4. Define soil organic matter. Describe the role of soil organic matter in soil health management. 3+17=20

UNIT-III

5. What do you mean by Zooplankton? What functional role do zooplanktons play in aquatic ecosystem? Describe briefly the method for collection, preservation and analysis of zooplanktons. 1+4+15=20

6. Write a brief note on the economic importance of algae. Discuss the potential of four value added products from algae. 8+(4x3)=20

UNIT-IV

7. Answer the followings :

   (a) Write the various techniques used in the direct census of wildlife. 8

   (b) Define species diversity. Explain the Simpson Diversity Index with suitable examples. 5

   (c) Describe the different types of Binoculors used in field study of wildlife. 7

8. What do you mean by Biodiversity Management? Write in detail about the methodologies used in Ethnobotanical studies. 2+18=20

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Course Work Examination, July 2023

E.P. Odum School of Environmental Sciences

ECOLOGY & ENVIRONMENTAL SCIENCE

Course No. CW-703
(Advances in Ecology & Environmental Science)

Full Marks: 100
Pass Marks: 50

Time: 3 Hours

The figures in the margin indicate the full marks for questions.
Answer any five questions, taking one from each unit..

UNIT-I

1. Describe the characteristics of different sampling approaches used in assessing terrestrial vegetation with proper illustration. Elucidate the different methods used for quantitative assessment of forest vegetation. 10+10=20

2. Write short notes on the following : 10x2=20

   (i) Benefits of conserving agriculture

   (ii) Soil carbon sink saturation.

UNIT-II

3. What do you mean by measurement of Microbial diversity? Write in detail about Microbial Culture technique. 3+17=20