Complete the following reactions. Circle the most favored products.

$$2. \quad \underset{\Delta}{\overset{\text{OH}}{\longrightarrow}} \quad \underset{\Delta}{\overset{[K_2\operatorname{Cr}_2\operatorname{O}_7/\operatorname{H}_2\operatorname{SO}_4]}{\longrightarrow}}$$

$$4. \quad \stackrel{\mathsf{OH}}{\underset{\Delta}{\bigvee}} \quad \frac{_{\left[K_{2}\mathrm{Cr}_{2}\mathrm{O}_{7}/\mathrm{H}_{2}\mathrm{SO}_{4}\right]}}{}$$

$$6. \qquad \qquad \underset{\Delta}{\text{OH}} \qquad \frac{[\text{K}_2\text{Cr}_2\text{O}_7/\text{H}_2\text{SO}_4]}{\Delta}$$

9. 
$$\stackrel{\text{OH}}{\longleftarrow}$$
 + HCI  $\stackrel{\text{[ZnCl}_2]}{\longleftarrow}$ 

10. 
$$\frac{[K_2Cr_3O_7/H_2SO_4]}{\Delta},$$

11. 
$$\stackrel{\text{CI}}{\longleftarrow}$$
 + NaOH  $\longrightarrow$ 

12. 
$$\stackrel{\mathsf{OH}}{\longrightarrow}$$

13. 
$$\bigcirc$$
OH  $\bigcirc$ [0]

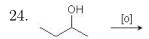
14. 
$$+$$
 HCI  $\underline{[ZnCl_2]}$ 

17. 
$$OH$$
  $[-H_2O]$ 

19. 
$$\bigcirc$$
OH  $[-H_2O]$ 

$$20. \quad \underset{\Delta}{\text{OH}} \quad \underset{\Delta}{\underset{[K_2 Cr_2 O_7/H_2 SO_4]}{\text{OH}}}$$

$$23. \qquad \underbrace{\frac{\left[K_2 Cr_2 O_7 / H_2 SO_4\right]}{\Delta}}$$



$$25. \quad \begin{array}{c} \text{OH} \\ \hline \end{array}$$

## CHE102 - Extra Practice C22 - S18 - Ver. 2

Question 2: No Reaction

Question 3: No Reaction

Question 7: 
$$+ H_2O$$
 Rate: Fast

Question 8: 
$$+ H_2O$$

Question 9: 
$$+ H_2O$$
 Rate: Slow

 ${\it Question} \ 10: \ \ {\it No Reaction}$ 

Question 12: 
$$+ H_2O$$

Question 13: 
$$+ H_2O$$

Question 14: 
$$+ H_2O$$
 Rate: Slow

Question 15: 
$$+ H_2O$$
 Rate: Fast

Question 16: 
$$+ H_2O$$

Question 17: 
$$+ H_2O$$

Question 18: 
$$+ H_2O$$
 Rate: Very Slow

Question 19: 
$$+ H_2O$$

 ${\rm Question} \ 23{:} \ \ \mbox{No Reaction}$ 

Question 24: 
$$\bigcirc$$
  $+ H_2O$ 

Question 25: No Reaction