

U.G. 5th Semester Examination - 2020

ENVIRONMENTAL SCIENCE

[HONOURS]

Discipline Specific Elective (DSE)

Course Code : ENVS(H)DSE-P-01B/PR

[PRACTICAL]

(Ecotoxicology and Environmental Health)

Full Marks : 20

Time : 2 Hours

The figures in the right-hand margin indicate marks.

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

1. State the principle and methodology to toxicity bioassay in determining LD50 of a potential toxicant.

The effect of varying concentrations of a toxic salt on French bean seed germination is presented in the Table given below. Determine the LD50 value.

Dose of Salt Solutions (g/Kg)	Germinating Seeds (%)
0 (control)	100
0.75	95
1.5	85
3	80
6	70
9	60
12	30

5+5=10

[Turn over]

2. Prepare a structured questionnaire for conducting an epidemiological survey in an arsenic affected block. 10
3. Prepare a structured questionnaire for conducting on assessing health risk for the workers of a textile bleaching and dyeing industry in your locality. 10
4. Explain the principle and procedure of toxicity bioassay to a microbial cell. State the significance of MIC and MBC in determining the toxicity of metal to a specific bacterium. 6+4=10