BSc in Computing
COMP211 Database Design
Exercise 6

Student ID: _____   Date: _____

1. Examine the following instance of Course table to check if it is in 1NF. State the reason.

   Course

stuNo	sName	semester	courseID	cName	grade	teacherID	tName
001	Smith	Fall12	Eng01	English	A	T001	Jenny
		Spr13	Ger01	German	B	T101	Peter
002	Susan	Fall12	Eng01	English	A	T001	Jenny
		Spr13	Ger01	German	B	T101	Peter
003	Fred	Spr13	Ger01	German	A	T101	Peter
004	Marie	Spr13	Ita01	English	B	T201	Tom

The Course relation is NOT in 1NF because (semester, courseID, cName, grade, teacherID, tname) is repeating data.

2. Given the following tables, are they in 2NF? State the reason.

   Branch (branchNo, street, city, postcode, telNo)

   Staff (staffNo, name, address, position, salary, branchNo, bAddress)

   PropertyForRent (propertyNo, name, address, type, noOfRoom, monthlyRent, ownerNo)

The tables are in 2NF because they all have single-attribute primary key, meaning that no partial dependencies can be found.

3. Is the following Staff table already in 3NF? State the reason.

   Staff (staffNo, name, address, position, salary, branchNo, bAddress)

The Staff relation is NOT in 3NF because the transitive dependency branchNo -> bAddress exist.