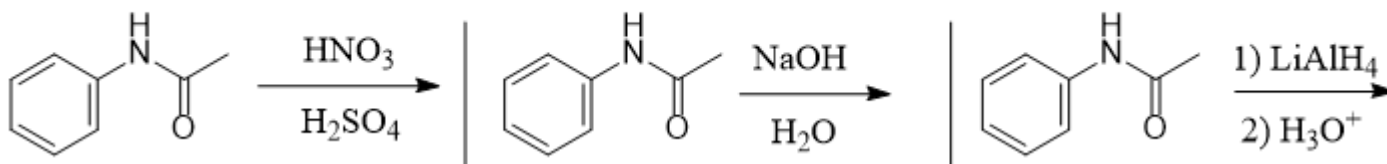




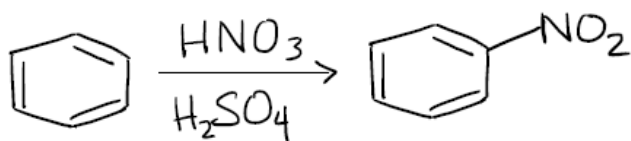
1

Predict the major products for the following reactions.



2

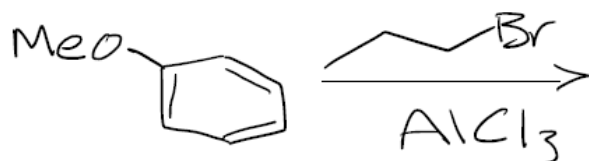
Which of the following is NOT a likely step in the mechanism of the following reaction?



3

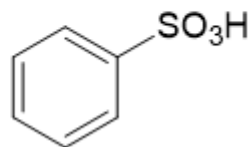
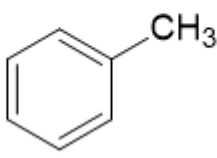
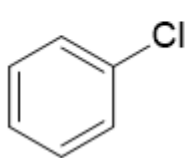
Predict the major product and provide a mechanism for the following reaction.

4



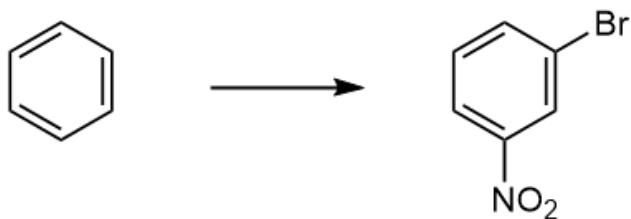
5

Provide the reagents needed to convert benzene into each of the given target compounds.



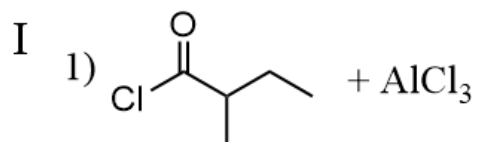
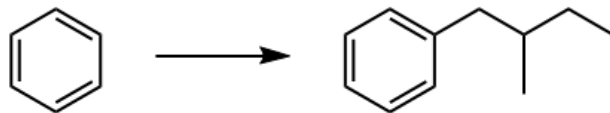
6

Provide the reagents necessary to transform the given starting material into the desired product.



7

Provide the reagents necessary to transform the given starting material into the desired product.



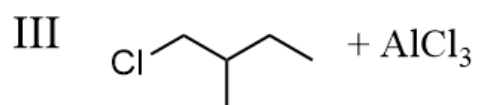
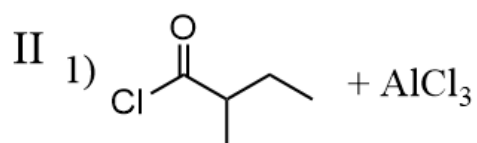
A) I only

B) II only

C) III only

D) I and II only

E) I, II and III



8

