12.9

a.
```
SELECT S.Name
FROM Student S
WHERE S.Id LIKE '1'
```

Duplicates are not possible since LIKE ‘1’ implies only one value of student id and since id is the key of the relation; if student id is not the key, then the answer would be yes.

b.
```
SELECT S.Id
FROM Student S, Faculty F
WHERE S.Address = F.Address
```

Since Address is not a key of Faculty, there may be several rows of Faculty that match a row of Student. Hence duplicates are possible.

c.
```
SELECT C.CrsCode, COUNT(*)
FROM Transcript T
GROUP BY T.CrsCode
```

No duplicate possible since all rows of Transcript with a particular value of CrsCode are grouped into a unique row in the result set.

d.
```
SELECT F.Name, F.DeptId, C.ClassTime, C.CrsCode, C.Semester, C.Year
FROM Faculty, Class C
WHERE F.Id = C.InstructorId
```

It is possible due to the day attribute in the database schema.

e.
```
SELECT S.Name, F.Name, T.Semester, T.Year
FROM Faculty, Class C, Transcript T, Student S
WHERE
        F.Id = C.InstructorId AND S.Id = T.StudId AND
        C.CrsCode = T.CrsCode AND
        C.SectionNo = T.SectNo AND
        C.Year = T.Year AND C.Semester = T.Semester
```

Duplicates are possible since a student may be taught by a professor in two different courses in the same semester.