

## DEPARTMENT OF FORESTRY

FRST 201

Credits 3(2 + 1)

### FORESTRY, FOREST PRODUCTS AND THEIR UTILIZATION

#### Theory

Introduction to Forestry - Problems and prospects of Indian Forestry, Forest influences on Climate, soil conditions, floods, erosion, human health and recreation - Forest Composition and Forest types in India - Forest policy and laws - Gap between demand and Supply of forest products and importance of forests - principles of general silvi-culture - Tending, thinning and silvi-cultural systems - Forestry as an alternate rural energy source - silvics and economics of different timber species like teak, sal, sandalwood, sain, Arjun, Red sanders, Rosewood, Neem, Gumhar, eucalyptus etc. - Silvics and economics of economically important tree species like soap nut, tamarind, jamun, Mahwa, Khair, Bamboo, tendu, Babul. Chironji, Rudraksha, pines etc.

Forest Products - Export and Import of forest Products and their role in economic development - Major forest products like paper and pulp, Plywood, Match wood, Sports goods, pencils, Packing cases, Furniture etc.. and properties of wood, processing and utilization - Minor Forest products like Medicinal Plants, Essential oils, Vegetable oils, Gums and resins, dyes, katha and cutch, tender leaves, Cans, bamboos etc., and collection methods, processing and marketing.

#### Practicals

1. Identification of tree species suitable for timber
2. Identification of tree species of economically important
3. Identification of seeds of tree species of timber and economically important
4. Collection, extraction and storage of tree seeds
5. Determination of seed viability in tree species
6. Pre sowing seed treatment of tree seeds
7. Preparation of Nursery bed and sowing
8. Production of bare rooted and containerised seedlings
9. Volume estimation of timber tree species

10. Identification of important major forest products
11. Identification of important minor forest products
12. Visit to paper and pulp industries
13. Visit to saw mills
14. Visit to minor forest product industries
15. Visit to Forest Research Stations

## References

1. Plantation Forestry in India      Luna R K 1989. International Book Distributors, Dehradum
2. Forest in India                      Agarwal V P 1985. Oxford and IBH Publishing Private Limited, New Delhi
3. Silviculture of Indian Trees, Vol I, II and III      Troup R S 1986. International Book Distributors, Dehradum
4. Forest Mensuration                  Chaturvedi A N and Khanna L S 1982. International Book Distributors, Dehradum
5. Minor Forest Products of India      Krishna Murthy T 1993. Oxford and IBH Publishing Company Private Limited, New Delhi
6. Indian woods and their uses      Troup R S 1986. Soni Reprints Agency, Delhi
7. Forest Economics Principles and Applications      Nautiyal J C 1988. Natraj Publishers Dehradum
8. Forest Administration in India      Biswas SK 1988. Chugh Publications, Allahabad
9. Status of Indian Forestry Problems and Prospective      Khosla P K 1992. Indian Society of Tree Scientists, University of Horticulture and Forestry, Solan, H.P.