

Full Higher Separate content. ★ = Higher Tier. ◆ = Separate Science only.

Q1. Explain why maintaining biodiversity is important. Give THREE reasons.

[3 marks]

Q2. Evaluate TWO methods of conserving biodiversity.

[4 marks]

Q3. Describe what a seed bank is and explain its importance.

[2 marks]

Total: 9 marks

Q1 (3 marks)

Explain why maintaining biodiversity is important. Give THREE reasons.

- Ecosystem stability: high biodiversity makes ecosystems more resilient to disruption [1]
- Source of food, medicine and raw materials [1]
- Ethical/intrinsic value — every species has inherent right to exist [1]

Q2 (4 marks)

Evaluate TWO methods of conserving biodiversity.

- Nature reserves: protect habitats from development [1]; may be too small for viable populations / cannot prevent climate change effects [1]
- Captive breeding: prevents extinction, enables reintroduction [1]; animals may lose natural behaviours; limited genetic diversity in small captive populations [1]

Q3 (2 marks)

Describe what a seed bank is and explain its importance.

- A facility that stores seeds of many plant species at low temperature [1]
- Preserves genetic diversity and provides insurance against extinction — seeds can be used to restore lost populations [1]