

5056**M.Sc. Botany (CBS) IInd Semester Examination
ECOLOGY AND ENVIRONMENT**

(Common with MZOO-202)

Paper-MBOT-202

Time : Three Hours]

[Maximum Marks: 40

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt *five* questions in all by choosing at least two questions from each Section. All questions carry equal marks.

SECTION-A

1. (a) Define the term ecosystem productivity. Discuss its types and significance. 4
- (b) Describe the characteristic features and components of tropical rain forest. 4
2. (a) What do you mean by life history strategy? Explain the concept of r and k selection. 4

(b) Discuss the salient features of time lag model of population growth. 4

3. (a) Define the term competition. Explain major theories proposed for competition. 5

(b) Write an explanatory note on global nitrogen cycle. 3

4. Define the term predation. Discuss the concept of predator-prey interaction and role of predation in nature. 8

5. Write explanatory notes on the following :

(a) Categories of threat. 4

(b) Biodiversity hot spot. 4

SECTION-B

6. (a) Define the term pollution. Discuss the causes, effects and control of water pollution. 8

7. (a) What is ozone layer? Explain the causes and consequences of ozone depletion. 5

(b) Write a note on the concept of niche. 3

8. What is energy transfer? Discuss the models proposed to explain transfer of energy in an ecosystem. 8

9. (a) What is global climate change? Discuss its impact on environment and life. 5
- (b) Define the term extinction. Describe major causes of species extinction. 3
10. What do you mean by sustainable development? Discuss the principles of sustainable development. 8
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