

ARUNACHAL PRADESH PUBLIC SERVICE COMMISSION

Subject: - HORTICULTURE SCIENCE - PAPER - I

Time: 3 (three) hours

Full Marks: 100

- Q.1.** *Arunachal Pradesh has the potential to produce varied horticultural crops.* Justify the statement indicating the varied tropical, sub-tropical and temperate horticultural crops grown in the state. (3x5=15)
- Q.2.** Discuss in brief : (2.5x4=10)
- Soil texture classification
 - Humus formation
 - Photorespiration
 - Concept of soil pH and classification of soil pH ranges
- Q.3.** What are the various objectives of breeding horticultural crops? Indicate the problems encountered in breeding horticultural crops. (5+5=10)
- Q.4.** Discuss in brief the various methods of propagation of horticultural crops. (10)
- Q.5.** Prepare a layout of an orchard indicating the various systems of planting fruit trees. (10)
- Q.6.** Answer any 5 (*five*) of the following : (9x5= 45)
- Prepare a list of 3 (*three*) commercial cultivars in each of the following fruits:
Apple, Sweet Orange , Plum, Guava, Banana and Pineapple (3x6x0.5=9)
 - Write in brief on *Banana culture OR Pineapple culture* with reference to origin, plant morphology, commercial method of propagation, plant spacing, plant nutrition and crop duration. (6x1.5=9)
 - Prepare a list of 3 (*three*) commercial cultivars in each of the following vegetables:
Potato, Okra, Brinjal, French Bean, Pumpkin and Cucumber. (3x6x0.5=9)
 - What do you mean by *Cole crops* ? Write in brief on cultivation of **any one** of the cole crops with special reference to commercial cultivars, spacing, seed rate, planting and crop duration. (1.5+(1.5x5)=9)

- v) Write brief notes on : (3x3=9)
- a) Concept of Landscaping
 - b) Propagation of Chrysanthemum
 - c) Agro climatic zones of Arunachal Pradesh
- vi) Discuss briefly on cultural practices of Orchids **OR** Roses with special reference to various classes, commercial method of propagation, method of planting, special care, flowering season and economic importance in Arunachal Pradesh (6x1.5=9)
- vii) Prepare a list of Medicinal plants of Arunachal Pradesh indicating their medicinal properties. (9)
- viii) Name the various spices grown in Arunachal Pradesh indicating their scientific names. (9)
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