

BIODIVERSITY AND ECOLOGY-B

(Re-Appeal April 2012)

Time : Three Hours

Maximum Marks : 75

Note : Attempt one question each from Section A, B, C and D carrying 15 marks each, and the entire Section E consisting of ten short answer type questions carrying 1.5 marks each.

Section-A

1. Give a detailed account of Alimentary canal and Digestive gland of Palaemon. 1
2. Write notes on the following :
 - (a) Shell of Pila
 - (b) Gizzard of Periplaneta
 - (c) Bipinnaria larva.5+5+5

Section-B

3. Classify the following :
 - (a) Cucumaria
 - (b) Dentalium
 - (c) Balanoglossus
 - (d) Eupagurus
 - (e) Peripatus3×5
4. Write ecological notes and give economic importance of the following :
 - (a) Sepia
 - (b) Bombyx
 - (c) Echinus5+5+5

Section-C

5. (a) Distinguish between Habitat and Niche. Can more than one species occupy the same niche? Explain with reason.
(b) Define Reproductive isolation, and discuss its role in speciation. 7+8
6. Enlist various types of ecological adaptations. Describe in detail the ecological adaptations in desert animals. 15

Section-D

7. (a) Define Demography. Explain Malthus theory of Human population growth.
(b) Discuss interspecific competition and principle of competitive exclusion. 7+8
8. Give an account of major atmospheric pollutants and their sources. Suggest measures of control also. 15

Section-E

9. Define the following in short :
 - (a) Synecology
 - (b) Gause's Principle
 - (c) Eutrophication
 - (d) B.O.D.
 - (e) Detritus food chain
 - (f) Mosaic vision
 - (g) Haemocoel
 - (h) Holoblastic cleavage.
 - (i) Aestivation
 - (j) Autotomy10×1½=15