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GIET UNIVERSITY, GUNUPUR – 765022
 Ph.D. (Second Semester) Examinations, April – 2024
23RAPHD041 - Fresh Water Habitat and Ecology
 (ZOOLOGY)

Time: 3 hrs

Maximum: 70 Marks

The figures in the right-hand margin indicate marks.

Answer ANY FIVE Questions**(14 x 5 = 70 Marks)**

	Marks
1.a. Write short notes on the following	
(i) Liebig's law of minimum (ii) Shelford's law of tolerance	8
b. Define Population ecology and discuss about characteristics of population ecology.	6
2.a. Thrash out in detail about the socioeconomic aspects of bioresources.	7
b. Describe the occurrence, distribution and role of planktons in aquatic ecosystem.	7
3.a. What is eutrophication? Explain causes and harmful effect of algal blooms?	5
b. Discuss the biochemical aspects of an aquatic ecosystem.	9
4.a. Assess the importance of biopesticides and biofertilizers with respect to organic farming.	8
b. Explain the useful and detrimental role of algae in aquatic ecosystem.	6
5.a. Evaluate the adaptations of animals towards aquatic and terrestrial habitats.	6
b. Explain the various methods of wild life conservation and management.	8
6.a. Write short notes on the following (i) BOD (ii) COD (iii) aquatic surface scum.	8
b. Enumerate the role of biotechnology in abatement of water pollution.	6
7.a. Write short notes on the following	5
(i) National parks (ii) Deforestation (iii) Carbon trading	
b. Discuss the importance of genetically engineered microbes in treatment of wastes.	9
8.a. Illustrate the impact of human activities on loss of biodiversity.	8
b. Interpret the ecology of transgenic crops and effect on biodiversity.	6

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