|  |  |  |  |
| --- | --- | --- | --- |
| **EMPLOYEE TABLE** | | | |
| **COLUMNS** | **DATA TYPE** | **CONSTRAINTS** |  |
| EMPLOYEE\_ID | INT (11) | NOT NULL, | PRIMARY KEY |
| EMP\_NAME | VARCHAR (30) | NOT NULL |  |
| DEPT\_ID | INT (10) | NOT NULL | FOREIGN KEY |
| JOINING\_DT | DATE |  |  |
| DOB | DATE |  |  |
| YRS\_OF\_EXP | NUMERIC |  |  |
| PHONE\_NUMB | INT (11) |  |  |
| MARTIAL\_STATUS | BOOLEAN |  |  |
| JOB\_ID | INT (11) | NOT NULL | FOREIGN KEY |
| SALARY | DECIMAL (8,2) | NOT NULL |  |
| MANAGER\_ID | INT (11) | NOT NULL | FOREIGN KEY |

**1**. Prepare Table Script for below tables ?

|  |  |  |  |
| --- | --- | --- | --- |
| **LOCATION TABLE** | | | |
| **COLUMNS** | **DATA TYPE** | **CONSTRAINTS** |  |
| LOC\_ID | INT (11) | NOT NULL | PRIMARY KEY |
| STREET\_NO | INT (10) | DEFAULT NULL |  |
| VILL\_NAME | VARCHAR (40) | DEFAULT NULL |  |
| CITY | VARCHAR (30) | NOT NULL |  |
| STATE | VARCHAR (25) | NOT NULL |  |
| COUNTRY | VARCHAR (30) | NOT NULL |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **JOBS TABLE** | | | |
| **COLUMNS** | **DATA TYPE** | **CONSTRAINTS** |  |
| JOB\_ID | INT (11) | NOT NULL | PRIMARY KEY |
| JOB\_TITLE | VARCHAR (30) | NOT NULL |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **DEPARTMENT TABLE** | | | |
| **COLUMNS** | **DATA TYPE** | **CONSTRAINTS** |  |
| DEPT\_ID | INT (11) | NOT NULL, | PRIMARY KEY |
| DEPT\_NAME | VARCHAR (30) | DEFAULT NULL |  |
| LOC\_ID | INT (11) | DEFAULT NULL | FOREIGN KEY |
| DEPT\_HEAD | VARCHAR (30) | NOT NULL |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **DEPENDENTS TABLE** | | | |
| **COLUMNS** | **DATA TYPE** | **CONSTRAINTS** |  |
| DEP\_ID | INT (11) | NOT NULL | PRIMARY KEY |
| DEP\_NAME | VARCHAR (50) | NOT NULL |  |
| RELATIONSHIP | VARCHAR (25) | NOT NULL |  |
| EMPLOYEE\_ID | INT (11) | NOT NULL | FOREIGN KEY |

**2 PRACTICE QUESTIONS**

**2.1 Select statements**

2.1.1 Write a query to display employee id, employee name, department id, department name of all employees who has a department assigned?

2.1.2 Write query to display employee name with monthly salary?

**2.2 Where condition**

2.2.1. Write a query to display employee details with salary less than 5 lakhs?

2.2.2 Write a query to display the employee id, employee name of the employees who joined before 2015?

2.2.3Write a query to display the employee name, salary and manager I D, for those employees whose managers hold the ID 100, 120, 145, 149?

2.2.4 Write a query to display all employee names to begin with ‘R’?

#### 2.2.5 Write an SQL query to fetch the list of employees with the same salary?

2.2.6 Write a query to retrieve all the employees who are working in Finance, Manufacturing, and Construction departments?

**2.3 Group By, Order By and Having Conditions**

2.3.1 Write a query to display number of employees in each department and group by department?

2.3.2. Write query to fetch employee name, department number of all employees in departments 20 or 50 in ascending alphabetical and order by name?

2.3.3. Write a query to Display the employee name, department number, and department name for each employee order by employee name?

2.3.4. Write a query to get the employee name, department id, years of experience for unmarried employees group by experience and order by department id?

**2.4 Joins**

2.4.1 Write a query to get employee name, employee id, department name who belongs to state ANDHRA PRADESH use left join?

2.4.2 Write query to find employee name, salary and job title for all employees use right join?

2.4.3 Write a query to get number of employees with same job title use inner join?

2.4.4 Write q query to get employee name, department name, state who are unmarried use full join?

2.4.5

**2.5 Aggregations**

2.5.1 Write a query to get difference between highest and lowest salaries and label the column difference?

2.5.2Write a query to display employees who earn more than the average salary and who work in the IT department?

2.5.3 Write a query to display what is the average, maximum and minimum salary for each department?

**2.6 SQL Functions**

#### 2.6.1 Write an SQL query to print the first three characters of EMPLOYEE NAME?

2.6.2 Write a query to print employee name ends with ‘h’ and contains six alphabets?

2.6.3 Write a query to get age from date of birth in employee table?

2.6.4 Write a query to convert employee into lower case and find the length of the employee name?

2.6.5 Write a query to add current date as date to the employee table?

2.6.6 Write a query to convert decimal type to integer for salary column in employee table?

2.6.7 Write a query to format joining date to format YYYY-MM-DD ?

#### 2.7 Index and view

2.7.1 Write a query to create a view that shows employee name, phone number, Manager id from employees table who are from city = Bangalore?

2.7.2 Write a query to create an index on employee table with employee name, DOB and martial status?

#### 2.8 Sub Queries

2.8.1 Write a query to fetch all the employee details who do not have location Id 2546?

2.8.2 Write a query to fetch employee details whose salaries are greater than the average salary of all the employees?

2.8.3 Write a query to find all the departments do not have any employee with salary greater than 2.5 lakhs?