Syllabus
for
Agro-forestry (SCQP02)

Note:

i. *The Question Paper which will have 75 questions.*
ii. *All questions will be based on Subject-Specific Knowledge.*
iii. *All questions are compulsory.*
iv. *The Questions will be Bilingual (English/Hindi).*

Agro-forestry (SCQP02)

Importance of Agriculture/Forestry/Livestock in National Economy:
Principles of crop ecology and crop adaptation, climate shift and its ecological implications, Argo-ecological regions in India.Geographical distribution of crop plants, Greenhouse effect, Climatic factors and their effect on plant processes and crop productivity, Role of GIS and GPS in agriculture. Major pests and diseases of rice, wheat, cotton, chickpea, sugarcane and their management. Important rural development programmed in India; organizational set up of agricultural research, education andextension in India; Elements of statistics.

Agricultural Soil fertility and fertilizer use:
Essential plant nutrients and their deficiency symptoms, concept of essentiality of plant nutrients, Indicators of soil fertility and productivity.

Sustainable land use systems:
Sustainable agriculture: parameters and indicators, Conservationagriculture, safe disposal of Agri-industrial waste for crop production, Argo-forestry.

Layout and establishment of orchards:
Pruning and training; propagation, climatic requirementand cultivation of fruits like mango, banana, citrus, guava, grape, pineapple, papaya, apple, pear,peach and plum; cultivation of plantation crops like coconut and cashew nut and spices like blackpepper, coriander, turmeric, important physiological disorders;

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, pulp woods, fuel woods, 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 discoloration, tree pests, integrated pest and diseasemanagement, biological and chemical wood preservation, forest conservation, Indian forest policies, Indian forest act, forest engineering, forest economics, joint forest management and tribology.