

GROUP HOMEWORK #4

CHEM 121, section 1, winter 2015,

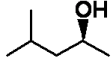
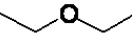
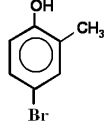
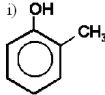
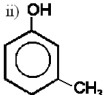
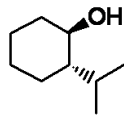
Printed Name: _____

Chapter. 14. Alcohols, Phenols, and Ethers

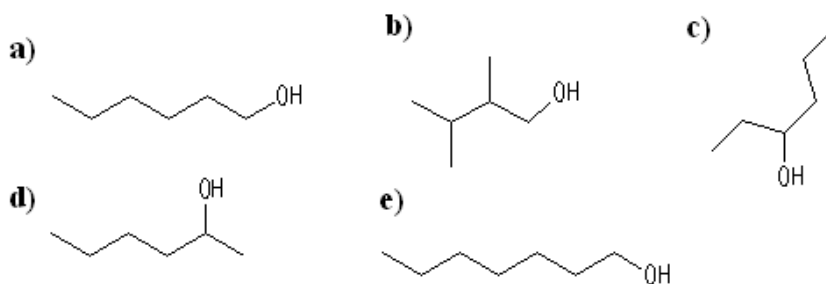
Homework Due Jan. 9 2015, 12:15 PM!

Group Name: _____

1) (3 pts) Identify the Alcohols, Phenols, and Ethers from the following and give their common and/or IUPAC names.

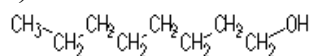
a) CH₃-CH₂-OH Type: _____ Name: _____	b)  Type: _____ Name: _____	c) CH₂-CH₂ OH OH Type: _____ Name: _____
d)  Type: _____ Name: _____	e) CH₂-CH-CH₂ HO HO OH Type: _____ Name: _____	f)  Et₂O Et-O-Et Type: _____ Name: _____
g)  Type: _____ Name: _____	h)  Type: _____ Name: _____	i) CH₃ CH₃OCCH₃ CH₃ Type: _____ Name: _____
j) SH Type: _____ Name: _____	k) i)  ii)  Type: _____ Name: _____	l)  Type: _____ Name: _____

2) (1 pt) Circle the constitutional isomers of 1-hexanol among following alcohols.

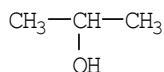


3) (1 pt) Classify each of the following as either 1', 2', or 3' alcohols:

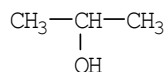
a)



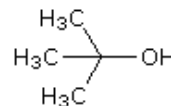
b)



c)

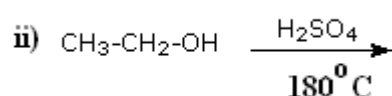
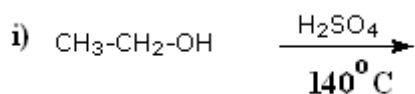


d)



4) (3 pts) Complete the following reactions of alcohol:

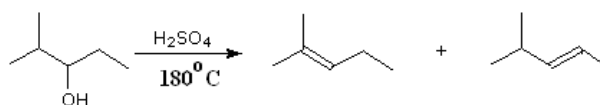
a)



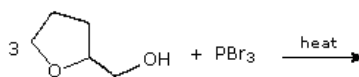
b) What is Zaitsev Rule:

c)

Select the Major Product:



d)



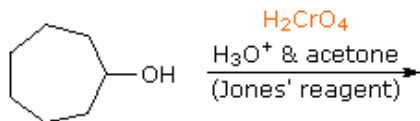
5) (3 pts) Complete the following reactions of alcohol oxidation:

a) Oxidation of 1^{ry} alcohol

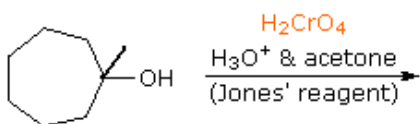


+ [H₂CrO₃]]

b) Oxidation of 2^{ry} alcohol



c) Oxidation of 3^{ry} alcohol



6) (3 pts) Draw condensed formula of each of the following:

a. 3-Hexanol

b. 1,2,3-Pentanetriol

c. 2-Methyl-2-pentanol

d. Cyclohexanol

e. 3,4-Dimethyl-3-heptanol

7) (3 pts) Draw the alkene products of the dehydration of the following alcohols:

a. 2-Pentanol:

b. 3-Methyl-1-pentanol:

c. 2-Butanol:

d. 4-Chloro-2-pentanol

e. 1-Propanol:

8) (3 pts) Give the oxidation products of the following alcohols. If no reaction occurs, write N.R.

