

*This question paper contains 3 printed pages.*

4642

Your Roll No. ....

**B.Sc. / II**

**AS**

ES-201 : Concepts of Ecology  
(Admissions of 2008 and onwards)

Time : 2 hours

Maximum Marks : 75

*(Write your Roll No. on the top immediately  
on receipt of this question paper.)*

*Answer Sections A and B on separate answer-books.*

**SECTION A**

*Attempt three questions in all, including  
Q. No. 1 which is compulsory.*

1. Define any *eight* of the following :

- (a) Humus
- (b) Ecotypes
- (c) Fidelity
- (d) Hydrophyte
- (e) Biosphere
- (f) Gravitational water
- (g) Frequency
- (h) Life-form
- (i) Endemism
- (j) Biome.

1×8=8  
P. T. O.

2. Write short notes on :

- (a) Adaptations of xerophytes. 5
- (b) Liebig's law of the minimum. 5
- (c) Phytoclimatic spectrum. 5

3. Describe any *three* of the following :

- (a) Soil texture and its role in water availability to plants
- (b) Indicator species
- (c) Tropical rain forests
- (d) Desert biome. 5×3=15

4. Write short notes on any *three* of the following :

- (a) Types of succession
- (b) Synthetic characters of community
- (c) Distinguish between descriptive and interpretive phytogeography
- (d) Thermal gradient in freshwater lakes. 5×3=15

#### SECTION B

*Attempt three questions in all including  
Q. No.5 which is compulsory.*

5. (a) Define :

- (i) Biome
- (ii) Biotic potential

- (iii) Life table
- (iv) Eutrophication
- (v) Niche. 5
- (b) Explain the following terms:
  - (i) Survivorship curves
  - (ii) Natality and mortality. 4
- (c) Zones of marine ecosystem. Explain diagrammatically. 4
- 6. Explain population growth curves. 12
- 7. Define Ecosystem. Explain in detail the structure and function of an Ecosystem. 12
- 8. Write short notes on any *three* :
  - (i) Carbon cycle
  - (ii) Gause's principle of competitive exclusion
  - (iii) Coral reefs
  - (iv) Ecotone and its significance. 4,4,4