

M.Sc. (Ag.) Examination, 2019

Semester-IV

Horticulture

Course No: HOR-505

(Technological Advancement of Fruit, Vegetable and Ornamental Crops)

Time: Three Hours

Full Marks: 80

Questions are of the value as indicated in the margin

Answer **any five** of the following questions

1. Write the scope and limitation of protected cultivation. Discuss about the different types of protected structures and their uses in vegetable and flower cultivation. 3+3+10=16
 2. What is organic certification? Why certification is essential in organic production? Discuss the certification procedures in organic farming. Suggest measures for better marketing and export of organic produces. 2+3+6+5=16
 3. Write the effect of temperature, light, humidity and carbon dioxide on growth of different horticultural crops in protected structures. Discuss the different manipulation techniques for temperature and humidity management inside protected structures. 10+6=16
 4. Write the basic characteristics of organic farming. Discuss principles of organic farming in present context. Briefly describe the organic farming in relation to fruit crops. 3+3+10=16
 5. What is biofertilizer? Write the advantages of using biofertilizers in organic farming. Mention different types of biofertilizers. Discuss the use of biofertilizers for nitrogen supplementation and phosphorus mobilization. State the problems associated with biofertilizers utilization. 2+3+3+6+2=16
 6. Write about the importance of tissue culture in horticultural crops. Enumerate the application of biotechnology in horticulture. 4+12=16
 7. Briefly describe the disease and insect management techniques of importance horticultural crops inside protected structures. 10+6=16
 8. Write short notes on the following (**any four**): 4×4=16
 - (a) Nutrient film technique
 - (b) Automated green house
 - (c) Soil improvement and amendments in organic farming
 - (d) Meristem culture
 - (e) Biodynamic Farming
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