

Answers Exercise Ch 10

Which of the following is not a primary amine?

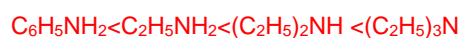
- (i) 3-Hexylamine
 - (ii) Cyclohexylamine
 - (iii) 1-Butylamine
 - (iv) Diethylamine**
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Arrange the following in increasing order of their basic strength:

(i) $C_2H_5NH_2$, $C_6H_5NH_2$, NH_3 , $C_6H_5CH_2NH_2$ and $(C_2H_5)_2NH$



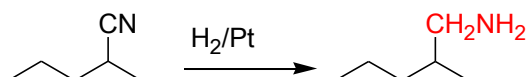
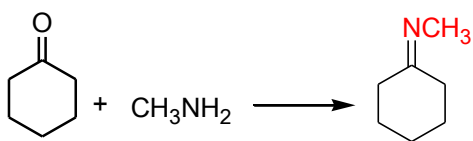
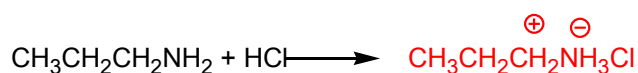
(ii) $C_2H_5NH_2$, $(C_2H_5)_2NH$, $(C_2H_5)_3N$, $C_6H_5NH_2$



(iii) CH_3NH_2 , $(CH_3)_2NH$, $(CH_3)_3N$, $C_6H_5NH_2$, $C_6H_5CH_2NH_2$.



Complete the following reactions



Write IUPAC names of the following compounds and classify them into primary, secondary and tertiary amines.

- (i) $(CH_3)_2CHNH_2$ (ii) $CH_3(CH_2)_2NH_2$
- (iii) $CH_3NHCH(CH_3)_2$ (iv) $(CH_3)_3CNH_2$
- (v) $C_6H_5NHCH_3$ (vi) $(CH_3CH_2)_2NCH_3$
- (vii) $m\text{-BrC}_6\text{H}_4\text{NH}_2$

Answer:

- (i) 1-Methylethanamine 2^oamine
- (ii) Propanamine 1^oamine
- (iii) N-Methyl-2-methylethanamine 2^oamine
- (iv) 2-Methylpropan-2-amine 1^oamine
- (v) N-methylaniline 2^oamine
- (vi) N-Ethyl-N-methylethanamine 3^oamine
- (vii) 3-bromoaniline 1^oamine