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**End Semester Examination – Apr/May – 2018**

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| **Code :** | **17HO1002** | **Duration :** | **3hrs** |
| **Sub. Name :** | **PROPAGATION OF HORTICULTURAL CROPS** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
|  | **PART-A(20X1=20 MARKS)** | | |
| 1. | Define vegetative propagation. | CO2 | 1 |
| 2. | Expand the following (i) NAA (ii) BAP | CO3 | 1 |
| 3. | Define clonal nursery. | CO2 | 1 |
| 4. | Mention two types of layering with one horticultural crop example for each. | CO3 | 1 |
| 5. | Define grafting. | CO2 | 1 |
| 6. | Define micro-propagation. | CO2 | 1 |
| 7. | Define soil less culture. | CO2 | 1 |
| 8. | List out two commonly used Plant Tissue Culture media. | CO2 | 1 |
| 9. | Define direct organogenesis. | CO2 | 1 |
| 10. | What is pre-curing of scion? | CO2 | 1 |
| 11. | Define cellular totipotency. | CO2 | 1 |
| 12. | List out two horticultural crops which are successfully propagated through budding. | CO2 | 1 |
| 13. | Mention two sterilants used for explants sterilization in plant tissue culture. | CO2 | 1 |
| 14. | Give on example each for horticultural crops propagated commonly through:  (i) Rhizome (ii) Terminal stem cutting (iii) Bulb (iv) Seed | CO2 | 1 |
| 15. | Define top working. | CO2 | 1 |
| 16. | Define chimera. | CO2 | 1 |
| 17. | Define epicotyl grafting. Give an example. | CO2 | 1 |
| 18. | List out two popular reference books on propagation of horticultural crops. | CO2 | 1 |
| 19. | Define apomixis. | CO2 | 1 |
| 20. | List out four horticultural crops in which micro-propagation is commercially adopted. | CO2 | 1 |

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| **PART B(10 X 5= 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Differentiate sexual and asexual plant propagation with suitable examples. | CO1 | 5 |
| 22. | Write a note on the factors influencing rooting of cuttings. | CO2 | 5 |
| 23. | Describe soil sterilization. | CO2 | 5 |
| 24. | Enumerate the various types of plant propagating structures. | CO2 | 5 |
| 25. | What are liquid manures? What are their advantages? | CO2 | 5 |
| 26. | What are the specialized organs used for propagation? Give examples of horticultural crops. | CO2 | 5 |
| 27. | List out the advantages of micro-propagation. | CO2 | 5 |
| 28. | List out the various types of media used in plant propagation. | CO3 | 5 |
| 29. | Describe the anatomical and physiological basis of graft / bud union. | CO2 | 5 |
| 30. | What are the uses of growth regulators inplant propagation? | CO2 | 5 |
| 31. | Define meristem tip culture and mention its significance. | CO2 | 5 |
| 32. | Enumerate the infrastructure requirements for establishment of a commercial tissue culture unit. | CO2 | 5 |

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| **PART C(2 X 15= 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
| 33. | a. | Discuss the broad categories of propagation of horticultural crops with examples for each. | CO2 | 10 |
| b. | Discuss the significance of Quality management and Nursery certification. | CO2 | 5 |
| 34. | a. | Enumerate the essential requirements for establishing a nursery. | CO2 | 10 |
| b. | List out the constraints in micro-propagation. | CO2 | 5 |
| 35. | a. | Enumerate and describe the stages of micro-propagation. | CO2 | 10 |
| b. | Discuss the various Government schemes for development of nurseries. | CO2 | 5 |