SARASWATHI NARAYANAN COLLEGE

(Autonomous Institution Affiliated to Madurai Kamaraj University)
(Reaccredited with Grade 'B' by NAAC)
Madurai – 625 022.

M.Sc. Botany – Summative Examinations

Code: LPBYCT12 **Semester: I**

ECOLOGY AND BIODIVERSITY

Duration: 3 Hrs. **Max: 75 Marks**

SECTION – A **5 x 1 = 5**

I. Answer ALL questions. Choose the correct answer.(K2)

1. The natural residence of every organism is known as

   a) Biome b) Niche

   c) Habit d) Habitat

2. Which is/are the abiotic components of an ecosystem?

   a) Soil b) Protein

   c) Carbon d) All of the above

3. The result of acid disposition is

   a) Dying forests and lakes b) Acid indigestion in humans

   c) Greenhouse effect lessens d) All of these

4. A wide variety of living organisms is called

   a) Biodiversity b) Population

   c)Habitat d) Diversity

5. Phytogeography is also called as----------

   a)Anatomy b) Physiology

   c) Embryology d) Geobotany

II. Fill in the blanks (K1) **5 x 1 = 5**

6. A mutual relationship between two organisms, where both of them are benefited are called _____
7. The set of ecosystems is called _____
8. Acid rain is a result of _____
9. _____ is an example of an *ex-situ* conservation
10. _____ is an ecological state of a species being unique to a specific geographic location.

SECTION – B **5 x 2 = 10**

Answer ALL the questions.

11. Show the concepts of population ecology.K2
12. What is the main importance of food chain? K2
13. Find out the main causes of soil erosion. K3
14. How does invasion of exotic species affect the biodiversity? K3
15. Name any red listed of medicinal plants. K4

SECTION – C **5 x 5 = 25**

Answer all questions choosing either (a) or (b) in about 2 pages each.

16. a) Identify the components of population size. K1

(Or)

b) How do ecologists describe populations?K1

17. a) Discuss the structure and functional status of an ecosystem. K2

(Or)

b) Express the law of thermodynamics.K2

18. a) Organize the methods of recycling in e-waste management.K2

(Or)

b) Summarize the methods of renewable resources.K2

19. a) Simplify the major threats to biodiversity in India. K3

(OR)

b) How is genetics related to ecology?- Explain.K3

20. a) Compare and contrast the continuous and discontinuous distribution of plants.K4

(OR)

b) Discuss about IUCN Red List? – Plants K4

SECTION – D **3 x 10 = 30**

Answer any THREE questions in about 4 pages each.

21. Identify the characters, structure and significance of community ecology .K1
22. Why the flow of energy in an ecosystem is unidirectional?- Explain.K2
23. Examine the methods of water conservation and management.K3
24. Assess the biotechnological tools and methods for plant conservation.K4
25. Classify the vegetation of Tamil Nadu. K5