

2024

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) Write two demerits of *ex-situ* conservation.
 - (b) In plant succession, what is nudation and ecesis?
 - (c) What is an ecocline?
 - (d) What is Red Data Book?
 - (e) Write down the criteria for identifying an area as biodiversity hotspot.
 - (f) Define ecological amplitude.
 - (g) What is climax community?
 - (h) What do you mean by sexual selection?
 2. Answer *any two* of the following in brief : 5×2
 - (a) Write a note on 'Seed Bank'.
 - (b) Write a note on the 'Endemism in Indian Flora.'
 - (c) Comment on the floristic composition of the Western Himalayas.
 3. Answer *any three* of the following :
 - (a) What are halophytes? Discuss in detail the vegetational pattern of Sundarban mangrove forest. 2+8
 - (b) Elucidate the characteristics of plant community. Write down the reasons for plant succession. 7+3
 - (c) Define plant indicators. Cite two examples. Write down the methods of phytoremediation. 2+2+6
 - (d) Define ecological niche. Explain its significance. What is carrying capacity? Discuss the different factors governing carrying capacity of an ecosystem. 2+2+2+4
 - (e) Differentiate between sympatric and allopatric speciation. Give a brief idea on theories of evolution with particular reference to Natural Selection and Group Selection. 4+(3+3)
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