

1. Describe different systems of planting used for establishment of orchard. (5 Marks)
2. What are Plant Growth Regulators (PGRs)? Explain their types and methods of application. (5 Marks)
3. Explain the different types of seed dormancy and methods to overcome them. (5 Marks)
4. What are the causes of unfruitfulness in fruit crops? (5 Marks)
5. Discuss the importance and scope of fruit crop cultivation in India with special reference to Kerala. (5 Marks)
6. Discuss on the importance of High-Density Planting (HDP) in fruit crops? Describe with suitable HDP models in fruit crops. (5 Marks)
7. Describe the role of biotechnological tools in fruit crops. What are the achievements made in citrus and grapes through biotechnological applications. (5 Marks)
8. Discuss on nutrient and micro nutrient deficiencies in guava, grapes and apple and their symptoms with control measures. (5 Marks)
9. What are the innovative hi-tech practices used in fruit crop production? (5 Marks)
10. Explain the concept and benefits of organic farming in fruit crop production. (5 Marks)

11. Discuss the complete cultivation practices of pineapple including soil, climate, planting, propagation, major pests and diseases and post-harvest management. (5 Marks)
12. Discuss the cultivation practices of apple with reference to soil and climate requirements, cultivars, propagation methods, planting, aftercare, nutrient deficiencies, major pests and diseases and innovative practices such as biotechnology, HDP, fertigation, and organic farming. (5 Marks)
13. What are the methods of seed extraction in tomato? (5 Marks)
14. Describe the different sex forms in cucurbits with examples. (5 Marks)
15. What are the major physiological disorders in cauliflower? (5 Marks)
16. What is protected cultivation? Describe briefly on green house. (5 Marks)
17. What is TPS technology? (5 Marks)
18. Explain briefly- Temperature as a factor that affects Development of economic part in vegetables. (5 Marks)
19. Write a short note on the role of growth regulators in vegetable production. (5 Marks)
20. Which are the sub species of *Vigna unguiculata*? Name the KAU released varieties of bush cowpea and trailing cowpea. (5 Marks)
21. Enumerate the major garden styles and highlight the salient features of each style. (5 Marks)

22. List out the basic principles of landscaping with a brief definition of each principle. (5 Marks)
23. Enumerate the different methods of lawn establishment and the major maintenance aspects. (5 Marks)
24. List out the primary roles of trees in landscaping with classical examples for each category. (5 Marks)
25. Discuss the significance of jasmine cultivation, commercial varieties and special horticultural practices. (5 Marks)
26. Enumerate the specialized gardening techniques with a brief definition of each. (5 Marks)
27. Discuss the special horticultural practices for cultivation of cut rose, orchids and Anthurium. (5 Marks)
28. Enumerate the basic principles of flower arrangement and the commonly adopted designs. (5 Marks)
29. (a) Explain the propagation technique of Rauvolfia. (5 Marks)  
(b) The effect of propagation methods on yield.
30. (a) List the different types of lemongrass and their chemical constituents. (5 Marks)  
(b) How the harvesting is practiced in periwinkle?
31. (a) List out the important sapogenin bearing species of Dioscorea. (5 Marks)  
(b) What are the important steroids present in Dioscorea?  
(c) How will you differentiate different species of Dioscorea?