1) Write a mechanism consistent with the mixture of products produced in this reaction. (7pts)

2) Label the atoms in the product, and then write the mechanism which involves a Favorskii type process. (7pts) *There is a bonus point if you justify the regiochemistry of ring opening*.

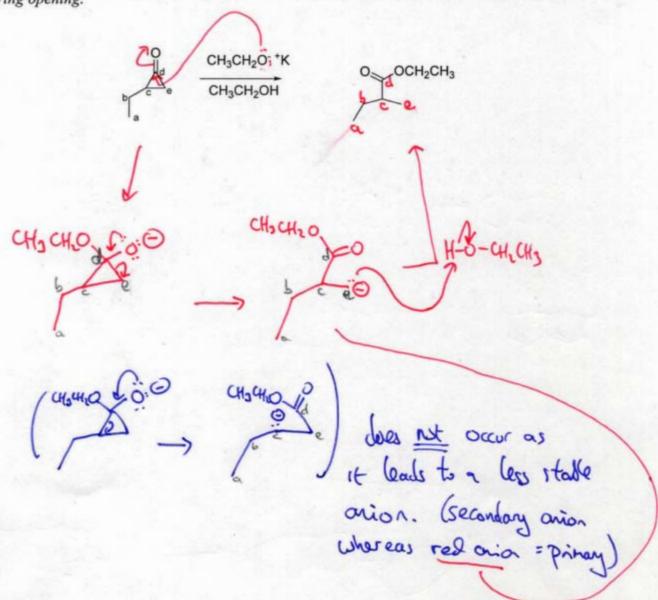
$$\begin{array}{cccc}
O & CH_3CH_2O^{-+}K \\
CH_3CH_2OH
\end{array}$$

$$\begin{array}{ccccc}
O & OCH_2CH_3
\end{array}$$

3) Write the mechanism for the following reaction. (6pts)

1) Write a mechanism consistent with the mixture of products produced in this reaction. (7pts)

2) Label the atoms in the product, and then write the mechanism which involves a Favorskii type process. (7pts) There is a bonus point if you justify the regiochemistry of ring opening.



## 3) Write the mechanism for the following reaction. (6pts)