SET 1

I. Consider the tables given below

STUDENT (ROLLNO, NAME, AGE, GENDER, ADDRESS, ADVISOR)

COURSE (COURSEID, CNAME, TAUGHTBY, CREDITS)

PROFESSOR (PROFID, PNAME, PHONE)

Primary keys are underlined. ADVISOR& TAUGHTBY are foreign key referring to

PROFESSOR table.

Write SQL queries for the following

1. List the name of students whose advisor is professor Raju
2. List the names and ages of students who are advised by a professor with a phone number starting with the area code '555'.
3. List the name of 3 credit courses taught by the advisor of the student Geetha
4. List the names of advisors with more than 3 male students
5. List the names of professors who are not advisors

II. Write a PL /SQL function to find reverse of a 3 digit number.

SET II

I. Create the Tables with the given constraints. Primary keys are underlined.
ACC-NO,MEMBERID in ISSUEDTO table are foreign keys

BOOKS (ACC-NO,ISBN,TITLE, EDITION, YEAR)
MEMBERS(MEMBERID, MEMBERNAME, MEMBERTYPE)
ISSUEDTO (ACC-NO, MEMBERID, DATE OF ISSUE)

a) Write a SQL query to retrieve Accession Number(s) and Name(s) of third edition books published in 2018.
b) Write a query to retrieve number of books issued in each date.
c) Write a query to retrieve the names of books, issued in the month of March
d) Write a query to retrieve names and date of issue of books taken by "ARYA'
e) Write a query to retrieve the names of books , not taken by any member

II.Create table Employee (eno,ename,deptno,salary) Write a procedure to calculate the income tax paid as follows.

a) If salary for a financial year is less than 1 lakh, he needs to pay no tax.

b) If salary is between 1 lakh and 1.5 lakh, tax is calculated as 10% of amount exceeding 1 lakh

c) If salary is between 1.5 lakh and 2 lakhs, 20% of the amount exceeding 1 lakh is taxable.

d) If salary is above 2 lakhs, 30% of the amount exceeding 1 lakh is taxable.

Store the details in a new table "Tax" having fields eno, deptno, & tax_amount.

SET 3

I. Create the database schema. Assume suitable data types. Primary keys are underlined. SONGNO in SUNGBY table and ALBUMNO in SONGS table are foreignkeys.

ALBUMS(ALBUMNO, ALBUM-NAME, PRODUCED-BY, YEAR)
SONGS(SONGNO, SONG-START, DURATION, ALBUMNO)
SUNGBY(ARITISTNAME, SONGNO)

Write the SQL queries for the following

a) Retrieve all names of albums produced in 2003
b) Find the total duration of songs in the Album with name 'ABC'
c) List all songs sung by RAM in the Album 'ABC'
d) Retrieve the names of albums that have at least 3 songs
e) Find the artist who has not sung any song in the albums produced in the year 2000

II. Create a table with 2 number fields a and b. Write a trigger so that the value that is entered into the table satisfies the condition: a+b>75. Also if the value of b is changed, it shouldn't be changed to a smaller value. Tuples that violate these conditions shouldn't be entered.

SET 4

I. Consider the tables given below

STUDENT (ROLLNO, NAME, AGE, GENDER, ADDRESS, ADVISOR)

COURSE (COURSEID, CNAME, TAUGHTBY, CREDITS)

PROFESSOR (PROFID, PNAME, PHONE)

Primary keys are underlined. ADVISOR& TAUGHTBY are foreign key referring to PROFESSOR table.

Write SQL queries for the following

6. List the name of male students whose advisor is professor MANJU
7. List the names and ages of students who are advised by a professor with a phone number starting with the area code '555'.
8. List the name of oldest female student advised by professor RAM
9. List the names of advisors with more than 3 female students
10. List the names of professors who are not advisors

II. Write a PL/SQL procedure to accept no of units consumed and calculate the electricity bill for the same. The charge is calculated as follows:

UNITS CONSUMED	**CHARGE**
0-100	50 ps per unit
101-300	75 ps per unit
301-500	150 ps per unit
>500	225 ps per unit