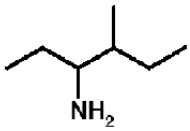
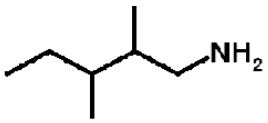
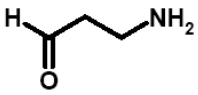
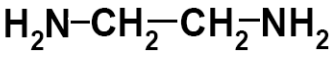
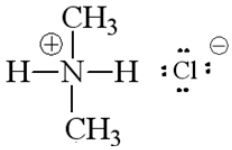
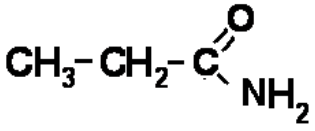
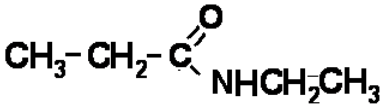
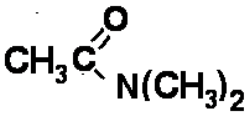
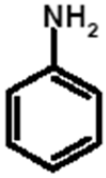
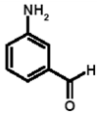
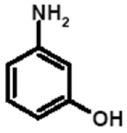
HOMEWORK #7

CHEM 121, section 1, winter 2015. **Printed Name:**_____

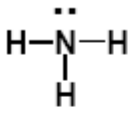
Chapter. 17. Amines and Amides

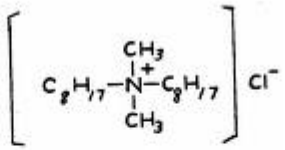
Homework# 7 Due Feb8, 2015, 12:15 PM! **Group Name:** _____

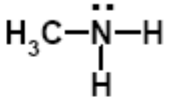
1) (3 pts) Identify the amines and amides from the following and give their common and/or IUPAC names.

a)  Type:_____ Name:_____	b)  Type:_____ Name:_____	c)  Type:_____ Name:_____
d)  Type:_____ Name:_____	e)  Type:_____ Name:_____	f)  Type:_____ Name:_____
g)  Type:_____ Name:_____	h)  Type:_____ Name:_____	i)  Type:_____ Name:_____
j)  Type:_____ Name:_____	k)  Type:_____ Name:_____	l)  Type:_____ Name:_____
m)  Type:_____ Name:_____	n)  Type:_____ Name:_____	o)  Type:_____ Name:_____

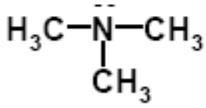
2) (3 pt) Classify each of the following as either 1', 2', or 3' amines and quatenary amine :

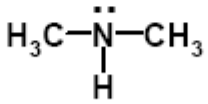
a) 

b) 

c) 

_____ _____ _____

d) 

e) 

_____ _____

3) (3 pts) Consider the following compounds:

a) $CH_3—CH_2—CH_2—NH_2$

b) $CH_3—CH_2—NH—CH_3$

c) $CH_3—CH_2—CH_2—CH_3$

d) $CH_3—CH_2—CH_2—NH_3^+Cl^-$

A. Arrange compounds in the order highest boiling point to lowest?

B. Arrange compounds in the order of highest solubility in water to the lowest?

4) (3 pts) Draw the structure of the following amines and amides:

a. N-methyl-1-butanamine:

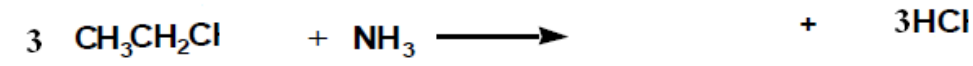
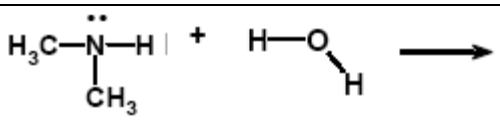
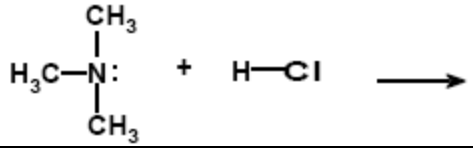
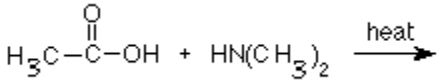
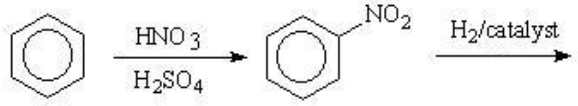
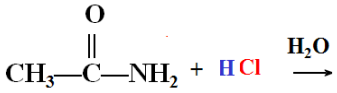
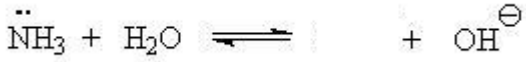
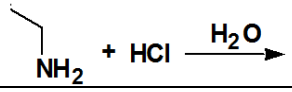
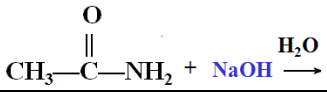
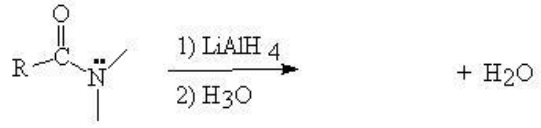
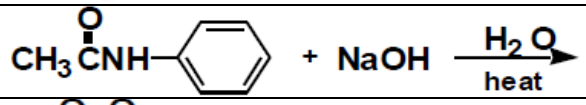
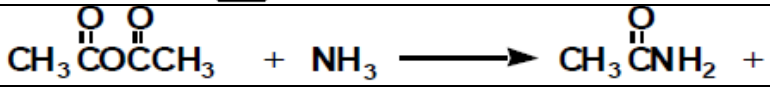
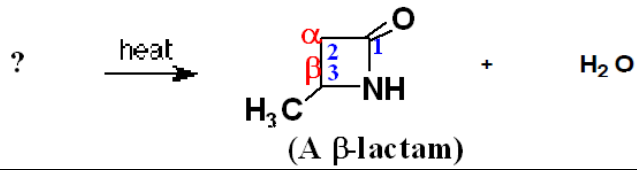
b. N-methylaniline:

c. N-phenyl-3-chlorobutanamide:

d. N-ethyl-N-methylethanamide

e. N-methylbenzamide

5) (8 pt) Name and complete the following preparations/reactions of amines amides:

a)	
b)	
c)	
d)	
e)	
f)	
g)	
h)	
i)	
j)	
k)	
l)	
m	 (A β-lactam)
n)