## *Assignment –5* Relational and Logical Operators.

1) Write a query that will give you all orders for more than Rs. 1,000.
**Ans:**

**SELECT * FROM orders where AMT > 1000;**

```
mysql> SELECT * FROM orders where AMT > 1000;
+------+---------+------------+------+------+
| Onum | Amt     | Odate      | Cnum | Snum |
+------+---------+------------+------+------+
|    1 | 1500.00 | 2023-01-01 | 1001 |  101 |
|    3 | 1200.50 | 1990-10-03 | 1003 |  103 |
|    5 | 2000.75 | 2023-03-05 | 1005 |  101 |
+------+---------+------------+------+------+
3 rows in set (0.00 sec)
```

2) Write a query that will give you the names and cities of all salespeople in London with a commission above .10.
**Ans:**

**SELECT sname, city FROM Salespeople WHERE city = 'London'**
**AND comm > 0.10;**

```
mysql> SELECT sname, city
    -> FROM Salespeople
    -> WHERE city = 'London' AND comm > 0.10;
+--------+--------+
| sname  | city   |
+--------+--------+
| Peel   | London |
| Motika | London |
+--------+--------+
2 rows in set (0.00 sec)
```

3) Write a query on the Customers table whose output will exclude all customers with a rating <= 100, unless they are located in Rome.
**Ans:**

**SELECT * FROM Customers WHERE (rating > 100 OR city = 'Rome');**

```
mysql> SELECT * FROM Customers WHERE (rating > 100 OR city = 'Rome');
+------+----------+----------+--------+------+
| Cnum | CName    | City     | Rating | Snum |
+------+----------+----------+--------+------+
| 2002 | Giovanni | Rome     |    200 | 1003 |
| 2003 | Liu      | San Jose |    200 | 1002 |
| 2004 | Grass    | Berlin   |    300 | 1002 |
| 2008 | Cisneros | San Jose |    300 | 1007 |
| 2007 | Pereira  | Rome     |    100 | 1004 |
+------+----------+----------+--------+------+
5 rows in set (0.00 sec)
```

4) What will be the output from the following query?

Select * from Orders
where (amt < 1000 OR
NOT (odate = '1990-10-03'
AND cnum > 2003));

**Ans:**

**SELECT * FROM Orders WHERE (Amt < 1000 OR NOT (Odate = '1990- 10-03' AND Cnum > 2003));**

```
mysql> SELECT * FROM Orders WHERE (Amt < 1000 OR NOT (Odate = '1990-10-03' AND Cnum > 2003));
+------+---------+------------+------+------+
| Onum | Amt     | Odate      | Cnum | Snum |
+------+---------+------------+------+------+
| 1001 |  250.50 | 2023-01-15 | 3001 |  101 |
| 1002 |  500.75 | 2023-02-10 | 3002 |  102 |
| 1003 |  300.00 | 2023-03-05 | 3003 |  103 |
| 1004 |  450.90 | 2023-04-12 | 3004 |  101 |
| 1005 |  700.60 | 2023-05-22 | 3005 |  104 |
|    1 | 1500.00 | 2023-01-01 | 1001 |  101 |
|    2 |  800.00 | 2023-01-15 | 1002 |  102 |
|    3 | 1200.50 | 1990-10-03 | 1003 |  103 |
|    4 |  300.00 | 2023-02-10 | 1004 |  104 |
|    5 | 2000.75 | 2023-03-05 | 1005 |  101 |
|    6 |  500.25 | 2023-04-12 | 1006 |  102 |
+------+---------+------------+------+------+
11 rows in set (0.00 sec)
```

5) What will be the output of the following query?

Select * from Orders
where NOT ((odate = ‘1990-10-03’ OR snum
>1006) AND amt >= 1500);

**Ans:**

```
SELECT * FROM Orders
WHERE NOT ((Odate = '1990-10-03' OR Snum > 1006) AND Amt >= 1500);
```

```
mysql> SELECT * FROM Orders
    ->          WHERE NOT ((Odate = '1990-10-03' OR Snum > 1006) AND Amt >= 1500);
+------+---------+------------+------+------+
| Onum | Amt     | Odate      | Cnum | Snum |
+------+---------+------------+------+------+
| 1001 |  250.50 | 2023-01-15 | 3001 |  101 |
| 1002 |  500.75 | 2023-02-10 | 3002 |  102 |
| 1003 |  300.00 | 2023-03-05 | 3003 |  103 |
| 1004 |  450.90 | 2023-04-12 | 3004 |  101 |
| 1005 |  700.60 | 2023-05-22 | 3005 |  104 |
|    1 | 1500.00 | 2023-01-01 | 1001 |  101 |
|    2 |  800.00 | 2023-01-15 | 1002 |  102 |
|    3 | 1200.50 | 1990-10-03 | 1003 |  103 |
|    4 |  300.00 | 2023-02-10 | 1004 |  104 |
|    5 | 2000.75 | 2023-03-05 | 1005 |  101 |
|    6 |  500.25 | 2023-04-12 | 1006 |  102 |
+------+---------+------------+------+------+
11 rows in set (0.00 sec)
```

6) What is a simpler way to write this query?

Select snum, sname, city, comm From Salespeople
where (comm > .12 OR comm <.14);

**Ans:**

**SELECT Snum, Sname, City, Comm FROM Salespeople WHERE Comm > 0.12 OR Comm < 0.14;**

```
mysql> SELECT Snum, Sname, City, Comm FROM Salespeople
    -> WHERE Comm > 0.12 OR Comm < 0.14;
+------+---------+-----------+------+
| Snum | Sname   | City      | Comm |
+------+---------+-----------+------+
| 1001 | Peel    | London    | 0.12 |
| 1002 | Serres  | San Jose  | 0.13 |
| 1004 | Motika  | London    | 0.11 |
| 1007 | Rifkin  | Barcelona | 0.15 |
| 1003 | Axelrod | New York  | 0.10 |
+------+---------+-----------+------+
5 rows in set (0.00 sec)
```