

SUBJECT: HORTICULTURE SCIENCE PAPER – II

Time:3 (Three) hours

Full Marks: 100

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

GROUP - A
(Compulsory group)

Q.No.1 Attempt any 10(Ten) from the following:

10x2 = 20

- a. Nature and causes of loss of the harvested vegetables.
- b. Classify groups of improved seeds.
- c. List out the important insect-pests of gladiolus and their management.
- d. Write about pest management in apple and guava.
- e. Pricking out.
- f. Water use efficiency.
- g. Reducing runoff losses of irrigation water.
- h. Types of drainage system.
- i. Stabilization of crop production in dry land farming.
- j. What is criteria of essentiality and explain the categories of essential nutrients.
- k. Explain the Integrated Plant Nutrient Management.
- l. Describe biological nitrogen fixation.

GROUP - B
(Attempt any four.)

Q.No.2. Attempt any 4 (Four) from the following:

4x5=20

- a. Explain the mineralization of Nitrogen.
- b. What do you mean by symbiotic nitrogen fixation?
- c. What are the sources of irrigation? Give detail account of water resources of Arunachal Pradesh.
- d. What is preservation? Explain the factors affecting the fruit and vegetable storage.
- e. Marketing problems of fruit and vegetables in Arunachal Pradesh.
- f. What is social forestry? Discuss the important components of social forestry.
- g. Discuss the comparison of Agro forestry and social forestry systems.

Q.No.3 Attempt any 5(Five) from the following:

5x4= 20

- a. Describe the various practices of weed management in orchards. Give the list of herbicides suitable for application in Litchi orchard.
- b. Describe the role of plant growth substances in asexual propagation.
- c. Factors affecting water absorption.
- d. What are enzymes? Discuss different factors affecting the enzymatic activity.
- e. Discuss in detail physiological disorder of vegetable crops with remedial measures.
- f. Discuss in detail about phases of growth and factors affecting the growth.
- g. Describe the occurrence, symptoms, causal agent, mode of survival, favourable conditions and integrated disease management of powdery mildew of vegetable pea.

Q.No.4. Attempt any 4(Four) from the following:

4x5 = 20

- a. What is soil solarisation? How it is useful in raising healthy vegetable seedlings?
- b. Discuss the principles of plant diseases management.
- c. Describe the industrial role of bamboo and also discuss the bamboo based cottage industries with special reference to NEH region.
- d. Define food microbiology. Give a brief account on food and water borne pathogens.
- e. Discuss in detail about IDM in Solanaceae vegetables.
- f. Describe the scope of medicinal and aromatic plants in employment generation in Arunachal Pradesh.

Q.No.5. Attempt any 2(Two) from the following:

2x10=20

- a. Role of sterilants and semi chemicals in pest management.
- b. Describe the role of trees in soil and water conservation.
- c. Explain about Integrated Pest Management (IPM).

Q. No.6. Enlist the important uses of plant growth regulators in vegetable production and explain their role in sex expression of cucurbits. **= 20**

Q.No.7. What are the advances in post harvest management practices in ginger and turmeric for improving their shelf life and value addition? **= 20**

Q.No.8. Discuss about the constraints of marketing of horticultural produce in Arunachal Pradesh and suggest measures to boost marketing system. **= 20**

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