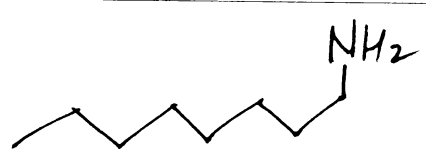
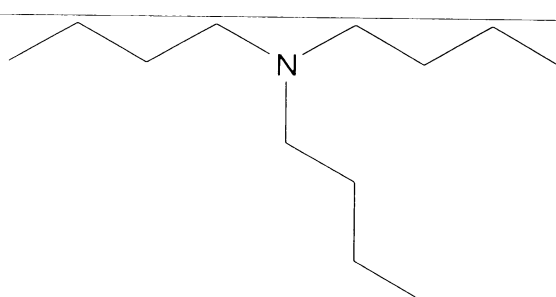
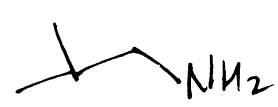
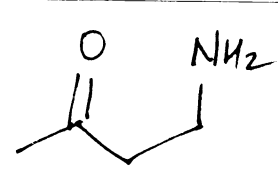


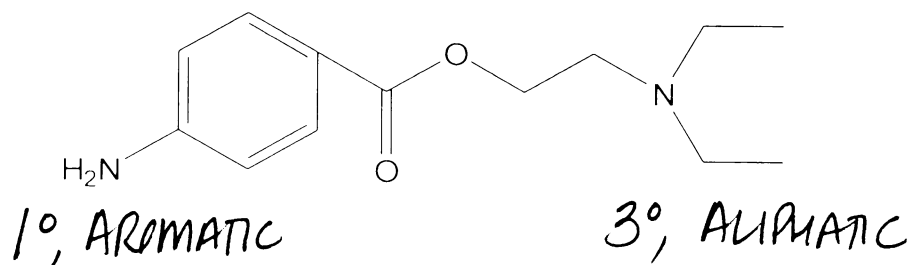
Unless otherwise specified, each question is worth 2 points.

1. Complete the following table: (ref. problems 10.9 & 10.10) 2 points each.

	NAME	FORMULA / STRUCTURE
a	1-octanamine	
b	TRIBUTYLAMINE OR N,N-DIBUTYL-1-BUTANAMINE	
c	Isobutylamine	
d	2-AMINO-1-ETHANOL	$\text{H}_2\text{NCH}_2\text{CH}_2\text{OH}$
e	4-amino-2-butanone	

Unless otherwise specified, each question is worth 2 points.

2. Classify each amino group on Procaine (Novocaine's conjugate base) as primary, secondary, tertiary, aliphatic and/or aromatic: (ref. problem 10.12) 4 points total.



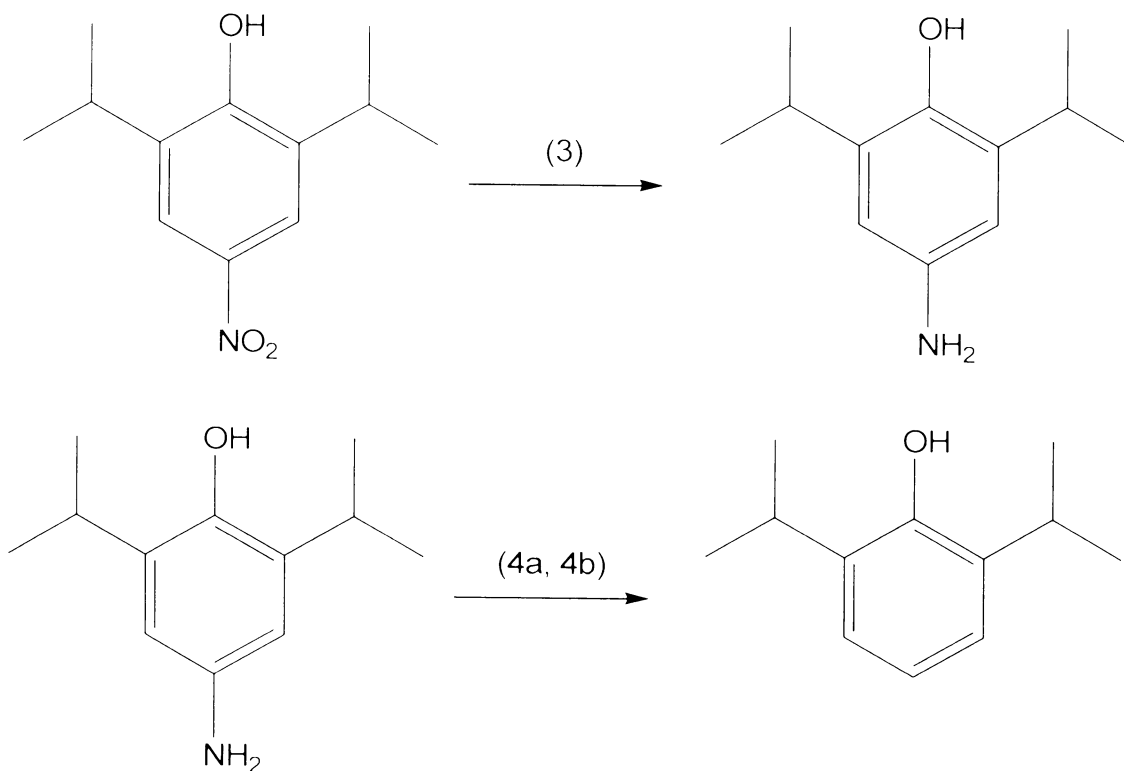
3. Draw the structural formula of the hydrochloride salt form when one mole of epibatidine (isolated from the skin of the Ecuadorian poison frog; shown below) is reacted with one mole of HCl. (ref. problem 10.27) 2 points total.



Note: This compound has several times the analgesic potency of morphine. As you may recall, in one episode of *Beavis and Butthead*, the boys put frogs in their mouths hoping for a pleasant psychotropic effect.

Unless otherwise specified, each question is worth 2 points.

4. The last two steps in the synthesis of the intravenous anesthetic propofol are shown below. What reagents & conditions are required to bring about these 2 steps? (*This IS problem 10.41!!!!*) 2 points each.



Step 3:  $H_2$  / METAL

Step 4(a)  $NaNH_2$  / HCl (COLD)

(b)  $H_3PO_2$