

1.

(1) true

(2) false

An *is-a* relationship is implemented via inheritance, while a *has-a* relationship is implemented via composition.

(3) false

A Student class has an *is-a* relationship with the Faculty class and a *has-a* relationship with the Course class.

(4) true

(5) true

2.

Freshman, Sophomore, Junior, Senior, DoctoralStudent and MasterStudent are all Student.

Freshman, Sophomore, Junior and Senior are UndergraduateStudent.

DoctoralStudent and MasterStudent are GraduateStudent.

UndergraduateStudent and GraduateStudent are Student.

