FSC – 121: Plant Propagation and Nursery Management (1+1)

Give the Answers of following Questions:

Q.1. Define propagation. Why propagation is important in horticultural crops?

Q.2. What do you mean by sexual and asexual methods of propagation? Enlist merits & demerits of these methods?

Q.3. Define dormancy. Explain different types of dormancy with suitable examples?

Q.4 What is horticultural significance of dormancy? Enlist different method of breaking seed dormancy?

Q.5. Write short notes on the following:

a) Stratification b) Scarification c) Double dormancy d) Secondary dormancy

Q.6. Describe the role of hormones in seed dormancy?

Q7. Define the following terms:

a) Polyembryony b) Chimeras c) Mutation d) Bud Sports

Q8. Horticultural significance of polyembryony?

Q.9 Define chimera. Describe different types of chimeras with suitable examples?

Q10. What do you mean by layering? Discuss advantages and disadvantages of layering?

Q11. Enlist different methods of layering?

Q12. Discuss in detail the following:

a) Trench layering ii) Stooling iii) Tip layering

Q13. Enlist different methods of vegetative propagation employed for multiplication of horticultural crops?

Q14. Define cutting. Why raising of plants by cutting is important? What are its merits and demerits?

Q15. Define the following:

i) Hard wood cutting ii) Semi Hard wood cutting iii) Soft-wood cutting iv) Herbaceous cuttings.

Q.16 Discuss the physiological basis of rooting of cuttings?

Q17. What are the pre-requisite for adventitious root formation?

Q18. What are different rooting co-factors involved in formation of adventitious roots in cuttings?

Q19. Discuss role of growth hormones in formation of adventitious roots in cuttings?

Q20. Enlist various factors influencing rooting of cuttings and layering. Discuss the role of growth regulators in root initiation?

Q21. In most species, the rooting process is inhibited if leaves and buds are removed, why?

Q22. How season of the year influences rooting of cuttings?

Q23. Girdling helps in root induction, explain?

Q24. Discuss the role of growing media in rooting of cutting?

Q25. Define the following terms:

i) Scion ii) Rootstock iii) Interstock iv) Grafting v) Callus

Q26. Why we opt for grafting or budding?

Q27. What are the elements of successful grafting?

Q28. Enlist different methods of grafting employed for propagation of fruit crops?

Q29. Describe following methods of grafting with diagrams:

i) Veneer grafting ii) Tongue grafting iii) Bridge grafting iv) Inarching

Q30. Why bark and rind grafting is preferred by some nurserymen?

Q31. Define budding. What are its advantages over grafting?

Q32. Enlist different times of performing budding. Discuss June budding in detail?

Q33. Discuss different stages of bud/graft union formation?

Q34. Describe the following budding techniques:

i) Chip budding ii) Patch budding iii) T-budding and iv) Ring or annular budding.

Q35. What do you mean by graft incompatibility? Enumerate the causes of graft incompatibility?

Q36. What are external symptoms of incompatibility?

Q37. Enlist different types of incompatibility. Explain Translocated types of incompatibility?

Q38. What are the different techniques of predicting incompatible combination? How incompatible combination can be corrected?

Q.39. Describe different propagation structures and their functions?

Q.40. Enumerate different greenhouse covering materials?

Q.41. Discuss the advanced environmental control systems?

Q.42. Define and classify the plant growth regulators?

Q.43. Discuss the role of plant growth regulators in propagation of horticultural plants?

Q.44. Enumerate the role of plant growth hormones in regulation of germination and dormancy in horticultural crops?

Q.45. Which chemical is most commonly used for rooting and why?

Q.46. What do you understand by micropropagation? Discuss its merits or demerits?

Q.47. Explain different stages of micropropagation?

Q.48. What are specialized vegetative structures?

Q.49. Explain the use of following as propagating materials:

i) Bulb ii) Tubers iii) Runners iv) Suckers. V) Rhizomes and vi) Corms.

Q.50. Differentitate the following terms:

i) Tunicate and non-tunicate bulbs ii) Scooping and scorin iii) Runners and Suckers.

Q.51. Why is nursery registration necessary?

Q.52. What are licensing requirements of nursery?

Q.53. What are necessary steps involved in the selection and management of mother orchards?

Q.54. How scion wood is collected and handled for dormant and summer grafting / budding?

Q.55. Make a list of tools required for land leveling, preparation of nursery beds?

Q.56. Make a list of tools required for performing budding, grafting and layering operations in the nursery?

Q.57. Enlist the principles of micropropagation. Discuss somatic embryogenesis?