

# Test 1 study guide

Lewis dot structures

electron configuration

resonance

bonding (hybrid atomic orbitals)  $sp^3$ ,  $sp^2$ ,  $sp$

electrostatic potential maps

degrees of unsaturation

functional groups

put groups in order from most acidic to least acidic  
(or vice versa)

predict if equilibrium of acid/base reaction is  $>1$   
or  $<1$ .

draw what the molecule looks like at certain pH value.

be able to draw electron pushing.

Nomenclature

Identify from highest boiling to lowest boiling and why?

Oxidation/reduction

Heats of combustion and stability

Free question

Identify  $1^\circ$ ,  $2^\circ$ ,  $3^\circ$ , &  $4^\circ$  carbons.