



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours/Programme 4th Semester Examination, 2022

**EVSHGEC04T/EVSGCOR04T-ENVIRONMENTAL SCIENCE (GE4/DSC4)**

**BIODIVERSITY AND CONSERVATION**

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 **ten** questions from the following: 1×10 = 10
- Why on site conservation is necessary?
  - Mention the full form of BLAST.
  - What is the role of endemism in locating biodiversity hotspot?
  - Mention two objectives of National Biodiversity Vision Plan 2050.
  - Define biogeochemical cycle.
  - What is the basis of ethical values of biodiversity?
  - What do you mean by habitat degradation?
  - IUCN Red List (2004), what does 'Red' represent?
    - What is a gene pool?
    - What is the reason behind the vast diversity in Indian ecology?
    - What features make a community stable?
    - What do you mean by 'Eutrophication'?
2. Answer any **five** questions from the following: 2×5 = 10
- Point out the role of local communities and traditional knowledge in conservation.
  - Distinguish between allopatric and sympatric speciation.
  - What is the significance of Nutrient cycling?
  - Why does biodiversity amongst species decline as we move from the equator?
  - How can the loss of biodiversity be prevented?
  - What do you mean by primary productivity?
  - What do you mean by agroforestry?

3. Answer any **four** questions from the following: 5×4 = 20
- (a) Explain effects of recent climatic changes in biodiversity with suitable examples.
- (b) What do you mean by Remote Sensing? Discuss the role of this procedure in management of natural resources. 2+3
- (c) Describe importance of spatial and temporal patterns of biodiversity in conservation.  $2\frac{1}{2} + 2\frac{1}{2}$
- (d) Explain Ex-situ conservation in detail.
- (e) Write the impact of hydropower development on biological diversity.
- (f) Differentiate between National Park and Wildlife Sanctuary.

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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