

## M.Sc. Sem.-3 Examination

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Env. Science

(Biodiversity Cons.)

Time : 2-30 Hours]

November-2025

[Max. Marks : 70

**Instructions:** All Questions carry equal marks. Attempt all Questions.

**Q I** Define biodiversity. Explain its components, indices, and importance in ecosystem balance. (14)

OR

**Q I A.** Write about the causes of species extinction and their vulnerability factors. (7)

**B.** Explain the strategies for sustainable exploitation of biodiversity. (7)

**Q II** Explain various methods used for biodiversity conservation and discuss their advantages. (14)

OR

**Q II A.** Describe *in-vitro* conservation techniques such as tissue culture, pollen and spore banks. (7)

**B.** Write a short note on national and international biodiversity programmes. (7)

**Q III** Discuss the concept of megadiversity zones and their ecological significance. (14)

OR

**Q III A.** Explain the concept of ecological succession and its role in biodiversity restoration. (7)

**B.** Write a short note on monitoring biodiversity trends and data collection methods. (7)

**Q IV** Explain the concept of bioprospecting and biodiversity informatics. Discuss international efforts for biodiversity sustainability. (14)

OR

**Q IV A.** Write a short note on wildlife values and eco-tourism. (7)

**B.** Explain the basic concepts of biostatistics: Mean, Median, Mode, ANOVA, and SE. (7)

**Q V** Attempt any 7 out of 12 (MCQs / Short Questions / Fill in the blanks / True or False). (14)

1. Expand CITES.
2. Define megadiversity zone.
3. Give two examples of *ex-situ* conservation.
4. What is a Red Data Book?
5. Define ecological succession.
6. What is the Nagoya Protocol related to?
7. Expand WWF.
8. What are ecosystem services?
9. What is ANOVA used for?
10. Define Standard Error (SE).
11. What is biodiversity informatics?
12. Mention any two international organizations working for biodiversity conservation.

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