

2010 HIGHER SCHOOL CERTIFICATE EXAMINATION
Chemistry

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Centre Number

Section I – Part B (continued)

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Student Number

Question 31 (6 marks)

- (a) A student collected a 250 mL sample of water from a local dam for analysis. The data collected are shown in the table.

Mass of filter paper	0.23 g
Mass of filter paper and solid	0.47 g
Mass of evaporating basin	43.53 g
Mass of basin and solid remaining	44.67 g

- (i) The water was filtered and the filtrate evaporated to dryness. **2**

Calculate the percentage of the total dissolved solids in the dam sample.

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- (ii) It is suspected that the water in the dam has a high concentration of chloride ions. **2**

Describe a chemical test that could be carried out on the water sample to determine the presence of chloride ions. Include an equation in your answer.

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Question 31 continues on page 24

Question 31 (continued)

- (b) Name an ion other than chloride that commonly pollutes waterways, and identify its source and the effect of its presence on water quality. 2

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End of Question 31