

Bajaj College of Science, Wardha

Practice Sheet During Lockdown

B.Sc II Sem IV

Subject: Botany

Write Short Notes on:

1. Apical meristem
2. Tunica corpus theory
3. Newman theory
4. Primary structure of Sunflower stem.
5. Anatomical structure of *Maize* stem.
6. T.S of sunflower root.
7. T.S. of monocot root (*Maize*).
8. Types of vascular bundles in dicots and monocots.
9. Secondary growth in Sunflower stem.
10. Anomalous secondary growth in *Bignonia* stem.
11. Secondary growth in *Dracaena* stem.
12. Anatomy of *Nerium* leaf.
13. Anatomy of *Maize* leaf.
14. Define pollination. Write the types of pollination and its significance.
16. Define pollination. Describe the types of pollination and adaptations for pollinations.
15. Describe the process of microsporogenesis.
16. T. S. of Mature anther.
17. Describe the development of male gametophyte.
18. Describe the process of megasporogenesis.
19. What is ovule. Describe the types of ovules.
20. Describe the development of female gametophyte.
21. Describe the development of Polygonum type of embryo sac.
22. Describe the development of Polygonum type of female gametophyte.

23. Describe the process of double fertilization and triple fusion.
24. Define endosperms. Describe types of endosperms.
25. Describe the types of endosperms.
26. Describe the structure of Onagrad type of embryo.
27. Describe the type of dicot embryo.
28. Describe the type of dicot embryo.
29. Incomplete Dominance
30. Dominant Epistasis
31. Complementary Genes
32. What is Linkage of Genes? Explain Coupling and Repulsion theory of Linkage
33. Complete Linkage
34. Incomplete Linkage
35. Breakage and Reunion theory of Crossing over
36. Extra-Nuclear Genome
37. Mitochondrial DNA
38. Chloroplast DNA
39. Structural aberrations in Chromosomes
40. Describe Euploidy and its types
41. Describe Aneuploidy and its types
42. Concept of Gene
43. Structure of Eukaryotic Gene
44. DNA packaging process in chromosome and structure of nucleosome
45. DNA repair and their types
46. Process of Photoreactivation
47. Process of Excisionrepair
48. Structure of Satellite DNA and structure of repetitive DNA
49. Process of Transcription in prokaryotes
50. Steps in Translation in prokaryotes
51. Process of Lactose operon model
52. Positive and negative regulation of geneexpression

53. Definition of Mutation and their Applications of induced mutations in crop improvement.
54. Types of Mutagens
55. Ac-Ds system in Maize
56. Define adulteration. Describe the types of adulteration.
57. Define adulteration. Describe the methods of drug evaluation.
58. Kjeldahls apparatus.
59. Soxhlet apparatus.
60. Liferizer.
61. Clavengers.
62. Describe the process of hot and cold extractions.
63. Describe the methods of hot and cold extractions.
64. Describe the methods of maceration and digestions of herbal extractions.
65. Describe the methods of digestion and decoction of herbal extractions.
66. Describe the methods of extracts and tinctures.
67. What are herbal preparations. Describe its types of herbal preparations.
68. Describe the concept and types of herbal preparations.

Write in two or three lines (Diagrams not necessary):

- Apical cell.
- Endarch
- Exarch
- Medullary rays
- Vessels
- Heterogenous pericycle
- Bulliform cells or motor cells
- Lysogenous cavity
- Radial
- Bicollateral
- Pith
- Polyarch

Stomatal pits

Pollination.

Pollinator.

Pollinator.

Self pollination.

Autogamy.

Cross pollination.

Geitonogamy.

Xenogamy.

Abiotic pollination.

Anemophily.

Hydrophily.

Cleistogamous flower.

Chasmogamous flower.

Biotic pollination.

Zoophily.

Ornithophily.

Entomophily.

Anther.

Anther lobe.

Stamens.

Endothesium.

Tapetum.

Pollen sac.

Stomium.

Microsporogenesis.

MMC.

Tetrads.

Linear tetrads.

Iso-bilateral tetrads.

T-shaped tetrads.
Generative cell.
Vegetative cell.
Reduction division.
Meiosis.
Meiotic division.
Male gametophyte.
Megasporogenesis.
Ovule.
Megasporangium.
Orthotropous ovule.
Straight ovule.
Atropous ovule.
Anatropous ovule.
Inverted ovule.
Campylotropous ovule.
Amphitropous ovule.
Circinotropous ovule.
Hemianatropous ovule.
Female gametophyte.
Embryo sac.
Egg apparatus.
Egg cell.
Synergid cells.
Synergids.
Polar nuclei.
Secondary nucleus.
Antipodal cells.
Double fertilization.
Triple fusion.
Porogamy.

Mesogamy.

Chalazogamy.

Tenuinucellate condition.

Crossinucellate condition.

Endosperm.

Nuclear endosperm.

Cellular endosperm.

Helobial endosperm.

Ruminant endosperm.

Onagrad embryo.

Zygote.

Pro-embryo.

Apical cell.

Basal cell.

Globular embryo.

Quadrate stage.

Octant stage.

Cordate stage.

Hypophysis.

Epicotyl.

Plumule.

Plerome

Dermatogen.

Radicle

Interaction of Genes

Define Linkage

Significance of Linkage

Define Crossing over

Significance of Crossing over

Synapse

Double crossovers

Single crossovers
Auto-Polyploidy
Allo-Polyploidy
Polyploids
Diploid
Trisomy
Nullisomy
Tetrasomy
Inversion
Translocation
Deletion or Deficiency
Duplication
Overlapping genes
Cistron
Recon
Muton
Exon
Intron
DNA
Histone
Nucleosome
Chromatin fibre
Thymine dimers
Microsatellites
Minisatellites
Initiation factor
Elongation factor
Termination factor
Transposons
Mutations
Physical mutagens

Chemical mutagens

Peptide

tRNA

Ribosome

Release factor

Drug.

Adulteration.

Pharmacognosy.

Maceration.

Digestion.

Percolation.

Infusion.

Decoction.

Extracts.

Tinctures.

Fluid extract tinctures.

Semi solid extracts.

Powder extracts.

Evaporation.

Concentration.

Extractor.

Kjeldahl.

Soxhlet.

Lifolizer.

Clavengers.

Anti-inflammatory activity.

Anti-pyretic activity.

Analgesic activity.

Anti-diabetic activity.

Anti-ulseractivity.

Antihelminthic activity

