

2021
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) Acid rain results from increased concentration of
 - a) Sulphur dioxide and nitrogen dioxide
 - b) Carbon dioxide and methane
 - c) Chlorofluorocarbons
 - d) Ammonia and methane
- ii) Ammonification involves
 - a) Proteolysis and amino acid degradation
 - b) Proteolysis
 - c) Amino acid degradation
 - d) Denitrification
- iii) Biochemical Oxygen Demand (BOD) is an important indicator of levels of biological pollution in
 - a) Water
 - b) Air
 - c) Soil
 - d) Noise
- iv) Sound becomes polluting at about
 - a) 50dB
 - b) 100dB
 - c) 90dB
 - d) 80dB

B. Fill in the blanks:-

- v) The most common example of total stem parasite is _____.
- vi) Ammonia is oxidized to nitrite and nitrate ions by nitrosomonas and _____.
- vii) Phosphorus is a component of _____ and proteins.
- viii) Photochemical smog is produced when _____ acts upon motor vehicle exhaust gases (8x1)

P.T.O.

(2)

UNIT – I

- II. a) Discuss Lichens and Mycorrhiza as biotic factors responsible for modifying vegetation and environment.
b) Write a note on Integrated Pest Management. (4,3)
- III. a) Discuss the characteristics and horizons of soil profile.
b) Write a note on effects of human activities on vegetation. (4,3)

UNIT – II

- IV. a) What are biogeochemical cycles explain with an example.
b) Write a note on energy flow in ecosystem. (4,3)
- V. a) Write a note on Food Webs. Give examples.
b) Explain the Pyramids of biomass.
c) Define food chain. (3,3,1)

UNIT – III

- VI. a) Explain Biological spectrum. How can it be determined?
b) Discuss the characteristics of a community. (4,3)
- VII. Write notes on:-
a) Phanerophytes
b) Climax stage of plant succession (4,3)

UNIT – IV

- VIII. a) Explain Greenhouse effect and Global Warming.
b) Enlist major air pollutants. (4,3)
- IX. a) Discuss the harmful effects of various air pollutants on biota of ecosystem.
b) Discuss the sources of water pollution. (4,3)

x-x-x