An organic compound "A" having molecular formula C_2H_3N on reduction gave another compound 'B' Upon treatment with nitrous acid, 'B' gave ethyl alcohol. On warming with chloroform and alcoholic KOH, B formed an offensive smelling compound 'C'. The compound 'C' is

A) $CH_3CH_2NH_2$

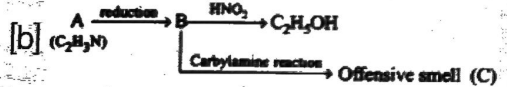
B) $CH_3CH_2N{=}C$

C) $CH_3C \equiv N$

D) CH_2CH_2OH

Correct Answer: B

Solution :

[b] 

Given reactions indicate that B has $1^\circ NH_2$ group, and thus A, C_2H_3N, should be $CH_3C \equiv N$.

Hence C should be $\underset{A}{CH_3CH_2NC}\ CH_3C \equiv N \xrightarrow{reaction} \underset{B}{CH_3CH_2NH_2} \xrightarrow[KOH]{CHCl_3} \underset{C}{CH_3CH_2N{=}C}$