

(iv) Ecological and economic importance of Alage

4. Answer the following : (7.5×2=15)

(i) What is agroforestry and how does it contribute to ecosystem sustainability?

(ii) Examine the significance of the Convention on Biological Diversity (CBD) in global biodiversity conservation efforts. How has it influenced national policies in India?

5. Answer **any two** of the following : (7.5×2=15)

(i) What is the importance of forests in promoting eco-tourism and recreational activities?

(ii) What is biodiversity. Discuss the role of community-driven conservation strategies in biodiversity conservation. How do these strategies align with the principles of sustainable development?

(iii) What is Tribal Rights Bill and its relevance to biodiversity conservation. Explain the social dimensions of plant diversity in tribal and rural communities.

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 4630

J

Unique Paper Code : 2164001001

Name of the Paper : Plant Diversity and Human Welfare

Name of the Course : **B.Sc. (Hons.) Botany (GE-I)**

Semester : II / IV

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **four** questions in all. Attempt **all** parts of question together.
3. Question number **1**, is compulsory.
4. **All** questions carry equal marks.

1. (a) Define the following terms (**any five**) : (1×5=5)

- (i) Biosphere reserve
- (ii) Social Forestry
- (iii) Montreal Protocol
- (iv) Hotspots
- (v) Ecotone species
- (vi) Latitudinal diversity gradient

(b) Fill in the blanks: (1×5=5)

- (i) _____ diversity refers to the combined diversity of all the different habitats found across that region.
- (ii) _____ is a high-value crop known for its fragrant wood used in perfumes and carvings.
- (iii) Non-Gramineae crops used similarly as cereal in food applications, are generally termed as _____.
- (iv) The destruction of forests for agriculture or urbanization is known as _____.
- (v) The primary goal of biodiversity conservation is to ensure _____ use of natural resources.

(c) Match the following : (1×5=5)

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|-------------------------------|---------------------|
| (i) <i>Coix lacryma-jobi</i> | a) Climate change |
| (ii) <i>Rhizophora</i> | b) Ornaments |
| (iii) Deforestation | c) Mangroove Forest |
| (iv) <i>Azadiracta indica</i> | d) Biofuel crop |
| (v) <i>Jatropha</i> | e) Medicinal Crop |

2. Write botanical name, family, economically important plant part, bioactive compounds and uses of **any three** of the following : (5×3=15)

- (i) Sarpagandha
- (ii) Sadabahaar/Periwinkle
- (iii) Black-pepper
- (iv) Sandalwood

3. Write short notes on **any three** : (5×3=15)

- (i) Protection of Plant Varieties and Farmers' Rights Authority (PPVFRA)
- (ii) India as megadiverse nation
- (iii) International Union for Conservation of Nature (IUCN)