



14/12/2012

DOON UNIVERSITY, DEHRADUN
Final Examination, First Semester, 2012
School of Environment & Natural Resources

M.Sc. (Environmental Studies)
Course: EES – 511: Environmental Biology

Time Allowed: 3 Hours

Maximum Marks: 50

Note: Attempt All Questions from Sections A, Five Questions from B and Two Questions from C.

SECTION: A (Short Answer Type Questions. Attempt all Questions).

(Marks: 2x5=10)

1. What are Ecological pyramids?
2. What do you mean by primary productivity and secondary productivity.
3. What is climax? What are the three theories of climax?
4. Differentiate between mutualism and commensalism.
5. What do you understand by term ecological niche?

SECTION: B (Short Answer Type Questions. Attempt any Five Questions)

(Marks: 4x 5=20)

1. Differentiate between in-situ and ex-situ conservation
2. Write short note on Ecological niche and Keystone species.
3. Discuss in detail detritus food chain.
4. Define biogeochemical cycle and discuss in detail nitrogen cycle.
5. What do you mean by diversity? Explain diversity index.
6. Discuss law of limiting factors and law of minimum.
7. Explain thermal stratification in lakes?

SECTION: C (Long Answer Type Questions. Attempt any Two Questions)

(Marks: 10x2=20)

1. What are ecosystem energetics? Describe the energy flow in a typical ecosystem.
2. What is succession? Describe the causes, trends and basic types of succession.
3. Explain the theory of population growth. How far this is applicable to real population growth in nature?
4. Give detailed account of IUCN categories of threat for Biodiversity.