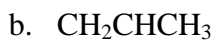
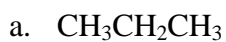
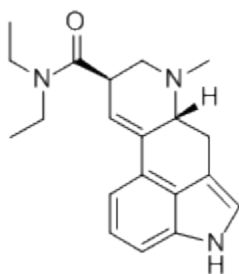


Organic Chemistry Worksheet

1. Identify each of the following as being either saturated or unsaturated.



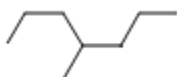
2. How many carbon and hydrogen atoms are in a molecule of LSD, shown below?



3. Write the structural formula of the compound $\text{CH}_3\text{CHCHCH}_2\text{CH}_3$.

4. Name each of the following compounds:

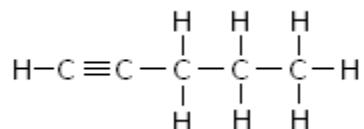
a.



b.



c.



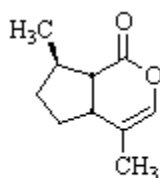
5. Draw all possible isomers of $C_4H_{10}O$ (I can find 7 of them). Use condensed formulas.

6. Given the name, identify the functional group of each of the compounds listed below

- pentanal
- decanoic acid
- diethylpropylamine
- methyl propanoate
- 3-hexanone
- 2-heptanol

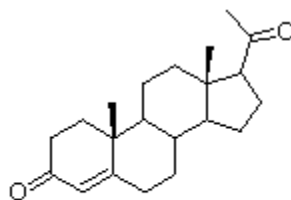
7. Identify the functional groups on the following molecules.

a.



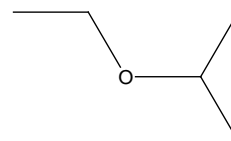
nepetalactone
(essence of catnip)

b.

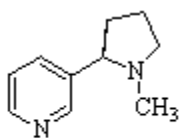


progesterone
(a progestin hormone)

c.

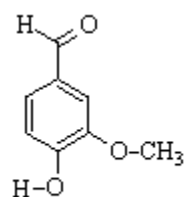


d.



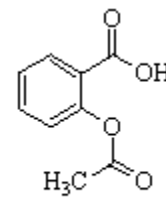
nicotine

e.



vanillin

f.



aspirin

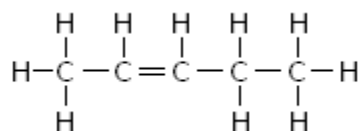
Chapter 8 Worksheet Answer Key

1. Identify each of the following as being either saturated or unsaturated.

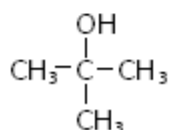
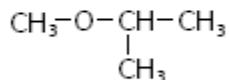
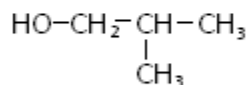
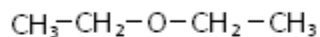
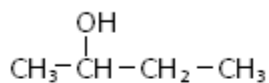
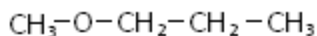
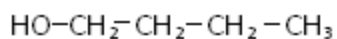
- Saturated
- Unsaturated
- Unsaturated

2. 20 Cs and 25 Hs

3.



- 4-methylheptane
 - 1-hexene
 - 1-pentyne
- Isomers of C₄H₁₀O

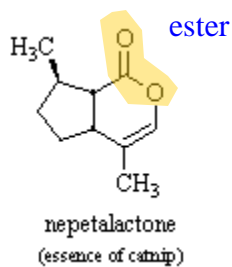


6. Given the name, identify the functional group of each of the compounds listed below

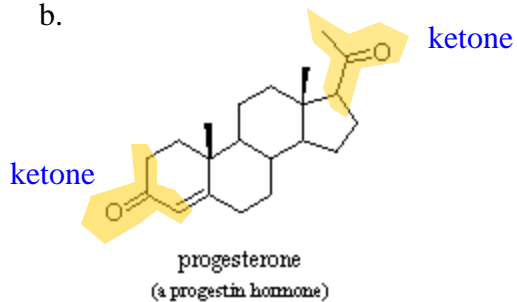
- aldehyde
- carboxylic acid
- amine
- ester
- ketone
- alcohol

7. Functional groups in the following molecules. (next page)

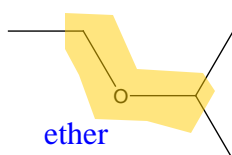
a.



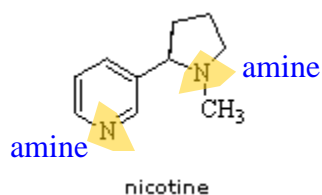
b.



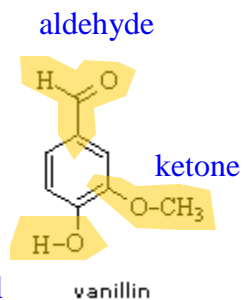
c.



d.



e.



(when an alcohol group is attached to a benzene ring, this is actually a different functional group called a **phenol**)

f.

