



In the reaction, $CH_3CN + 2H \rightarrow X \xrightarrow{\text{Boiling } H_2O} Y$, the Term Y is

- A) acetone
- B) ethanamine
- C) acetaldehyde
- D) dimethylamine

Correct Answer: C

Solution :

[c] $CH_3CN + 2H \rightarrow \underset{X}{CH_3CH=NH} \xrightarrow{H_2O, \text{boil}} \underset{Y}{CH_3CHO}$ Note that cyanides are reduced only by 2H atoms, so reduction stops at aldimine stage which on hydrolysis with water gives aldehyde; it is an example of Stephen's reaction.