



Course Name: Master of Science

Discipline : Botany

CHOICE BASED CREDIT SYSTEM

(For those who joined in June 2022 and after)

Course Scheme:

Self-Learning Course

Subject	Credit	Ext =Tot	Subject Code
Forestry	5	100 = 100	P19BYSL31/ P22BYSL31

Course Name: Master of Science

Discipline: Botany

Forestry (Self Learning)

Total Marks 100

Credit: 5

Subject Code: P19BYSL31/ P22BYSL31

Objectives

1. Forestry in India is a significant rural industry and a major environmental resource.
2. Indian forests are more than trees and an economic resource.
3. They are home to some of earth's unique flora and fauna.

UNIT I - SILVICULTURE

Forests - Definition - Extent of forests in india and other countries - Role of forests - Factors of locality - climatic - edaphic - topographic - biotic - Interaction of Forests with the Environment. Silviculture - Objectives - Scope - General Principles - Regeneration - Natural and artificial - Nursery techniques and methods - maintenance.

UNIT II - FOREST UTILIZATION

Logging - Extraction of timber - Felling rules and methods - Conversion methods - Transportation of timbers - Major and minor transportation methods - storage and sales of logs. Forest products - timber industries - plywood - particles boards - fibre products.

UNIT III – FOREST, POLICIES AND LEGISLATIONS

General concept of tree improvement, methods and techniques, genetic testing programming, Forest Policy - Necessity - Formulation of National Forest Policy - History of Forest development in India - Indian Forest Policy of 1894, 1952 and 1988.

UNIT IV - FOREST PROTECTION

Role of Forest Protection in Indian Forestry - Injuries caused by various agencies - Injuries caused by human being - Animals - plants - Forest fire - Fire protection methods - Control measures for pest and diseases for major tree species - biological, chemical and integrated pest management methods. Role of human society in forest protection.



UNIT-V - AGROFORESTRY AND SOCIAL FORESTRY

Definition - Objectives of agroforestry - Classification of agroforestry systems - Ecological aspects of agroforestry. Social forestry - its components and implementation at local and national levels.

REFERENCES:

1. Sagreiya, K.P. Forests and Forestry, 1997. National Book Trust India
2. Khanna, L. S. 1984. Principles and Practice of Silviculture, Khanna Bhandu, Dehra Dun. P. 476.
3. Ram Prakash and L.S. Khanna. 1991. Theory and Practice of Silvicultural systems. International Book Distributors, Dehra Dun. 298p.
4. Dwivedi, A.P. 1993. A Text Book of Silviculture, International Book Distributors, Dehradun. 6. Dwivedi, A. P. 1992. Principles and Practice of Indian Silviculture, Surya Publication, 420p
5. FAO (1987), Forestry Extension Methods, SLNo. 80, FAO Publication, Caracall, Rome, Italy.
6. JHA, L.K. & SEN SARMA, P.K. (Eds)(1996), A manual of Forestry Extension Education, APH Publishing Corporation, New Delhi.