

## Logic - Homework 4

Symbolize with reasonable abbreviations:

1) Andrew loves police work, but neither Jane nor Bob is happy with his job, and he will stay in police work if and only if his supervisor gives him a raise and a commendation.

2) Kathy will drown if and only if she cannot swim and falls into the water and no one rescues her, but she likes to climb trees and will not fall into the water.

3) There is no such thing as a free lunch.

4) Not everything is without meaning.

5) Nothing in this consent agreement implies in any way that Hair Transplants Unlimited has engaged in deceptive advertising.

6) Only things that should be discarded are in the wastebasket.

7) There is nobody here who is not beautiful.

8) There is nothing that eats cat food and does not meow.

9) There are cats that don't eat mice.

10) There are some beautiful things that are not unappreciated.

Grad only:

- Download the Logic Gate Symbols (.avi file) and
- 1) design a logic circuit that models a 2-way lighting circuit (two switches / either one changes the on/off status)
  - 2) now do a 3-way lighting circuit