

CORRECTED VERSION OF EXAM OF ECOLOGY

First Name:
Second Name:

Exercise 1: Complete the table on ecosystem services:(5 pts)

Ecosystem Type	Key Ecological Role	Example of Threat
Forest	Carbon storage, habitat	Deforestation
Grassland	Soil fertility, grazing habitat	Overgrazing
Freshwater	Water purification, drinking source	Pollution
Ocean	Climate regulation, oxygen production	Overfishing
Urban	Human habitat, economic activity	Light/chemical pollution

Exercise 2: choose the best response (5 pts)

1.Which process converts atmospheric nitrogen into ammonia?

- a) Denitrification
- b) Nitrification
- c) Nitrogen fixation
- d) Assimilation

2.What percentage of solar energy is used by primary producers in photosynthesis?

- a) 10%
- b) 50%
- c) <1%
- d) 25%

3.Which of the following is a pioneer organism in primary succession?

- a) Oak tree
- b) Lichen
- c) Fox
- d) Grass

4.Which cycle is most directly affected by the weathering of rocks?

- a) Carbon cycle
- b) Water cycle
- c) Nitrogen cycle
- d) Phosphorus cycle

5.Which trophic level contains autotrophs?

- a) Primary consumers
- b) Secondary consumers
- c) Producers
- d) Decomposers

Exercise 3 : True or false :(5 pts)

1. **T/F:** In a climax ecosystem, species composition remains stable without major disturbances.
→ *Réponse : True*
2. **T/F:** Decomposers are part of the first trophic level.
→ *Réponse : False*
3. **T/F:** Only about 10% of the energy from one trophic level is transferred to the next.
→ *Réponse : True*
4. **T/F:** Primary succession begins on bare rock or lava flows with no existing soil.
→ *Réponse : True*
5. **T/F:** In mutualism, one species benefits and the other is unaffected.
→ *Réponse : False*

Exercise 4: Label the stages of primary succession :(5 pts)

Stage Order	Description
3	Soil begins to form
4	Grasses and small plants appear
1	Bare rock
5	Shrubs establish
6	Trees grow, climax community forms
2	Lichens and mosses colonize