

Mid-West University
Examinations Management Office

End Semester Examination 2081

Bachelor level/ B. Sc. Env/ 1st Semester

Time: 3 hours

Full Marks: 60

Pass Marks: 30

Subject: Ecological Concepts and Principles (ENV411)

Candidates are required to give their answer in their own words as far as practicable. The figures in the margin indicate full marks.

Group-A

1. Answer the following questions in very short (Any Ten) [10x2 = 20]

- a) Define 'ecology' and mention its importance.
- b) What do you understand about the 'law of tolerance'?
- c) Make a chart of ecosystem components.
- d) Illustrate a food chain that occurs in grassland ecosystem.
- e) Define keystone species with relevant example?
- f) What kind of species interaction explained by mycorrhiza?
- g) What do you mean by allopatric speciation?
- h) Give two important feature of deciduous biome.
- i) What do you mean by carrying capacity of a habitat?
- j) What kind of adaption is found in cactus plant, give two adaptive features?
- k) Write in brief about ecological pyramid.
- l) Define commensalism with an example.

Group-B

Answer the following questions in brief (Any Four) [4x5 = 20]

2. Illustrate the well labeled diagram of Phosphorous cycle.
3. Differentiate between S-shape and J-shape population growth curve with examples.
4. What do you mean k-selected and r-selected population, write briefly with examples?
5. Describe briefly possible negative ecological interaction in the ecosystem, with examples.
6. Elaborate various forms of aquatic ecosystem with examples.

Group-C

Answer the following questions in detail (Any Two) [2x10 = 20]

7. What do you mean by biome? Write in brief about major terrestrial biomes that occurs in Nepal.
8. Why nitrogen is important in the ecosystem? Describe biogeochemical cycle of Nitrogen in the earth.
9. Highlight your understanding about the importance of environment science in context of Nepal.

The End