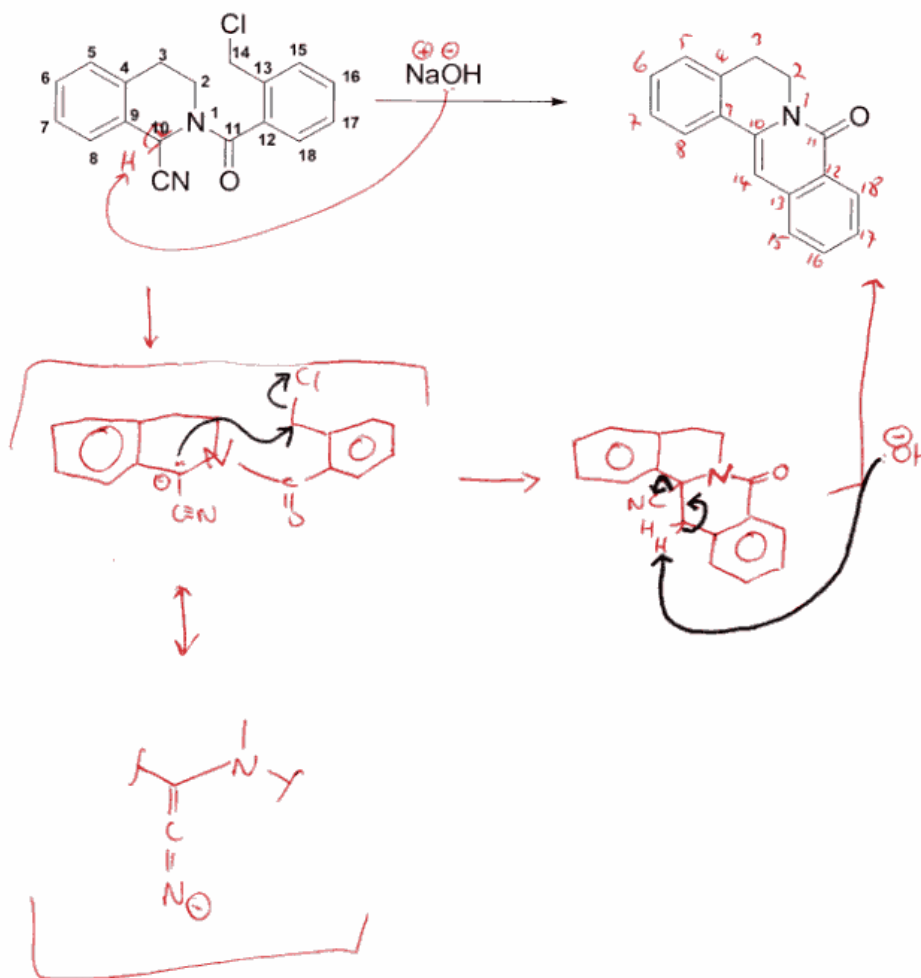
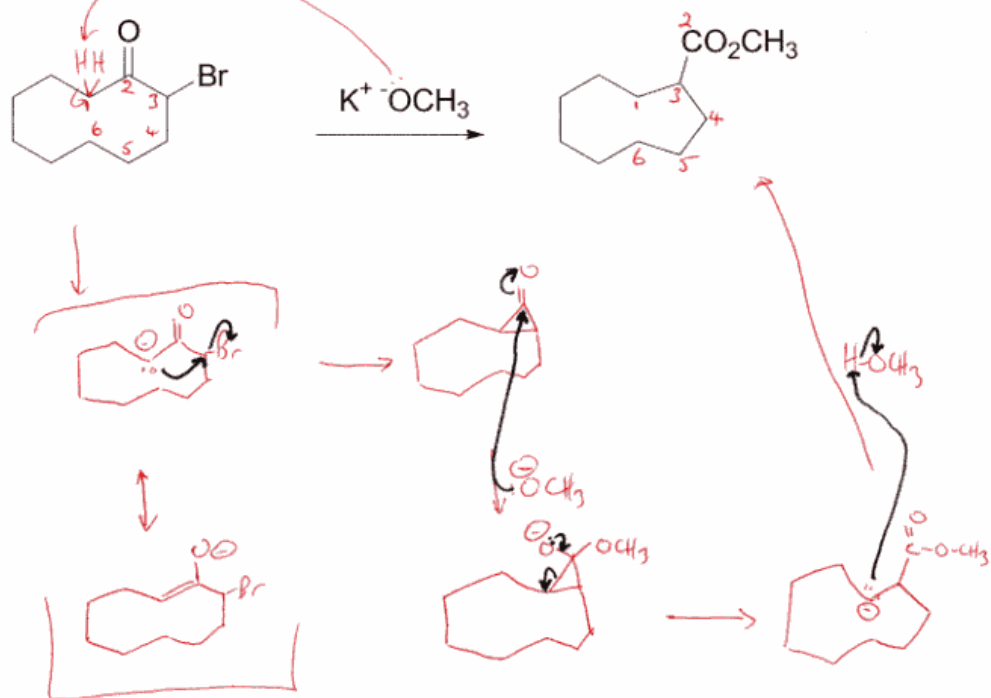


*Four questions for 5 points each*

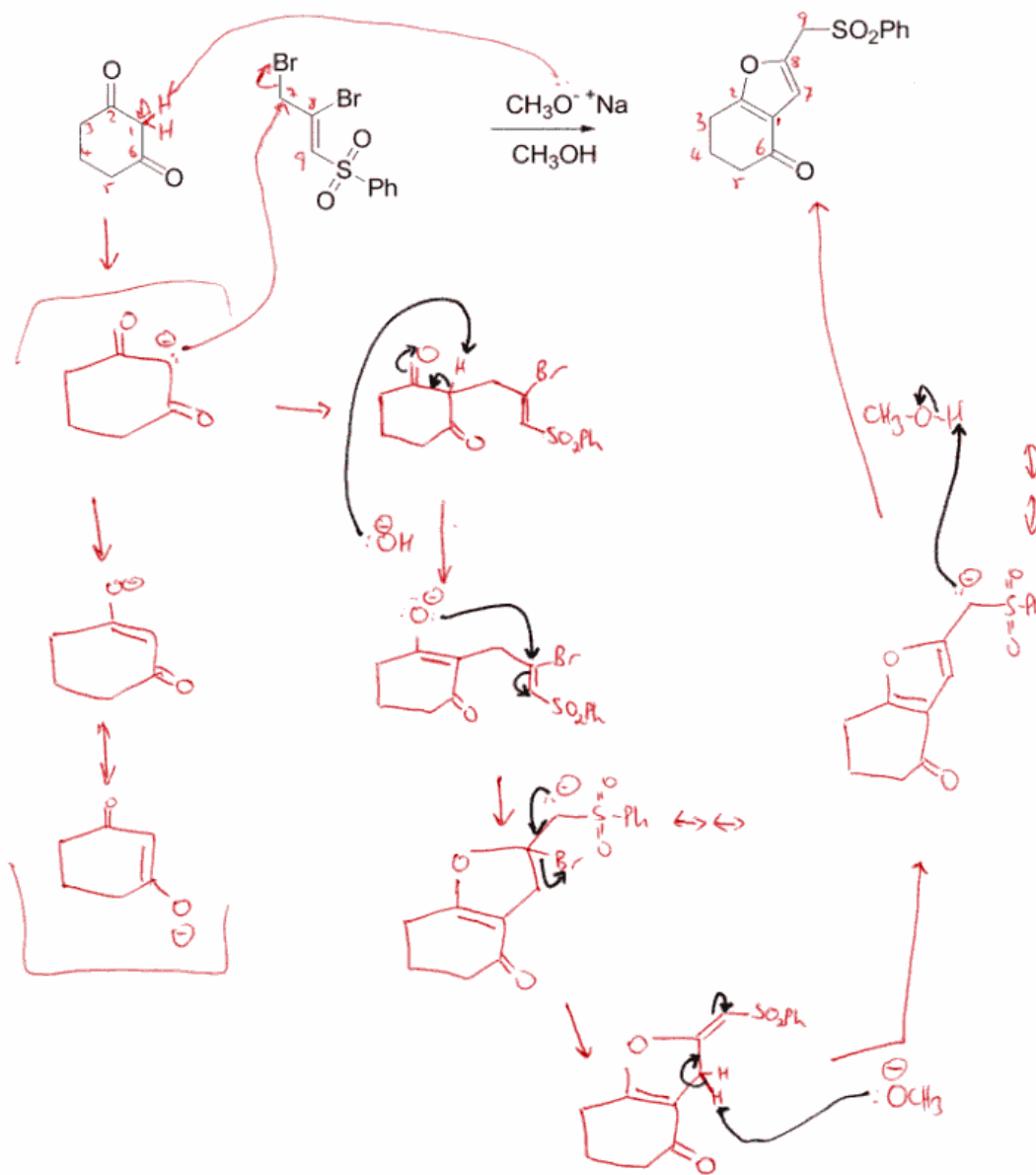
1) Number the atoms in the product, and then write the mechanism which involves a substitution and an elimination.



2) Write the mechanism for the following ring contraction involving a cyclic  $\alpha$ -bromoketone.



3) Write the mechanism for this transformation.



4) Write a mechanism consistent with the mixture of products produced in this reaction.

