

IFS Forestry 2005

PAPER - I

SECTION A

1. Answer any four of the following (The answer should not exceed 150 words for each question)
(10 x 4 = 40)

(a) What are the conditions necessary for establishment of a tree nursery?

(b) What do you understand by aerial seeding? Discuss briefly its success and failures in the Indian context.

(c) Enumerate different tree species found in the Mangrove forest and explain with

(d) Give an account on the management of Eucalyptus or Poplar plantation.

(e) What are the different grafting their ecological adaptations methods used for forest tree species?

2. (a) What is the difference between Coppice with standards system and the shelter wood Coppice system?

(20)

(b) Describe the Indian irregular shelter wood system with examples of its application in tropical rain forests.

(20)

3. (a) Explain 'thinning' operation with respect to teak plantation.

(20)

(b) Describe different kinds and pattern of feelings.

(20)

4. Describe the silviculture of the following species:

(a) Anthocephalus Cadamba

(10)

(b) HARDWICKIA BINATA

(10)

(c) Gmelina arborea

(10)

(d) POPULUS DELTOIDES

(10)

SECTION B

5. Answer any four of the following (Answer should not exceed 150 words for each question) :
(10 × 4 = 40)

(a) Enumerate different Agro forestry systems with models.

(b) What is the role of tree species in watershed management?

(c) What is the role of NGOs in JFM activities?

(d) What is 'acid rain'? — Explain.

(e) Discuss briefly about the role of NTFP in Indian economy.

(20)

6. (a) Describe a model of Silvipasture.

(20)

(b) Suggest suitable tree species for different soil types.

(20)

7. (a) How industrial pollution can be controlled with suitable tree species?

(20)

(b) Write an account on coastal afforestation.

(20)

8. Write notes on

(a) Urban forestry

(10)

(6) ICRAF

(10)

(c) Industrial Agro forestry

(10)

(d) Leaf fodder trees.

(10)

PAPER - II

SECTION A

1. Attempt any four questions from the following (not more than 150 words for each):

(10 × 4 = 40)

(a) Explain the concept of normal growing stock in clear felling system.

(b) Describe types of maps prepared for divisional working plans.

(c) Discuss role of Current Annual Increment (CAI) and Mean Annual Increment (MAI) in fixation of rotation.

(d) Write general principles of usufructs sharing under joint forest management.

(e) Describe different types of mortar and its function in building construction.

2. (a) How measuring is carried out in chain survey when an obstacle coming in chain line can be chained across but not seen across?

(20)

(b) What is quarter girth formula? How it is used for calculation of volume of a log?

(10)

(c) Discuss electromagnetic spectrum and mention the band with spectral range used in remote sensing.

(10)

3. (a) Describe types of bonds in brick masonry works and explain general rule for good brick bonding.

(20)

(b) Write the concept and principle of horizontal point sampling. (10)

(c) How annual yield is calculated in a forest managed under uniform system of management?

(10)

4. (a) Describe method of measuring height of a tree situated on sloping ground in such a way that observer's eye lies between top and base of tree.

(20)

(b) What do you mean by alpha and beta diversity, and how they are measured?

(10)

(c) What is Geographic Information System (GIS)? Describe role of GIS for natural resources management.

(10)

SECTION B

5. Attempt any four from the following (not more than 150 words each)

(a) What are ecological pyramids? Describe any one of them.

(10)

(b) Describe procedure of declaration of reserved forests mentioning important sections of the India Forest Act, 1927.

(10)

(c) Explain general rules followed during felling of trees in a forest.

(10)

(d) Describe the damages caused to the forests by grazing and browsing animals.

(10)

(e) Discuss objectives and methods of forest valuation.

(10)

6. (a) Explain the principles on the basis of which Champion and Seth have classified forest types of India.

(20)

(b) What are gums? List some important gums of India along with the names of source tree.

(10)

(c) Describe significance of clonal parks in forestry.

(10)

7. (a) Mention the salient features of National Forest Policy, 1988 and discuss its superiority over National Forest Policy, 1894.

(20)

(b) What is shifting cultivation? How it is practiced in hilly areas?

(10)

(c) Discuss role of cost-benefit analysis in forestry sector.

(10)

8. (a) Curiosity medicinal plants on the basis of plant parts used and explain general rules for collection of medicinal plants.

(20)

(b) Discuss types of preservatives available for preservation of timber.

(10)

(c) Discuss methodologies of census of wild animals.

(10)