



**UNIVERSITY OF NORTH BENGAL**

B.Sc. Honours Part-III Examination, 2021

**ZOOLOGY**

**PAPER-IX (SYLLABUS 2015)**

**ECOLOGY, ENVIRONMENTAL BIOLOGY AND TOXICOLOGY, ANIMAL BEHAVIOUR**

Full Marks: 80

**ASSIGNMENT**

*The figures in the margin indicate full marks.*

**Answer any four of the following questions**

20×4 = 80

**attempting at least one from each Group**

**GROUP-A**

**(ECOLOGY)**

1. Describe the different models of energy flow in an ecosystem.
2. Give a detailed account of nitrogen cycle in nature with the help of a diagram. Add a note on its significance.
3. Describe the different serial stages seen during the process of succession in a pond ecosystem.

**GROUP-B**

**(ENVIRONMENTAL BIOLOGY AND TOXICOLOGY)**

4. Discuss the sources of air pollutants and mention their effect on human health and other organisms. Mention the measures adopted to prevent air pollution in India.
5. Describe the effects of different metal toxicants on human health and comment on the measures taken to prevent it.
6. Give a detailed account of habitat destruction in North Bengal highlighting the causes and effects. Write about the methods taken to prevent habitat destruction.

**GROUP-C**

**(ANIMAL BEHAVIOUR)**

7. Give an account of the different types of innate behaviour with suitable examples.
8. Briefly explain the circadian rhythm with respect to pendulum theory and relaxation oscillation theory. Describe the importance and influence of photoperiod on organisms.
9. Describe briefly the language of honeybees as a means of communication with a note on the factors that affect this communication.

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