



K23U 3411

Reg. No. :

Name :

III Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/
Improvement) Examination, November 2023
(2019 to 2022 Admissions)

COMPLEMENTARY ELECTIVE COURSE IN BOTANY FOR BSC ZOOLOGY
AND FORESTRY

3C03 BOT : Angiosperm Morphology, Anatomy and Systematics

Time : 3 Hours

Max. Marks : 40

Instruction : Draw diagram whenever specified.

PART – A
(Objective Type questions)

Answer all :

(4×1=4)

1. Wavy leaf margin is characteristic of
 - a) Annonaceae
 - b) Apocynaceae
 - c) Rubiaceae
 - d) Solanaceae
2. Positional arrangement of petals and sepals within a flower bud is called
 - a) Symmetry
 - b) Phyllotaxy
 - c) Aggregation
 - d) Aestivation
3. Which among the following is a characteristic feature of Malvaceae ?
 - a) Reniform anthers
 - b) Sagittae anthers
 - c) Swollen placenta
 - d) Dumbbell stigma
4. Secondary xylem vessels become blocked due to
 - a) Plasmodesmata
 - b) Callose plugs
 - c) Tyloses
 - d) Ergastic substances

P.T.O.



PART – B
(Short essay questions)

Answer **any eight** :

(8×2=16)

5. Compare the functions of sclerenchyma and collenchyma.
6. Classify meristems based on their position in the plant body.
7. Explain the floral characteristics of Papilionoidiae.
8. Give a brief account of the significance of herbaria in taxonomic studies.
9. What are nectaries ?
10. What is a concentric vascular bundle ? Analyse its types.
11. Give an account of the economic importance of Solanaceae.
12. Analyse the advanced floral features of Asteraceae.
13. How is the primary stelar structure of dicot root different from that of dicot stem ?
14. Differentiate between heart wood and sapwood.
15. Comment on the evolutionary significance of thickening patterns in xylem vessels.
16. List out any four key characters of Rubiaceae.

PART – C
(Essay questions)

Answer **any four** :

(4×3=12)

17. Critically analyse the advanced features of the family Poaceae.
18. Describe the pattern of secondary growth in the dicot roots.



19. Justify the statement 'flower is a modified shoot' .
20. Why is phloem called as a complex tissue ?
21. Analyse the anomalous behaviour of vascular cambium in *Boerhaavia*.
22. Describe the salient features of Orchidaceae.

PART – D
(Long essay questions)

Answer **any one** :

(1×8=8)

23. Describe the features of Bentham and Hookers system of classification. Discuss its merits and demerits.
24. Describe the types of ergastic substances found in angiosperms.
25. Give a detailed account of different types of inflorescences found in angiosperms with examples.

