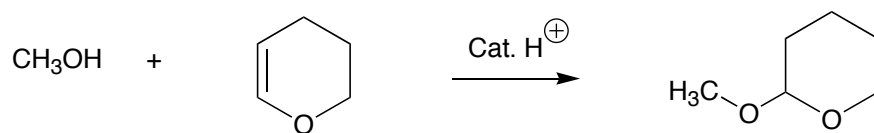


3. (15 pts) Provide a detailed mechanism for the reaction below, drawing all resonance contributors for any of the intermediates formed.



4. (15 pts) Provide a detailed mechanism for the reaction below.  $\text{NaNO}_2$  and  $\text{HCl}$  react to form the unstable species  $[\text{NO}]^+$ . You do not have to show its formation.

