

(i) Printed Pages : 4] Roll No.

(ii) Questions : 9] Sub. Code :

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Exam. Code :

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

1127

**BOTANY
(Plant Ecology)**

Paper : B

Time : 3 Hours]

[Max. Marks : 36

Note :- Attempt *five* questions in all. Question No. 1 is compulsory. Attempt *four* more questions selecting *one* from each Unit. Draw diagrams where necessary.

1. (A) Fill in the blanks :

- (i) Ecological study of individual species is called
- (ii) The amount of water available to the plant roots for absorption is known as
- (iii) Flow of energy declines from lower to higher trophic level in ecosystem is mainly

NA-90

(1)

Turn Over

explained by law of thermodynamics.

(iv) Term ecology was coined by

(v) The last succession in a sere is known as

(vi) The minamata disease in Japan was caused through pollution of water by $6 \times 1 = 6$

(B) Multiple Choice Questions :

(i) All the living organisms on the earth constitute :

- | | |
|---------------|-----------------|
| (a) Biosphere | (b) Community |
| (c) Biome | (d) Association |

(ii) Least porous soil is :

- | | |
|-----------|-----------|
| (a) Loam | (b) Clay |
| (c) Sandy | (d) Peaty |

(iii) If all the green plants disappear from the earth :

- | |
|---|
| (a) All the animals will die |
| (b) Only insect will die |
| (c) Only herbivores will die |
| (d) It will make no difference to animals |

- (iv) Most of the plants obtain their nitrogen from the soil in the form of :
- (a) HNO_3
 - (b) Nitrate
 - (c) Free nitrogen gas
 - (d) Nitrogen oxide
- (v) Lichens do not like to grow in cities :
- (a) Because of absence of the right type of algae and fungi
 - (b) Because of lack of moisture
 - (c) Because of SO_2 pollution
 - (d) Because natural habitat is missing
- (vi) BOD of a river was found to be very low, this means water :
- (a) Was clean
 - (b) Was polluted
 - (c) Contains algae
 - (d) Contains other Dissolved minerals $6 \times 1 = 6$

Unit-I

2. What are basic concepts of ecology ? Also discuss the scope of ecology. 6
3. Write short notes on the following :
- (a) Lithosphere
 - (b) Sciophytes
 - (c) Field capacity. $3 \times 2 = 6$

Unit-II

4. What are ecological pyramids ? Describe the pyramids of number, biomass and energy with illustrated diagrams. 6
5. Write notes on the following :
- (a) Food chains and trophic levels.
 - (b) Productivity of ecosystem.
 - (c) Nitrogen cycle. $3 \times 2 = 6$

Unit-III

6. What is community ? Write down its important principles. 6
7. What is succession ? How is it formed on any area ? Describe xerosere in detail. 6

Unit-IV

8. What is water pollution ? Describe various sources of it. What are the various methods of the treatment of sewage ? 6
9. What are minerals ? Describe mineral resources and their conservation. 6