

2012
B.A./B.Sc. (General) Fifth Semester
Botany
Paper - B: Plant Ecology

Time allowed: 3 Hours

Max. Marks: 36

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.

x-x-x

I. A. Multiple Choice Questions (MCQ):

- i. Plants growing under direct sunlight are known as
(a) Heliophytes (b) Sciophytes (c) Psamophytes (d) Dicots
- ii. Greenhouse gases include _____
(a) CO₂, Methane, Nitrous oxide (b) CO₂, Argon, Nitrous oxide
(c) CO₂, Methane, Chlorine (d) CO₂, Methane, Flourine
- iii. The ozone layer is present in _____
(a) Mesosphere (b) Thermosphere (c) Stratosphere (d) None of the above
- iv. The correct examples of nonrenewable resources is
(a) Petrol, Coal and Gas (b) Sun, Fossil fuels and Wind
(c) Water, Petrol and Coal (d) Water, Wind and Sunlight
- v. The recycling of elements in an ecosystem is called
(a) Chemical cycle (b) Geological cycle (c) Biogeochemical cycle (d) Geochemical cycle
- vi. According to pyramid of numbers the number of producer is greater than the number of
(a) Herbivores (b) carnivores (c) omnivores (d) scavengers

B. Fill in the blanks:

- (i) Edaphic factors are related to _____
- (ii) Plants which can withstand wide range of temperature are called _____
- (iii) A network of interconnected food chains is called _____
- (iv) The important hydrocarbons for the production of photochemical smog are _____
- (v) The expanded form of IUCN is _____
- (vi) Nuclear energy is a _____ energy resource.

12x1= 12

P.T.O.

(2)

UNIT - I

- II. Write notes on:-
- a) Photoperiodism
 - b) Layers of Atmosphere (3,3)
- III. a) Discuss the various horizons of soil profile and give its characteristics.
b) Briefly discuss the scope of ecology. (4,2)

UNIT - II

- IV. a) Explain the concept of energy flow in an ecosystem.
b) Explain food web citing an example. (3,3)
- V. Give a detailed account of Nitrogen Cycle. (6)

UNIT - III

- VI. a) Give an account of stages in ecological succession in lithosphere.
b) Briefly explain biological spectrum. (4,2)
- VII. Write notes on:-
- a) Characteristics of ecological succession
 - b) Climax stage of plant succession (3,3)

UNIT - IV

- VIII. a) Discuss the renewable resources of energy.
b) Enlist the practices for soil conservation. (3,3)
- IX. Discuss in detail the types, sources, effects and control measures of water pollution. (6)