Academic Honesty Policy. Academic honesty is strictly enforced on quizzes, exams, and other aspects of this course. Academic dishonesty will result in a failing grade in the class and a letter in the student's file. Activities constituting academic dishonesty include:

Cheating
- Copying from others during an examination.
- Communicating exam answers with other students during an examination.
- Offering another person's work as one's own.
- Taking an examination for another student or having someone take an examination for oneself.
- Tampering with an examination after it has been corrected, then returning it for more credit.
- Using unauthorized materials, prepared answers, written notes, or concealed information during an examination.

Dishonest Conduct
- Stealing or attempting to steal an examination or answer key from the instructor.
- Allowing another student to copy off of one's own work during a test.

Collusion
- Any student who knowingly or intentionally helps another student perform any of the above acts is subject to discipline for academic dishonesty.

I understand and will abide by this academic honesty policy: ____________________________ (signature) Seat: ______

1. Identify all of the five main functional groups in strychnine by circling and labeling them. Be as specific as possible—do not for example use a general term like hydrocarbon or carbonyl. (5 pts)

2. (1 pt)
Rank the following in order of increasing water solubility: $a < b < c$
(a) CH$_3$CH$_2$CH$_2$CH$_2$Cl
(b) CH$_3$CO$_2$CH$_2$CH$_3$
(c) CH$_3$CH$_2$CH$_2$CO$_2$H

3. (Smith 3.18ac, 2 pts)
a. Rank the following in order of increasing strength of intermolecular forces: $b < c < a$
   (a) CH$_3$NH$_2$
   (b) CH$_3$CH$_3$
   (c) CH$_3$Cl
b. Rank the following in order of increasing strength of intermolecular forces: $a < c < b$
   (a) (CH$_3$)$_2$C=CH(CH$_3$)$_2$
   (b) (CH$_3$)$_2$CHCOOH
   (c) (CH$_3$)$_2$CHCOCH$_3$

4. (Smith 3.21cf, 2 pts)
a. Rank the following in order of increasing boiling point: $a < b < c$
   (a) (CH$_3$)$_2$CO(CH$_3$)$_3$
   (b) CH$_3$(CH$_2$)$_3$O(CH$_2$)$_3$CH$_3$
   (c) CH$_3$(CH$_2$)$_2$OH
b. Rank the following in order of increasing boiling point: $a < c < b$
   (a) \[\text{pentagon}\]
   (b) \[\text{OH}\]
   (c) \[\text{pentagon}\]