## Complete the following reactions. Circle the most favored products.

1. OH 
$$\frac{[K_2Cr_2O_7/H_2SO_4]}{\Delta}$$

$$2. \qquad \xrightarrow{\text{OH}} \quad \underset{\Delta}{\underbrace{\text{\tiny [K_2Cr_2O_7/H_2SO_4]}}}$$

$$3. \qquad \underset{\Delta}{\overset{\text{OH}}{\longrightarrow}} \qquad \underset{\Delta}{\overset{[\text{K}_2\text{Cr}_2\text{O}_7/\text{H}_2\text{SO}_4}]}{\longrightarrow}}$$

$$4.$$
 OH  $+$  OH [H<sub>2</sub>O]

$$6. \xrightarrow[N_2 \text{Cr}_2 \text{O}_7/\text{H}_2 \text{SO}_4]} \xrightarrow[\Delta]{}$$

10. 
$$\stackrel{\mathsf{OH}}{\longleftarrow}$$
 +  $\mathsf{HCI}$   $\stackrel{\mathsf{[ZnCl_2]}}{\longleftarrow}$ 

13. 
$$\stackrel{\mathsf{OH}}{\smile}$$
  $\stackrel{[0]}{\longrightarrow}$ 

$$14. \qquad \qquad \underbrace{\text{OH} \qquad \frac{[K_2 C r_3 O_7 / H_2 S O_4]}{\Delta}}_{}$$

$$15. \quad \stackrel{\text{OH}}{\underset{\Delta}{|K_2Cr_2O_7/H_2SO_4|}},$$

17. OH + 
$$\bigcirc$$
 [H<sub>2</sub>O]

19. 
$$\downarrow$$
 OH +  $\downarrow$  OH  $\sqsubseteq$   $\vdash$   $\vdash$  OH  $\sqsubseteq$   $\vdash$   $\vdash$  OH

20. 
$$OH$$
 + HCI  $ZnCl_2$ 

$$21. \quad \stackrel{\mathsf{OH}}{\longleftarrow} \quad \stackrel{[\mathsf{o}]}{\longrightarrow} \quad$$

$$23.$$
  $\bigcirc$ CI  $^+$  NaOH  $\longrightarrow$ 

$$24. \quad \xrightarrow{\text{OH}} \quad \xrightarrow{\frac{\left[K_2 C r_2 O_7 / H_2 S O_4\right]}{\Delta}}$$

25. OH 
$$+$$
 OH  $\underline{[H_2O]}$ 

## CHE102 - Extra Practice C22 - S18 - Ver. 1

Question 1:  $H_2O$  Visible Change: orange-red  $\longrightarrow$  green-blue

Question 6: No Reaction

Question 7:  $+ H_2O$ 

Question 8: + H<sub>2</sub>C

Question 9: No Reaction

Question 10:  $+ H_2O$  Rate: Slow

Question 11:  $+ H_2O$ 

Question 12: No Reaction

Question 13:  $+ H_2O$ 

Question 16: 
$$+ H_2O$$
 Rate: Very Slow

Question 17: 
$$+ H_2O$$

Question 18: No Reaction

Question 20: 
$$+ H_2O$$
 Rate: Very Slow

 ${\rm Question} \ 21: \ \ \mbox{No Reaction}$ 

Question 25: 
$$+ H_2O$$