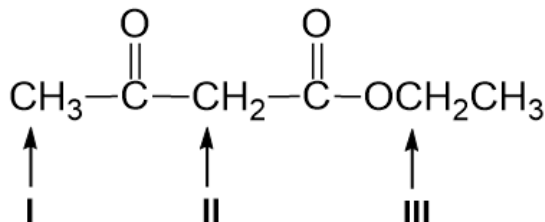




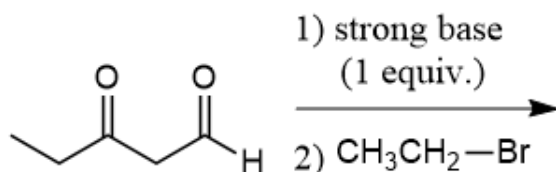
Arrange the following protons in the order of
INCREASING acidity (from least acidic to most acidic).

1



Predict the major product.

2

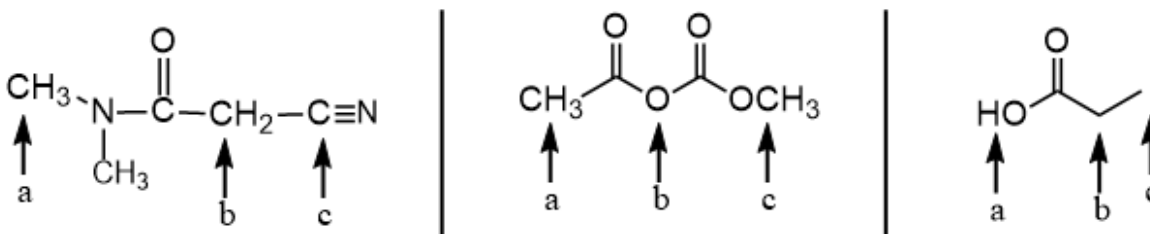


3

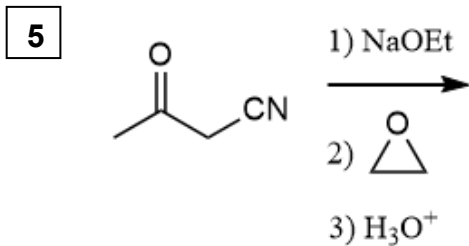
Draw LDA
(lithium diisopropylamide)

4

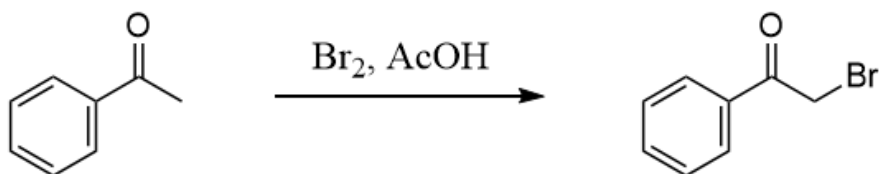
Predict which site will react with one equivalent of LDA.



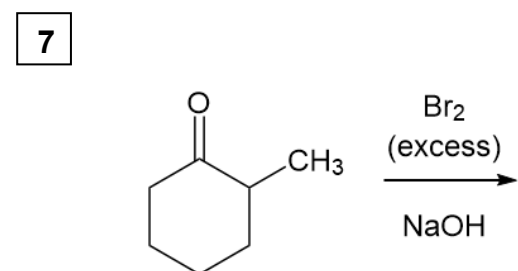
Predict the major product.



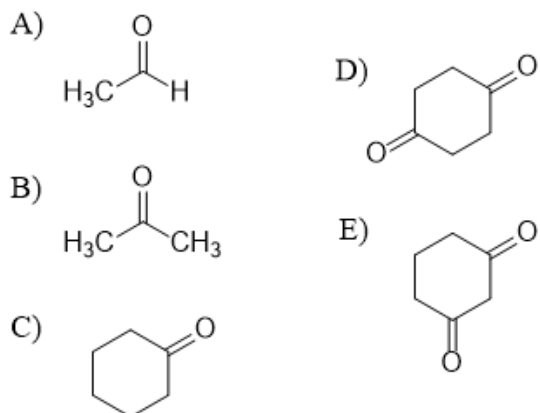
6 Provide a mechanism for the following bromination reaction.



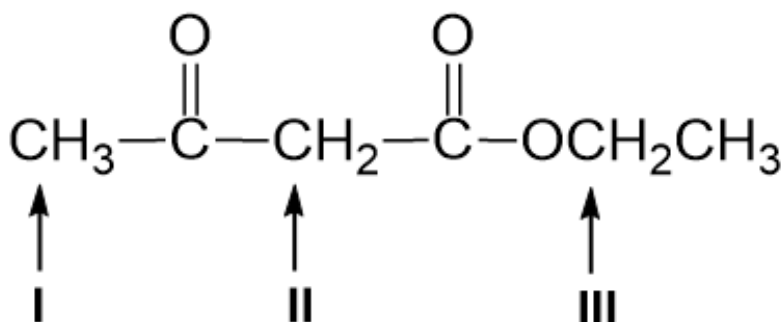
If the reaction shown uses an excess of Br₂ and goes to completion, a total of how many bromine atoms will be in the final product?



Of the following, which compound is in equilibrium with the greatest percentage of its enol isomer?*



1 Arrange the following protons in the order of INCREASING acidity (from least acidic to most acidic).



A) I < III < II

B) III < II < I

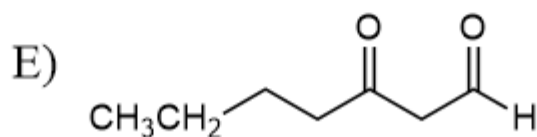
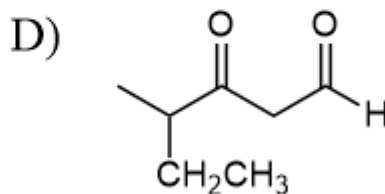
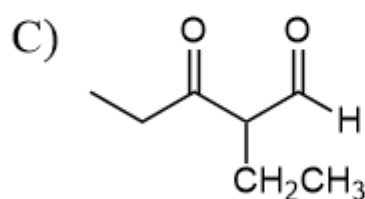
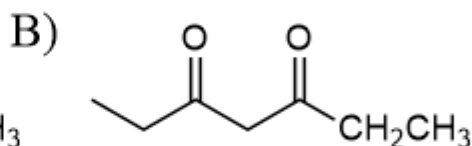
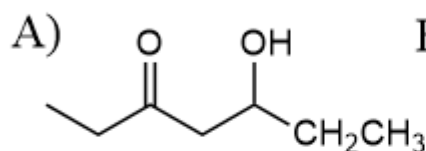
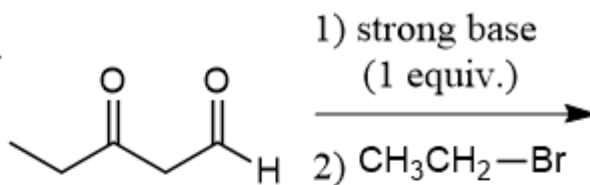
C) II < III < I

D) III < I < II

E) II < I < III

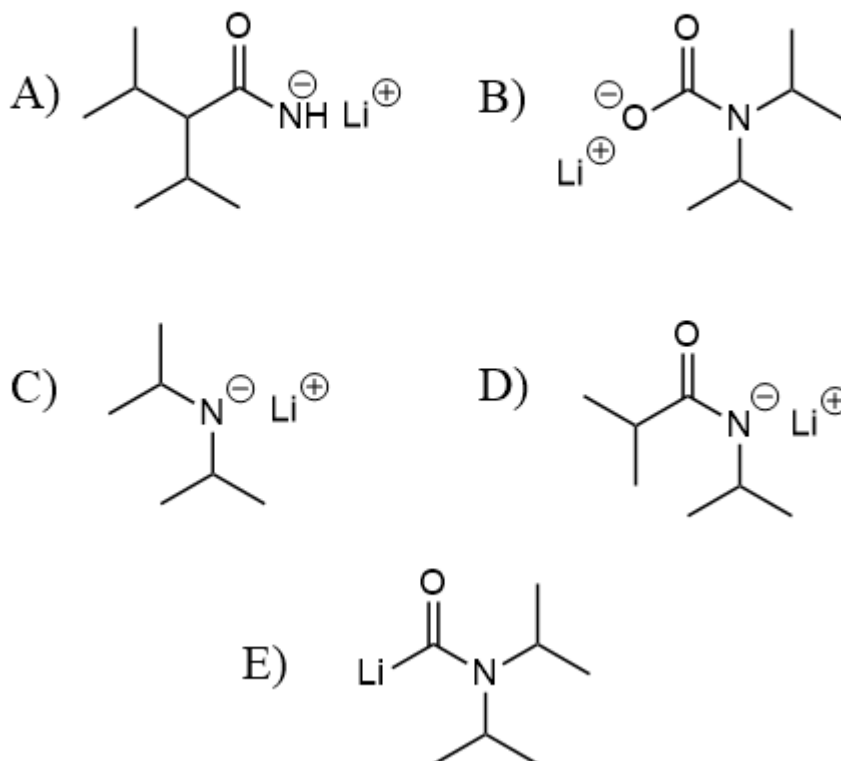
2

Predict the major product.



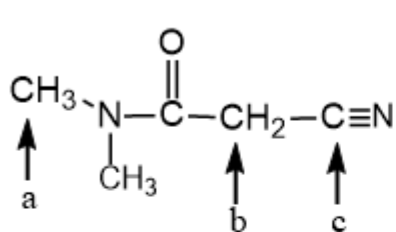
3

Which drawing represents LDA
(lithium diisopropylamide)?



4

Predict which site will react with one equivalent of LDA.



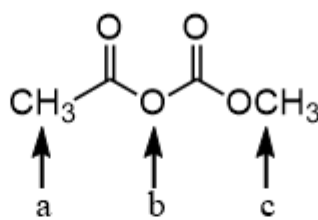
A) a

B) b

C) b

D) c

E) b



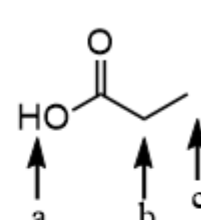
a

b

a

b

b



b

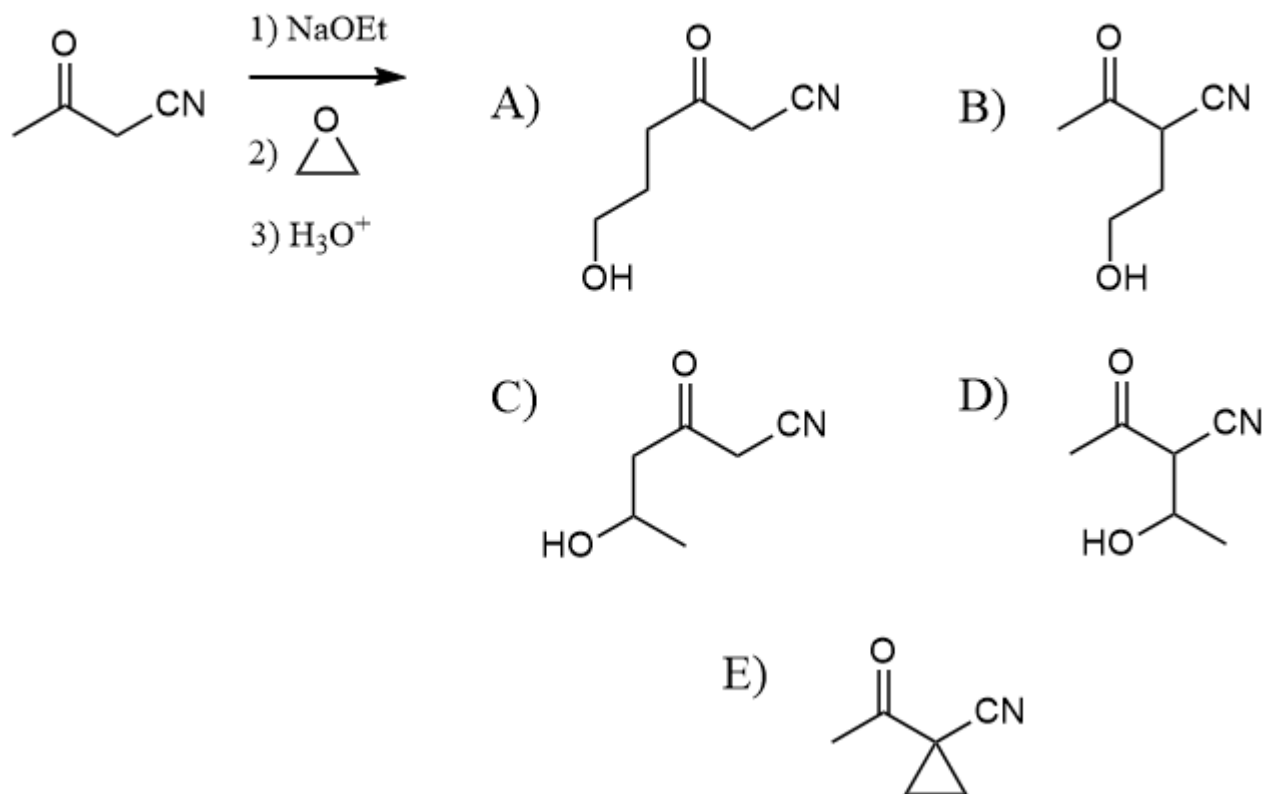
b

a

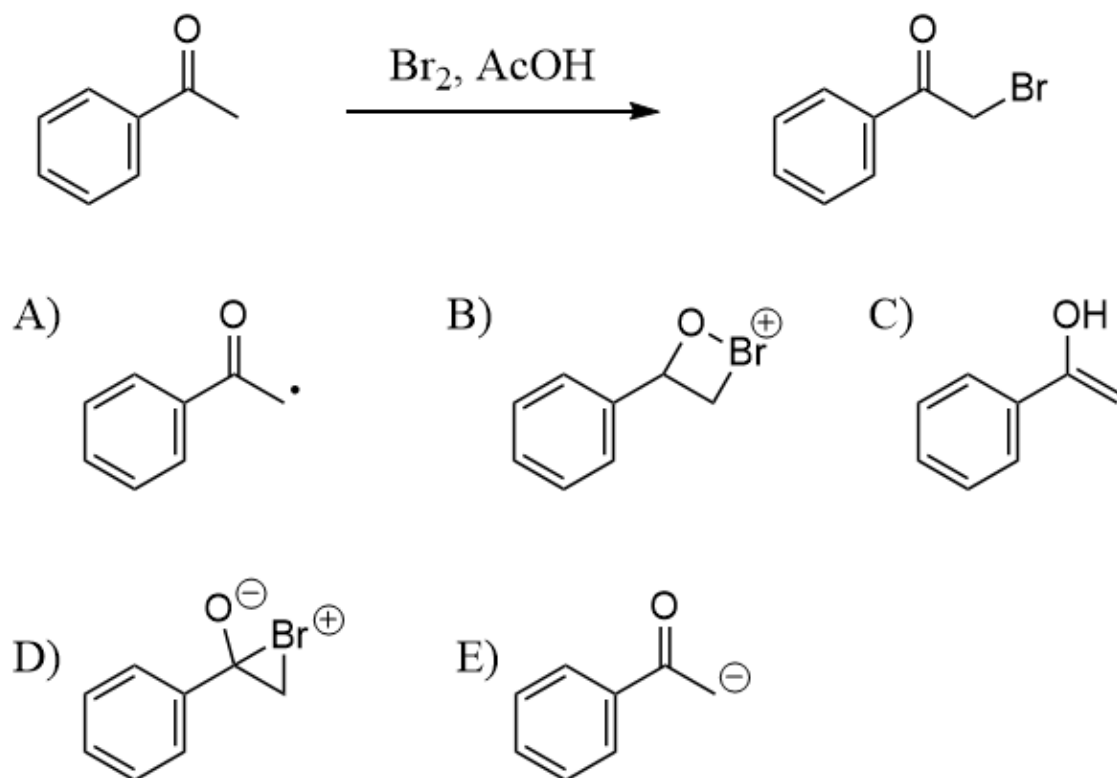
c

a

5 Predict the major product.

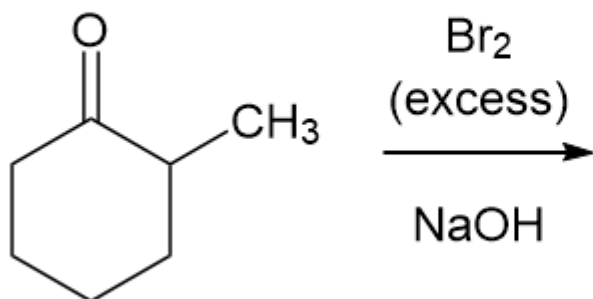


6 Of the following, which is most likely to be an intermediate in the mechanism of the given reaction?



7

If the reaction shown uses an excess of Br_2 and goes to completion, a total of how many bromine atoms will be in the final product?



A) 0

B) 1

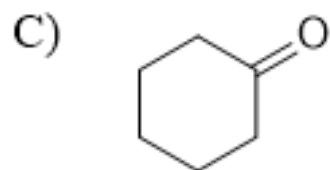
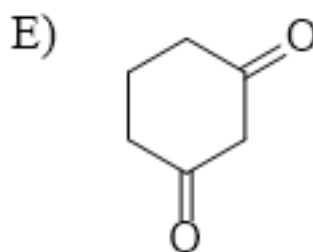
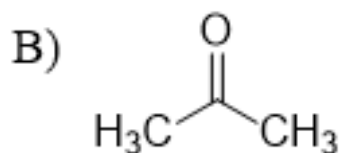
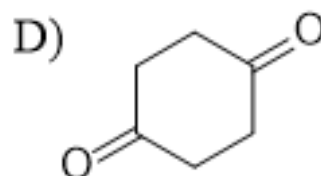
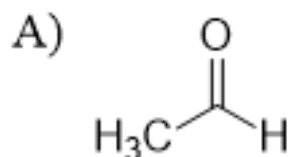
C) 2

D) 3

E) 4

8

Of the following, which compound is in equilibrium with the greatest percentage of its enol isomer?*



*GRE