

**Section A**

● Write the answer of the following questions. [Each carries 2 Marks]

[40]

1. Write short note – Family.
2. Explain with example types of asexual reproduction.
3. Explain – Chrysophytes.
4. Write short note - Archaeobacteria.
5. Describe economic importance of algae.
6. Differentiate : Liverwort and Fungi.
7. Explain - types of symmetry.
8. Describe ctenophora phylum.
9. Explain modifications of leaves.
10. Explain types of flower on the basis of location of ovary.
11. Describe the tissue responsible for secondary growth.
12. Describe vascular tissue system.
13. Describe squamous epithelium with diagram.
14. Describe cardiac muscle tissue.
15. Write information about vacuoles.
16. Differentiate between active transport and passive transport.
17. Write short note : Lecithin
18. Write the steps of inducer molecule.
19. Write a short note on : Prophase of mitosis
20. Explain : Cytokinesis

**Section B**

● Write the answer of the following questions. [Each carries 3 Marks]

[60]

21. Explain – Growth
22. Museum.
23. Three domain classification.
24. Mention various orders of fungi - Explain Ascomycetes.
25. Describe haplontic lifecycle.
26. Describe characteristics of Moss.
27. Write short note : Flatworms.
28. Give difference chondrichthyes and osteichthyes.
29. Explain aestivation with diagram.
30. Explain structure of endospermic seed with diagram.
31. Describe the stomata seen the dicotyledonous plants.
32. What is meant by secondary growth ? Explain formation of cambial ring.
33. Draw labelled diagram of reproductive organs of Earthworm.
34. Describe sensory organs of frog.
35. Describe – Centriole
36. Describe Powerhouse of the cell.

37. Describe concentration of substrate.
38. Explain structural composition of protein.
39. Explain : Interphase.
40. Compare mitosis and meiosis. (Six point)

**Section C**

- Write the answer of the following questions. [Each carries 5 Marks] [50]
41. What are taxonomical aids ? Give the importance of herbaria and Museums. How are botanical garden and Zoological parks useful in conserving biodiversity ?
  42. Explain – about Virus in detail with neat labelled diagram.
  43. Differentiate between Angiosperms and Gymnosperms.
  44. Write short note : Mammals.
  45. Give floral characteristics, floral formula and economic importance of Fabaceae family.
  46. Draw transverse section of dicot stem and describe each parts of it.
  47. Describe reproductive system of female cockroach and process of fertilization with diagram.
  48. Write the functions of the following
    - (a) Centromere
    - (b) Cell wall
    - (c) Smooth ER
    - (d) Golgi apparatus
    - (e) Centrioles
  49. Nucleic acids exhibit secondary structure. Describe through Watson-Crick model.
  50. Sub phases of first prophase.