

HORTICULTURE

Time : 3 hours

Full Marks : 200

Instructions :

- (1) Answer all questions following the directions strictly.
 (2) The figures in the right-hand margin indicate full marks for the questions.

1. Answer the following :

- (a) What is the status of horticultural crops in Arunachal Pradesh? Write briefly on the prospects as well as bottlenecks in horticultural production in the State. 1+9=10
- (b) What do you mean by vegetative method of propagation? Write briefly on various methods of vegetative propagation. 3+7=10

- 2. Write briefly on the production technology of the following crops with special reference to climate, variety, nutrition, harvesting and post-harvest handling (any one from each group) :** (2×5)×3=30

Group—A	a. Kiwi	b. Banana	c. Pineapple
Group—B	a. Cabbage	b. Bottle gourd	c. Brinjal
Group—C	a. Chrysanthemum	b. Tuberose	c. Orchid

- 3. Write briefly on any four of the following cultural operations (within 100 words) :** 5×4=20

- (a) Bending in guava
 (b) Pruning in chrysanthemum
 (c) Regulation of flowering in pineapple
 (d) Fertigation in horticultural crops
 (e) Vegetable nursery seedbed preparation

4. Write briefly about the following (*any three*)

5×3=15

- (a) Biofertilizers
- (b) Forest conservation
- (c) Polyhouse cultivation
- (d) Medicinal plants of Arunachal

5. Give brief description of *any three* of the following (within 100 words) :

5×3=15

- (a) Green manuring
- (b) Packhouse operations
- (c) Storage of fruits and vegetables
- (d) Micropropagation

6. Answer the following (*any ten*) :

10×10=100

- (a) What are the characteristics of good quality seeds? Write briefly on the seed certification procedure. 2+8=10
- (b) What is a weed? Write briefly on various methods for controlling weeds in horticultural crops. 1+9=10
- (c) Why organic farming is gaining popularity in entire world? What are the prospects of organic farming in Arunachal Pradesh? Write briefly on the nutrition management in an organic horticultural farm. 2+2+6=10
- (d) What is the role of KVKs in the development of agriculture in India? Write briefly on various extension teaching methods. 2+8=10
- (e) What are various plantation crops grown in North-East India? Write the production technology for any one of them. 2+8=10
- (f) What is nursery? Why hardening of seedlings is necessary? Write briefly on advances in the commercial seedling production technology. 1+2+7=10
- (g) What are the objectives of integrated pest management? Write briefly on the components of IPM. 2+8=10

- (h) What are various methods of judging maturity of fruits and vegetables? Write briefly on the factors affecting post-harvest shelf life of horticultural crops. How the post-harvest loss can be minimised? 2+4+4=10
- (i) Write briefly on *any two* : 5×2=10
- (a) Mango malformation
- (b) Citrus decline
- (c) Biennial bearing in mango
- (j) What is the significance of bamboo cultivation in Arunachal Pradesh? Write briefly on various species of bamboo available in the region. How value addition to it can improve the economy of the people of the region? 2+3+5=10
- (k) What do you mean by agricultural biotechnology? Write briefly on the application of biotechnology in agriculture. 2+8=10
- (l) What is silviculture? Write briefly on various silviculture treatments. 2+8=10
- (m) What do you mean by cold chain management for horticultural commodities? Briefly describe various modes of transport adopted for transportation of fresh fruits and vegetables. 2+8=10
