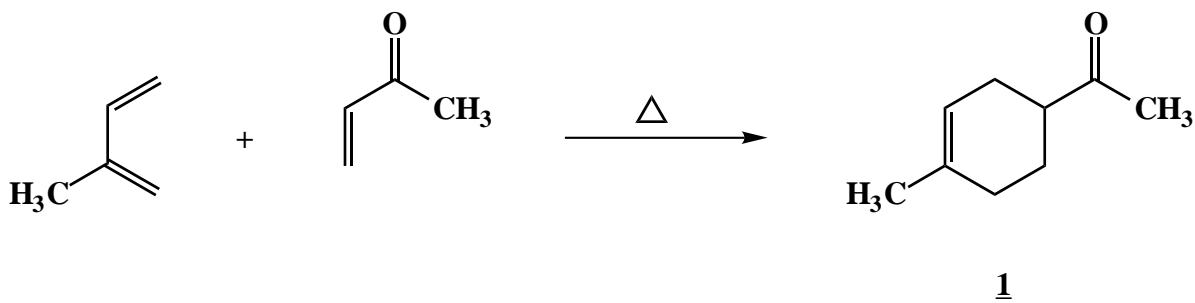


**An example from the Summer 1998 Examination #1:**

6. (20 points)

Answer the following two (2) questions precisely, succinctly and with correct grammar.

A. Why does the following reaction afford a racemic mixture of the cyclohexene derivative 1?



B. What effect does increased conjugation have on the position of the maximum absorbance,  $\lambda_{\text{max}}$ ?  
What is the basis for this observed effect?