

M.Sc. (Ag.) Examination, 2017

Semester-IV

Horticulture

Course – HOR-505

(Technology Advancement of Fruit, Vegetable and Ornamental Crops)

Time: 3 Hours

Full Marks: 80

Questions are of value as indicated in the margin.

Answer **any five** questions

1. Describe the global scenario of organic farming in horticulture in Indian context. Enumerate the merits and demerits of organic farming in horticulture. Mention the feasibility of organic farming of horticulture in India. 8+4+4=16
 2. Mention the techniques of soil nutrient management in organic vegetable production. Write in details on postharvest handling techniques of organic produces for export market. Enumerate the certification techniques followed for organic produce. 8+4+4=16
 3. Why protected cultivation is important in vegetable and flower cultivation? What is the present status of protected cultivation in horticultural crops in India? How strawberry is technically feasible to grow under greenhouse? 4+8+4=16
 4. Describe the different greenhouse structures in protected cultivation. Describe the climatic regulation techniques in greenhouse for vegetable and flower cultivation. 8+8=16
 5. How greenhouse media is sterilized? What types of substrates are used in greenhouse cultivation? Write in details about water and nutrient management technique in greenhouse vegetable production. 3+5+8=16
 6. What do you mean by micropropagation? What are the basic requirements for tissue culture? Write in details on commercial application of plant tissue culture in horticultural crops. 2+4+10=16
 7. Discuss the following aspects: (**any four**): 4×4=16
 - (i) Multi-tier cropping system
 - (ii) IFOAM
 - (iii) Bio-fertilizer
 - (iv) Organic inputs in organic horticulture
 - (v) IPM-IDM
 - (vi) Anther culture
 8. Write short notes (**any four**): 4×4=16
 - (i) Organic farming systems
 - (ii) Containers in greenhouse cultivation
 - (iii) Protoplast fusion
 - (iv) Hydroponics
 - (v) Bioreactor technology in plant propagation
 - (vi) INM
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