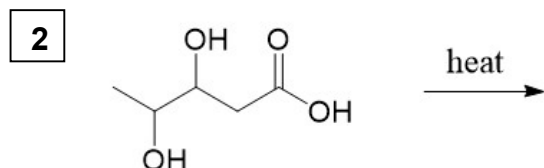
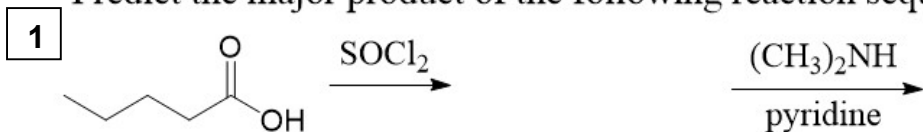


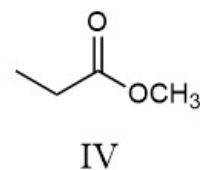
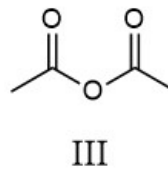
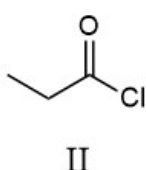
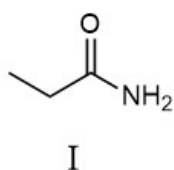


Chapter 20 Carboxylic Acids & Their Derivatives, Part 3 – [Practice Problems](#)

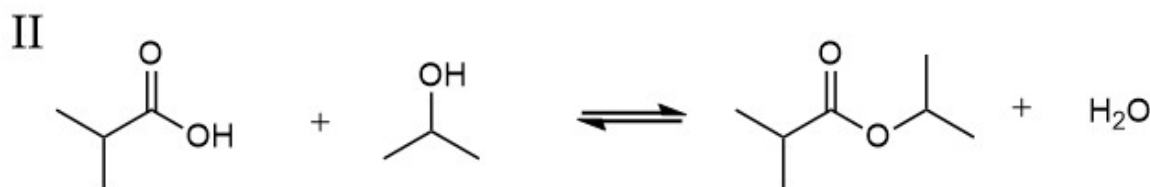
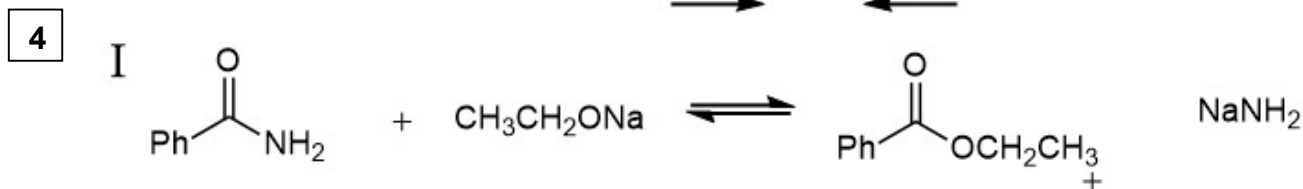
Predict the major product of the following reaction sequence.



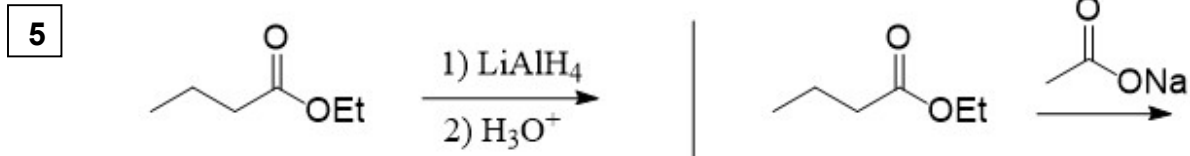
3 Arrange the given species in the order of DECREASING electrophilicity (best E^+ to worst E^+).



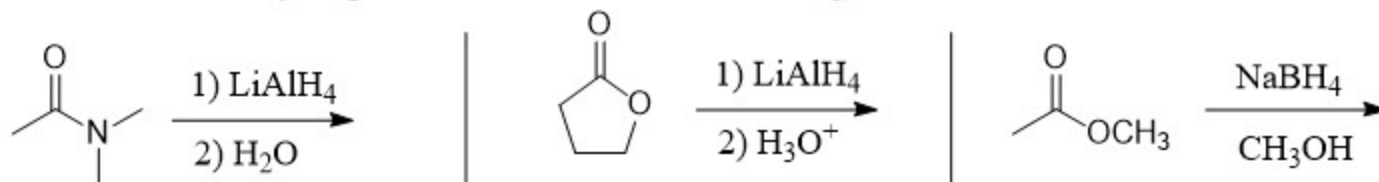
For each, predict whether the forward or reverse reaction is favored.



Predict the major products for the following reactions.

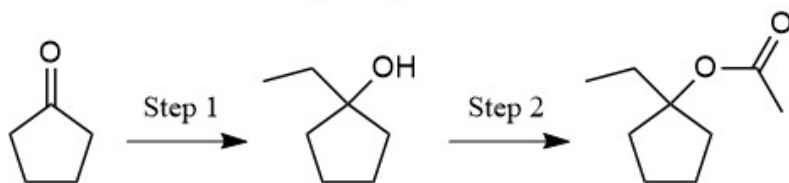


6 Predict the major products for the following reactions.



7

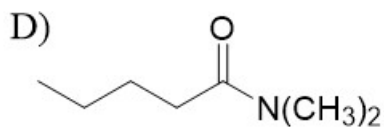
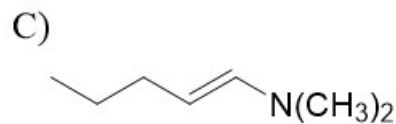
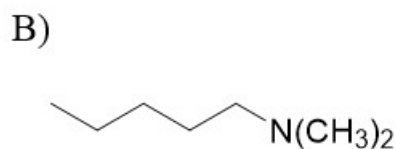
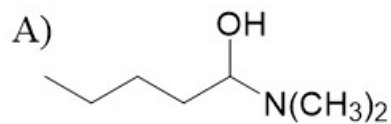
Provide the necessary reagents.



- I. 1) EtNa ; 2) H_3O^+ ; 3) AcCl , pyridine
- II. 1) EtLi ; 2) H_3O^+ ; 3) AcCl , pyridine
- III. 1) EtMgBr ; 2) H_3O^+ ; 3) AcOH , pyridine
- IV. 1) EtMgBr ; 2) H_3O^+ ; 3) AcOH , H_2SO_4

Predict the major product of the following reaction sequence.

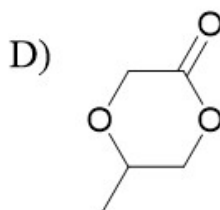
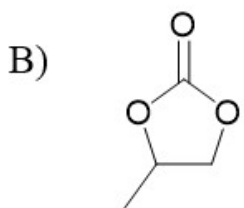
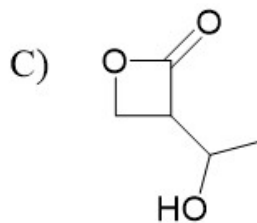
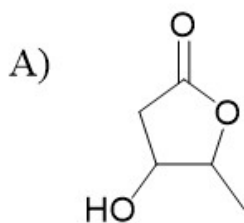
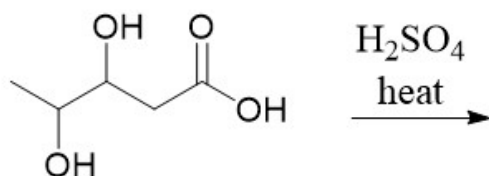
1



E) No Reaction

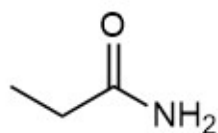
2

Predict the major product.

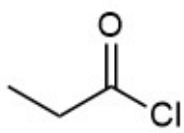


3

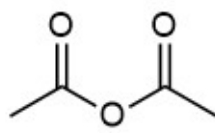
Arrange the given species in the order of DECREASING electrophilicity (best E⁺ to worst E⁺).



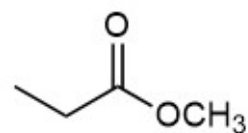
I



II



III

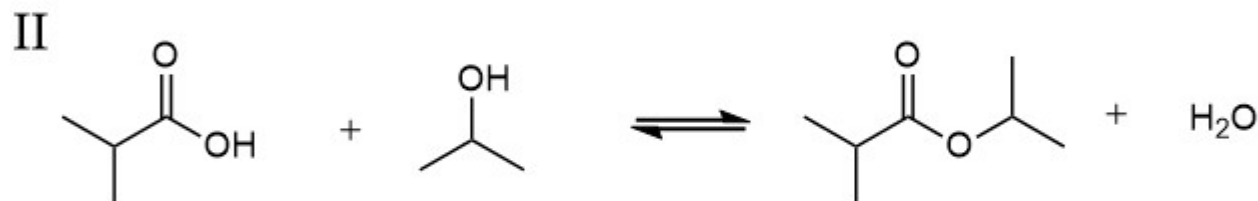
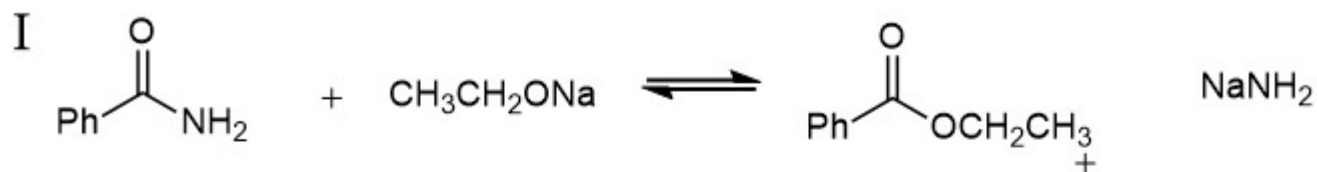


IV

- A) III > II > IV > I
- B) II > III > IV > I
- C) II > IV > I > III
- D) IV > II > I > III
- E) III > II > I > IV

4

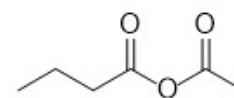
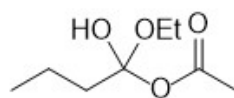
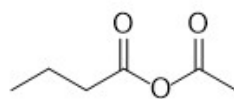
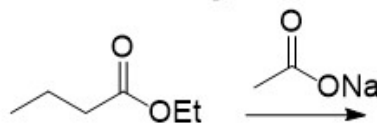
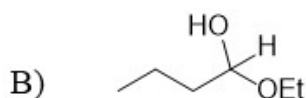
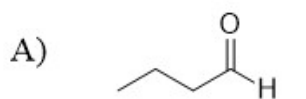
For each, predict whether the forward or reverse reaction is favored.



	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
I	\leftarrow	\leftarrow	\rightarrow	\rightarrow	\rightarrow
II	\rightarrow	neither	\rightarrow	\leftarrow	neither

Predict the major products for the following reactions.

5

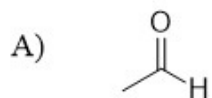
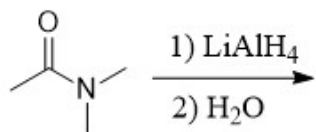


No Reaction

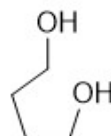
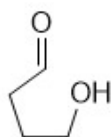
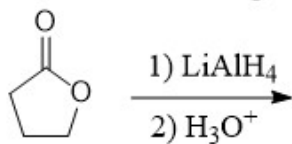
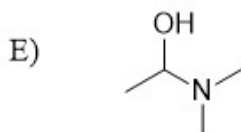
No Reaction

Predict the major products for the following reactions.

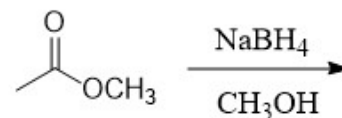
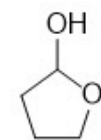
6



D) No Reaction

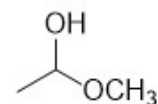
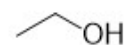


No Reaction



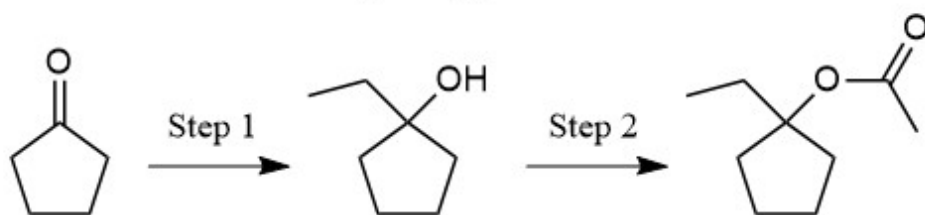
No Reaction

No Reaction



7

Provide the necessary reagents.

I. 1) EtNa; 2) H_3O^+ ; 3) AcCl, pyridineII. 1) EtLi; 2) H_3O^+ ; 3) AcCl, pyridineIII. 1) EtMgBr; 2) H_3O^+ ; 3) AcOH, pyridineIV. 1) EtMgBr; 2) H_3O^+ ; 3) AcOH, H_2SO_4

A) II only

B) III only

C) II and IV only

D) II, III and IV only

E) I, II, III and IV