

Date:

Registration number:

ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27

B.Sc. ENVIRONMENTAL SCIENCE - II SEMESTER

SEMESTER EXAMINATION: APRIL 2022

(Examination conducted in July 2022)

**ES 218 - Ecology**

Time- 2 ½ hrs Max Marks-70

This question paper contains one printed page and three parts

**Part A**

**Answer any ten questions 10×2 = 20**

1. Define Ecology.
2. Differentiate Autecology and Synecology.
3. What is a food chain? Give an example.
4. Define biotic community.
5. Differentiate natality and mortality.
6. Differentiate emigration and immigration.
7. What is an edge effect?
8. State Liebig’s law of minimum.
9. Differentiate short day and long day plants.
10. What is mutualism? Give an example.
11. Differentiate habitat and niche.
12. What is protective mimicry? Give an example.

**Part B**

**Write explanatory notes on any four**. **4×5 = 20**

1. Food web
2. Cyclomorphism
3. Phosphorus cycle
4. Edaphic factors
5. Desert Biome
6. Adaptive radiation

**Part C**

**Answer all questions 3×10 = 30**

1. Explain a pond ecosystem with a neat, labelled diagram.

**OR**

Compare and contrast between heliophytes and sciophytes.

1. Give an account of growth form and age distribution of a population.

**OR**

With a neat sketch, explain the ecological succession of Hydrach.

1. Explain the directional natural selection with reference to industrial melanism.

**OR**

What are the conditions for mimicry? Explain Batesian mimicry.