

5.2 Clearcutting

Name: _____ Class: _____ Date: _____

Total: 10 marks**KEY WORDS** clearcutting 皆伐 • erosion 侵蚀 • selective cutting 择伐

Objective

Build the skills to answer exam questions on **clearcutting**.

You must be able to:

- describe **clearcutting** 皆伐 and its impacts
- link it to erosion, habitat loss, and flooding
- compare it with selective cutting

1 Worked examples

Study these first. Each one shows the method for a question type used later — follow the steps and you can do the Practice and Exam-style questions yourself.

■ What clearcutting is

Clearcutting removes **all** trees from an area at once. It is cheap and efficient for timber, but has severe environmental impacts.

■ Impacts

- **Soil erosion** — no roots hold the soil; heavy rain washes it away.
- **Habitat loss** — species lose their homes.
- **Flooding and sedimentation** — more runoff (less infiltration/transpiration) raises flood risk and silts up rivers.
- **Loss of carbon storage** — fewer trees absorb CO₂.

■ Selective cutting

Selective cutting removes only some trees, leaving the forest largely intact — less erosion and habitat loss, but more costly and slower.

■ A worked comparison

A clearcut hillside erodes badly after rain; a selectively-cut one keeps most roots and soil in place.

2 Practice

Now apply the methods above.

2.1 What is clearcutting? [1]

2.2 State one environmental impact of clearcutting. [1]

2.3 How does selective cutting differ from clearcutting? [1]

3 Exam-style questions

3.1 Clearcutting increases soil erosion mainly because it removes the [1]

A	B
C	D

A roots that hold soil

B rocks

C groundwater

D air

3.2 A hillside forest is clearcut.

(a) Explain why erosion and flooding increase afterward. [3]

(b) State one advantage of clearcutting to a timber company. [1]

3.3 Explain one advantage and one disadvantage of selective cutting compared with clearcutting. [2]