



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY
Question Paper

B.Sc. Honours Examinations 2022

(Under CBCS Pattern)

Semester - IV

Subject : BOTANY

Paper : C 9-T

Plant Ecology and Phytogeography

Full Marks : 40

Time : 2 Hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Answer any **four** of the following questions : 5×4=20
- (a) Briefly describe the process of soil formation. Discuss the physical composition of soil. 3+2
- (b) What is hydrological cycle? Enumerate different types of water available in the soil. 2+3
- (c) Write a brief note on different ecological adaptations of xerophytes. Explain the adaptations of plant against temperature. 3+2
- (d) What are food webs? Explain with example. Explain the model of energy flow in an ecosystem. 2½+2½

P.T.O.

(e) What is population dynamics? Write the characteristics of a stable population. How does plant adapt to different temperature? 1+2+2

(f) Write about different types of ecological pyramids in the ecosystem. Give examples. 5

2. Answer any *two* of the following questions : 10×2=20

(a) What is plant succession? Explain the process of plant succession. Write about the different types of plant succession. What is climax community? What is ecological niche? 2+3+3+1+1

(b) What is endemism? Briefly illustrate the theory of endemism. Name two endemic plant species from India. Briefly discuss about different phytogeographical regions of India. 2+3+2+3

(c) What is biogeochemical cycle? Explain the carbon cycle that you have studied. What is ecological efficiency? Explain the principles of energy flow in an ecosystem. 2+3+2+3

(d) Write notes on the following (any *four*) : 2½×4

(i) Ecotone and edge effect.

(ii) Soil profile.

(iii) Continental drift.

(iv) Shelford's law of tolerance.

(v) Tundra Biome.

(vi) Speciation.
