Complete the following reactions. Circle the most favored products.

1. 
$$\frac{H_2/Ni}{\Delta}$$

$$2. \qquad \qquad + \text{ NH}_3 \qquad \xrightarrow{\text{[-H_2O]}}$$

3. 
$$\longrightarrow$$
 + HCI + H<sub>2</sub>O  $\longrightarrow$ 

5. 
$$\downarrow$$
 + H<sub>2</sub>O  $\longleftrightarrow$ 

6. 
$$H_2/Ni$$

7. 
$$H_2/Ni$$

8. 
$$H_{N} \xrightarrow{\Theta} \frac{H_{2}/Ni}{\Delta}$$

$$9.$$
 NH $_2$  + HCI  $\longrightarrow$ 

$$10. \hspace{1cm} \begin{array}{c} \text{NH} \\ \end{array} \hspace{1cm} + \hspace{1cm} \text{H}_2 \text{O} \hspace{1cm} \longleftrightarrow \hspace{1cm}$$

12. 
$$\stackrel{\bigcirc}{\underset{\text{HN}}{\longleftarrow}}$$
 + NaOH  $\longrightarrow$ 

13. 
$$NH_2 + CI \longrightarrow$$

14. 
$$\nearrow$$
 NH<sub>2</sub> + H<sub>2</sub>O  $\Longrightarrow$ 

16. + HCI + 
$$H_2O$$
  $\longrightarrow$ 

17. 
$$+ -NH_2$$
 [-H<sub>2</sub>O]

$$^{18.}$$
  $^{\text{NH}_2}$   $^{+}$  HCI  $\longrightarrow$ 

$$19. \ \ ^{\text{HO}} - + -_{\text{NH}_2} \quad \xrightarrow{\text{[-H_2O]}}$$

20. HN 
$$\xrightarrow{}$$
  $\xrightarrow{}$   $\xrightarrow{}$   $\xrightarrow{}$   $\xrightarrow{}$   $\xrightarrow{}$ 

$$21. \quad \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} + \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} + \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array}$$

23. 
$$\uparrow$$
 + NaOH  $\rightarrow$ 

$$24. \hspace{1cm} + \hspace{1cm} \text{NaOH} \hspace{1cm} \longrightarrow \hspace{1cm}$$

25. 
$$\begin{array}{c|c} & & & \\ & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & &$$

Question 13: 
$$NH_2 + CI \rightarrow NH_1 + HCI$$

Question 14:  $NH_2 + H_2O \rightarrow H_1 + OH_1$ 

Question 15:  $NH_2 + HCI + H_2O \rightarrow H_1 + OH_1$ 

Question 16:  $NH_2 + HCI + H_2O \rightarrow H_1 + H_2O$ 

Question 17:  $NH_2 + HCI \rightarrow H_2O \rightarrow H_1 + H_2O$ 

Question 19:  $NH_2 + HCI \rightarrow H_2O \rightarrow H_1 + H_2O$ 

Question 20:  $NH_2 + HCI \rightarrow H_2O \rightarrow H_1 + H_2O$ 

Question 21:  $NH_2 + HCI \rightarrow H_2O \rightarrow H_1 + H_2O$ 

Question 22:  $NH_2 + HCI \rightarrow H_2O \rightarrow H_1 + H_2O$