

SCHOOL: **Your school name****SENIOR TWO CHEMISTRY · UNIT 7 HOMEWORK****Preparation and classification of oxides · FREE SAMPLE****Academic year:** 20..... – 20.....**Date:**/...../20.....**Name:****Class:****Duration:** Take-home**Total marks:** 16**INSTRUCTIONS**

1. Answer ALL questions.
2. Write your answers in the spaces provided.
3. This free sample is a short extract. A full homework sheet has 25 marks.

PART 1: OBJECTIVE QUESTIONS*Answer ALL questions. The marks are shown for each question.*

1. A solution of carbon dioxide in water has pH: (1 mark)
 - A. slightly below 7
 - B. 14
 - C. exactly 7
 - D. above 7
2. Farmers use slaked lime to: (1 mark)
 - A. kill crops
 - B. add nitrogen
 - C. reduce soil acidity
 - D. increase soil acidity
3. Matching. Match each item in column A with the correct answer in column B. Write the letter in the answer column. (4 marks)

Column A	Answer	Column B
1. Which is the product when calcium oxide reacts with water?		a. Carbon dioxide
2. Which oxide is used in fire extinguishers?		b. $\text{Cu}(\text{OH})_2 \rightarrow \text{CuO} + \text{H}_2\text{O}$
3. Which equation shows zinc oxide acting as an acid?		c. Calcium hydroxide
4. Which reaction prepares an oxide by heating a hydroxide?		d. $\text{ZnO} + 2\text{NaOH} \rightarrow \text{Na}_2\text{ZnO}_2 + \text{H}_2\text{O}$

PART 2: SHORT ANSWERS

Answer in full sentences.

4. Calculate the mass of CaO formed from 50 g of CaCO_3 . (4 marks)

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PART 3: STRUCTURED QUESTION

Show all your reasoning.

5. Preparation and classification of oxides (6 marks)

Explain why acidic oxides in the air damage zinc-coated iron roofs and suggest a protection method.

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END