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UID – 23BCS10929

SEC – 622(B)

a. Code :

```
DROP TABLE IF EXISTS courses;  
DROP TABLE IF EXISTS fb;
```

```
CREATE TABLE fb ( dept_id INT PRIMARY  
KEY, dept_name VARCHAR(50) UNIQUE NOT  
NULL  
);  
CREATE TABLE courses( course_id INT  
PRIMARY KEY, course_name  
VARCHAR(100) NOT NULL, dept_id INT,  
FOREIGN KEY (dept_id) REFERENCES fb(dept_id)  
);
```

```
INSERT INTO fb(dept_id, dept_name) VALUES  
(1, 'Computer Science'),  
(2, 'Electrical'),  
(3, 'Mechanical'),  
(4, 'Civil'),  
(5, 'Electronics');  
INSERT INTO courses(course_id, course_name, dept_id) VALUES  
(101, 'DBMS', 1),  
(102, 'Operating System', 1),  
(111, 'Machine Learning', 1),  
(103, 'Power System', 1),  
(104, 'Digital Circuits', 2),  
(105, 'Thermodynamics', 3),  
(106, 'Fluid Mechanics', 3),
```

```
(107, 'Structural Engineering', 4),  
(108, 'Surveying', 4),  
(109, 'Embedded System', 5),  
(110, 'VLSI Design', 5);
```

```
SELECT dept_name  
FROM fb  
WHERE dept_id IN (  
SELECT dept_id  
FROM courses  
GROUP BY dept_id  
HAVING COUNT(course_id) > 2  
);  
select * from fb; select  
* from courses;
```

b. Department

dept_id	dept_name
4	Civil
1	Computer Science
2	Electrical
5	Electronics
3	Mechanical

c. Courses

course_id	course_name	dept_id
101	DBMS	1
102	Operating System	1
103	Power System	1
104	Digital Circuits	2
105	Thermodynamics	3
106	Fluid Mechanics	3
107	Structural Engineering	4
108	Surveying	4
109	Embedded System	5
110	VLSI Design	5
111	Machine Learning	1

d. Department name

dept_name
Civil
Computer Science
Electronics
Mechanical