Complete the following reactions. Circle the most favored products.

1.
$$H_2/Ni$$
 Δ

2.
$$\rightarrow$$
 NH₂ + HCI \rightarrow

$$^{4.}$$
 $^{\text{NH}}$ $^{+}$ HCl \longrightarrow

5.
$$+ H_2O$$
 $+ H_2O$

6.
$$+ H_2O$$
 [H+]

7.
$$\underbrace{\hspace{1cm}}_{N}$$
 $\underbrace{\hspace{1cm}}_{N}$ $\underbrace{\hspace{1cm}}_{N}$ $\underbrace{\hspace{1cm}}_{N}$ $\underbrace{\hspace{1cm}}_{N}$

8.
$$\longrightarrow$$
 + H_2O [H+]

9.
$$+ \longrightarrow NH_2$$
 $\xrightarrow{[-H_2O]}$

$$10. \hspace{0.1in} \searrow \hspace{0.1in} \mathrm{NH_2} \hspace{0.1in} + \hspace{0.1in} \mathrm{H_2O} \hspace{0.1in} \longleftrightarrow \hspace{0.1in}$$

11.
$$\frac{\mathsf{N}}{\Delta} \xrightarrow{\mathsf{H}_2/\mathsf{N}i} \Delta$$

12.
$$\downarrow$$
 CI + NH₃ \rightarrow

$$^{13.}$$
 $^{\rm N}$ $^{\rm +}$ ${\rm H_2O}$ $^{\rm +}$ NaOH \longrightarrow

14.
$$N \longrightarrow H_2/Ni \longrightarrow \Delta$$

16.
$$\downarrow$$
 HCI + H₂O \rightarrow

17.
$$H_2/Ni$$
 Δ

18.
$$N \xrightarrow{H_2/Ni} \Lambda$$

19.
$$+$$
 $-CI$ \longrightarrow

$$20. \qquad \boxed{ } \bigcirc \bigcirc \boxed{ } \bigcirc \bigcirc$$

21. OH + OH
$$[-H_2O]$$

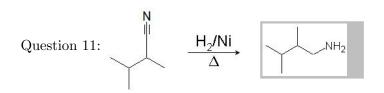
22.
$$\downarrow 0$$
 + $\downarrow NH$ $[-H_2O]$

23.
$$NH_2$$
 + HCI \longrightarrow

$$24.$$
 $\stackrel{\circ \mathring{\text{o}}_{\text{Na}}}{\longrightarrow}$ + HCI \longrightarrow

$$25.$$
 \longrightarrow $^{\mathring{\text{o}}\mathring{\text{N}}\mathring{\text{a}}}$ $+$ HCI \longrightarrow

Question 1:
$$H_2/Ni$$
 A_1 A_2/Ni A_2 A_3 A_4 A_4



Question 12:
$$\downarrow$$
 CI + NH₃ \longrightarrow NH₂ + HCI

Question 14:
$$H_2/Ni$$
 Δ NH_2

Question 17:
$$H_2/Ni$$
 H_2O H_2O

Question 18:
$$\frac{\mathsf{H}_2/\mathsf{N}\mathsf{i}}{\Delta}$$
 $\frac{\mathsf{N}_2/\mathsf{N}\mathsf{i}}{\Delta}$

Question 19:
$$+$$
 $-CI$ \rightarrow CI^{-}

Question 22:
$$\downarrow \circ$$
 + $\downarrow \circ$ $\downarrow \circ$ + $\downarrow \circ$ $\downarrow \circ$ + $\downarrow \circ$

Question 23:
$$\rightarrow$$
 HCI \rightarrow $\stackrel{\text{H}}{\downarrow}$ CI