Q3. Read the following description of a database for managing the courses and grades of university students, and then answer Subquestions 1 through 3.

A university maintains a database in order to keep track of information on student profiles, courses and sections offered, and grades obtained.

The database is composed of four tables. The structure of the table and sample data for each table are shown below. The primary keys are underlined.

(1) Student Table

StudentNo	Name	Department	Class	Program
1599221	Steve Kam	CS	Sophomore	BSC
1599222	Mathew Ken	CS	Sophomore	BSC
1599223	Allen Strew	CS	Sophomore	BSC
1599224	Stephen Ford	CS	Sophomore	BSC

(2) Course Table

CourseNo	CourseName	CreditHours	Department
CS173	Discrete Mathematics	3	CS
CS225	DataStructures	3	CS
CS311	Database Systems	3	CS
CS377	Algorithms	3	CS

(3) Section Table

SectionNo	CourseNo	Instructor	Semester	Year
1112	CS 311	John	Summer	2018
1113	CS 173	Clark	Fall	2018
1114	CS 377	Abraham	Fall	2018
1115	CS 225	Clark	Spring	2019
1116	CS 311	John	Summer	2019

(4) GradeReport Table

StudentNo	SectionNo	Grade
1599221	1112	B
1599221	1113	C
1599222	1113	B
1599222	1115	A
1599223	1116	(null)
1599224	1112	A
1599224	1114	A

A course has one or more sections. SectionNo uniquely identities each section.
Grade shows the result the student obtained in the given section. It is a one-character code, such as A(excellent), B(good), C(fair), …, or "null" if the section is not completed.
All students register at least one section, that is, every StudentNo in Student table appears in GradeReport table.

Subquestion 1

From the answer groups below, select the correct answer to be inserted in each blank [ ] in the following SQL statement.

The SQL statement SQL1 outputs the student number, name, and department of students who got As in all courses they completed.

```
-- SQL1 --
SELECT StudentNo, Name, Department
FROM Student S
WHERE [ A ]
       (SELECT StudentNo
        FROM GradeReport
        WHERE StudentNo = S.StudentNo AND [ B ])
```

From the sample data of each table shown in the description, SQL1 outputs the following result:

StudentNo	Name	Department
1599224	Stephen Ford	CS

Answer group for A

a) `EXISTS`
b) `IN`
c) `NOT EXISTS`
d) `NOT IN`

Answer group for B

a) `Grade != 'A'`
b) `Grade < 'A'`
c) `Grade = 'A'`