

M.Sc. Semester-3 Examination

501

Environmental Science

March-2024

Time : 2-30 Hours]

[Max. Marks : 70

Instructions: All Questions carry equal marks
Attempt all Questions

- Q I Significance, magnitude, and distribution of biodiversity indices and what are ways biodiversity contributes to sustainability? 14
- OR
- Q I A. Explain the major causes of extinction, the susceptibility of species to extinction, and sustainable biodiversity exploitation strategies? 7
- B. What are the threats to Biodiversity? 7
- Q II Explain In-situ conservation and ex-situ conservation in detail? 14
- OR
- Q II A. Explain National and international programs for biodiversity conservation? 7
- B. Explain sanctuaries, biospheres reserves, and national park? 7
- Q III Explain the concept of mega biodiverse country in detail. 14
- OR
- Q III A. Explain intellectual property rights and traditional knowledge. Why bio piracy is a global concern? 7
- B. Write down the characteristics of a mega biodiverse country. Write down importance of megadiverse countries? 7
- Q IV Three different kinds of food are tested on three groups of rats for 5 weeks. The objective is to check the difference in mean weight (in grams) of the rats per week. Apply one-way ANOVA using a 0.05 significance level (critical $F = 3.5823$) to the following data: 14

N1664-2

Food 1	Food 2	Food 3
10	6	13
15	8	12
21	6	10
10	8	15
9	12	10
15	10	11

- Q IV A. Write a brief account of WWF and CITES 7
 B. Give a detailed account of bioprospecting in detail. 7

- Q V Attempt any 7 out of 12 MCQs/Short question (One- or Two-line answer)/ Fill in the blanks/True or False etc. 14

- 1 What are the 3 types of biodiversity?
- 2 Who first called biodiversity?
- 3 How many hotspots in India?
- 4 When was the 1st World Biodiversity Day celebrated?
- 5 Give form of abbreviation 'TKDL'.
- 6 On which year the Nagoya protocol was introduced & ratified?
- 7 Give three examples of database related to biodiversity informatics
- 8 Name few well known animal species found in Sundarbans.
- 9 Explain species richness.
- 10 How does genetics play a role in ineffective conservation?
- 11 Explain indicator species with an example.
- 12 Explain intellectual property rights in few words.

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