

Mid-West University
Examinations Management Office

Final Examinations 2081

Bachelor level/ B. Sc. /3rd Semester

Time: 3 hours

Subject: Ecology, Evolution, and Paleobotany (BOT431/331)

Full Marks: 60

Pass Marks: 30

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

Group A

Answer the following questions in detail. (4x8 = 32)

1. Explain, the structural and functional aspects of the grassland ecosystem.
2. Discuss the various steps of N₂-cycle with flow chart.
3. Give an account of the sequential stages of a typical xerosere with a suitable example.
4. Discuss the major issues of water pollution in Nepal, including its causes, impacts, and potential solutions.

OR

Discuss major vegetation found in Nepal, and how they are distributed across the country? Explain.

Group B

Answer the following questions in brief (any seven). (7x3 = 21)

5. What do you mean by applied ecology? How can ecological principles be applied to address the real world problem? Justify.
6. What do you mean by ecological succession? Give an account of the general process of succession in nature.
7. Explain the key steps involved in the carbon cycle with significance in the ecosystem.
8. Describe the structural components of the forest ecosystem with examples.
9. Give a concise account on qualitative characteristics of the plant community.
10. What are the sources and mitigation measures of noise pollution?
11. Discuss the mode of fossils formation with its type.
12. Elaborate the Lamarckian theories of evolution.

Group C

Answer the following questions in very short (any seven). (7x1 = 7)

13. What is pedolization?
14. What do you understand by ecotone?
15. "Pyramid of biomass in aquatic ecosystem is inverted", why?
16. Define the biogeochemical cycle.
17. What do you mean by exploitation?
18. Define the term ecesis.
19. Write any two evidences for evolutions.
20. Why fossils are important for paleo- botanical study?
21. Write any two mitigation measures for air pollution.

The End