The following start 5 minutes into the recitation and you have 30 minutes to complete it. If you finish early, please turn your exam over and wait until you are instructed to turn the quiz in. There is no leaving the room during the quiz for any reason.

1. Show the missing reagents and/or products (12 points)

\[
\text{OH} \quad \overset{\text{BH}_3}{\xrightarrow{\text{i. BH}_3}} \quad \text{\text{C=C}} \quad \overset{\text{NaOOH}}{\xrightarrow{\text{ii. NaOOH}}} \quad \text{\text{C=C}}
\]

2. Show the mechanism for the following reaction (8 points)

\[
\text{Br} \quad \overset{\text{K}^+ \text{O}}{\xrightarrow{\text{K}^+}} \quad \text{\text{C=O}}
\]