

M.Sc. (Ag.) Examination, 2018
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. Why organic horticulture is the need of the day? Enumerate the principles of organic farming. Discuss the perspective, key opportunities and constrains of organic production of horticultural crops in India. 4+4+8=16
 2. Discuss in nutshell about organic management of pests and diseases in vegetable crops. Write in brief on nutrient management of organic vegetables and fruit crops. 8+8=16
 3. Write in brief on techniques followed for greenhouse production of horticultural crops with suitable example. Highlight selection criteria of vegetable crops suitable for protected cultivation. 12+4=16
 4. What is hydroponics? Mention scope and limitation of hydroponics cultivation of horticultural crops in India. State different systems of hydroponics followed for production of high value horticultural crops. 2+7+7=16
 5. What is plant tissue culture? Mention objectives of this technique. Write about present scenario and future prospects of tissue culture technology in Indian horticulture. Discuss in brief about application of tissue culture in quality production of ornamental plants. 1+2+6+7=16
 6. Describe different growing media and containers used for production of horticultural crops under greenhouse. Comment on environmental influence on greenhouse crop production. 10+6=16
 7. Comment on the following (**any four**): 4x4=16
 - i. Off season nursery raising of cucurbits under protected condition
 - ii. Biodynamic compost
 - iii. Components of organic farming
 - iv. Panchagavya
 - v. High density planting in fruit crops
 - vi. Merits and demerits of micro-propagation
 8. Write short notes (**any four**): 4x4=16
 - i. Export of Indian organic horticultural produce
 - ii. Green manuring
 - iii. Greenhouse heating
 - iv. Embryo culture
 - v. Certification in organic farming
 - vi. Hot bed and cold frame
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