

Bajaj College of Science, Wardha

Practice Sheet During Lockdown

B.Sc III Sem VI

Subject: Botany

Write Short Notes on:

1. Phases of Growth and Growth curve
2. Circadian Rhythm and Biological Clock
3. Phytochromes
4. Plant Growth Regulators
5. Role of Auxin in Plant Growth
6. Role of Cytokinin in Plant Growth
7. Gibberellins and its role in growth regulation
8. Biological role of Ethylene in plant growth
9. Role of Abscisic Acid in Plant growth regulation
10. Plant Movements
11. Photoperiodism
12. Vernalization
13. Causes of seed dormancy
14. Methods to break seed dormancy
15. Water stress in plants
16. Salinity stress in plants
17. Define totipotency. Describe the process of aseptic culture.
18. What are explants. Describe the process of aseptic cultures.
19. Describe the methods of in vitro micropropagation.
20. Describe the process of in vitro micropropagation.
21. What is sterilization. Describe the methods of sterilization.
22. Define sterilization. Describe process of sterilization by autoclaving.
23. Define sterilization. Describe process dry heat sterilization.
24. Define sterilization. Describe process chemical sterilization.
25. What are culture media. Describe chemical constituents of MS media.

26. What are culture media. Describe the hormone requirement of the culture media.
27. What are culture media. Describe its application in tissue culture.
28. Describe the application of tissue culture.
29. What is callus. Describe the process of callus culture and its applications.
30. What is organ culture. Describe the process of shoot tip culture and its applications.
31. What is organ culture. Describe the process of anther culture and its applications..
32. What are cybrids. Describe cybrid production and its applications.
33. Principles of recombinant DNA technology
34. Applications of recombinant DNA technology
35. Techniques used in order to develop recombinant DNA.
36. Types of restriction endonucleases or restriction enzymes
37. Salient features of restriction endonucleases type-II or restriction enzyme-II.
38. Process of genomic DNA library preparation and their applications
39. Process of cDNA library preparation and their applications
40. Development of Bt-cotton
41. Development of golden rice
42. Transgenic plant and their applications in crop improvements.
43. What are phytogeographical principles? Discuss in brief the factors which affects distribution of plant species.
44. Discontinuous distribution of species.
45. Endemism.
46. Wides.
47. Landbridge theory.
48. Continental drift theory.
49. Describe the climates of India and their bearing in distribution of plant formations.
50. Describe the various forest communities of India.
51. Give an account on grassland vegetation in India.
52. Describe in brief different phytogeographic regions of India.
53. Describe the vegetation of Eastern or Western Himalayas.
54. Describe the morphology, utilization and chemical constituents of Wheat.
55. Describe the morphology, utilization and chemical constituents of Ground nut.

56. Describe the morphology, utilization and chemical constituents of Cotton plant.
57. Describe the morphology, utilization and chemical constituents of Clove.
58. Describe the morphology, utilization and chemical constituents of Coffee.
59. Describe the morphology, utilization and chemical constituents of Rubber.
60. Describe the general account and sources of firewood.
61. Describe the general account and sources of timber.
62. Describe the general account and sources of Bamboos.
63. What are essential oils. Give general account and importance of Eucalyptus.
64. Describe the general account and uses of medicinal plant *Aloe vera*.
65. Describe the general account and uses of medicinal plant *Adathoda vasica*.
66. Describe the general account and uses of medicinal plant *Asparagus racemosus*.
67. Describe the general account and uses of medicinal plant *Azadirachta indica*.
68. Describe the general account and uses of medicinal plant *Catharanthus roseus*.
69. Describe the general account and uses of medicinal plant *Embllica officinalis*.
70. Describe the general account and uses of medicinal plant *Ocimum sanctum*.
71. Types of Nursery
72. Infrastructure Requirements for a Nursery
73. Seed Propagation
74. Types of Vegetative Propagation
75. Seed Production
76. Harvesting and Threshing in Maize
77. Harvesting and Threshing in Sunflower
78. Harvesting and Threshing in Cotton
79. Types of Grafting
80. Hybrid seed production

Write in two or three lines (Diagrams not necessary)

Lag phase

Sigmoid curve

Stationary phase

Pr

Pfr

Bolting

Malting
Apical dominance
Abscission
Fruit ripening
Phototropism
Geotropism
Nyctinasty movement
Seismonastic movement
Vernalin
Florigen
Long day plants
Short day Plants
Day neutral plants
Stratification
Scarification
Immature embryo
Hard seed coat
Stress
Types of stress in plants
Totipotency.
Explants.
Aseptic culture.
In vitro propogation.
In vivo propogation.
Micropropogation.
Sterilization.
Autoclaving.
Autoclave.
lb.
Steam sterilization.
Dry heat sterilization.
Chemical sterilization.
Culture media.
Callus.

Callus culture.
Organ culture.
Cybrid.
Hybrids.
Hormones.
Vitamines.
pH.
Tissue culture.
Bioinformatics
Gene
cDNA
vector
Insert
Multiple cloning site
Palindromic site
Ligation
DNA ligase
Reverse transcriptase
Taq DNA polymerase
Cry gene
Plasmid
Cosmid
Phage
Hygrophilous grassland
Wides
Phytogeography
Alpine forest
Mangrove forest
Migration
Neoendemics
Pseudo endemics
Morphology.
Caryopsis.
Flour.

Bran.
Gluten.
Dietary fiber.
Peanuts.
Shell.
Cake.
Caffein.
Yarn.
Fibres.
Gossypol.
Flower bud.
Syzigium aromaticum.
Eugenol.
Tapping.
Field coagula.
Cuplump.
Vulcanized rubber.
Vincristine.
Vinblastine.
Catharanthin.
Aloin.
Kathalai.
Elagitannins.
Visicine.
Gumnut.
Eucalyptol.
Saponin.
Asparagamin.
Phylloclades.
Shatavari.
Nimbinin.
Plant Nursery
Backyard Plant Nursery
Nursery Stock

Fruit Plant Nursery
Vegetable Nursery
Ornamental Plant Nursery
Medicinal and Aromatic Plant Nursery
Forest Plant Nursery
Retail Nursery
Whole sale plant Nursery
Mother Plant
Objectives of seed production
Certified seed
Seed quality
Natural vegetative propagation
Cutting
Layering
Grafting
Gootee
Hybrid Seed
Bagging
Roughing
Dry cleaning
Winnowing