

Date: 10-12-2022 ( 1pm )

Registration number:

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

**M.Sc. ENVIRONMENTAL SCIENCE AND SUSTANABILITY – I SEMESTER**

**SEMESTER EXAMINATION: OCTOBER 2022**

(Examination conducted in December 2022)

**ESS 7422: ECOSYSTEM DYNAMICS, BIODIVERSITY AND WILDLIFE**

**TIME: 2 HOURS MAX MARKS: 50**

**This question paper contains ONE printed side and THREE parts**

**Draw diagrams and write examples wherever necessary**

**PART – A**

**Answer any FIVE of the following 5q X 2m = 10m**

1. What is the aim of Ramsar convention?
2. What are Flagship species?
3. Define Population regulation. List any two factors responsible for population regulation.
4. Differentiate ‘Fundamental niche’ and ‘Realized niche’.
5. Define an ecosystem.
6. What are biodiversity indices?
7. What is ‘indirect use value’?

**PART – B**

 **Write explanatory notes on any FOUR of the following 4q X 5m = 20m**

1. Population density, natality and mortality
2. Biosphere Reserves
3. IUCN Red List species categories
4. Levels of biodiversity
5. Urban biodiversity
6. Threats to wildlife

**PART – C**

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

1. a. Discuss the structure and function of an ecosystem.

**OR**

b. Provide a descriptive account of the ecosystem services.

1. a. Comment on the threats to biodiversity.

**OR**

b. Plot, identify and discuss the type of survivorship curve based on the data given below:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No. of survivors** | 1000 | 600 | 400 | 300 | 200 | 200 | 200 | 200 | 200 | 100 |
| **Age in years** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

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