

7 Acids and bases – Part 2 —Answers

Answers

Work through these after trying the questions yourself.

7.1 An acid is a proton (H^+) donor; a base is a proton acceptor.

7.2 A strong acid is fully dissociated into ions in water; a weak acid is only partly dissociated (most molecules stay whole).

7.3 The strong acid.

7.4 Any two of: it fizzes faster with a reactive metal; it has a lower pH; it conducts electricity better.

7.5 $\text{H}^+(\text{aq}) + \text{OH}^-(\text{aq}) \rightarrow \text{H}_2\text{O}(\text{l})$.

7.6 It is fully dissociated, so it has more ions in solution to carry the current.

7.7 Hydrochloric acid is strong, so it fully dissociates and gives a high concentration of H^+ ions. Ethanoic acid is weak and only partly dissociates, giving far fewer H^+ ions. More H^+ means a lower pH, so the hydrochloric acid has the lower pH.