Practice Questions -SQL

Q.1 Consider the schema for CompanyDatabase:

EMPLOYEE (SSN, Name, Address, Sex, Salary, SuperSSN, DNo) DEPARTMENT (DNo, DName, MgrSSN, MgrStartDate) DLOCATION (DNo,DLoc)  
PROJECT (PNo, PName, PLocation,

DNo) WORKS\_ON (SSN, PNo, Hours) Write SQL queries to

1. **Make a list of all project numbers for projects that involve an employee whose last name is ‘Scott’, either as a worker or as a manager of the department that controls theproject.**
2. **Show the resulting salaries if every employee working on the ‘IoT’ project is given a 10 percentraise.**
3. **Find the sum of the salaries of all employees of the ‘Accounts’ department, as well as the maximum salary, the minimum salary, and the average salary in this department**
4. **Retrieve the name of each employee who works on all the projects controlled by department number 5 (use NOT EXISTS operator). For each department that has more than five employees, retrieve the department number and the number of its employees who are making more than Rs.6,00,000.**

**Q.2 Consider the schema for CollegeDatabase:**

**STUDENT (USN, SName, Address, Phone,  
Gender) SEMSEC (SSID, Sem, Sec)  
CLASS (USN, SSID)  
SUBJECT (Subcode, Title, Sem, Credits)  
IAMARKS (USN, Subcode, SSID, Test1, Test2, Test3, FinalIA) Write SQL queries to**

1. **List all the student details studying in fourth semester ‘C’section.**
2. **Compute the total number of male and female students in each semester and in each section.**
3. **Create a view of Test1 marks of student USN ‘1BI15CS101’ in allsubjects.**

**4. Calculate the FinalIA (average of best two test update the corresponding table for allstudents. marks) and**

**5. Categorize students based on the followingcriterion:**

**If FinalIA = 17 to 20 then  
 CAT =‘Outstanding’  
If FinalIA = 12 to 16 then CAT =‘Average’**

**If FinalIA< 12 then CAT =‘Weak’**

**Give these details only for 8th semester A, B, and C section students.**

**Q.3 Consider the schema for MovieDatabase:**

**ACTOR (Act\_id, Act\_Name, Act\_Gender) DIRECTOR (Dir\_id, Dir\_Name,Dir\_Phone)  
MOVIES (Mov\_id, Mov\_Title, Mov\_Year, Mov\_Lang, Dir\_id)**

**MOVIE\_CAST (Act\_id, Mov\_id, Role)**

**RATING (Mov\_id, Rev\_Stars)**

**Write SQL queries to**

1. **List the titles of all movies directed by‘Hitchcock’.**
2. **Find the movie names where one or more actors acted in two or moremovies.**
3. **List all actors who acted in a movie before 2000 and also in a Movie after 2015 (use JOINoperation).**
4. **Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result by movie title.**
5. **Update rating of all movies directed by ‘Steven Spielberg’ to5**