Question 1:
STUDENTS (NAME, ROLL, ADDRESS, MAIN)
ADMISSION (ROLL, COURSE, SEMESTER)
FACULTY (COURSE, FACULTY, SEMESTER)
OFFERING (BRANCH, COURSE)
Write down the following SQL queries:
1. All courses taken by a given student.
2. Names of the students admitted in a particular course in a given semester.
3. Were two students (x and y) ever admitted in the same course in the same semester?
4. Students who have taken all courses offered by a given faculty.
5. Find the name of the faculty who taught maximum courses.

Question 2:
STUDENT (SID, SNAME, SEX, AGE, YEAR, GPA)
DEPT (DNAME, NUMPHDS)
PROF (PNAME, DNAME)
COURSE (CNO, CNAME, DNAME)
MAJOR (DNAME, SID)
SECTION (DNAME, CNO, SECTNO, PNAME)
ENROLL (SID, GRADE, DNAME, CNO, SECTNO)
Write down the following SQL queries:
1. List the names of professors who work in department that have fewer than 20 PhD.
2. List the names of students with the lowest GPA.
3. List the name and sid of student enrolled in maximum classes.
4. List the name of student and department name whose sid='Bsc 2017'
5. List the names of students who are taking both a Computer Science and Mathematics course.

Question 3:
EMPLOYEE (EMP_ID, EMP_NAME, SALARY)
DEPARTMENT (DEPT_ID, DEPT_NAME, MGR_ID, FLOOR_NO)
Write down the following SQL queries:
1. Display the names of all employees who work on 10th floor and earn less than Rs. 10,000.
2. List names of all managers who manage two or more departments on the same floor.
3. Give 10% hike to the salary to every employee who works in sales department and display the appropriate record.
4. Display the names of employee who earn more than every employee of IT department.
5. Print the names of employees who earn more than Rs. 50,000 and work in either sales or marketing departments.

Question 4:
DEPOSIT (BR_NAME, ACC_NO, CUST_NAME, BALANCE)
CUSTOMER (CUST_NAME, STREET, CITY)
BRANCH (BR_NAME, ASSETS, CITY)
BORROW (BR_NAME, LOAN_NO, CUST_NAME, AMOUNT)

Write down the following SQL queries:
1. Find all customers who have either account or loan or both in SBI, Belur Math Branch
2. Find customers with names and cities in which they live who have taken loan from SBI, Kolkata Branch.
3. Find customers name and amount including name of the branch for loan over Rs.50,000.
4. Find customer having highest balance.
5. Find branch having highest loan.

Question 5:
STUDENT(SNUM: INTEGER, SNAME: STRING, MAJOR: STRING,LEVEL: STRING, AGE: INTEGER)
CLASS(NAME: STRING, MEETS AT: STRING, ROOM: STRING,FID: INTEGER)
ENROLLED(SNUM: INTEGER, CNAME: STRING)
FACULTY(FID: INTEGER, FNAME: STRING, DEPTID: INTEGER)
The meaning of these relations is straightforward; for example, Enrolled has one record per student-class pair such that the student is enrolled in the class.
Write the following queries in SQL. No duplicates should be printed in any of the answers.
1. Find the names of faculty members for whom the combined enrollment of the courses that they teach is less than five.
2. For each level, print the level and the average age of students for that level.
3. For all levels except JR, print the level and the average age of students for that level.
4. For each faculty member that has taught classes only in room R128, print the faculty member's name and the total number of classes she or he has taught.
5. Find the names of students enrolled in the maximum number of classes.