

BOTANY Paper-B

(Plant Ecology)

Time Allowed : Three Hours

Maximum Marks : 36

Note : Attempt five questions in all, selecting two questions from each Unit.

Question No. 1 is compulsory. Draw diagrams where required.

1. (a) M.C.Qs. :

(i) The ultimate carnivores which are not eaten by others called top carnivores, occupy which trophic level :

(a) T_3

(b) T_4

(c) T_5

(d) T_6

(ii) The term succession was coined by :

(a) Tansley

(b) Hult

(c) Odum

(d) None of these

(iii) The shape of pyramid of number in Forest ecosystem is :

(a) Upright

(b) Spindle

(c) Inverted

(d) None of these

(iv) Plants which avoid calcium containing soils are known as :

(a) Calicoles

(b) Calcifuges

(c) Xerophytes

(d) None of these

(v) The amount of living material present in an ecosystem is known as :

(a) Standing state

(b) Production

(c) Standing crop

(d) None of these

- (vi) The process of falling of trees due to wind is called :
 (a) Lodging (b) Wind throw
 (c) Tumbling (d) Deforestation
- (b) Fill in the blanks :
- (vii) The chresard indicates the amount of water in soil which is to plants.
- (viii) The primary consumers are also known as
- (ix) The pollination by bats is known as
- (x) The type of caudex found in Bamboos is called
- (xi) Those plants which have wide tolerance to temperature is called
- (xii) The transfer of energy between two trophic levels is known as

12×1=12

UNIT – I

2. Write an account on the following : 3 each
 (a) Soil profile
 (b) Soil water
3. Give a detail account on effect of topographic factors on distribution, growth and physiology of plants. 6

UNIT – II

4. Write notes on the following : 3 each
 (a) Abiotic and Biotic components of Ecosystem.
 (b) What is biogeochemical cycle ? Explain with diagram of Nitrogen cycle ?
5. Write an account on the following : 3 each
 (a) Ecological pyramids of Biomass.
 (b) Detritus food chain.

UNIT – III

6. What is Succession ? Describe xerosere in detail with examples and diagram. 6
7. Write notes on the following : 3 each
 (a) Biological spectrum
 (b) Quantative characters of community

UNIT – IV

8. Write notes on the following : 3 each
 (a) Ozone depletion
 (b) Photochemical smog
9. Write an account on the following : 3 each
 (a) Renewable resources of energy
 (b) Acid rain.