- 18. On heating an aliphatic primary amine with chloroform and ethanolic potassium hydroxide, the organic compound formed is (a) an alkanol (b) an alkanediol (2014 Main)
  - (c) an alkyl cyanide (d) an alkyl isocyanide

18. This reaction is an example of carbylamine test which includes conversion of amine to isocyanide.

$$R$$
— $NH_2$  +  $CHCl_3$   $\xrightarrow{C_2H_5OH}$   $R$ — $N$   $\equiv C$ :

1° amine

NOTE The mechanism of this reaction included rearrangement of nitrene in which migration of alkyl group from carbon to nitrogen

takes place.