**65Formal Logic - Section 4.4 Exercises**

Section 1

1. No B are Non-A – T
   1. No Non-B are A - T
2. Some non-B are non-A – U
3. No A are B – F
4. All non-B are A – U
   1. All non-B are A - F
5. Some B are not non-A – U
6. Some non-A are not B – T
7. Contraposition – U
8. Obversion – T
9. Conversion – U
10. Obversion – F
11. Contraposition – T
12. Conversion – F

Section 2

1. Conversion
   1. All storms intensified by global warming are hurricanes – Not Logically Equivolent (LE)
   2. No completely successful procedures are sex-change operations – LE
   3. Some works that celebrate the revolutionary spirit are murals by Diego Rivera – LE
   4. Some substances with a crystalline structure are not forms of carbon – Not LE
2. Obversion
   1. No radically egalitarian societies are non-societies that do not preserve individual liberties – LE
      1. No radically Egalitarian societies are societies that preserve with individual liberties
   2. All Cult leaders are non-people who fail to brainwash their followers – LE
      1. All Cult Leaders are people who brainwash their followers
   3. Some college football coaches are not non-people who do not slip money to their players – LE
      1. Some college football coaches are not people who slip money to their players
   4. Some budgetary cutbacks are non-actions fair to the poor – LE
      1. Some budgetary cutbacks
3. 3. Contrapostion
   1. All non-physicians ineligible to practice are non-physicians whose licenses have been revoked – LE
   2. No non-migrants granted asylum are non-unpersecuted migrants – Not LE
   3. Some non-politicians who do not want to increase taxes are non-politicians who do not defend Social Security – Not LE
   4. Some non-opponents of civil unions are not non-opponents of gay marriage - LE