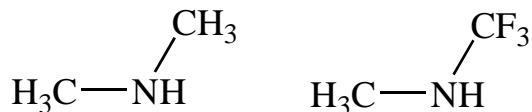


Ex 39 - Basicity

Question One

For each of the following groups of molecules, rank them by their basicity. Is the difference due to size, inductive effects, resonance effects or electronegativity?

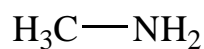
i)



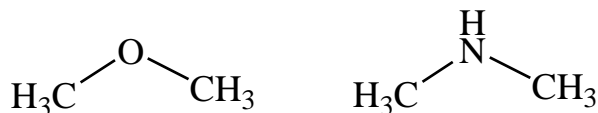
ii) Ph_2As^-



iii) $\text{H}_2\text{C}=\text{NH}$

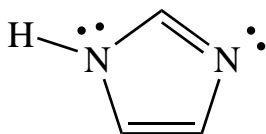


iv)



Question Two

Histidine is unusually basic because it forms a resonance stabilized conjugate acid. Which N atom is protonated? Give the structure of the conjugate acid.



Question Three

The molecule below is known as "Proton Sponge". It is far more basic than would be expected of an amino arene. Draw the structure of the conjugate acid and rationalize the unusual basicity of the Proton Sponge.

