

[illegible]

- a) Scope of agroforestry in Punjab
- b) Scope of forestry education in India
- c) Productive role of trees
- d) Status of Indian forests
- e) Canopy architecture
- f) Indirect benefits of plantations
- g) Enlist major constraints in undertaking forest tree improvement
- h) Non-leguminous nitrogen fixing trees
- i) Differentiate between thinning and pruning
- j) Green Punjab Mission

SECTION-B

2. What do you mean by the term 'Wood Based Industries'? What are the major woods based industries. Discuss the challenges before wood based industries of India.
3. What do you understand by the term tending operation and how they are different than cultural operations?
4. Define Wastelands. Write the processes and examples of land degradation in India? Discuss wasteland management.
5. Write the origin, evolution and structure of 'JFM'. What is the need of JFM micro-planning? Discuss the extent and recent policy challenges in JFM.
6. What are the causes of 'Forest Fires'? Discuss damage caused by forest fires and measures to control it.

SECTION-C

7. What are the implications of agroforestry in Punjab agricultural? Give suitable examples of different agroforestry models practiced in Punjab. Explain with examples the complimentary, supplementary and competitive interaction in agroforestry system.
8. Give the scientific name, distribution, phenology, propagation and uses of :
 - a) *Acacia nilotica*
 - b) *Meliacomposita*
 - c) *Tectonagrandis*
 - d) *Pinus roxburghii*
 - e) *Dalbergia sissoo*
9. Explain the causes of plantations failure, give examples? What were the draw backs of social forestry programme? What was the impact of social forestry on the socio-economic status of the farmers?

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