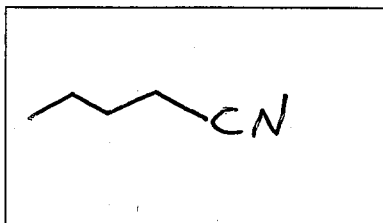


Key

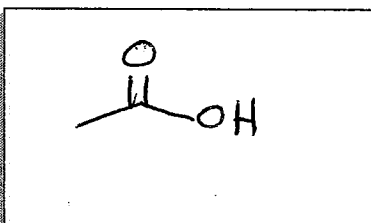
(26 Points)

1. (10 Points) provide the correct structure for each of the following compounds.

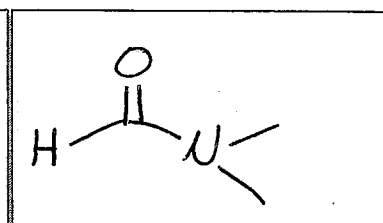
A) pentanenitrile



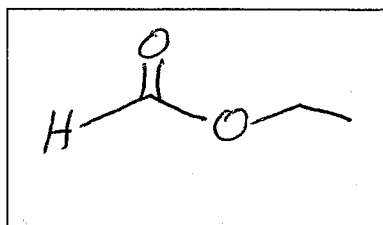
B) acetic acid



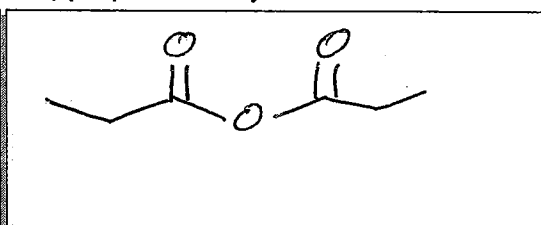
C) N,N-Dimethylformamide



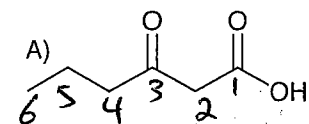
D) Ethyl formate



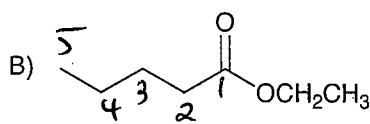
E) propanoic anhydride



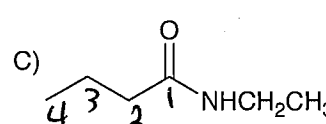
2. (10 Points) provide the IUPAC for the following compounds.



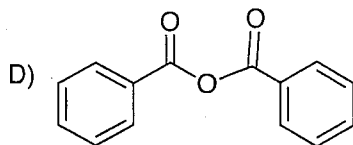
3-oxohexanoic acid



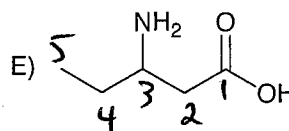
Ethyl Pentanoate



N-ethylbutanamide



Benzoic anhydride



3-aminopentanoic acid

3. (6 Points) Provide a stepwise mechanism for the following aldol condensation reaction.

