

OUTPUT

```
mysql> CREATE TABLE communicable_diseases(  
    -> serial_no INT AUTO_INCREMENT, state VARCHAR(20) NOT NULL,  
    -> year INT , month INT CHECK (month >=1 AND month <= 12),  
    -> no_of_deaths INT, no_of_infections INT,  
    -> PRIMARY KEY(serial_no));
```

```
mysql> SELECT * FROM communicable_diseases;
```

serial_no	state	year	month	no_of_deaths	no_of_infections
1	Goa	2020	6	9	150
2	Goa	2021	12	5	20
3	Gujarat	2020	3	20	500
4	Gujarat	2020	4	15	700
5	Kerala	2020	3	10	200
6	Kerala	2020	5	20	300
7	Kerala	2021	1	18	150

a)

```
mysql> SELECT state , AVG(no_of_deaths) AS average_deaths  
    -> FROM communicable_diseases  
    -> WHERE year = 2020  
    -> GROUP BY state;
```

state	average_deaths
Goa	9.0000
Gujarat	17.5000
Kerala	15.0000

3 rows in set (0.00 sec)

b)

```
mysql> SELECT state, SUM(no_of_deaths) AS total_deaths  
    -> FROM communicable_diseases  
    -> GROUP BY state  
    -> HAVING total_deaths > 10;
```

state	total_deaths
Goa	14
Gujarat	35
Kerala	48

3 rows in set (0.01 sec)

c)

```
mysql> SELECT t1.state, t1.year, max_deaths, t1.month
-> FROM communicable_diseases t1 JOIN
-> (SELECT state, MAX(no_of_deaths) AS max_deaths
-> FROM communicable_diseases
-> GROUP BY state
-> HAVING max_deaths > 10 ) t2
-> ON t1.state = t2.state AND t1.no_of_deaths = t2.max_deaths;
```

state	year	max_deaths	month
Gujarat	2020	20	3
Kerala	2020	20	5

d)

```
mysql> SELECT * FROM communicable_diseases
-> ORDER BY state DESC;
```

serial_no	state	year	month	no_of_deaths	no_of_infections
5	Kerala	2020	3	10	200
6	Kerala	2020	5	20	300
7	Kerala	2021	1	18	150
3	Gujarat	2020	3	20	500
4	Gujarat	2020	4	15	700
1	Goa	2020	6	9	150
2	Goa	2021	12	5	20

7 rows in set (0.00 sec)