

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

Q1. Describe FOUR negative consequences of deforestation.

[4 marks]

Q2. Describe the process of eutrophication. Explain how it results from agricultural practices.

[4 marks]

★ HIGHER TIER

Q3. ★ Explain the link between deforestation and global warming.

[3 marks]

Total: 11 marks

Q1 (4 marks)

Describe FOUR negative consequences of deforestation.

- Habitat destruction → loss of biodiversity and species extinction [1]
- CO₂ release: burning trees → increased atmospheric CO₂ → global warming [1]
- Reduced rainfall: trees absorb and release water — deforestation disrupts water cycle [1]
- Soil erosion: tree roots no longer bind soil → topsoil washed away in rain [1]

Q2 (4 marks)

Describe the process of eutrophication. Explain how it results from agricultural practices...

- Fertilisers (nitrates/phosphates) applied to farmland run off into water bodies [1]
- Algal bloom: algae grow rapidly on surface → block sunlight from aquatic plants [1]
- Plants die → bacteria decompose → use up dissolved oxygen [1]
- Aquatic animals (fish) suffocate → ecosystem collapsed [1]

Q3 (3 marks) [★ HT]

★ Explain the link between deforestation and global warming.

- Trees absorb CO₂ by photosynthesis — removing them reduces CO₂ uptake [1]
- Burning trees releases stored carbon as CO₂ → atmospheric CO₂ rises [1]
- Higher CO₂ → enhanced greenhouse effect → increased global temperatures [1]