

## Modern Organic Chemistry 13-04-2021

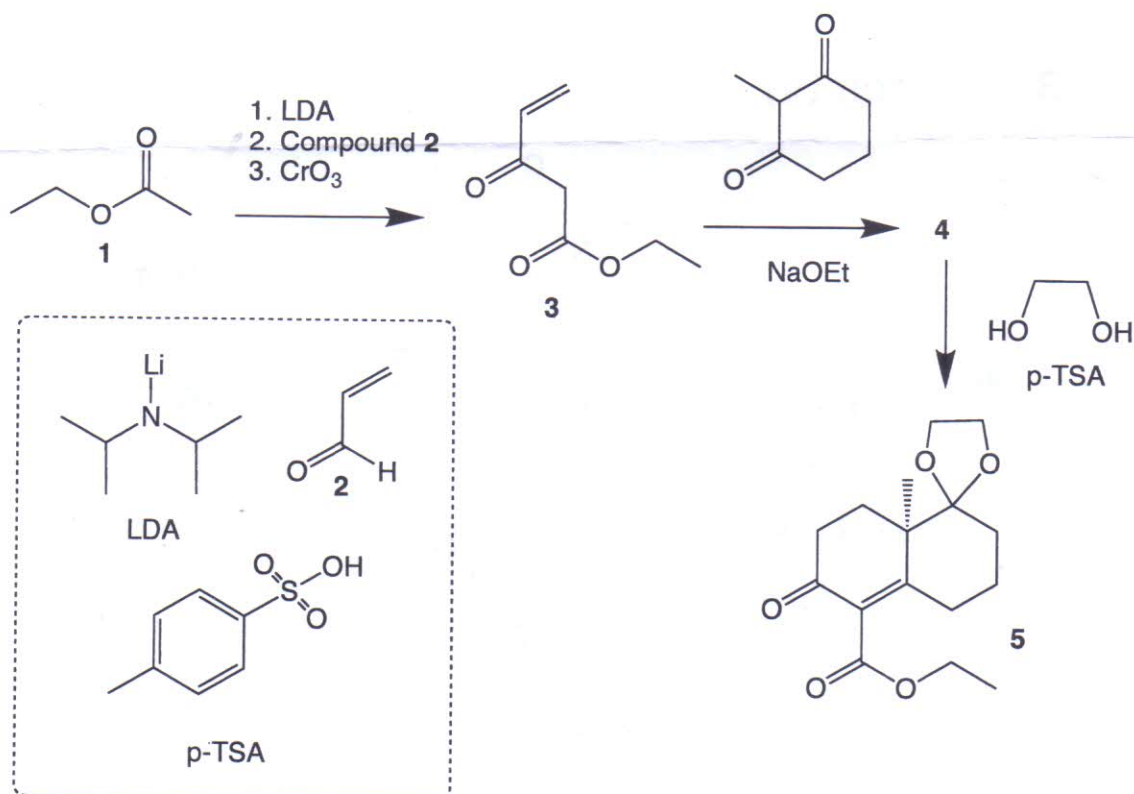
The first answer sheet must be provided with your name, student number and educational program.

Each answer sheet must be numbered, and it is required that the answers and the structures are also correctly numbered. Do not use a pencil and the color red.

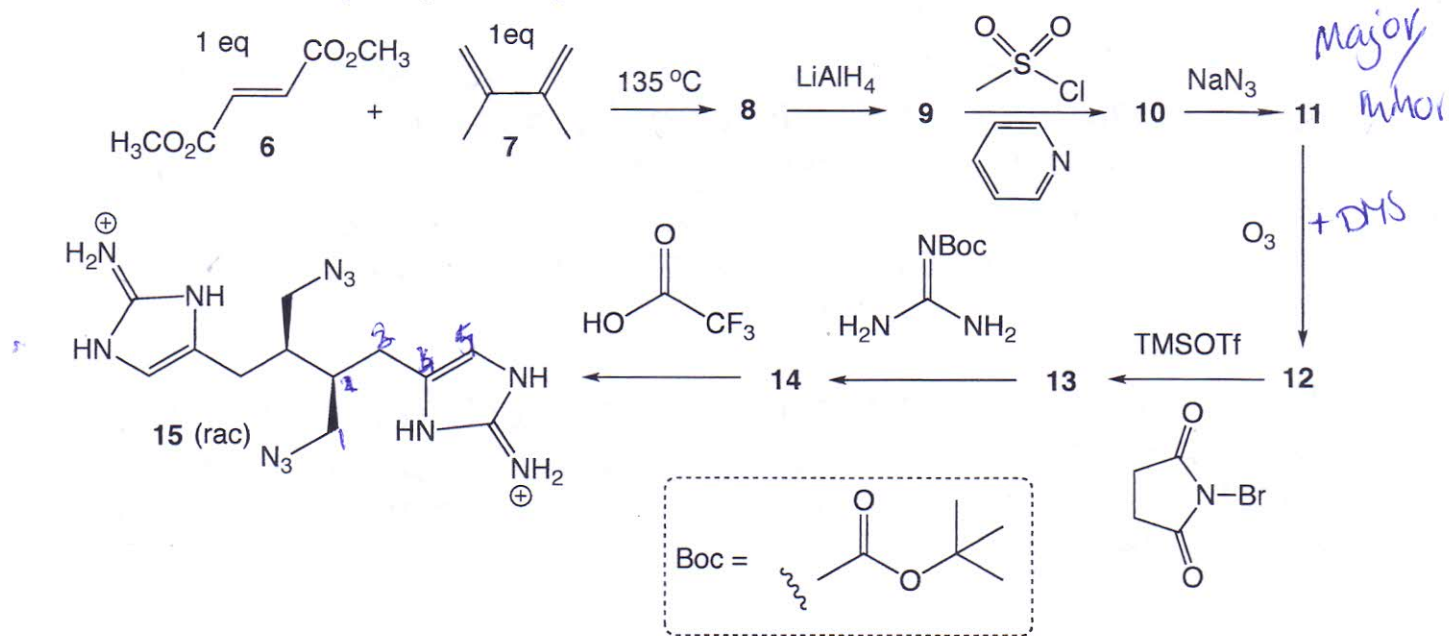
Duration of the exam is 3 hours.

Solve the following problems. For each reaction Scheme give the structure of the omitted compounds and the mechanisms of all involved transformations including stereochemistry if appropriate.

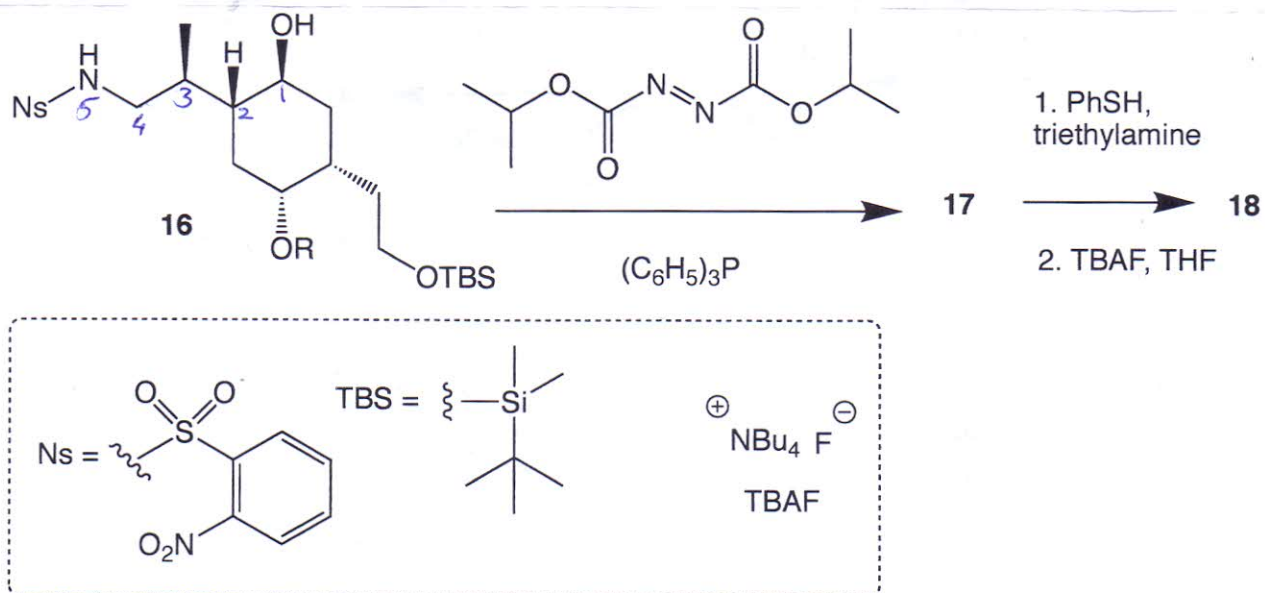
### Problem 1. (25 points)



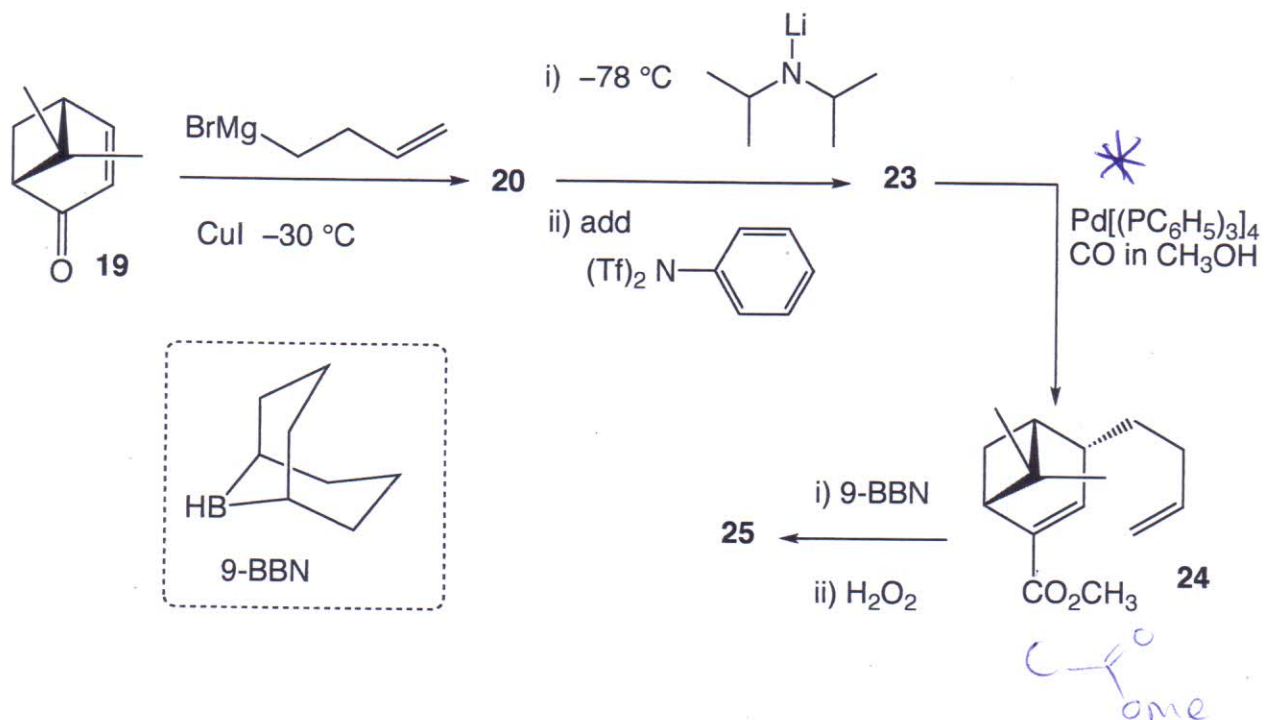
## Problem 2. (25 points)



## Problem 3. (15 points)



### Problem 4. (20 points)



### Problem 5. (15 points)

