

(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) 5<sup>th</sup> Semester  
(2122)

**BOTANY**

**Paper—B (Plant Ecology)**

**Time Allowed : Three Hours]**

**[Maximum Marks : 36**

**Note :—**Attempt **five** questions in all, including Question No. 1 which is compulsory and selecting **one** question from each Unit.

1. (A) Multiple Choice Questions (MCQ) :

(i) The regulation of physiological processes of plants by rhythmic changes in temperature is called :

(a) Photoperiodism                      (b) Thermoperiodism

(c) Vernalization                      (d) Adaptation

(ii) Maintenance of stable state of equilibrium within the various components of ecosystem is called :

(a) Productivity                      (b) Mineralization

(c) Homeostasis                      (d) Phytogeography



(iii) Vigour in plants is determined by :

- (a) Degree of flowering and fruiting
- (b) Condition of foliage
- (c) Disease resistance
- (d) All of these

(iv) BOD is an indication of levels of :

- (a) Growth of plants
- (b) Biological pollution
- (c) Deforestation
- (d) Photosynthesis

(B) Fill in the blanks :

(i) The plants growing in open sunlight are called \_\_\_\_\_.

(ii) Each level comprising of organism having similar mode of nutrition is called \_\_\_\_\_.

(iii) Ammonia is oxidized to nitrite and nitrate ions by \_\_\_\_\_ and Nitrobacter bacterium.

(iv) \_\_\_\_\_ is the basic element of all organic compounds.

$$8 \times 1 = 8$$

### UNIT-I

2. (a) Discuss the soil profile and describe the various soil horizons.

(b) Define ecology and discuss its scope. 4,3

3. Discuss the various adaptations in plants in response to variation in temperature. 7



## UNIT-II

4. (a) Discuss the concept of food chain and food web citing examples.
- (b) Briefly explain biological nitrogen fixation. 4,3
5. Explain the Biogeochemical Cycle of Carbon in detail. 7

## UNIT-III

6. (a) Explain biological spectrum in detail.
- (b) What are the causes of plant succession ? Explain. 4,3
7. Discuss the various stages of plant succession in Hydrosere. 7

## UNIT-IV

8. Write notes on :
  - (a) Management of Natural Resources
  - (b) Ozone Hole. 4,3
9. (a) Discuss the various sources of soil pollution.
- (b) Write a note on effects of water pollution. 4,3