

ARUNACHAL PRADESH PUBLIC SERVICE COMMISSION

**FORESTRY: PAPER – II**

Time: 3 (Three) hours

Full marks: 100

*(Group – A is compulsory. Attempt any FOUR questions from Group – B).*

**GROUP – A**

**(This Group is COMPULSORY)**

**Q. 1. Attempt any 10 (ten)**

**10x2=20**

- a) What is pith fleck?
- b) Write down the salient features of concept of plant succession
- c) What are flosses? Discuss source of flosses.
- d) What is earnest money?
- e) Write down the names of common fillers used in pulp and paper industry.
- f) What are autogenic and allogenic successions?
- g) Write down the qualities of good charcoal.
- h) What is forest inventory?
- i) Write scientific names of plants which yield kamela powder, annatto dye, cutch dye and brazilin dye.
- j) What is Masonite process?
- k) Differentiate between ring-porous and diffuse-porous woods.
- l) What are double and multiple rings?

**GROUP – B**

**(Answer any Four.)**

**Q. 2. Attempt any 8 (eight)**

**2.5x8=20**

- a) List out the differences between sapwood and heartwood.
- b) What is working plan? What objects are kept in view for preparation of working plan?
- c) How normal growing stock is determined by mean annual increment method?
- d) What are thermoplastic and thermosetting adhesives? Give two examples of each.
- e) What is quarter sawing? Write down its advantages and disadvantages.
- f) What do you know about lac crops?
- g) What are important raw materials used for paper making in India?
- h) What are the main constituents of an ecosystem?
- i) What are the salient features of Indian Forest Policy of 1894?
- j) What are the requirements of a good fire retardant?

**Q.3 Attempt any 5 (five)**

**4x5=20**

- a) Differentiate between gums and resins.
- b) Write down the differences between air seasoning and kiln seasoning.
- c) Write a note on types of forest bridges.
- d) What measure can be taken to increase beedi leaf production?
- e) What are common methods of selling forest produce?
- f) Give an account of productivity of an ecosystem.
- g) What is the composition of state wildlife advisory board?

**Q.4. Attempt any 4(four)**

**5x4=20**

- a) Write down rules for felling of trees.
- b) Write down the use of fire as a forest management tool.
- c) How the forest damage by grazing animals can be minimised?
- d) Write a note on fungal defects of timbers.
- e) How cutch and katha are obtained by country methods?

**Q.5. Attempt any 2 (two)**

**10x2=20**

- a) Explain the design and principle of functioning of solar kiln. Why it is superior to air seasoning and kiln seasoning?
- b) Discuss the importance, types and characteristics of fire line.
- c) Discuss the impact of stress environment on forest vegetation.

**Q.6. Attempt any 4 (four)**

**5x4=20**

- a) List out the differences between softwoods and hardwoods.
- b) Write about preservation processes of green timbers.
- c) Write in detail on true resins.
- d) Write down the advantages and disadvantages of power saw.
- e) Discuss the methods of storage of logs to keep them in good condition.

**Q.7. Attempt any 2 (two)**

**10x2=20**

- a) What are herbarium and its importance? Explain the sequential steps for setting up of a herbarium.
- b) Discuss methods of lac cultivation.
- c) Discuss the role of aerial remote sensing in measurement of trees and crops.

**Q.8. What do you know about medicinal plants of Arunachal Pradesh? Discuss the role of ethnobotany in Indian system of medicine.**

**20**

**Q.9. Write on place of measurement of diameter and girth of logs and trees. Discuss various rules which govern breast height measurements. Justify your answer with suitable diagrams.**

**20**

**Q.10. What is composite wood? Give reasons for its preference over solid wood. Discuss the process of manufacturing and uses of plywood.**

**20**

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