

UG/3rd Sem(H)/23/(CBCS)

2023

**BOTANY (Honours)**

**Paper Code : BOTH DC-6**

**[Plant Ecology, Phytogeography and Biodiversity]**

Full Marks : 25.

Time : Two Hours

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

1. Answer any *five* from the following questions :  $1 \times 5 = 5$

- (i) What do you mean by Ecological Amplitude?
- (ii) Give the full form of IUCN.
- (iii) What do you mean by Homeostasis?
- (iv) Define ecotype.
- (v) What are hotspots? Give example.
- (vi) Write Lindeman's 10% law.
- (vii) What do you mean by 'Carrying Capacity'?
- (viii) What is synecology?

2. Answer any *four* from the following questions :  $3 \times 4 = 12$

- (i) Compare "Ecotone" in the 'Edge Effect'.

$1\frac{1}{2} + 1\frac{1}{2}$

P.T.O.

( 2 )

- (ii) Write a short note on 'Carbon Cycle'.
- (iii) Write down the advantages of 'Ex-situ' conservation.
- (iv) Write the role of climate in soil development.
- (v) Compare Heliophytes and Sciophytes with example.  
 $1\frac{1}{2} + 1\frac{1}{2}$
- (vi) Write a short note on Red Data Book.
- (vii) Briefly describe the mangrove vegetation in Sundarban area.

3. Answer any *one* from the following questions :  $8 \times 1 = 8$

- (i) What are ecological pyramids? Give a brief account of three different types of ecological pyramids with diagram.  
 $2 + 6$
- (ii) What do you mean by 'Ecological Succession'? Compare between autogenic and allogenic succession. Briefly describe the process of ecological succession in a xerosere.  $1 + 1\frac{1}{2} + 1\frac{1}{2} + 4$