

i. Display student names along with the department name.

Code:

```
SELECT NAME , DEPTNAME
FROM STUDENT, DEPARTMENT
WHERE STUDENT.DEPTCODE = DEPARTMENT.DEPTCODE;
```

Output:

NAME	DEPTNAME
ANKIT DAS	Computer Science and Engineering
MOINAK GHOSH	Computer Science and Engineering
PARIMAL KUMAR	Computer Science and Engineering
SANCHITA SINGH	Electronics and Communication Engineering
ANANYA BISWAS	Electronics and Communication Engineering
ASHISH KUMAR	Electronics and Communication Engineering
NAITIK PRASAD	Computer Science and Engineering
SATNAM JYOTI	INFORMATION TECHNOLOGY
SAURAV ROY	ELECTRICAL ENGINEERING
NIKHIL SINGH	Electronics and Communication Engineering
SAMPRIKTA BISWAS	Computer Science and Engineering

  

NAME	DEPTNAME
RAHUL KHAN	Computer Science and Engineering
SHUBHAM	Computer Science and Engineering
GAURAV PRAKASH	Electronics and Communication Engineering
RAHUL JOSHI	ELECTRICAL ENGINEERING
MRIGENDRA	INFORMATION TECHNOLOGY
SUBARNA MITRA	Computer Science and Engineering
AMARITA DEV	Computer Science and Engineering
MOHAMMAD AZIB	ELECTRICAL ENGINEERING
CHONK PRAMANIK	Computer Science and Engineering

ii. Display student names, subject code and marks of students who took admission in the year 2017 and read subject CS502.

Code:

```
SELECT NAME, SUB_CODE, MARKS
FROM STUDENT , RESULT
WHERE STUDENT.YEAROFADM=2017 AND STUDENT.ROLLNO = RESULT.ROLLNO AND
RESULT.SUB_CODE='CS502';
```

Output:

NAME	SUB_CODE	MARKS
ANKIT DAS	CS502	40

iii. Find the name of the students who got marks between 70 to 89 in CS501.

**Code:**

```
SELECT NAME
FROM STUDENT , RESULT
WHERE RESULT.SUB_CODE='CS501' AND RESULT.ROLLNO=STUDENT.ROLLNO AND
(RESULT.MARKS>=70 AND RESULT.MARKS <=89);
```

**Output:**

NAME
MOINAK GHOSH

iv. Find the student name, roll no who appeared in the examination for paper DBMS.

**Code:**

```
SELECT NAME, STUDENT.ROLLNO
FROM STUDENT , RESULT, SUBJECT
WHERE SUBJECT.SUBJECTNAME = 'Data Base Systems' AND
SUBJECT.SUBJECTCODE=RESULT.SUB_CODE AND
RESULT.ROLLNO=STUDENT.ROLLNO;
```

**Output:**

NAME	ROLLNO
SANCHITA SINGH	2001
ANANYA BISWAS	2002

v. Show student names, subject code and marks for CSE 3<sup>rd</sup> year students.

**Code:**

```
SELECT NAME, SUB_CODE , MARKS
FROM STUDENT, RESULT
WHERE STUDENT.SEMESTER='SEM5' AND STUDENT.DEPTCODE='CSE' AND
STUDENT.ROLLNO=RESULT.ROLLNO;
```

**Output:**

NAME	SUB_CODE	MARKS
ANKIT DAS	CS501	68
MOINAK GHOSH	CS501	76
PARIMAL KUMAR	CS501	91
ANKIT DAS	CS502	40
MOINAK GHOSH	CS502	81
PARIMAL KUMAR	CS502	82

vi. Show student names, department name for 5 th semester students who were born in MAY.

Code:

```
SELECT NAME , DEPTNAME
FROM DEPARTMENT, STUDENT
WHERE STUDENT.SEMESTER='SEM5' AND EXTRACT(MONTH FROM
STUDENT.BIRTHDATE)=5 AND STUDENT.DEPTCODE=DEPARTMENT.DEPTCODE;
```

Output:

NAME	DEPTNAME
MOINAK GHOSH	Computer Science and Engineering
MOHAMMAD AZIB	Electronic Engineering

vii. Show student names, subject name for 5<sup>th</sup> semester student where subject name contains the word 'DATA'

Code:

```
SELECT NAME, SUBJECTNAME
FROM STUDENT, SUBJECT
WHERE STUDENT.SEMESTER='SEM5' AND SUBJECT.SUBJECTNAME LIKE '%Data%' AND
STUDENT.DEPTCODE=SUBJECT.DEPTCODE AND
STUDENT.SEMESTER=SUBJECT.SEMESTER;
```

Output:

NAME	SUBJECTNAME
ANKIT DAS	Data Communication
MOINAK GHOSH	Data Communication
PARIMAL KUMAR	Data Communication
SANCHITA SINGH	Data Base Systems
ANANYA BISWAS	Data Base Systems
ASHISH KUMAR	Data Base Systems
NIKHIL SINGH	Data Base Systems
RAHUL KHAN	Data Communication
CHONK PRAMANIK	Data Communication

viii. Show student names, subject name and marks for 5<sup>th</sup> semester students.

Code:

```
SELECT NAME, SUBJECTNAME, MARKS
FROM STUDENT, SUBJECT, RESULT
WHERE STUDENT.SEMESTER='SEM5' AND STUDENT.ROLLNO=RESULT.ROLLNO AND
RESULT.SUB_CODE=SUBJECT.SUBJECTCODE;
```

Output:

NAME	SUBJECTNAME	MARKS
ANKIT DAS	Discrete Mathematics	68
MOINAK GHOSH	Discrete Mathematics	76
PARIMAL KUMAR	Discrete Mathematics	91
ANKIT DAS	Data Communication	40
MOINAK GHOSH	Data Communication	81
PARIMAL KUMAR	Data Communication	82
SANCHITA SINGH	Data Base Systems	67
ANANYA BISWAS	Data Base Systems	72
ASHISH KUMAR	Analog Signals	77

ix. Find the roll number, student names and marks for CSE students who get more than 80 in Data Structure.

Code:

```
SELECT STUDENT.ROLLNO, NAME, MARKS
FROM STUDENT, RESULT , SUBJECT
WHERE STUDENT.DEPTCODE='CSE' AND MARKS > 80 AND
STUDENT.ROLLNO=RESULT.ROLLNO AND SUBJECT.SUBJECTNAME='Data Structure' AND
RESULT.SUB_CODE=SUBJECT.SUBJECTCODE;
```

Output:

ROLLNO	NAME	MARKS
1023	SAMPRIKTA BISWAS	92
1029	NAITIK PRASAD	83

x. Show student names, department name, subject name and subject wise marks for which the student gets more than 90.

Code:

```
SELECT NAME, DEPTNAME, SUBJECTNAME , MARKS
FROM STUDENT , DEPARTMENT, SUBJECT, RESULT
WHERE MARKS > 90 AND STUDENT.ROLLNO = RESULT.ROLLNO AND
STUDENT.DEPTCODE=DEPARTMENT.DEPTCODE AND
RESULT.SUB_CODE=SUBJECT.SUBJECTCODE;
```

Output:

NAME	DEPTNAME	SUBJECTNAME	MARKS
PARIMAL KUMAR	Computer Science and Engineering	Discrete Mathematics	91
SAMPRIKTA BISWAS	Computer Science and Engineering	Data Structure	92

**xi. Add column HOD in DEPARTMENT. Insert faculty id in place of HoD.**

**Code:**

```
ALTER TABLE DEPARTMENT  
ADD HOD VARCHAR2(4);
```

```
UPDATE DEPARTMENT  
SET HOD = 'F01'  
WHERE DEPTCODE='CSE';
```

```
UPDATE DEPARTMENT  
SET HOD = 'F02'  
WHERE DEPTCODE='ECE';
```

```
UPDATE DEPARTMENT  
SET HOD = 'F03'  
WHERE DEPTCODE='IT';
```

```
UPDATE DEPARTMENT  
SET HOD = 'F04'  
WHERE DEPTCODE='EE';
```

**Output:**

DEPT	DEPTNAME	STUDENT_ALLOTTED	B	HOD
CSE	Computer Science and Engineering	135	C	F01
ECE	Electronics and Communication Engineering	120	B	F02
IT	Information Technology	75	C	F03
EE	Electronic Engineering	60	B	F04

**xii. Add column TEACHER in table SUBJECT. Insert faculty id in this column.**

**Code:**

```
ALTER TABLE SUBJECT  
ADD TEACHER VARCHAR2(4);
```

```
UPDATE SUBJECT  
SET TEACHER = 'F01'  
WHERE SUBJECTCODE='CS301';
```

```
UPDATE SUBJECT  
SET TEACHER = 'F02'  
WHERE SUBJECTCODE='CS302';
```

```
UPDATE SUBJECT  
SET TEACHER = 'F03'  
WHERE SUBJECTCODE='CS501';
```

```
UPDATE SUBJECT  
SET TEACHER = 'F04'  
WHERE SUBJECTCODE='CS502';
```

```
UPDATE SUBJECT
SET TEACHER = 'F05'
WHERE SUBJECTCODE='ECS501';
```

```
UPDATE SUBJECT
SET TEACHER = 'F06'
WHERE SUBJECTCODE='EC501';
```

```
UPDATE SUBJECT
SET TEACHER = 'F07'
WHERE SUBJECTCODE='CS503';
```

**Output:**

```
SQL> SELECT * FROM SUBJECT;
```

SUBJECTC	SUBJECTNAME	DEP	SEME	PASSMARKS	TEAC
CS301	Data Structure	CSE	SEM3	40	F01
CS302	Computer Organization	CSE	SEM3	40	F02
CS501	Discrete Mathematics	CSE	SEM5	40	F03
CS502	Data Communication	CSE	SEM5	40	F04
ECS501	Data Base Systems	ECE	SEM5	30	F05
EC501	Analog Signals	ECE	SEM5	40	F06
CS503	Operating Systems	CSE	SEM5	40	F07

7 rows selected.

**xiii. Show the department name, semester, subject name along with faculty name.**

**Code:**

```
SELECT DEPTNAME, SEMESTER, SUBJECTNAME, NAME
FROM SUBJECT,DEPARTMENT , FACULTY
WHERE SUBJECT.DEPTCODE=DEPARTMENT.DEPTCODE AND
SUBJECT.TEACHER=FACULTY.FID;
```

**Output:**

DEPTNAME	SEME	SUBJECTNAME	NAME
Computer Science and Engineering	SEM3	Data Structure	Aloke Kumar Dutta
Computer Science and Engineering	SEM3	Computer Organization	Abhijit Roy
Computer Science and Engineering	SEM5	Discrete Mathematics	Probal Kumar
Computer Science and Engineering	SEM5	Data Communication	Mousumi Dey
Electronics and Communication Engineering	SEM5	Data Base Systems	Sharmistha Nag
Electronics and Communication Engineering	SEM5	Analog Signals	Dipti Bhattacharya
Computer Science and Engineering	SEM5	Operating Systems	Sanjay Kumar Das

**xiv. Find the names of all faculties whose HOD name is given.**

**Code:**

```
SELECT NAME , DEPARTMENT.DEPTNAME  
FROM FACULTY , DEPARTMENT  
WHERE FACULTY.FID = DEPARTMENT.HOD;
```

**Output:**

NAME	DEPTNAME
Aloke Kumar Dutta	Computer Science and Engineering
Abhijit Roy	Electronics and Communication Engineering
Probal Kumar	Information Technology
Mousumi Dey	Electronic Engineering

**xv. Display subject name, subject code, marks including all subjects. [Outer join ]**

**Code:**

```
SELECT SUBJECT.SUBJECTNAME, SUBJECT.SUBJECTCODE, RESULT.MARKS  
FROM SUBJECT  
LEFT OUTER JOIN RESULT  
ON SUBJECT.SUBJECTCODE=RESULT.SUB_CODE;
```

**Output:**

**xvi. Display student name, subject code, marks. Include all students. [Outer join ]**  
**Code:**

```
SELECT STUDENT.NAME, RESULT.SUB_CODE, RESULT.MARKS
FROM STUDENT
LEFT OUTER JOIN RESULT
ON STUDENT.ROLLNO=RESULT.ROLLNO;
```

**Output:**

NAME	SUB_CODE	MARKS
ANKIT DAS	CS501	68
ANKIT DAS	CS502	40
MOINAK GHOSH	CS501	76
MOINAK GHOSH	CS502	81
PARIMAL KUMAR	CS501	91
PARIMAL KUMAR	CS502	82
SANCHITA SINGH	ECS501	67
ANANYA BISWAS	ECS501	72
ASHISH KUMAR	EC501	77
NAITIK PRASAD	CS301	83
NAITIK PRASAD	CS302	76
NAME	SUB_CODE	MARKS
SATNAM JYOTI		
SAURAV ROY		
NIKHIL SINGH		
SAMPRIKTA BISWAS	CS301	92
SAMPRIKTA BISWAS	CS302	80
RAHUL KHAN		
SHUBHAM		
GAURAV PRAKASH		
RAHUL JOSHI		
MRIGENDRA		
SUBARNA MITRA	CS301	65
NAME	SUB_CODE	MARKS
SUBARNA MITRA	CS302	40
AMARITA DEV		
MOHAMMAD AZIB		
CHONK PRAMANIK		

26 rows selected.