

A Level Biology B

H422/01 Fundamentals of biology

Question Set 10

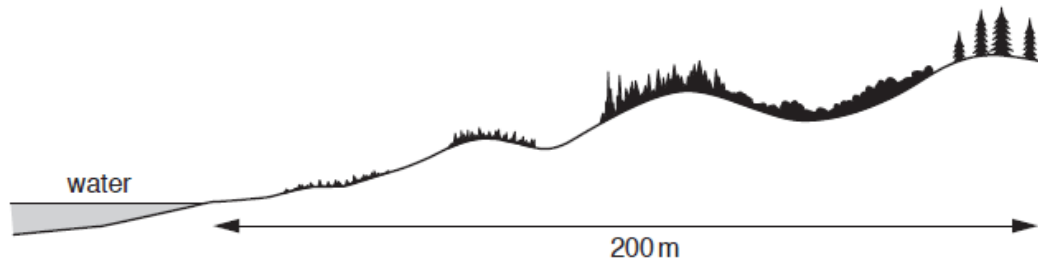
1. (a) Complete the paragraph below about ecosystems using the most appropriate terms.

Natural change in the community of an ecosystem over time is known as succession. In this process, biodiversity increases until a community is reached. Human activities such as agriculture and forestry can prevent formation of this type of community, instead forming a This process is known as succession. [3]

- (b) Pioneer species are the first to colonise an ecosystem.

How do pioneer species promote future biodiversity? [1]

- (c) Fig. 33 shows a region of coastal land, stretching from tide to woodland.



Outline a sampling method that could be used to investigate succession in this region. [3]

- (d) (i) Beef cattle that are produced for their meat are fed maize. In a cow, 13 100 MJ of stored biomass energy are produced from 83 000 MJ of maize.

Calculate the percentage efficiency of this energy transfer in the cow. [2]

- (d) (ii) In snail farming, snails are fed lettuce leaves.

The efficiency of energy transfer from the lettuce leaves to stored biomass energy in snails is **greater** than that from maize to stored biomass energy in cattle. Suggest why. [1]

- (e)* Cattle are ruminant animals. The stomach of a ruminant animal contains specialised chambers.

Explain how the ruminant stomach digests food to produce important molecules.

Your answer should refer to **named** chambers of the stomach [6]

Total Marks for Question Set 10: 16

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