

Tropical environments

Only **one** question to be answered from this topic.

- 1 (a) Explain the nature of energy flows and trophic levels for **one** tropical ecosystem. You may answer by means of fully annotated diagrams. [10]
- (b) Outline the problems of sustainable management for **one** tropical ecosystem. Evaluate a scheme, or schemes, to sustainably manage a tropical ecosystem. [15]
- 2 (a) Fig. 1 gives climate data for A, a humid tropical area and B, a seasonally humid tropical area. Describe and explain the nature of the two tropical climates shown in Fig. 1. [10]
- (b) Assess the factors and processes that lead to deep weathering under humid tropical conditions. Explain how granite landforms may develop over time. [15]

Coastal environments

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- 3 (a) Describe the conditions which provide the best environment for the growth of coral and explain how coral may be threatened by changes to those conditions. [10]
- (b) With reference to a stretch, or stretches of coast, describe some of the problems of sustainable management and evaluate the effectiveness of attempted solutions. [15]
- 4 (a) Fig. 2 shows an area of tidal sedimentation and coastal salt marsh. Explain how sedimentation and salt marshes develop in tidal estuaries along a depositional coast such as in Fig. 2. [10]
- (b) Using examples, explain how marine erosion, sub-aerial processes, rock type and structure interact to produce different landforms along a cliffed coastline. [15]

Hazardous environments

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- 5 (a) Fig. 3 shows two types of mass movement affecting slopes.

Explain the possible causes of the two types of mass movement shown in Fig. 3 and suggest hazards that might be created by them. [10]

- (b) Describe some of the problems of sustainable management for **one** particular hazardous environment and evaluate any possible solutions to such problems. [15]

- 6 (a) Describe how **either** tropical storms (cyclones and hurricanes) **or** tornadoes develop. Outline how a particular area may suffer from the immediate impact of one of these climatic hazards. [10]

- (b) Explain and evaluate the methods of prediction of tropical storms and tornadoes. Evaluate other measures that may be taken to reduce their hazardous impact. [15]

Arid and semi-arid environments

Only **one** question to be answered from this topic.

- 7 (a) Describe the causes of aridity in arid and semi-arid environments and explain how the climatic characteristics of these environments differ. [10]

- (b) Explain how plants have adapted to **either** an arid **or** a semi-arid environment. With reference to an example, or examples, evaluate solutions to managing such an environment sustainably. [15]

- 8 (a) Photographs A and B show some desert landforms.

Describe the landforms shown and explain the factors and processes that have led to their development. [10]

- (b) Outline the evidence for climate change in hot arid and semi-arid environments. Evaluate the role of Pleistocene pluvials in the development of desert landforms. [15]

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