

## Weaknesses

The drawings were poor and in some cases incorrectly labelled. Some candidates did not know how the lumbar vertebra adapts to its functions. A number of candidates did not seem to have learned or even seen the bones.

## Expected Response

Candidates were required to identify and give reasons for the vertebrae. They were also required to draw and label the anterior view of cervical vertebrae, explain how the lumbar is adapted to its function and the differences between the two bones.

## Question 3

You are provided with a specimen labelled **Q** and hydrogen peroxide.

- (a)
  - (i) What part of a plant is specimen **Q**? (1 mark)
  - (ii) Give a reason for your answer? (1 mark)
- (b) State **two** roles played by specimen **Q** in the life cycle of the plant from which it was obtained. (2 marks)
- (c) Cut two equal cubes whose sides are about 1cm from specimen **Q**. Place one of the cubes into a boiling tube labelled **A**. Crush the other cube using pestle and mortar. Place the crushed material in another boiling tube labelled **B**.

To each boiling tube add 4ml of hydrogen peroxide.

- (i) Record your observations. (2 marks)
  - (ii) Account for the results in (c) (i) above. (2 marks)
  - (iii) Write an equation for the breakdown of hydrogen peroxide. (1 mark)
- (d) Peel half of specimen **Q** and crush in a mortar. Use the reagents provided to test for the various food substances in the extract obtained from the crushed material.

Record the procedures, observations and conclusions in the table below. (9 marks)