Complete the following reactions. Circle the most favored products.

$$2. \qquad \begin{array}{c} \bigcirc \\ \bigcirc \\ \bigcirc \\ \bigcirc \\ \bigcirc \\ \bigcirc \\ \end{array} \qquad + \qquad \begin{array}{c} \bigcirc \\ \bigcirc \\ \bigcirc \\ \bigcirc \\ \bigcirc \\ \end{array} \qquad \begin{array}{c} \underline{[ \cdot H_2 \bigcirc ]} \\ \bigcirc \\ \end{array}$$

5. 
$$\longrightarrow$$
 N + 2 H<sub>2</sub>O + HCl  $\longrightarrow$ 

6. 
$$+ H_2O + NaOH \rightarrow$$

10. 
$$\rightarrow$$
 NH + H<sub>2</sub>O  $\rightleftharpoons$ 

12. 
$$+ H_2O$$
 [H\*]

13. 
$$\downarrow$$
 NH<sub>2</sub> + HCl  $\rightarrow$ 

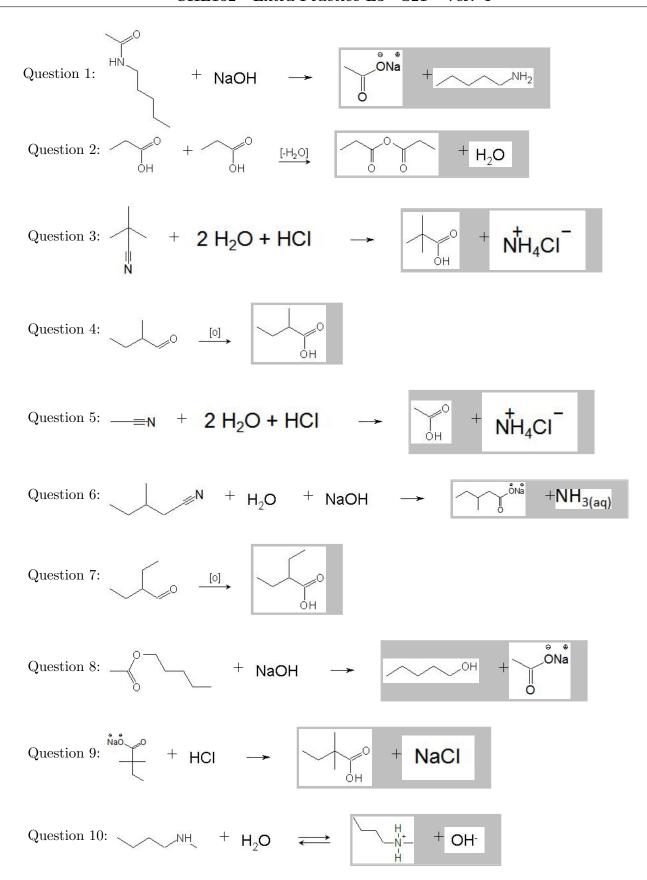
14. 
$$\bigcirc$$
 OH +  $\bigcirc$  OH  $[H_2O]$ 

18. 
$$+ H_2O$$
 [H+]

21. 
$$+ H_2O$$
 [H\*]

23. 
$$\longrightarrow$$
 +  $H_2O$  [H+]

24. 
$$\uparrow \downarrow 0$$
 + NH<sub>3</sub>  $\underline{[H_2O]}$ 



Question 13: 
$$+$$
 HCI  $\rightarrow$   $H_{H}^{+H}$  CI

Question 17: 
$$\longrightarrow$$
 NaOH  $\longrightarrow$  ONa  $\longrightarrow$  NaOH  $\longrightarrow$  ONA  $\longrightarrow$  NaOH

Question 18: 
$$+ H_2O$$
 [H\*]  $+ H_2O$ 

Question 21: 
$$+ H_2O$$
  $[H^+]$  OH  $+ OH$ 

Question 23: 
$$+ H_2O$$
  $- H^+$ 

Question 24: 
$$+ NH_3$$
  $- H_2O$   $+ H_2O$ 

Question 25: 
$$H_2/Ni$$
  $\Delta$   $NH_2$