SQL query to get all the combinations of matches possible b/w the teams in Team Table.

Output:

Team1 team2

India Pakistan

India SriLanka

India Africa

India Australia

Pakistan SriLanka

…….So on

Q.4. Write a query to get actual distance traveled by cars each day

| car id | Date | meter\_reading |
| --- | --- | --- |
| c1 | 01-01-2023 | 145 |
| c1 | 02-01-2023 | 270 |
| c1 | 03-01-2023 | 350 |
| c2 | 01-01-2023 | 120 |
| c2 | 02-01-2023 | 230 |
| c3 | 01-01-2023 | 80 |
| c3 | 02-01-2023 | 250 |

Output:

| car id | Date | meter\_reading | distance\_travelled |
| --- | --- | --- | --- |
| c1 | 01-01-2023 | 145 | 145 |
| c1 | 02-01-2023 | 270 | 125 |
| c1 | 03-01-2023 | 350 | 80 |
| c2 | 01-01-2023 | 120 | 120 |
| c2 | 02-01-2023 | 230 | 110 |
| c3 | 01-01-2023 | 80 | 80 |
| c3 | 02-01-2023 | 250 | 170 |

Q.5. Derive the maximum distance b/w two cities

| origin | destination | distance |
| --- | --- | --- |
| delhi | mumbai | 1100 |
| mumbai | delhi | 1200 |
| kolkata | mumbai | 1700 |
| mumbai | kolkata | 1700 |
| kolkata | chennai | 2300 |
| chennai | kolkata | 2400 |

Output :

| origin | destination | distance |
| --- | --- | --- |
| mumbai | delhi | 1200 |
| kolkata | mumbai | 1700 |
| chennai | kolkata | 2400 |

Q.6

Table - signups

Account\_id | signupdate

| account\_id | signupdate |
| --- | --- |
| 1 | 1/15/2023 |
| 2 | 2/14/2023 |

Table- orders

Account\_id | order\_id| order\_date

| account\_id | order\_id | date |
| --- | --- | --- |
| 1 | o1 | 12/23/2022 |
| 1 | o2 | 1/17/2023 |
| 2 | o3 | 2/14/2023 |

Write a query to get orders placed in first 7 days of signup

Output:

Account\_id | signupdate | orders