

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.A./B.Sc. (General) 5th Semester

(2123)

BOTANY

Paper—B : Plant Ecology

Time Allowed : Three Hours]

[Maximum Marks : 36

Note :— Attempt *five* questions in all. Question No. 1 is compulsory and select *one* question from each unit.

1. A. Multiple Choice Questions (MCQ) :

(i) Science that deals with the relationships between living organisms with their physical environment and with each other is called :

(a) Ecosystem (b) Biodiversity

(c) Environment (d) Ecology

(ii) The essential biotic components of ecosystem required for quick breakdown of dead bodies of organisms are :

(a) Parasites

(b) Scavengers

(c) Detrivores

(d) Both Scavengers and Detrivores

(iii) The replacement of one community by the other community in a definite sequence is called :

- | | |
|------------------|-------------------|
| (a) Colonisation | (b) Invasion |
| (c) Sere | (d) Stabilization |

(iv) Minamata disease had caused epidemic in Japan in 1952 due to consuming of fishes and animals polluted with :

- | | |
|-------------|--------------|
| (a) Lead | (b) Mercury |
| (c) Cadmium | (d) Chromium |

B. Fill in the blanks :

- (i) The dispersal of seeds and fruits through agency of animals including human beings is called _____.
- (ii) _____ are also called ecological pyramids.
- (iii) The process of formation of bare area where succession can be initiated is called _____.
- (iv) The melting of glaciers, melting of polar ice caps and increase in sea level are consequences of _____.

$$8 \times 1 = 8$$

UNIT—I

2. (a) Discuss with examples the interaction between plants and microorganisms.
- (b) Differentiate between Heliophytes and Sciophytes. 4,3

3. (a) Briefly discuss the variation in temperature and its effects on distribution of plants.
(b) Write a short note on Pedogenesis. 4,3

UNIT—II

4. (a) Explain the ten percent law of energy flow in ecosystem.
(b) Explain food chains citing examples. 4,3
5. (a) Give a detailed account of Carbon Cycle.
(b) Discuss the abiotic components of ecosystem. 4,3

UNIT—III

6. (a) Explain the Crustose lichen and Foliose lichen stage of plant succession.
(b) Briefly explain cover as a quantitative characteristic of community ecology. 4,3
7. Write notes on :
(a) Importance Value Index (IVI)
(b) Floating stage of Hydrosere. 4,3

UNIT—IV

8. (a) Give a detailed account of Acid Rain.
(b) Explain Bioconcentration. 4,3
9. (a) Differentiate between renewable and non-renewable resources.
(b) Give a detailed account of Chlorofluorocarbons (CFCs). 4,3