

# M.Sc. DEGREE I SEMESTER EXAMINATION IN ENVIRONMENTAL TECHNOLOGY, NOVEMBER 2008

## ENV/ENB 2101 ENVIRONMENTAL BIOLOGY

Time 3 Hours

Maximum Marks 50

### PART A

(All questions carry EQUAL marks)

(6 x 2 = 12)

I

Write very brief notes on *any six* of the following.

- 1) What are 'hotspots'?
- 2) What is biodiversity as defined in the Convention on Biological Diversity?
- 3) What is meant by species richness?
- 4) The shoal forests of Kerala.
- 5) What are endemic species? Give two examples.
- 6) What is Red Data Book?
- 7) What is a wetland according to Ramsar Convention?
- 8) What is mutualism?

### PART B

(Answer ANY SIX questions.)(All questions carry EQUAL marks)

(6 x 3 = 18)

II

- 1) What are the main concepts of an ecosystem?
- 2) List five major factors that affect plant growth? How do these factors affect plant growth?
- 3) Explain why different ecosystems have different spatial patterns?
- 4) How can some plant species serve as pollution indicators? Give examples.
- 5) What is species diversity? How is it different from taxic diversity?  
Describe with the help of an example.
- 6) Write a paragraph on the Earth Summit.
- 7) What are the objectives for inventorying the biodiversity of a state or a country?
- 8) What are the important data that an ecologist should collect to understand the niche differentiation of a particular species?

### PART C

(Answer ANY TWO questions.)

(2 x 5 = 10)

III

- 1) What are the main projections for climate change given in the Fourth Report of the IPCC?
- 2) Ecological foot printing is now widely used around the globe as an indicator of environmental sustainability. How?
- 3) Describe two major forest types of Kerala.
- 4) What are the different trophic levels in a pond ecosystem?

### PART D

(Answer ANY ONE question)

(1 x 10 = 10)

IV

Write an essay on:

- 1) How does the structure of an evergreen forest support the functions in it so that a rich vegetation results?
- 2) Describe the origin of environmental movements and environmentalism citing examples from India.
- 3) What are the problems for integrating environmental and development? How can you ensure sustainability for a country?