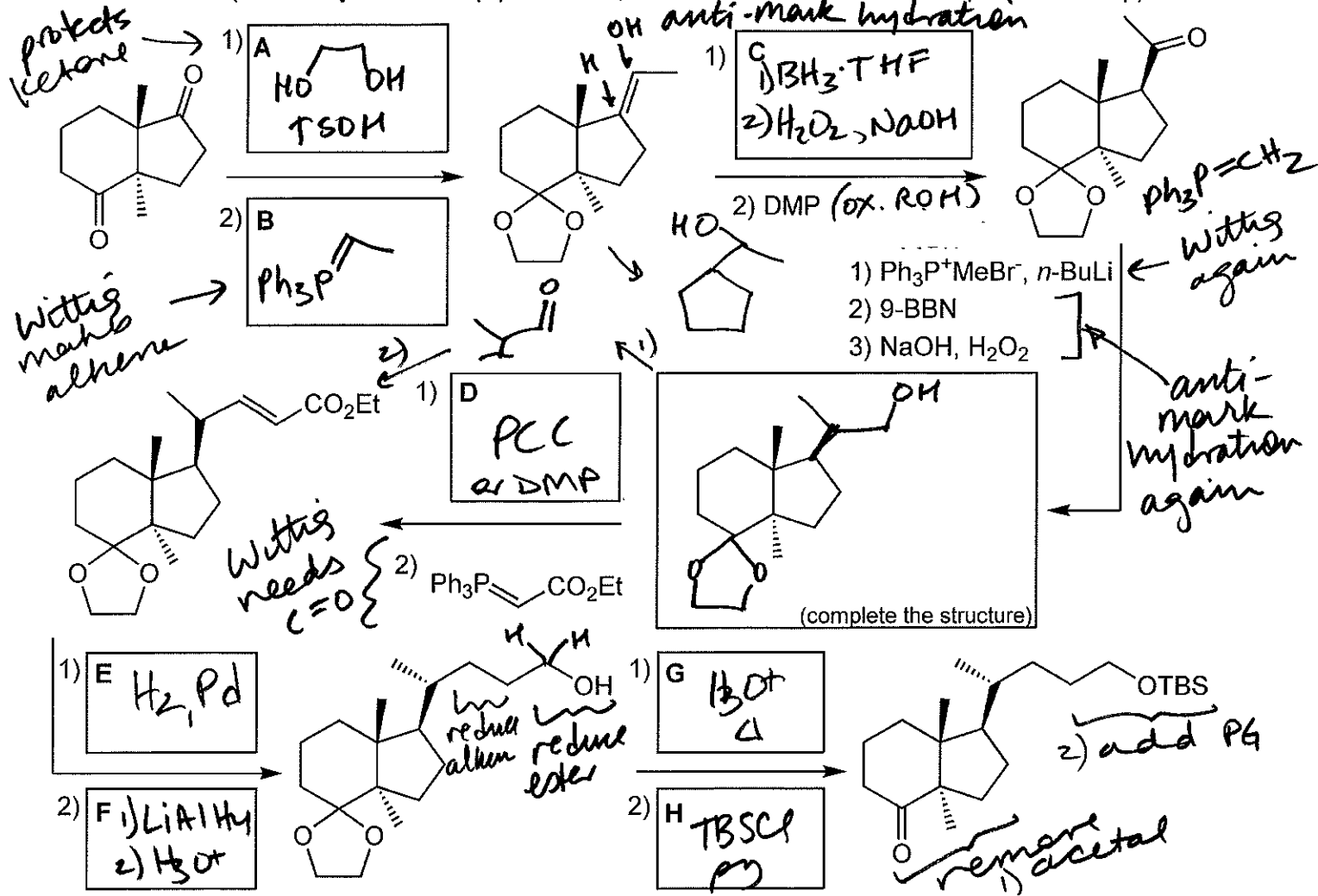


CHM 4220 Organic Synthesis, Dr. Laurie S. Starkey, Spring 2020  
Midterm Exam

Name: ANSWER KEY

I. (20 pts) Provide the missing reagents A–H, and the complete the drawing to provide the structure of the missing intermediate. You can ignore the stereochemistry. Each box is a single transformation (but it may be a 2-step procedure, such as a reaction with an aqueous workup).



II. (48 pts, 8 points each) Provide the reagents necessary to transform the given starting material into the desired product. Show your work, and provide at least one intermediate structure in each transformation. It may help to first consider the retrosynthesis of the product.

