

ARUNACHAL PRADESH PUBLIC SERVICE COMMISSION

FORESTRY: PAPER - I

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)

2x10=20

- a) What is sheet erosion?
- b) List out important types of inoculum for VAM fungi.
- c) Give a list of suitable plant species for cold desert.
- d) What is second cycle seed orchard?
- e) What are phenotype and genotype?
- f) What are regular and irregular forests?
- g) What is acid rain? Write down its effects on plants.
- h) What is biological magnification?
- i) List out role of social development institutions in JFM.
- j) What is alley cropping?
- k) Write down the role of Van Vigyan Kendras.
- l) What is shelter belt?

GROUP - B

(Answer any Four.)

Q. 2. Attempt any 8 (eight)

2.5x8=20

- a) Write down the causes of watershed deterioration.
- b) What are major processes involved in the development of soil profile?
- c) What do you know about heritability?
- d) What are clonal and seedling seed orchards?
- e) What is photochemical smog?
- f) What is seed certification?
- g) What is cleft grafting?
- h) Write down the objectives participatory assessment.
- i) Write down the characteristics of mangroves.
- j) What do you know about environmental impact assessment?

Q.3. Attempt any 5 (five)

4x5=20

- a) Discuss the practices to be followed for controlling wind erosion.
- b) What is the importance of mist chambers in vegetative propagation?

- c) Why natural regeneration of *Cedrus deodara* is not satisfactory?
- d) Discuss the criteria for selection of plus trees for increasing timber production?
- e) What is global warming? How it can be controlled?
- f) What is pollarding? Write down its significance.
- g) What is conversion? Is it a system or not? Justify your statement.

Q.4. Attempt any 4(four)

5x4=20

- a) List out various soil conservation regions in India?
- b) Explain different phases of watershed development.
- c) What are sand dunes? What steps are required for stabilization of sand dunes?
- d) What are the important functions of mycorrhiza?
- e) What practices are adopted to avoid root coiling in polythene bags?

Q.5. Attempt any 2 (two)

10x2=20

- a) Explain the processes of development of gully.
- b) Write down various problems caused by soil erosion.
- c) Discuss the rehabilitation of mangrove ecosystem in India.

Q.6. Attempt any 4 (four)

5x4=20

- a) How weeds can be controlled by biological methods?
- b) List out the differences between primary and secondary air pollutants.
- c) Discuss silviculture of *Acacia catechu*.
- d) Write down the advantages of agroforestry.
- e) What are the advantages and disadvantages of clear felling systems?

Q.7. Attempt any 2 (two)

10x2=20

- a) Write on role of thinning in forest crops.
- b) Discuss the reasons for taking up artificial regeneration on large scale nowadays.
- c) Discuss the effect of noise pollution on human health.

Q.8. "Social forestry is a forestry activity of the people, by the people and for the people" Discuss and justify the statement.

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Q.9. Discuss the traditions, customs and culture of major tribes of NE India.

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Q10. Discuss the role of urban forestry in improvement and expansion of green networks.

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