<u>Create relational database that contains the following tables and insert the following data into tables:</u>

tblemp(empid, fname, lname, jdate, salary, manager_id, post, dept_id)

| Eid | Fname | Lname | Jdate | Salary | M_id | post | Did |
|-----|----------|--------|-------------|--------|------|-------------|-----|
| 101 | Hemant | Sharma | 20-Jan-1995 | 50000 | 0 | Manager | D1 |
| 102 | Rita | Gandhi | 20-Dec-1997 | 45000 | 0 | Manager | D2 |
| 103 | Maya | Mistry | 12-Nov-2001 | 30000 | 101 | Programmer | D1 |
| 104 | Riya | Patel | 15-Sep-2003 | 28000 | 102 | Programmer | D2 |
| 105 | Shreya | Patel | 17-oct-2010 | 5000 | 101 | Peon | D1 |
| 106 | Karan | Patel | 18-aug-2015 | 5000 | 102 | Peon | D2 |
| 107 | Reyanshi | Vyas | 5-jun-2011 | 15000 | 101 | Clerk | D1 |
| 108 | Mehul | Mehta | 6-may-2010 | 17000 | 102 | Clerk | D2 |
| 109 | Krupali | Patil | 8-apr-2015 | 10000 | 101 | Accountant | D1 |
| 110 | Maitry | Vyas | 11-mar-2017 | 10000 | 102 | Accountant | D2 |
| 111 | Mohan | Mehta | 27-feb-2020 | 15000 | 101 | Electrician | D1 |

tbldept(did,dname)

| Did | Dname |
|-----|------------|
| D1 | Finance |
| D2 | Production |
| D3 | Marketing |
| D4 | IT |

Create PL/SQL Blocks

Simple programming:

- 1. Write a block to print "Relational Database Management System" on screen.
- 2. Write a block for declaring variable A with value 50. Add 20 in in A and display the message "The value of A = 70".
- 3. Write a block to display the sum of 50 and 70.
- 4. Write a block to take input of two variables and display the average of given two numbers.
- 5. Write a block to take input of one string and display the same string on screen.
- 6. Write a block to take input of Rollno, Name, Percentage and birthdate. Display each in separate line with proper heading.
- 7. Write a block to take input of Principle amount (p), rate (r) and period (n). Display the simple interest on screen.
- 8. Write a block to take input of radius from user and display the area of circle.
- 9. Write a block to convert the 5 KM into M.
- 10. Write a block to take input of Laptop price, quantity and discount. Display the total amount and payable amount (after deduction of discount).

Programming with database (Use %type, %ROWTYPE or User defined record):

tblemp(empid, fname, lname, jdate, salary, manager_id, post, dept_id) tbldept(did,dname)

- 11. Display the Fname of employee whose EID is 107.
- 12. Display the Salary of employee whose name is Maitry.
- 13. Display the Joining date of employee whose surname is Patil.
- 14. Display the detail of employee whose EID is 103.
- 15. Display the detail of employee whose Joining date is 15th September 2003.
- 16. Display the employee detail of "Electrician".
- 17. Display the detail of employee whose EID is inputted by user.
- 18. Display the Eid, Fname and Salary of employee whose EID is given by user.
- 19. Display the Eid, Fname, Salary and Dname of employee whose EID is given by user.
- 20. Display the Fname, Sname, Post and dname of employee having 17000 salary.

Programming with conditional statements:

Simple programming:

- 21. Take input of one number and check whether it is less than 100 or not. Display appropriate message.
- 22. Enter the age and weight of the student and display whether student is eligible to donate blood or not.
- 23. Take input of single number and display whether number is even or odd.
- 24. Take input of year and check whether it is leap year or not.
- 25. Take input of rollno and display the division of the given student.

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Means: 105 – Div-1, 205 – Div-2, .... 705 – Wrong input.
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- 26. Take input of two numbers and perform the addition, subtraction, multiplication or division as per user's choice.
 - a. 1 Addition
 - b. 2 Subtraction
 - c. 3 Multiplication
 - d. 4 Division
 - e. Otherwise Wrong Input.

Programming with database: (Create another table name "tblemp1" with same fields and same numbers of records.) (perform update and delete in tblemp1 table only) (Keep original table tblemp as it is)

- 27. Display the employee detail of given EID if his salary is less than 20000.
- 28. Display the employee detail of 'Riya' if her joining date is after 15th Sept 2020.
- 29. Display the employee detail of 'Peon' of D2 department if his salary is more than 8000.
- 30. Update the salary of given EID by adding 2000 if his joining date is before 15th January 2015.
- 31. Update the salary of given EID by adding 5000 if his joining date is in year 2015.
- 32. Delete the record of given EID if he belongs to D1 department.
- 33. Display the employee detail with department name of given Fname if he is accountant.
- 34. Display the Fname, Lname, Salary of employee of given EID if it belongs to 'Finance' department.
- 35. Delete the record of given EID if it belongs to 'Production' Department.
- 36. Update the employee's salary of given EID as per following criteria:

a. Salary <10000 salary = salary + 5000

b. Salary < 30000 salary = salary + 7000

c. Salary <40000 salary = salary + 9000

d. Otherwise, salary = salary +10000

Programming with iterative statements:

Simple Programming

- 37. Display 1 to 10 natural numbers.
- 38. Display 'RDBMS' five times.
- 39. Display Odd numbers between 10 to 30.
- 40. Display 10 to 20 in reverse order.
- 41. Display all even numbers between 30 to 40 in reverse order.
- 42. Display leap years between 2000 to 2020.
- 43. Display following pattern as per user input:

*

* *

* * *

- 44. Display following pattern as per user input.
 - 1
 - 12
 - 123
- 45. Display multiplicative table of given number.

Database programming:

- 46. Display employees' detail of D1 department.
- 47. Display employees' detail whose manager id is 101.
- 48. Display employees' detail of Production department.
- 49. Display employees' detail whose salary is more than 20000.
- 50. Display employees' detail whose surname is Patel.

(Perform following on tblemp1 table)

- 51. Update clerk employees' salary by 20000.
- 52. Delete records of peon employees.
- 53. Update salary of Accountant by adding 2000 more if his joining date is less than 1st January 2016.
- 54. Delete the records of Patel employees whose salary is less than 10000.
- 55. Update the employee's salary:

| a. | Salary <10000 | salary = salary + 5000 |
|----|---------------|------------------------|
| b. | Salary <30000 | salary = salary + 7000 |
| c. | Salary <40000 | salary = salary + 9000 |
| d. | Otherwise, | salary = salary +10000 |