

2023

BOTANY — HONOURS

Paper : CC-8

(Plant Geography, Ecology and Evolution)

Full Marks : 50

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** questions : 2×5
- (a) Distinguish between autogenic and allogenic succession.
 - (b) Distinguish between ecotype and ecad.
 - (c) What is Cryopreservation?
 - (d) Mention two characteristic features of mangrove vegetation.
 - (e) Name two metallophytes.
 - (f) What is edge effect?
 - (g) Give an example of adaptive radiation.
 - (h) What is reproductive isolation?
2. Answer **any two** of the following in brief : 5×2
- (a) Write a note on *in-situ* conservation.
 - (b) Discuss the theories of endemism.
 - (c) Differentiate between disruptive and directional selection.
3. Answer **any three** of the following :
- (a) Write about the different phytogeographical regions of India according to D. Chatterjee (1960).
Comment on the dominant flora of Eastern Himalaya. 7+3
 - (b) With the help of diagram write down the succession that occurs in aquatic habitat. 4+6
 - (c) Who coined the term 'biodiversity'? Discuss the different levels of biodiversity. Write an account on phytoremediation. 1+4+5
 - (d) What do you understand by group selection and co-evolution? Write a brief account on the phylogeny of any one plant group. 4+6
 - (e) Enumerate the neutral theory of molecular evolution. What is stasis? Define phyletic gradualism. 6+2+2
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