3ème année Correction du contrôle Anglais

1% Title of the text → Acids and bases. (2,5)

2% The text main ideas summarizing. (2)

(2) • 3%

1. Four characteristics of acids are: sour taste, corrosive, change the colour of indicators (in the opposite way to bases), and produce hydrogen ions in solution. Four characteristics of bases are: soapy feel, caustic, change the colour of indicators (in the opposite way to acids), and produce hydroxide ions in solution. (2)

(2,5) • 4%

2. When it dissolves in water, a base raises the pH by reacting with the water to remove hydrogen ions; at the same time the concentration of hydroxide ions rises.

(4) • 5%

3. (i) The pH is 1. [In the text we are told that water has an H^+ ion concentration of 10^{-7} moles per litre and a pH of 7; and that strong bases have an H+ ion concentration of 10^{-14} moles per litre and a pH of 14. By analogy, if the H+ ion concentration is 10^{-1} moles per litre, the pH must be 1].
(ii) The concentration of H+ ions in sea water is 10^{-8} moles per litre. [In the text, the pH of sea water is given as 8, so the concentration of H+ ions must be 10^{-8} moles per litre – by analogy from the examples in part (i). Also in the text, we are told that sea water has ten times less H+ ions than pure water; pure water has 10^{-7} moles of H+ ions per litre, and a tenth of 10^{-7} is 10^{-8}].

(4,5) 6% English tense used.

a) present perfect

b) Present perfect

c) Present perfect