U.G. 3rd Semester Examination-2021
ENVIRONMENTAL SCIENCE
[HONOURS]
Course Code : ENVS-H-CC-L-06
(Biodiversity and Conservation)

Full Marks : 40   Time : $2\frac{1}{2}$ Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any **five** of the following: 2×5=10

    a)   What do you mean by ecological hierarchy?

    b)   Define species.

    c)   What is relative species abundance?

    d)   Why some regions have higher biodiversity compared to others?

    e)   Define biodiversity hotspot.

    f)   What is randomly amplified polymorphic DNA (RAPD) technique?

    g)   Define primary productivity.

    h)   Differentiate between national park and wildlife sanctuary.

[Turn over]

2. Answer any **two** of the following: 5×2=10

    a)   State the significance of biodiversity pattern in conservation.

    b)   Write a short note on BLAST analyses.

    c)   State the importance of zoological and botanical gardens in biodiversity conservation.

    d)   Write a short note on India's National Biodiversity Action Plan.

3. Answer any **two** of the following: 10×2=20

    a)   Define speciation. What are the types of speciation? How speciation gradients regulate biodiversity?   2+4+4=10

    b)   What are the strategies to estimate faunal biodiversity? Explain alpha, beta, and gamma diversity with suitable examples.   4+6=10

    c)   What is Red data book? What are the criteria for the Red listed categories of threatened species? Discuss the anthropogenic threats to biodiversity.   2+4+4=10

    d)   What are the zoogeographic zones of India? Discuss the economical and societal values of biodiversity. How biodiversity regulates biogeochemical cycling of nutrients?   2+4+4=10

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