

Total number of printed pages—4

3 (Sem-5/CBCS) BOT HE1

2024

BOTANY

(Honours Elective)

Paper : BOT-HE-5016

(Natural Resource Management)

Full Marks : 60

Time : Three hours

**The figures in the margin indicate
full marks for the questions.**

1. Fill in the blanks? Answer the following : $1 \times 7 = 7$

- (a) United Nations identified _____ sustainable development goals to be achieved by 2030.
- (b) To maintain ecological stability _____ of total geographical area should be under forest cover.
- (c) One can get an idea about the extent of consumption of resources and waste generation by a country or by individual in a country by calculating the _____.

Contd.

(d) What are exhaustible sources of energy?

(e) What is an aquifer?

(f) What is 'land use change'?

(g) What are 'hot spots' of biodiversity?

2. Answer the following : $2 \times 4 = 8$

(a) What are the 4 R's of waste management?

(b) What is ecological sustainability?

(c) What is Nagoya Protocol?

(d) What is GIS?

3. Answer the following (**any three**): $5 \times 3 = 15$

(a) What are the merits and demerits of bioprospecting?

(b) Write on natural resource accounting and its significance.

(c) "Energy consumption of a nation is usually considered as an index of its development." Justify.

- (d) Write a note on participatory resource appraisal.
- (e) Write on the evolution of National Biodiversity Action Plan (NBAP) in India.
4. Answer the following (**any three**) : $10 \times 3 = 30$

- (a) What is sustainable development? Discuss some important measures of sustainable development. $3+7=10$
- (b) Why is water considered as one of the most important natural resources? Write the uses of water in different sectors. Mention some of the major international and national water disputes. $2+5+3=10$
- (c) What are the major and minor forest products? Write a note on the NTFPs of Northeast India and their significance in the upliftment of the economic condition of the region. $4+6=10$
- (d) What are different types and sources of solid waste? Explain the importance of solid waste management. $4+6=10$

(e) What is IPR? Discuss the role of IPR in curbing biopiracy and conservation of biodiversity. $3+7=10$

(f) Discuss different national and international efforts in resource management and conservation.