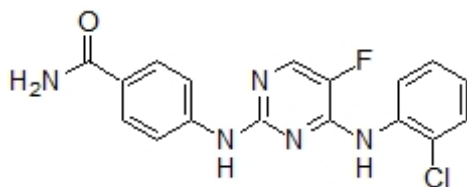


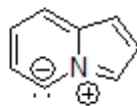
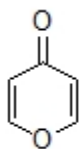
Name: \_\_\_\_\_

**Organic II Lecture**  
**Fall 2012**  
**Quiz #3**  
(10 points)

1. The following compound has been found effective in inhibiting the proliferation of breast cancer cells (J. Med. Chem. 2012, 7392). What aromatic heterocycle is contained in this structure? (2 points)



2. Classify the following compounds as aromatic, antiaromatic or nonaromatic. (4 points, problem 16-19e)



3. State the net bonding or antibonding of one of the degenerate lowest unoccupied molecular orbitals of benzene. (2 points)
4. Given that 1,3-butadiene has a  $UV_{max}$  value of 217 nm, predict the  $UV_{max}$  value of the following conjugated system.

