Tables :EMP ,DEPT

1. Group functions work across many rows to produce one result. (True/False) - True

2. Group functions include nulls in calculations. (True/False) - False

3. The WHERE clause restricts rows prior to inclusion in a group calculation. (True/False) - True

4. Display the highest, lowest, sum, and average salary of all employees. Label the columns Maximum, Minimum, Sum, and Average, respectively. Round your results to the nearest whole number.

MINIMUM	MAXIMUM	SUM	AVERAGE
800	5000	29025	2073

5. Modify the query in 4 exercise to display the minimum, maximum, sum, and average salary for each job type.

MINIMUM	MAXIMUM	SUM	AVERAGE
3000	3000	6000	3000
800	1300	4150	1038
2450	2975	8275	2758
5000	5000	5000	5000
1250	1600	5600	1400

6. Write a query to display the number of people with the same job.

JOB	COUNT(*)
ANALYST	2
CLERK	4
MANAGER	3
PRESIDENT	1
SALESMAN	4

7. Determine the number of managers without listing them. Label the column Number of Managers.

NUMBER OF MANAGERS

8. Write a query that displays the difference between the highest and lowest salaries. Label the column DIFFERENCE.

```
DIFFERENCE
----------
      4200
```

9. Display the manager number and the salary of the lowest paid employee for that manager. Exclude anyone whose manager is not known. Exclude any groups where the minimum salary is 1,000 or less. Sort the output in descending order of salary.

```
  MGR   MIN(SAL)
----- ---------
 7566       3000
 7839       2450
 7782       1300
 7788       1100
```

10. Create a query that will display the total number of employees and, of that total, the number of employees hired in 1981, 1983 and 1980. Create appropriate column headings.

```
TOTAL      1983       1982       1980
---------- ---------- ---------- ----------
   14             1          2          1
```

11. Create a matrix query to display the job, the salary for that job based on department number, and the total salary for that job, for departments 10 ,20 and 30, giving each column an Appropriate heading.

```
JOB              Dept 10    Dept 20    Dept 30      Total
--------- --------- ---------- ---------- ----------
ANALYST                     6000                    6000
CLERK            1300       1900        950        4150
MANAGER          2450       2975       2850        8275
PRESIDENT        5000                               5000
SALESMAN                                5600        5600
```