

## Code 09 : MAJOR SUBJECT GROUP – FORESTRY / AGROFORESTRY & SILVICULTURE

( Subjects : 9.1 : Forest Products, 9.2 : Silviculture, 9.3 : Forestry including Tree Genetic Resource, 9.4 : Agroforestry, 9.5 : Forestry / Env. Mgt, NRM )

**UNIT – I :** Importance of Agriculture / Forestry / Livestock in national economy. Basic principles of crop production. Important rural development programs in India Elementary principles of economics and agri – extension. Organizational set up of Agricultural Research, education and extension in India. Major diseases and pests of crops. Elements of statistics.

**UNIT – II :** Forest- importance, types, classification, ecosystem, biotic and abiotic components, ecological succession and climax, nursery and planting technique, social forestry, farm forestry, urban forestry, community forestry, forest management, silvicultural practices, forest mensuration, natural regeneration, man – made plantations, shifting cultivation, taungya, dendrology, hardwoods, softwoods, pulpwoods, fuelwoods, multipurpose tree species, wasteland management.

Agroforestry – importance and land use systems, forest soils, classification and conservation, watershed management, forest genetics and biotechnology and tree improvement, tree seed technology, rangelands, wildlife – importance, abuse, depletion, management, major and minor forest products including medicinal and aromatic plants, forest inventory, aerial photo interpretation and remote sensing, forest depletion and degradation – importance and impact on environment, global warming, role of forests and trees in climate mitigation, tree diseases, wood decay and discolouration, tree pests, integrated pest and disease management, biological and chemical wood preservation, forest conservation, Indian forest policies, Indian forest act, forest engineering, forest economics, joint forest management and tribology.