



'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 5th Semester Examination, 2022

DSE-P2-ZOOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks

**The question paper contains GROUP-A and GROUP-B.
The candidates are required to answer any *one* from *two* groups and
candidates should mention it clearly on the Answer Book.**

GROUP-A

ANIMAL BEHAVIOUR AND CHRONOBIOLOGY

1. Answer any **five** questions from the following: 1×5 =5
 - (a) Name two Nobel laureates in ethology.
 - (b) Expand FAP.
 - (c) Define filial imprinting.
 - (d) What is masking?
 - (e) What is pheromone?
 - (f) What do you mean by complex behaviour?
 - (g) What is innate behaviour?
 - (h) Give an example of circannual rhythm.

2. Answer any **three** questions from the following: 5×3 = 15
 - (a) Write a note on sexual conflict in parental care.
 - (b) What do you mean by 'selfish herd theory'? Explain in brief. 1+4
 - (c) Write a short note on Hamilton's rule of genetic relatedness.
 - (d) What is biological clock? Write a note on adaptive significance of biological clock. 1+4
 - (e) Write briefly on Von Frisch's experiment on round dance of bees.

3. Answer any **two** questions from the following: 10×2 = 20
 - (a) Elaborate the concept of Altruism in honeybees. Add a note on kin selection. 6+4
 - (b) Write a note on classical and operant conditioning. Write a note on imprinting citing suitable examples. 5+5

- (c) Write short notes on (i) 'asymmetry of sex' and (ii) mate choice. 5+5
- (d) Discuss the role of pheromones in insects. Write a note on different types of biological rhythms. 5+5

GROUP-B

WILDLIFE CONSERVATION AND MANAGEMENT

1. Answer any **five** questions from the following: 1×5 = 5
- (a) What is the biggest threat to wildlife?
 - (b) Expand the term GIS and GPS.
 - (c) What is IUCN red list?
 - (d) What do you mean by ex-situ conservation?
 - (e) Which of the following symbols is used by World Wide Fund for Nature?
 - (i) Red Panda
 - (ii) Polar Bear
 - (iii) Giant Panda
 - (iv) African Elephant
 - (f) Define Natality.
 - (g) Name the first tiger reserve of India.
 - (h) What is the role of a community reserve?
2. Answer any **three** questions from the following: 5×3 = 15
- (a) Discuss the consequences of human wildlife conflict.
 - (b) Write a short note on Ecotourism.
 - (c) Explain various methods for restoration of degraded habitats of wildlife.
 - (d) Discuss the important features of the Wildlife Protection Act, 1972.
 - (e) Write the role of Biological Parameters in the evaluation of wildlife conservation.
3. Answer any **two** questions from the following: 10×2 = 20
- (a) What is Remote Sensing? Discuss the application of Remote Sensing in wildlife conservation. 2+8
 - (b) Define Genetic Diversity. Briefly discuss the different strategies involved in the presentation of Genetic Diversity. 2+8
 - (c) What do you mean by sanctuary? Give an account of utility, significance and scope of conservation in sanctuary. 3+7
 - (d) Elaborate the management practices to improve the habitat quality of a wildlife for the purpose of wildlife viewing and recreational activity. Comment on essential elements that must be present for the habitat management of wildlife. 5+5

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