9. (8 pts) Provide the reagents for the sequences below:

\[ \text{A} = \text{CH}_3 - \text{P} \text{Ph}_3 \quad \text{Wittig} \quad \text{B} = \text{N} = \text{C} \text{CN} \quad \text{Piers Aldol} \]

\[ \text{C} = \text{CuLi} \quad \text{Conjugate addition} \quad \text{H}_2\text{NNH}_2, \text{OH} \quad \text{Wohl-Kishner} \]

10. (9 pts) Give an example of that satisfies the following conditions. There may be more than one right answer. Draw correct structures with the right number of bonds and correct charges. **Choose 3 of 4 and cross one out or graded in order.**

(a) An oxime

(b) The reagent that performs the following transformation:

\[ \text{OH} \quad \text{A} \quad \text{O}_2 \quad \text{OH} \quad \text{OH} \quad \text{OH} \]

(c) The structure of MCPBA. What is it used for?

(d) Show how to turn an epoxide into a diol.