



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 1st Semester Examination, 2022-23

ZOOACOR02T-ZOOLOGY (CC2)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks:
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

1. Answer any **eight** questions from the following: 2×8 = 16
- (a) Define net reproductive rate.
 - (b) Distinguish between density dependent and density independent factors in population regulation.
 - (c) Elaborate the terms CITES and IUCN.
 - (d) Why Sunderbans are considered to be a biosphere reserve?
 - (e) What is autecology? How it differs from synecology?
 - (f) What is umbrella species?
 - (g) What do you mean by ecological efficiency?
 - (h) What do you mean by edge effect?
 - (i) What is ecesis?
 - (j) What do you mean by vertical stratification?
 - (k) What is carrying capacity?
 - (l) What is biotic potential?
2. Answer any **three** questions from the following: 3×3 = 9
- (a) Name the types of conservations found in the following: 3
 - (i) Hot Spot (ii) Sperm bank (iii) Zoo
 - (b) What do you mean by hydrosere and xerosere? Differentiate between primary and secondary succession. 1+2
 - (c) State the difference between S-shaped and J-shaped growth curves. What do you mean by K-selected population? 2+1
 - (d) Explain the process of autogenic succession with suitable example. 3
 - (e) Why do food chains in real ecosystems hardly include more than four trophic levels? 3
 - (f) What do you mean by species dominance and species abundance? 3

3. Answer any *three* questions from the following: 5×3 = 15
- (a) Explain the mechanism of transfer of energy through grazing food chain with the help of “box and pipe” model. 5
 - (b) Distinguish between in-situ and ex-situ mode of conservation. Write the scientific names of a mammal and a bird that are listed in Schedule I. 3+2
 - (c) What is Life table? State its significance. 3+2
 - (d) What do you mean by ecological pyramid? Write the significance of these Pyramids. What is an inverted Pyramid? 2+2+1
 - (e) Discuss Gause’s Principle with suitable example. 3+2
 - (f) Discuss three major types of Age Pyramid with examples. 5

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