

ARUNACHAL PRADESH PUBLIC SERVICE COMMISSION, ITANAGAR

SUBJECT : FORESTRY

Time: 3 Hours

Full Marks: 200

Note: Attempt Five questions in all. Question No. 1 is compulsory. All questions carry equal marks.

Q. No. 1 Attempt any 10 (ten). 10×4=40

- A. What is the main source of funds for WWF? List out the names of projects that have received WWF assistance in India.
- B. What is pecking order?
- C. What are fillers and their functions?
- D. Write on role of producers, consumers and decomposers in an ecosystem.
- E. What is riparian buffer?
- F. What are shelterbelts and windbreaks?
- G. Write down the distinguishing features of an ecotone.
- H. Write down the composition of state wild life advisory board.
- I. What information is provided by floral diagram?
- J. What are polyaxial and mono axial trees?
- K. What is case hardening?
- L. What are coppice, seedling coppice, stool coppice and root collar shoots?

Q. No. 2. Attempt any 8 (eight). 8×5=40

- A. What are the requirements of a good fire retardant agent? Name five chemicals that are used in protection of timber.
- B. Explain mutualism and commensalism with suitable examples.
- C. What are the principle activities of FSI?
- D. What is the importance of phenology in silviculture?
- E. What were the paramount needs for formulation of National Forest Policy of 1952?
- F. Write down the advantages and disadvantages of power saws.
- G. Explain the use of satellite and large scale imagery in resource mapping.
- H. Write down the reasons of root coiling in polythene bags. How will you overcome this problem?
- I. What precautions are taken while using calliper and tape?
- J. What are general combining ability and specific combining ability?

Q. No. 3. Attempt any 5(five). 5×8=40

- A. What are thermosetting and thermoplastic adhesives? Discuss some important synthetic adhesives used in composite woods.
- B. What do you know about generic name and specific epithets?
- C. What rules should be followed during felling of trees in forest?
- D. Write a note on protection of forest trees against injury by insects.
- E. Describe the photomensurational techniques used in preparation of stand and tree volume tables.

- F. Discuss the common methods of testing the seed viability.
- G. Write down on skidding practices used for transportation of timbers.

Q. No. 4. Attempt any 4 (four). 4×10=40

- A. Discuss the advantages of cross banded construction of plywood over use of solid wood.
- B. What is the role of NGOs in JFM activities?
- C. Discuss the functions and achievements of IBWL.
- D. Explain the benefits from agroforestry.
- E. Write down the principle of Christen's hypsometer and its uses.

Q. No. 5. Attempt any 2 (two). 2×20=40

- A. Differentiate between gums and resins. Discuss true resins and their uses.
- B. What are seed orchards? Discuss the establishment and management of seed orchards.
- C. Explain briefly the shelter wood coppice system.

Q. No. 6. 40

"Forests play a vital role in socio-economic and cultural life of tribal people." Discuss this statement.

Q. No. 7. 40

Give important reasons for changes in plant names mentioning examples of Indian trees. Give a brief account of the International code of Botanical Nomenclature highlighting the most important articles.

Q. No. 8. 40

What is water pollution? Discuss its causes, effects and control measures.