

## **FR N) - 202: PRINCIPLE OF SILVICULTURE**

### **SYLLABUS**

**Silvicultural Systems:** Definition; Scope and classification; Even aged and uneven aged forests and their crown classes; Clear felling systems; Shelterwood system; Uniform system; Group system; Shelterwood strip system; Irregular shelterwood system; Selection system and its modifications; Coppice system; Coppice selection system; coppice with standard system; and Choice of silvicultural system

**Silviculture of Some Important Indian Trees:** Origin, distribution, general description, phenology, silvicultural characters, regeneration methods, silvicultural systems and economic importance of the following conifer and broadleaved tree species of India.

**Conifers:** *Abies pindrow*, *Cedrus deodara*, *Pinus roxburghii*, *P. wallichiana*, *Cupressus torulosa*

**Broad leaved species:** *Tectona grandis*, *Shorea robusta*, *Dalbergia sissoo*, *Quercus* spp. *Alnus* spp. *Populus* spp, *Eucalyptus* spp. *Terminalia* spp., *Santalum album*, *Azadirachta indica*, *Madhuca indica*, *Leucaena leucocephala* and Bamboos (*Dendrocalmus strictus*).

**Exotics:** Importance, role in forest economy, purpose of introduction, ecological factors, establishment and management of *Eucalyptus*, Poplar and Exotic conifers (*Pinus* spp)

### **Suggested Readings**

- [1] *Principle and Practice of Silviculture* by L.S. Khanna
- [2] *A Text Book of Silviculture* by A.P. Dwivedi
- [3] *Manual of Silviculture* by W.M. Sunlich
- [4] *Silviculture* by R.D. Nyland
- [5] *The Practices of Silviculture* by D.M. Smith
- [6] *Theory and Practice of Indian Silvicultural Systems* by L.S. Khanna
- [7] *Silviculture of Important Indian Trees* by R.S. Troup