

U.G. 3rd Semester Examination - 2021

ENVIRONMENTAL SCIENCE

[HONOURS]

Course Code : ENVS-H-CC-P-05

(Ecology and Ecosystems)

[PRACTICAL]

Full Marks : 20

Time : 2 Hours

The figures in the right-hand margin indicate marks.

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

Answer any **two** from the following: 10×2=20

1. Write the principle and procedure for the estimation of dissolved oxygen of water samples collected from a pond. What is the relationship between dissolved oxygen and salinity of water? 8+2
2. State the principle and procedure of plankton analysis by drop count method. Give example of two diatoms found in freshwater ecosystem. 8+2
3. Prepare a report on a local water body (pond / lake/ river) with special focus on its ecosystem structure and function with illustration. 10
4. State the principle and methodology of quadrat

analysis of plant species in a forest. Calculate the Shannon Diversity Index from the following table and comment on your result. 5+5

Table: Number of plant species found in different quadrat studied.

Plant species	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4
Species 1	10	7	9	8
Species 2	12	15	17	11
Species 3	5	7	8	3
Species 4	32	27	25	34
Species 5	65	54	71	60
Species 6	24	23	25	27
