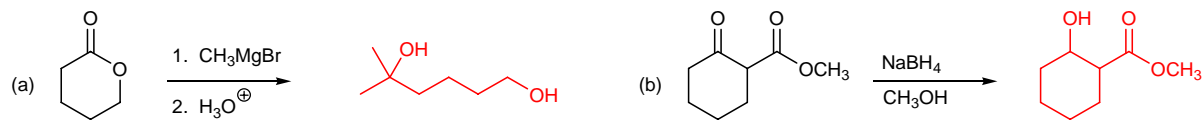
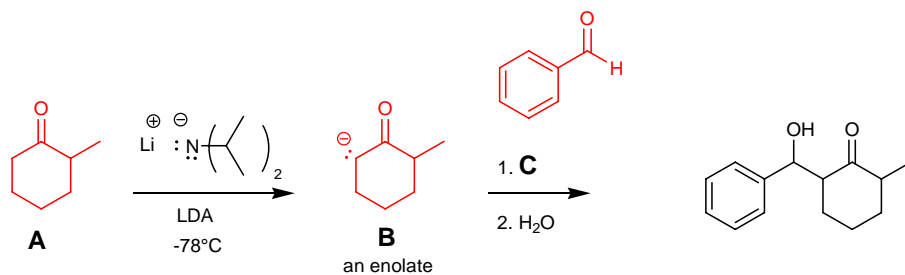


## Short Answer Questions. 40 points.

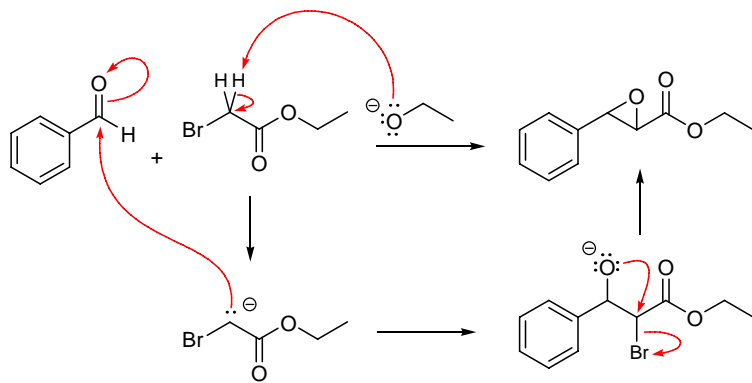
13. Predict the products of the following reactions. **A = 10, B = 8, C = 5, D = 2, E = 0**



14. Give the structures of **A**, **B** and **C** that would complete the reaction sequence to produce the compound shown on the right. **A = 10, B = 8, C = 5, D = 2, E = 0**



15. Using the curved arrow formalism show the bond making and bond breaking steps involved in the following reaction. **A = 10, B = 8, C = 5, D = 2, E = 0**



16. Propose a synthesis of the following compound from benzene and compounds containing four carbon atoms or less. **A = 10, B = 8, C = 5, D = 2, E = 0**

