161. (b) Gaseous *HCl* does not give H^+ but liquid *HCl* gives H^+ in aquous solution there for gaseous *HCl* is not a Arrhenius acid due to covalent bonding in gaseous condition.

162. (d) $\underset{\text{Acid}}{H_2O} \rightarrow H^+ + OH^-$ [Acid due to donation of proton]

$\underset{\text{Base}}{H_2O} + H^+ \rightarrow H_3O^+$ [Basic due to gaining of proton]

163. (c) F^- strongest conjugate base due to it smallest size in a group and gain proton due to most electronegative capacity.

$H^+ + F^- \rightarrow HF$

164. (d) $\underset{\text{Conjugate acid}}{H_2PO_4^-} \rightarrow H^+ + \underset{\text{Conjugate base}}{HPO_4^{2-}}$

165. (a) $\underset{\text{Conjugate acid}}{HSO_4^-} \rightarrow H^+ + \underset{\text{Conjugate base}}{SO_4^{2-}}$