

CSM : 17

FORESTRY

PAPER - I

Time Allowed : 3 hours

Full Marks : 100

Marks for each question is indicated against it.

Attempt any 5 (five) questions taking not more than 3 (three) questions from each Part.

PART - A

1. (a) What are the characteristics of a mangrove forest? Explain how a degraded mangrove forest can be rehabilitated? **(4+6=10)**
(b) Briefly explain various measures undertaken for afforestation of cold deserts. Comment on the characteristics of the tree species that are used for afforestation of cold deserts with suitable examples. **(4+6=10)**
2. Write short notes on: **(4×5=20)**
 - (a) Indian irregular shelterwood system
 - (b) Tending operations
 - (c) Pre-treatments of legume seeds
 - (d) Forest conversion
3. Describe a brief account on the phenological characters, propagation techniques, growth behaviour and utility of the following species: **(4×5=20)**
 - (a) *Emblica officinalis*
 - (b) *Cedrus deodara*
 - (c) *Gmelina arborea*
 - (d) *Pinus roxburghii*
4. Define vegetative propagation. What are its advantages? Discuss in detail various methods employed in vegetation propagation with reference to commercially exploited tree species in India. **(2+3+15=20)**

PART - B

5. How does Joint forest management works? What are the general usufructs sharing under JFM? Give a brief account on the status and progress of JFM in Mizoram. **(5+5+10=20)**
6. Write short notes on: **(10×2=20)**
- (a) Nitrogen cycling in forest ecosystem.
 - (b) Classification of agroforestry systems.
7. Write short notes on the followings: **(4×5=20)**
- (a) Quick viability test of forest seeds
 - (b) Seedling seed orchard
 - (c) Economic valuation of tree species
 - (d) Gene conservation
8. Discuss the role of trees and forests in environmental conservation with reference to control and prevention of air and water pollution. **(20)**

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