1. Let us assume a Multiplex Cinema Theatre with a capacity of 200 viewers per theatre and 4 theatres in all. It books tickets on either phone or at the counter where people come to buy tickets for any of the four movies.
Following tables are created to keep the booking details of customer.
Table: CUSTOMER

| Booking_Code | Customer_Name | No_of_tkts | BClerk_Code |
| :---: | :--- | :--- | :--- |
| B001 | Veer | 4 | BC005 |
| B002 | Milan | 2 | BC004 |
| B003 | Jahmu | 3 | BC003 |
| B004 | Michal | 20 | BC002 |
| B005 | Meera | 5 | BC001 |

Table: BCLERK

| BClerk_Code | Name |
| :---: | :---: |
| BC001 | Varsha |
| BC002 | Richeal |
| BC003 | Vineet |
| BC004 | Payal |
| BC005 | Nisha |

Answer the following questions based on the above tables:
I. Write a query to display the total number of ticket booked by booking Clerk 'Payal'.
II.Write a query to display the name of the clerks with maximum number of tickets.
III.Write the command to display customer name and booking clerk name both in lowercase.
2. Write SQL commands for the statements (i) to (vi) and give output for SQL queries (vii) to (x) on the basis of the table shop.
Table: Shop

| No. | Shop_name | Sale | Area | Cust_percentage | Rating | City |
| :--- | :--- | :--- | :--- | :---: | :---: | :--- |
| 1 | West side | 250000 | West | 68.6 | C | Delhi |
| 2 | Pantaloons | 500000 | South | 81.8 | A | Chennai |
| 3 | Sir's \&Her's | 300000 | North | 79.8 | B | Amritsar |
| 4 | Sports King | 380000 | North | 88.0 | B | Baroda |
| 5 | Biswas stores | 456000 | East | 92.0 | A | Delhi |
| 6 | Big Bazaar | 290000 | South | 66.7 | A | Kolkata |
| 7 | Levis | 230000 | East | 50.0 | C | Jamshedpur |
| 8 | Peter England | 428000 | South | 90.0 | A | Chennai |

I. To display the name of all shops which are in Area South and sale more than average sales.
II. To display shop name and Customer Percentage of all the shops having cust_percentage more than 77 and less than 90.
III. To display Maximum and Minimum Sales made for each city in ascending order of city.
IV. To display the city along with sum of sale for each city.
V. Display total sales made for each city and each area.
VI. Display total no of sales made for same city other than Delhi.
VII. Select min(Sale) from SHOP where Sale>300000.
VIII. Select count(Distinct City) from Shop;
IX. Select Avg(Sale) from Shop where Area='South';
X. Select Max(Cust_percentage), sum(Sale) from shop where Rating='C';
3. Write the SQL command to create the TEACHER table including its constraints.

Table : TEACHER

| Column Name | Data Type | Size | Constraint |
| :--- | :---: | :---: | :--- |
| TNO | CHAR | 4 | PRIMARY KEY |
| TNAME | VARCHAR | 20 | NOT NULL |
| TADDRESS | VARCHAR | 25 |  |
| SALARY | DOUBLE | 7,2 |  |

4. Write the resulting output of the following:
I. SELECT SUBSTR(TRIM( informatics Practices is very useful subject'), 13, 17);
II. $\quad \operatorname{SELECT} \operatorname{ROUND}(65467.60)+\operatorname{ROUND}(1234.73,2)$
III. SELECT ROUND(MOD(14*9,90/9));
5. In a database there are two tables 'Display' and 'Model' as shown below:

## Display

| DisplayID | DispName | DispHO | ContPerson |
| :--- | :--- | :--- | :--- |
| 1 | Titan | Okhla | C.B.Ajit |
| 2 | Maxima | Shahdra | V.P.Kohli |
| 3 | Ajanta | Najafgarh | R. Mehta |

Model

| ModelNo | DispID | ModelCost |
| :--- | :--- | :--- |
| T020 | 1 | 2000 |
| M032 | 4 | 2500 |
| M059 | 2 | 7000 |
| A167 | 3 | 800 |
| T024 | 1 | 1200 |

I. Identify the foreign key column in the table model.
II. Check every value in DisplayID column and DispID column of both the tables.

Do you find any discrepancy?
III. What will be the degree and cardinality of cross join (Cartesian product) of these tables.

