

i. Find the number of student in CSE second year.

```
SELECT COUNT(NAME) FROM STUDENT2078 WHERE DEPTCODE='CSE' AND SEMESTER='SEM3';
```

```
SQL> set autocommit on
SQL> SELECT COUNT(NAME) FROM STUDENT2078 WHERE DEPTCODE='CSE' AND SEMESTER='SEM3'; 2

COUNT(NAME)
-----
4
```

ii. Find the number of students whose marks of any subject is available.

```
SELECT COUNT(ROLLNO) FROM RESULT2078 WHERE MARKS IS NOT NULL;
```

```
SQL> SELECT COUNT(ROLLNO) FROM RESULT2078 WHERE MARKS IS NOT NULL;

COUNT(ROLLNO)
-----
15
```

iii. Find total number of faculty.

```
SELECT COUNT(*) AS Total_Faculty FROM FACULTY2078;
```

```
SQL> SELECT COUNT(*) AS Total_Faculty FROM FACULTY2078;

TOTAL_FACULTY
-----
10
```

iv. Find the 5th semester student(s) who got maximum marks in a subject.

```
SELECT DISTINCT NAME, MARKS, SUB_CODE FROM STUDENT2078 FULL OUTER JOIN RESULT2078 ON STUDENT2078.ROLLNO=RESULT2078.ROLLNO WHERE SEMESTER IN('Sem5','SEM5') AND MARKS IN (SELECT MAX(MARKS) FROM RESULT2078 GROUP BY SUB_CODE);
```

| NAME | MARKS | SUB_CODE |
|---------------|-------|----------|
| PARIMAL KUMAR | 91 | CS501 |
| ASHISH KUMAR | 77 | ECS501 |
| PARIMAL KUMAR | 82 | CS502 |

v. Find the roll number of a student who got maximum marks in CS501.

```
SELECT ROLLNO FROM RESULT2078 WHERE MARKS=(SELECT MAX(MARKS) FROM  
RESULT2078 WHERE SUB_CODE = 'CS501');
```

```
SQL> SELECT ROLLNO FROM RESULT2078 WHERE MARKS=(SELECT MAX(MARKS) FROM  
RESULT2078 WHERE SUB_CODE = 'CS501'); 2
```

| ROLLNO |
|--------|
| 1003 |

vi. Display average marks of CS502.

```
SELECT AVG(MARKS) FROM RESULT WHERE SUB_CODE='CS502';
```

```
SQL> SELECT AVG(MARKS) FROM RESULT WHERE SUB_CODE='CS502';
```

| AVG(MARKS) |
|------------|
| 67 |

vii. Find the number of students in each department with their department code.

```
SELECT DEPTCODE,COUNT (ROLLNO) FROM STUDENT2078 GROUP BY DEPTCODE;
```

```
SQL> SELECT DEPTCODE,COUNT (ROLLNO) FROM STUDENT2078 GROUP BY DEPTCODE;
```

| DEPT | COUNT(ROLLNO) |
|------|---------------|
| IT | 2 |
| EE | 2 |
| CSE | 11 |
| ECE | 5 |

viii. Find the number of students in each department with their department name.

```
SELECT D.DEPTNAME, COUNT(S.DEPTCODE) AS NumOfStudents FROM  
DEPARTMENT2078 D  
LEFT JOIN STUDENT2078 S ON D.DEPTCODE = S.DEPTCODE GROUP BY D.DEPTNAME;
```

```
SQL> SELECT D.DEPTNAME, COUNT(S.DEPTCODE) AS NumOfStudents FROM DEPARTMENT2078 D
LEFT JOIN STUDENT2078 S ON D.DEPTCODE = S.DEPTCODE GROUP BY D.DEPTNAME; 2
```

| DEPTNAME | NUMOFSTUDENTS |
|---|---------------|
| Electronics and Communication Engineering | 5 |
| Information Technology | 2 |
| Electrical Engineering | 2 |
| Computer Science and Engineering | 11 |

ix. Find the Department with more than three faculty.

```
SELECT d.DEPTCODE, d.DEPTNAME FROM DEPARTMENT2078 d WHERE d.DeptCode IN
(SELECT s.DeptCode FROM SUBJECT2078 s GROUP BY s.DeptCode HAVING
COUNT(s.TEACHER)>3);
```

```
SQL> SELECT d.DEPTCODE, d.DEPTNAME FROM DEPARTMENT2078 d WHERE d.DeptCode IN
(SELECT s.DeptCode FROM SUBJECT2078 s GROUP BY s.DeptCode HAVING
COUNT(s.TEACHER)>3); 2 3
```

| DEPT | DEPTNAME |
|------|----------------------------------|
| CSE | Computer Science and Engineering |

x. Find the student name and roll no who get more than 80 in at least two subject.

```
SELECT r.ROLLNO, s.NAME FROM RESULT2078 r
JOIN STUDENT2078 s ON r.ROLLNO = s.ROLLNO WHERE r.MARKS > 80 AND (SELECT
COUNT(*) FROM Result2078 r1 WHERE r1.ROLLNO = r.ROLLNO
AND r1.MARKS > 80) >= 2;
```

```
SQL> SELECT r.ROLLNO, s.NAME FROM RESULT2078 r
JOIN STUDENT2078 s ON r.ROLLNO = s.ROLLNO WHERE r.MARKS > 80 AND (SELECT
COUNT(*) FROM Result2078 r1 WHERE r1.ROLLNO = r.ROLLNO
AND r1.MARKS > 80) >= 2; 2 3 4
```

| ROLLNO | NAME |
|--------|---------------|
| 1003 | PARIMAL KUMAR |
| 1003 | PARIMAL KUMAR |

xi. Find the student name and roll no who get more than 70 in average.

```
SELECT s.NAME, r.ROLLNO FROM RESULT2078 r JOIN STUDENT2078 s ON r.ROLLNO =
s.ROLLNO GROUP BY s.NAME, r.ROLLNO HAVING AVG(r.MARKS) > 70;
```

| NAME | ROLLNO |
|------------------|--------|
| MOINAK GHOSH | 1002 |
| NAITIK PRASAD | 1029 |
| SAMPRIKTA BISWAS | 1023 |
| ANANYA BISWAS | 2002 |
| ASHISH KUMAR | 2101 |
| PARIMAL KUMAR | 1003 |

6 rows selected.

xii. Display number of subject semester wise in dept CSE.

```
SELECT SEMESTER, COUNT(*) AS Number_of_Subjects FROM SUBJECT2078 WHERE
DEPTCODE = 'CSE' GROUP BY SEMESTER;
```

```
SQL> SELECT SEMESTER, COUNT(*) AS Number_of_Subjects FROM SUBJECT2078 WHERE
DEPTCODE = 'CSE' GROUP BY SEMESTER; 2
```

| SEME | NUMBER_OF_SUBJECTS |
|------|--------------------|
| SEM5 | 3 |
| SEM3 | 2 |

xiii. Find the department name with maximum number of student.

```
SELECT DEPTNAME FROM DEPARTMENT2078 WHERE STUDENT_ALLOTTED=(SELECT
MAX(STUDENT_ALLOTTED)FROM DEPARTMENT2078);
```

```
SQL> SELECT DEPTNAME FROM DEPARTMENT2078 WHERE STUDENT_ALLOTTED=(SELECT
MAX(STUDENT_ALLOTTED)FROM DEPARTMENT2078); 2
```

| DEPTNAME |
|----------------------------------|
| Computer Science and Engineering |

xiv. Find the second highest marks of the result table.

```
SELECT MAX(MARKS) AS SecondHighestMarks FROM RESULT2078 WHERE MARKS <
(SELECT MAX(MARKS) FROM RESULT2078);
```

```
SQL> SELECT MAX(MARKS) AS SecondHighestMarks FROM RESULT2078 WHERE MARKS <
(SELECT MAX(MARKS) FROM RESULT2078); 2
```

| SECONDHIGHESTMARKS |
|--------------------|
| 91 |

xv. Find the students name who got highest marks, subjectwise.

```
SELECT DISTINCT NAME,MARKS,SUB_CODE FROM STUDENT2078 FULL OUTER JOIN  
RESULT2078 ON STUDENT2078.ROLLNO=RESULT2078.ROLLNO WHERE MARKS IN  
(SELECT  
MAX(MARKS)FROM RESULT2078 GROUP BY SUB_CODE);
```

```
SQL> SELECT DISTINCT NAME,MARKS,SUB_CODE FROM STUDENT2078 FULL OUTER JOIN  
RESULT2078 ON STUDENT2078.ROLLNO=RESULT2078.ROLLNO WHERE MARKS IN (SELECT  
MAX(MARKS)FROM RESULT2078 GROUP BY SUB_CODE); 2 3
```

| NAME | MARKS | SUB_CODE |
|------------------|-------|----------|
| PARIMAL KUMAR | 91 | CS501 |
| ASHISH KUMAR | 77 | ECS501 |
| SAMPRIKTA BISWAS | 92 | CS301 |
| PARIMAL KUMAR | 82 | CS502 |
| SAMPRIKTA BISWAS | 80 | CS302 |