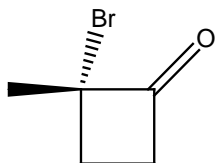


Homework/Problem Set

Chapter 16 (Aldehydes and Ketones – Nucleophilic Additions)

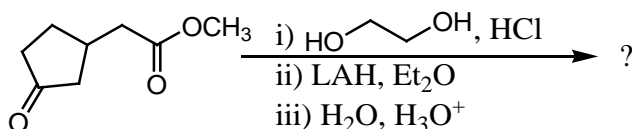
1. What is the correct IUPAC name for the following compound?



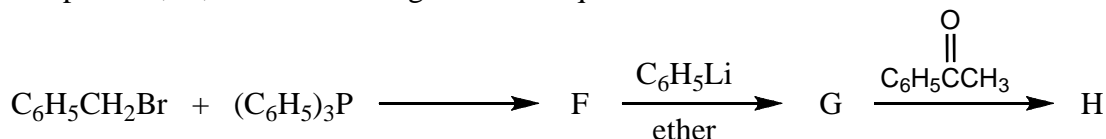
- (*S*)-2-Bromo-2-methylcyclobutanone; (*R*)-2-Bromo-2-methylcyclobutanone
(*S*)-1-Bromo-1-methyl-2-cyclobutanone; (*R*)-1-Bromo-1-methyl-2-cyclobutanone

2. What new compound will eventually be formed when HCl is added to a solution of pentanal in methanol?

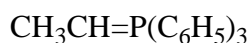
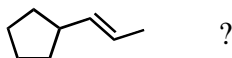
3. What is the major product of the following reaction sequence?



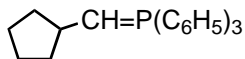
4. The product, **H**, of the following reaction sequence would be



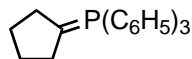
5. Which Wittig Reagent Or Reagents would be used to synthesize?



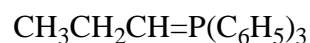
I



II



III



IV

6. Complete the following reaction sequence, giving structural details of all major intermediates

