AQA, OCR, Edexcel

GCSE Science

GCSE Chemistry

Acids and PH

Answers

Total Marks: /18

The pH scale and neutralisation

Q1: Complete the following sentences.

A= Acids produce **hydrogen ions** (1 mark) ions in aqueous solutions. Aqueous solutions of alkalis contain **hydroxide** (1 mark) ions.

(2 marks)

Q2: How can pH be measured?

A= Universal indicator (1 mark) or a pH probe (1 mark).

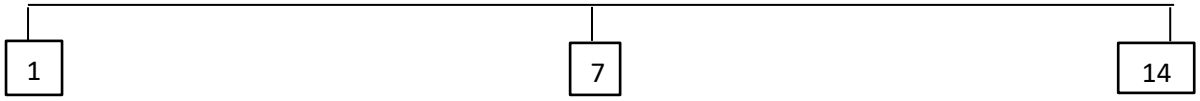
(2 marks)

Q3: What is the pH of a neutral solution?

A=7

(1 mark)

Q4: Indicate on the pH scale below, the pHs of aqueous solutions of acids and alkalis.



A= indicate that acid is less than 7 (1 mark) and that alkali is more than 7 (1 mark).

(2 marks)

Q5: In neutralisation reactions between an acid and alkali. Hydrogen ions react with hydroxide ions to produce water. Represent this in an equation.

$$H^+ + OH^- \longrightarrow H_2O$$

(1 mark)

Strong and weak acids

Q6: Complete the sentences using the words in the boxes.

A **strong** (1 mark) acid is **completely** (1 mark) ionised in aqueous solution. A weak acid is **partially** (1 mark) ionised in aqueous solution.

(3 marks)

Q7: Give three examples of strong acids and two examples of weak acids.

Strong acids	**Weak acids**
Hydrochloric acid	Ethanoic acid
Nitric acid	Citric acid
Sulphuric aid	Carbonic acid

(6 marks)

Q8: If the pH decreases by one unit, by what factor does the ion concentration increase by?

10

(1 mark)