



DPA – 510 (Env. Sci.)

M.Sc. Previous Examination, July/August 2011
(Directorate of Distance Education)
ENVIRONMENTAL SCIENCE
Paper – I : Introduction to Ecology and Environment
(Freshers/Repeaters)

Time : 3 Hours

Max. Marks : 75/85

- Instructions:** 1) *Students who have attended 25 Marks IA Scheme will have to answer for total of 75 Marks.*
- 2) *Students who have attended 15 Marks IA Scheme will have to answer for total of 85 Marks.*
- 3) *Answer **all** the Sections. Section **D** is **compulsory** for 85 Marks Scheme.*

SECTION – A

Answer **any FIVE** of the following (short answer type) :

(5×3=15)

1. Predation
2. Allelopathic competition
3. Natality
4. Lotic ecosystem
5. Decomposers
6. Ecological niche
7. Ammensalism
8. Ecological pyramids.

P.T.O.



SECTION – B

Answer **any FIVE** of the following : **(5×6=30)**

9. Explain horizontal and vertical zonation of the marine environment.
10. Discuss characteristic features of lentic ecosystem and community structure.
11. Narrate polymorphism in relation to genetic variation and adaptation.
12. Give an account of biotic communities of reservoir ecosystem.
13. Discuss on the age distribution influences of natality and mortality.
14. Narrate density dependent and independent action in a population.
15. Explain different types of interaction between two species in a community.

SECTION – C

Answer **any THREE** of the following : **(3×10=30)**

16. Discuss in detail the physico-chemical characteristics of freshwater ecosystem.
17. Discuss different methods of measurement of primary productivity of an ecosystem.
18. Discuss Alpine ecosystem and its features with special reference to plant and animal communities.
19. Give an account of marine ecosystem its physico-chemical characteristics and biotic community.

SECTION – D

Answer **any ONE** of the following : **(1×10=10)**

20. Explain the different types of interspecific interactions in organisms.
21. Discuss the significance of energy flow in an ecosystem.