

(This question paper contains 2 printed pages.)

Paper Code : **13585**
Unique Paper Code : 2163013006
Name of Course : Botany
Name of the Paper : Natural Resource Management
Semester : V
Duration : 2 Hours Maximum Marks : 60

Instructions For candidates:

- a) Write your Roll No. on the top immediately on receipt of this question paper.
- b) Attempt **four** questions in all, including **question no. 1**, which is compulsory
- c) All questions carry equal marks.
- d) All parts of a question must be answered together.

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

- (i) Carbon footprint
- (ii) Endemic species
- (iii) Estuaries
- (iv) Bio-energy
- (v) Organic farming
- (vi) Hotspots

(b) Expand the following (any five) (1 x 5= 5)

- (i) CAMPA
- (ii) UNDP
- (iii) ISA
- (iv) NBAP
- (v) NTCA
- (vi) JFM

c) Match A and B

(1 x 5 = 5)

- (i) 22 May
- (ii) Lagoon
- (iii) 2 February
- (iv) Hydro Energy
- (v) SDG 13

- a. Climate change
- b. World Wetlands Day
- c. Chilika Lake (Odisha)
- d. Mangroves and mudflats
- e. World Biodiversity Day
- f. Tehri Dam

Q2. Write short notes on **any three** of the following

(3 x 5 = 15)

- (i) e-Waste Management Rules (India)
- (ii) Importance of watersheds
- (iii) Salinization and Acidification of soil
- (iv) Biosphere reserve

Q3. Differentiate between: (**any three**)

(3 x 5 = 15)

- (i) Hydro-energy and tidal energy
- (ii) Major forest products and minor forest products
- (iii) In-situ conservation and ex-situ conservation
- (iv) Renewable and non-renewable resources

Q4. (a) Explain any three renewable energy technologies and evaluate their role in meeting future global energy requirements.

(6+1.5=7.5)

(b) Explain the objectives and significance of social forestry programs in managing land and forest resources.

(7.5)

Q5. (a) Discuss the major threats faced by wetlands and explain the strategies used for their effective management and conservation.

(7.5)

(b) Explain the major impacts of climate change on land resources and discuss possible adaptation strategies to reduce these impacts.

(7.5)