

Topography: North facing slopes in temperate lands have more organisms than south facing slopes; plants on windward side have stunted and distorted growth;

Rainfall: Fewer organisms in places where rainfall is less (deserts);

7.2 PAPER 2 (231/2)

Question 1

You are provided with specimens labelled **J₁**, **J₂**, **K₁** and **K₂**. Examine them.

- (a) With a reason, name the order to which specimens **J₁** and **J₂** and **K₁** and **K₂** belong. (4 marks)
- J₁** and **J₂**
- Reason
- K₁** and **K₂**
- Reason
- (b) (i) Name the curved part of specimen **J₁**. (1 mark)
- (ii) What is the importance of the curvature? (1 mark)
- (c) Explain how the curved part in **J₁** will straighten so that the stem will look like that of **J₂**. (4 marks)
- (d) Name the part that protects the plumule in specimen **K₁** and **K₂**. (1 mark)
- (e) (i) Which of the **two** types of seedlings may form swellings on the roots later in its life? (1 mark)
- (ii) What is the name of the swellings? (1 mark)
- (iii) Name the organisms that would be found in the swellings? (1 mark)
- (iv) Explain the relationship that exists between the named organisms and the plant. (1 mark)
- (f) (i) Name the structures found on the stem just below the leaves of specimen **J₂**. (1 mark)
- (ii) State **two** functions of the structures named in (f)(i) above. (2 marks)