**ST JOSEPH’S UNIVERSITY, BENGALURU - 27**

Registration Number:

Date & session:

**ENVIRONMENTAL SCIENCE – 4th SEMESTER**

**SEMESTER EXAMINATION: APRIL 2024**

**(Examination conducted in May / June 2024)**

**ES 221 - ECOLOGY – THEORY AND PRACTICE**

**(For current and supplementary (2021-22 onwards) batch students)**

**Time: 2 Hours Max Marks: 60**

1. **This paper contains ONE printed pages and THREE parts**
2. **Draw diagrams wherever necessary**

**PART – A**

**Answer any SIX of the following 6q X 2m = 12m**

1. Depict the levels of organization in a diagram.
2. What are chemotrophs? Cite an example.
3. Differentiate between biological and group attributes of a population.
4. Define the terms Maximum natality and Ecological natality
5. What is secondary succession?
6. What is a grazing food chain? List the organisms involved in this chain.
7. State Allen’s rule.
8. What is Industrial melanism? Cite an example.

**PART – B**

**Write explanatory notes on any FOUR of the following 4q X 7m = 28m**

1. A general model of nutrient cycling
2. Climax vegetation and their theories
3. Food web and its significance
4. Ecological niche, types and partitioning
5. Darwin’s postulates
6. Shelford’s law of tolerance

**PART – C**

**Answer ALL the questions 2q X 10m = 20m**

1. Describe in detail the structure of an ecosystem.

**OR**

 Discuss the factors that regulate population size.

1. Explain Ecological Succession and its stages in Hydrosere.

**OR**

Present a detailed account of Batesian and Mullerian mimicry.Describe in detail the functioning of an ecosystem.