Final Exam

Carboxylic acids & derivatives
- relative reactivity of carbonyl compounds
- cationic (acidic) versus anionic (basic) mechanisms of carboxylic acid derivatives
- reversibility
- esterification/hydrolysis (cationic)
- saponification, diazomethane (anionic)
- solvolysis
- transesterification
- alkylation + reduction
  - DIBAL-H + LAH (O+)_3
  - NaBH_4 vs LiAlH_4
- lactones + lactams + nitriles

Types of problems: Mechanism, synthesis,
fill-in-the-blank 5/10/12 - stability

Enoates
- pK_a's
- cationic vs anionic
- α-halogenation (including haloform)
- aldol/mixed aldol, Claisen, Dieckmann,
  Michael addition, Robinson, Stork, α-alkylation
- malonic ester synthesis

Type of question: given a product, give
the reaction type & substrates used to make it

Amines including Curtius & Hofmann rearrangements
acid/base properties of amines

Carbohydrates & Amino Acids