1. Check TCL statements:

- Create a table named EMP(eno, ename, age)
- > Insert 3 records within table.
- > Apply rollback
- ➤ Insert 2 records within table.
- > Apply commit
- Insert 2 records within table.
- Apply savepoint with label "First".
- Insert 2 more records within table.
- > Apply savepoint with label "Second".
- Delete last 2 records
- Check "Select * from EMP;"
- > Apply ROLLBACK to Second.
- Check "Select * from EMP;"
- Apply ROLLBACK to First.
- Check "Select * from EMP;"
- > Apply Commit
- Check "Select * from EMP;"

2. Do as directed using TCL statements.

- Create a table named STUDENT(stud id, fname, lname, age)
- > Insert 2 records within table.
- > Apply rollback
- Check "Select * from STUDENT;"
- > Insert 3 records within table.
- > Apply commit
- Check "Select * from STUDENT;"
- > Update age 18 to 19 for stud id=1
- Insert 2 more records within table.
- Apply savepoint with label "First".
- Check "Select * from STUDENT;"
- > Insert 3 more records within table.
- Apply savepoint with label "Second".
- Delete last 1 record
- Check "Select * from STUDENT;"
- > Apply ROLLBACK to Second.
- Check "Select * from STUDENT;"
- Apply ROLLBACK to First.
- Check "Select * from STUDENT;"
- > Apply Commit
- Check "Select * from STUDENT;"

3. Check DCL statements: (No need to perform practically- Write in your Journal)

- Give select permission to FY1 user of EMP table.
- ➤ Give Insert, Update, Delete and select permission to FY2 user of STUDENT table.
- Give all permissions to FY3 user of EMP table.
- ➤ Allow all users to read data from STUDENT table.
- Take away all above permissions from respective users.

4. Do as directed using DCL statements.(Just write in your Journal, no need to perform practically)

- ➤ Give permission to view data to DEMO user of STUDENT table.
- ➤ GiveInsert, Update, Delete permission to DEMO1 user of STUDENT table.
- Give Data Manipulation permission to all users.
- Take away viewing permission from DEMO user of STUDENT table.
- Take away Insert, Update, Delete permission to DEMO1 user of STUDENT table.
- Take away Data Manipulation permission to all users.

5. Create relational database that contains the following tables and insert the following date into tables:

1. tblstud info

Rno	Fname	Sname	Dno	Sem	Contact_no	Gender	Bdate
1	Ankur	Kahar	1	1	9823454543	М	12/02/2001
2	Dhaval	Joshi	1	1	8767675656	М	23/05/2002
3	Ankita	Shah	1	1	8977777666	F	01/11/2000
10	Komal	Pandya	2	3	9898987666	F	15/07/2005
13	Amit	Mehta	3	3	9898787878	М	26/02/2009
23	Jinal	Gandhi	2	1	9823456787	F	28/09/2000
22	Ganesh	Patel	2	3	9898766554	М	16/07/2002
4	Shweta	Patel	3	1	9824534567	F	18/01/2003
7	Pooja	Desai	3	3	9975310987	F	19/06/2004
8	Komal	Bhatia	2	3	9864208642	F	18/07/2006

2. tbldept

Dno	Dname
1	Information Technology
2	Electrical
3	Civil
4	Mechanical
5	Chemical

Perform following criteria on above created tables:

- 1. Display the students' detail with department name.
- 2. Display roll no, first name, department name.

- 3. Display the first name, surname, contact number and dept name whose first name contain 'a' character at any place.
- 4. Display students' detail of Information Technology department.
- 5. Display students' detail who are not studying in Civil or Mechanical department.
- 6. Display the names of departments where at least one student is studying.
- 7. Display the department detail where not a single student is studying.
- 8. Display department name and total numbers of students in each department.
- 9. Display the total numbers of female students in each department.
- 10. Display the female students' detail with dept. name.
- 11. Display the student as well as department's information whose surname is Patel.
- 12. Display the detail of first semester students with their department name.
- 13. Count total numbers of students in each department and arrange them in higher to lower order.
- 14. Count the total numbers of students in each department and display only those departments who have more than 3 students.
- 15. Display students' information with dept. name in ascending order by dept. name and descending order by surname of student.
- 16. Display the students' detail with dept. name whose birthday is before 31/03/2005.
- 17. Display the students' detail with dept. name whose birthday is in the month of February.
- 18. Display the students' detail with dept. name whose birthday is either in year 2001 or 2005.
- 19. Display the students' detail with dept. name whose birthday is in the 4th week of month.
- 20. Display the male students' detail with dept. name where rollno is less than 10.

6. Create following table and insert record in it as given.

Table Name: Customer

Field name	Datatype	Constraint
Cust_id	Number	Primary Key
Cust_name	Varchar2(20)	
Address	Varchar2(20)	
City	Varchar2(20)	
Phone_no	Number	

Insert following records:

Cust_id	Cust_name	Address	City	Phone_no
100	Jocksports	345 viewridge	Pune	5986609
101	Tkb Sport shop	490 BoliRd	Banglore	3681223
102	Vollyrite	9722 Hamilton	Mumbai	3443341

103	Just Tennis	Hillview Mall	Banglore	6779312
104	Every Mountain	574,SurryRd	Chennai	5485425
105	KT Sports	345 El Paseo	Banglore	9963658
106	Shape up	908 Samaritan	Mumbai	7542586
107	Womens Sport	West Village	Mumbai	5425869
108	North WoodsHealth	96, Pine way	Pune	2225852
109	Jack	South village	Pune	4545484
110	Veriana	690 Karni Rd	Banglore	4985245

Table Name : Order

Field name	Datatype	Constraint
Order_id	Number	Primary Key
Order_date	Date	
Ship_date	Date	
Total_amt	Number	
Cust_id	Number	

Insert following records:

Order_id	Order_date	Ship_date	Total_amt	Cust_id
601	15/06/01	20/06/01	2	106
602	07/06/06	07/07/03	56	102
603	21/03/04	25/03/04	224	102
604	04/07/04		698	106
605	17/05/04	17/06/04	8324	106
606	09/08/04		3	100
607	06/05/09	07/05/09	6	104
608	15/10/09	24/10/09	35	104
609	23/11/09		98	100
610	25/11/09		101	101
611	22/12/09	24/12/09	45	102
612	25/12/09	26/12/09	5860	104
613	30/12/09		6400	108
614	04/04/10	05/04/10	23940	102
615	04/04/10	05/04/10	710	107
616	04/04/10	05/04/10	764	103
617	04/02/11	05/05/11	46370	105
618	03/04/12	07/06/12	3510	102
619	11/04/13	16/12/13	1260	104
620	04/03/13	11/06/13	4450	100
621	17/06/13	18/10/13	730	100

Perform following queries on created table.

- 1. List details of all customers.
- 2. List name, city and phone number of all customers.
- 3. List the details of orders where order amount is more than 1000.
- 4. List of customer name from the city 'Banglore'
- 5. List of customer name from the city either 'Banglore' or 'Mumbai'
- 6. List of customer name from the city neither 'Banglore' nor 'Mumbai'
- 7. List the order details for the customer no '102'
- 8. List the order details for the customer no '102' & '103'
- 9. List the order details for the customer no '102', '103' & '104'
- 10. Find the total number of orders for customer no '102'
- 11. List the details of customer whose name starts with alphabet 'J'
- 12. List the details of customer whose name does not starts with alphabet 'J'

- 13. List the details of customer whose name contains alphabet 'O' at second position
- 14. List the details of customer whose name contains alphabet 'S' at any position
- 15. List the details of customer whose name contains the string 'RT' in their name
- 16. List the details of orders whose total amount is >= 3000 and <= 5000
- 17. List the details of order where shipping date is not yet assigned.
- 18. List the details of customer in Ascending order of their names.
- 19. List customer name-wise, total amount-wise details of all orders in Ascending order
- 20. List customer name-wise, total amount-wise details of all orders in Descending order
- 21. List the details orders which are not having shipping date in descending order of their order amount.
- 22. List the details of order in the order in which they were ordered.
- 23. Find total number of customers.
- 24. Find sum & average of amount for orders placed by customers.
- 25. Find the highest & the lowest amount of order placed by customer.
- 26. Find the total number of orders that are not assigned any shipping date.
- 27. Find the total number of orders placed by each customer.
- 28. Find total order amount for each year.
- 29. Find the total number of customers residing in each city.
- 30. Find the dates on which 2 or more than 2 orders were placed
- 31. Find Cust id who placed more than 3 orders.
- 32. List the details of order with the customer name 'Vollyrite'
- 33. Display Customer detail whose order date is befor 04/02/11.
- 34. Display Customer detail whose Shipping date is in the month of March.
- 35. Display Customer detail whose order date is either in year 2009 or 2010.