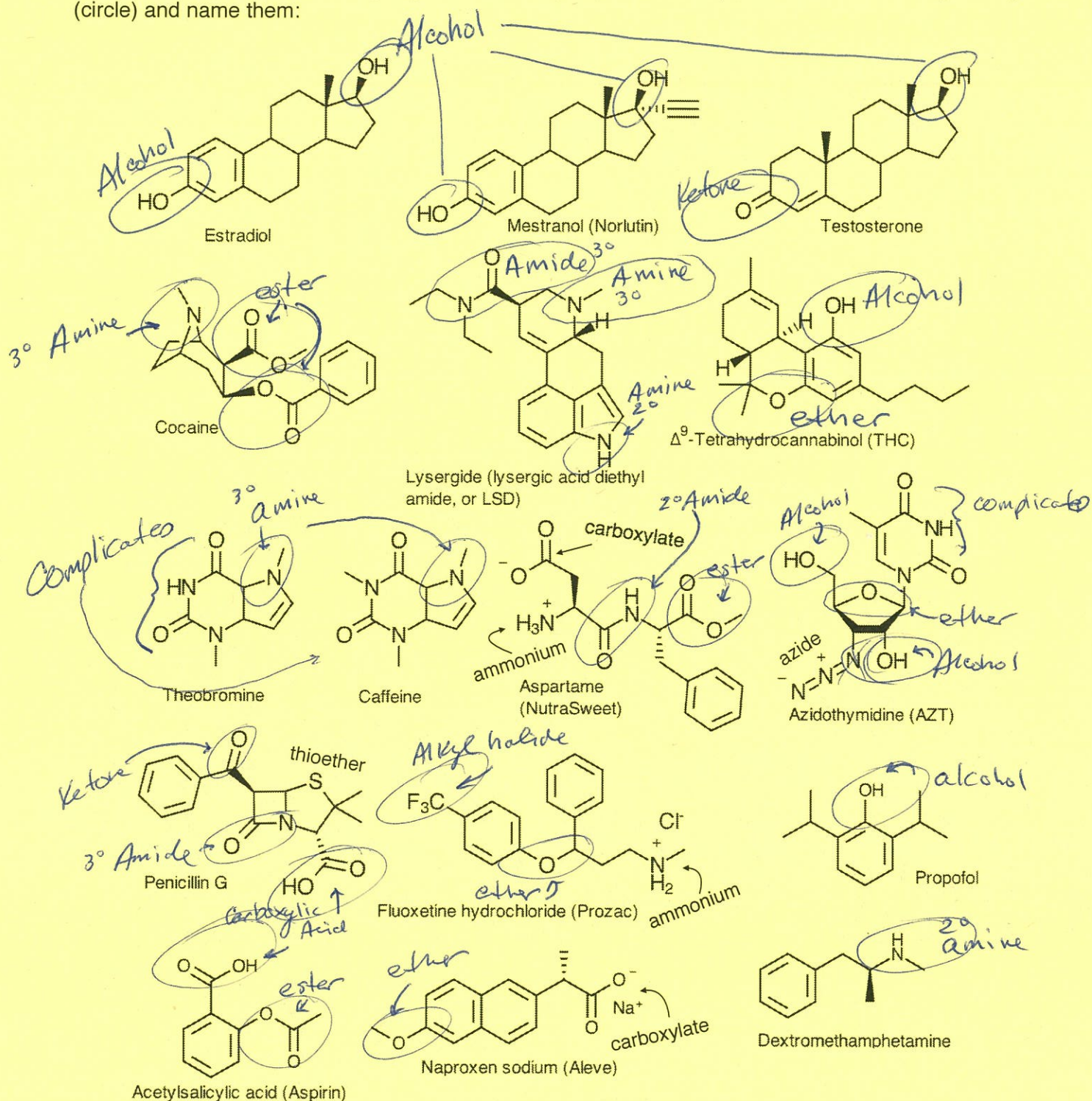


## CHAPTER 3: ORGANIC COMPOUNDS AND ALKANES

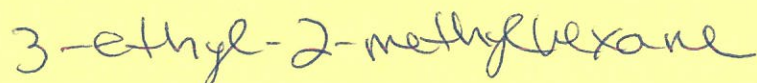
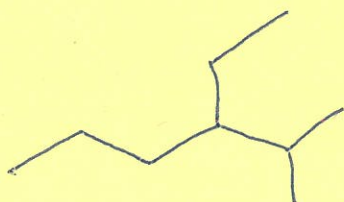
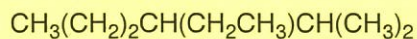
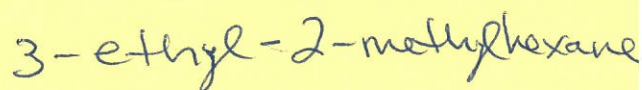
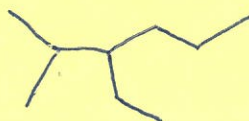
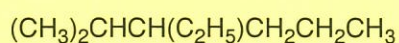
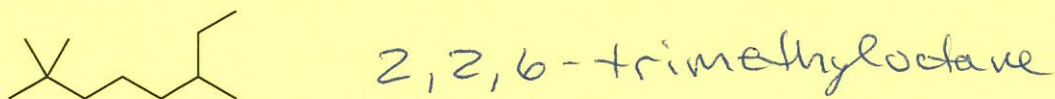
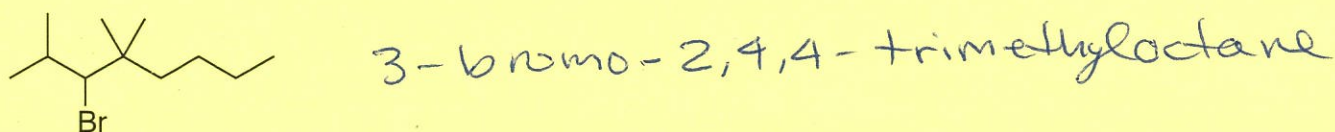
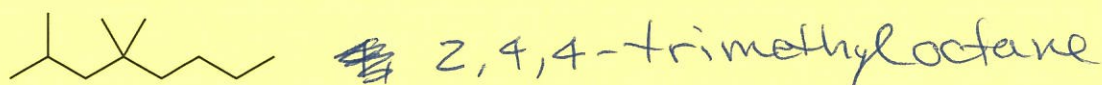
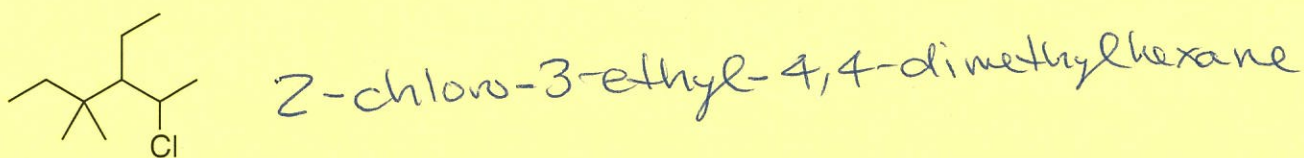
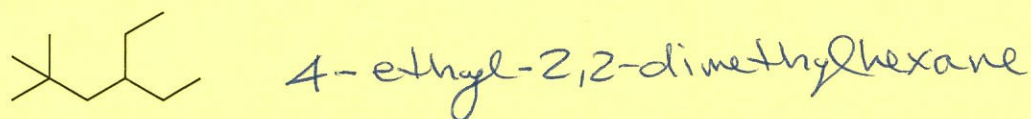
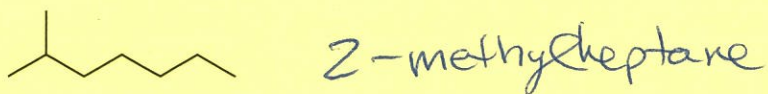
**Functional Groups.** From the group of functional groups that were presented in the videos, identify (circle) and name them:



Note there are no aldehydes here. Not because they are not important, but I didn't find easy examples of molecules containing aldehydes.

You should also be able to identify hybridization and geometry/angles around all atoms.

Alkane Nomenclature. Provide IUPAC names for the following molecules:



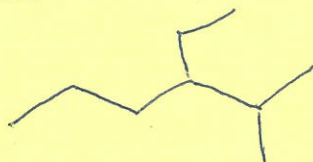
Draw the structure of the following *incorrectly named* molecules. Once drawn, provide the *correct* IUPAC name:

2,2-dimethyl-6-ethylheptane



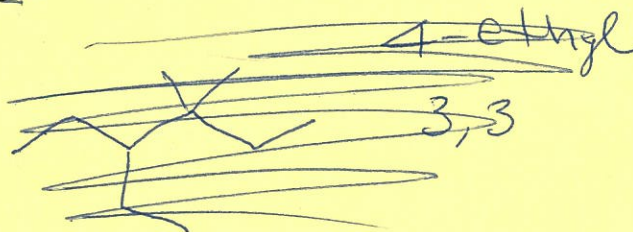
2,2,6-trimethyloctane

4-ethyl-5,5-dimethylpentane



3-ethyl-2-methylhexane

~~3-ethyl-4,4-dimethylhexane~~

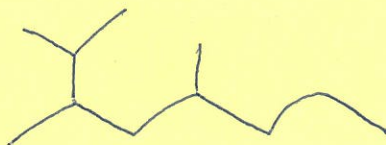


5,5,6-trimethyloctane



3,4,4-trimethyl  
hexane

2-isopropyl-4-methylheptane



2,3,5-~~isopropyl~~  
trimethyloctane