**Ch 14 Review: Part 2** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_\_\_\_

*\*Be sure to thoroughly go over the PPT*

1. Draw the following alcohols: A) isobutyl; B) sec-butyl; C) tert-butyl; D) n-butyl; E) isopropyl. Identify which are primary; secondary; tertiary

2. Explain the following properties (and trends) of alcohols: 1. Polarity; 2. Boiling Point; 3- Solubility.

3. Explain how thiols compare with alcohols regarding conditions above; B- Compare ethers to alcohols

XI. Complete the following:

1. Oxidation of 1st degree alcohol 🡪
2. Ox of 2 degree 🡪
3. Ox of 3 degree 🡪
4. Draw a symmetrical ether and name it
5. Draw an unsymmetrical either and name
6. What must be reduced to yield a prim alcohol?
7. What does the oxidation of 2 thiols yield?
8. Which functional group is the most oxidized?
9. Hydrate: 1-butene. Circle the major product
10. Draw: phenol
11. What is a London (van der Waals) bond/force? Which group has them?
12. Are alcohols weak acids or weak bases?
13. Compare a weak acid with a strong acid, in terms of ionization.
14. Compare the polarity of an alcohol and a thiol.
15. What does fermentation yield?
16. How can you tell if glucose has been oxidized in cellular respiration?
17. Compare the polarity of ethanol and hexanol
18. Which is more reduced: Glucose (C6H12O6) or carbon dioxide?
19. What is a ‘typical’ oxidizing agent in oxidation reactions? Dehydration reactions?
20. Water has a higher boiling point than alcohols. Explain why.
21. Which more readily oxidizes: Primary or tertiary alcohol? Explain why.