

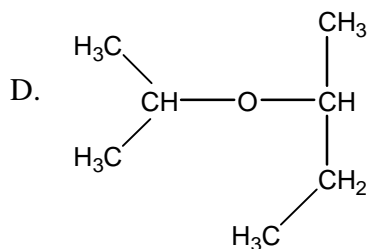
**Chem 231: Problem Set #8 (on Chapter 8)**

1. Name or draw structural or line formula for the following compounds.

A. THF

B. ethylene oxide

C. ethyl isopropyl ether

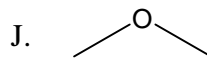
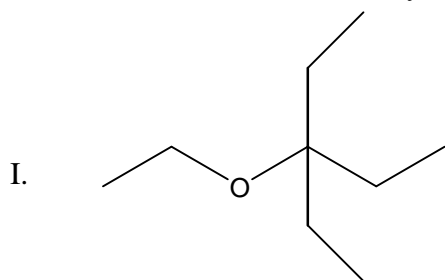


E. ethoxycyclopentane

F. [21] crown-7

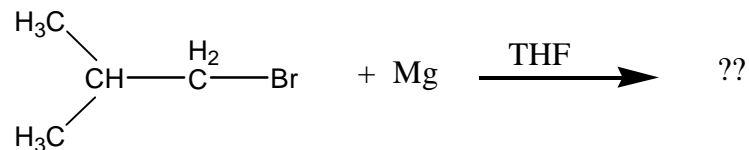
G. dibutyl ether

H. 2-*t*-butoxy-3-chloro-3-ethylpentane

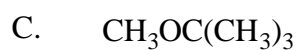
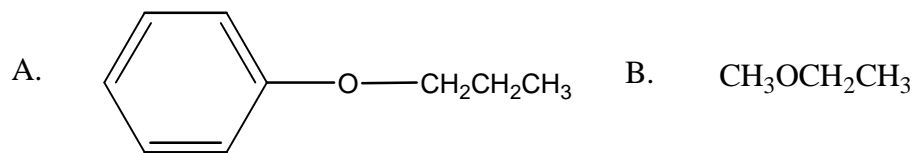


K. benzyl isopentyl ether

2. For the Grignard reaction shown below, predict the product and show partial charges ( $?^+$  and  $?^-$ ) on the reactant and product. What is the role of the THF solvent?



3. Use a Williamson synthesis, make the ethers in A-C. (Hint: Decide which combination of alcohol and alkyl halide to use.)



4. Give the major organic product or the necessary reagent(s) for each reaction.

