

INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR

Reactions and Mechanisms in Organic Chemistry - CH 512

[End-Sem Exam]

Date: 27/04/2017

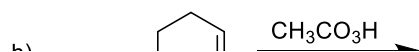
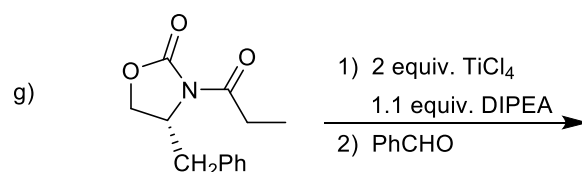
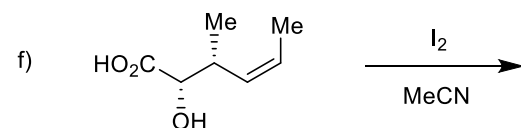
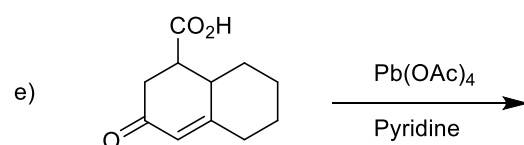
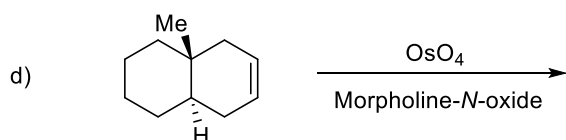
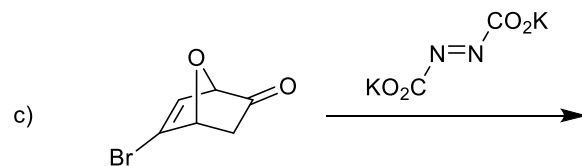
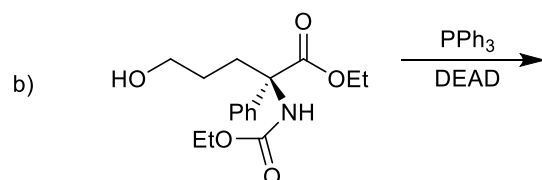
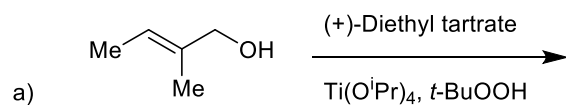
Marks: [50]

Duration: 2.5 h

Answer all questions

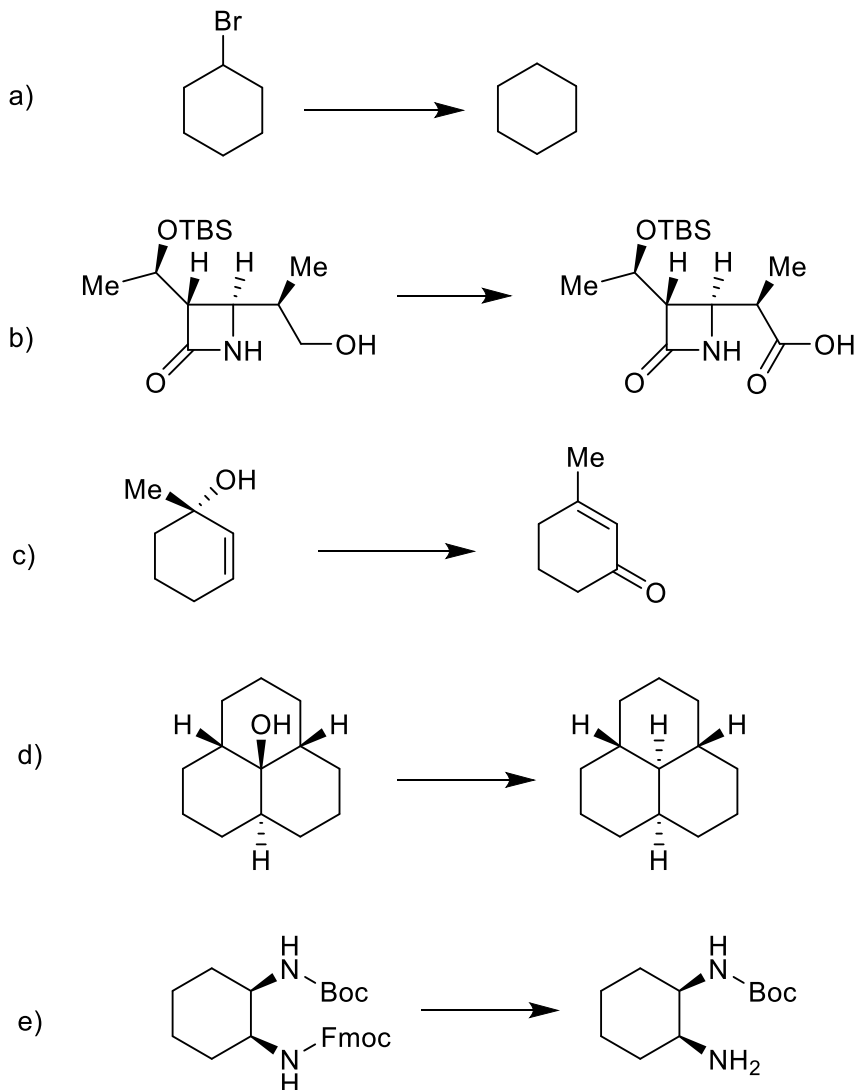
1. Write the major products of the following reactions with relevant stereochemistry.

(16 marks)



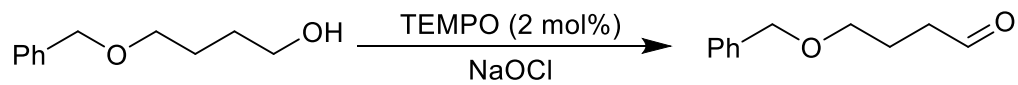
2. Predict appropriate reagents for the following transformations (one step).

(10 marks)



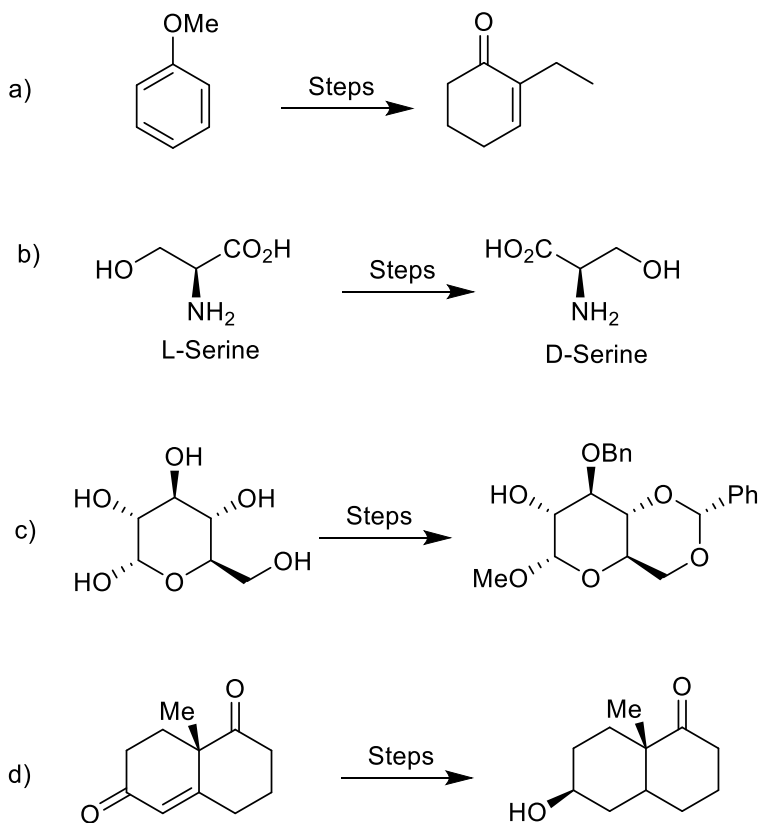
3. Write suitable mechanism for the formation of products, biproducts and the catalytic cycle in the following reactions.

(4 marks)



4. Suggest a short series of reactions that would be expected to transform the material on the left into the desired products shown on the right as major products with relevant stereochemistry. Write all the reagents and solvents required for each transformation.

(16 marks)



5. In the following series of reactions predict the structure of compounds **A** and **B** with relevant stereochemistry.

(4 marks)

