

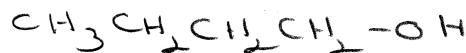
Give the structure of the chief organic product(s) expected from the reaction of butanal.



H_2/Ni



NaBH_4 ; then H^+

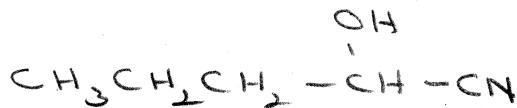


$\text{NH}_2\text{NH}_2, \text{OH}^-$

Wolff-Kishner



NaCN ; then H^+



$\text{CH}_3\text{OH}, \text{H}^+$



LiAlH_4 ; then H^+



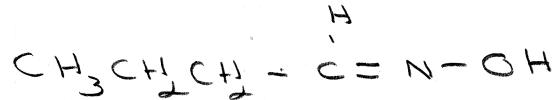
$\text{Zn(Hg)}, \text{HCl}$

Clemmensen

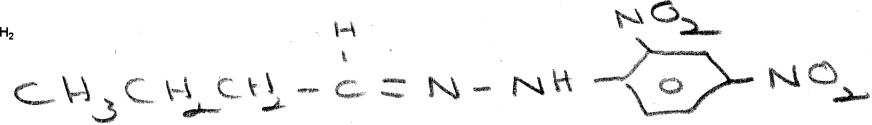
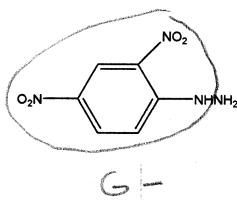
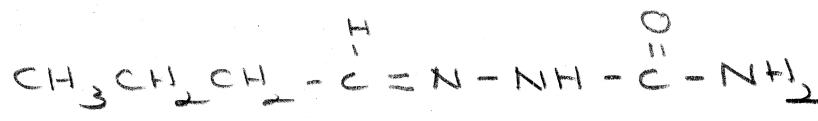
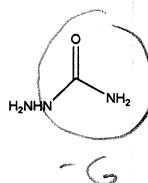
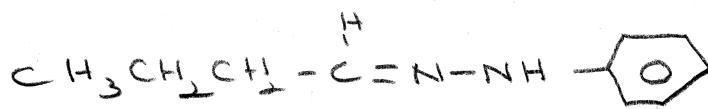
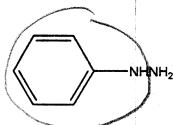
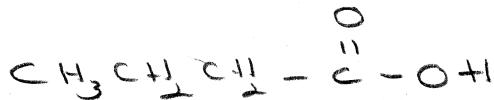


H_2NNH_2

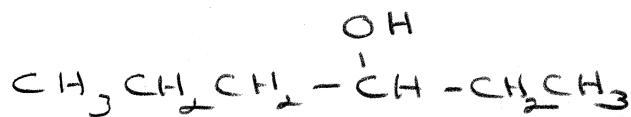




KMnO_4, Δ



$\text{CH}_3\text{CH}_2\text{MgBr}$



Conc. NaOH

Cannizzaro

