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P = 2848

Reg. No. :

Fifth Semester B.Sc. Degree Examination, December 2022 Career Related First Degree Programme under CBCSS

Group 2 (a): Botany and Biotechnology / Group 2 (b): Biotechnology (Multimajor)

BV 1541.1/BB 1542 : ANGIOSPERM MORPHOLOGY AND SYSTEMATIC BOTANY

(2018 Admission)

Time: 3 Hours

Max. Marks: 80

SECTION - A

Answer all questions in one word or sentence.

- 1. What is coenanthium?
- 2. Explain monadelphous condition.
- 3. Define twisted aestivation.
- 4. What is tetramerous condition?
- 5. Give one example for importance of taxonomy in medicine.
- 6. What are later homonyms?
- 7. Name an international herbarium.
- 8. Identify a gene commonly used in molecular taxonomy of Plants.

- 9. What is a neotype?
- Name the family having ruminate endosperm.

 $(10 \times 1 = 10 \text{ Marks})$

SECTION - B

Answer any eight questions, Short answer (Not to exceed one paragraph).

- 11. What are the diagnostic traits of the family Amaranthaceae?
- 12. Which are the fruits showing Zoochory? Comment on its adaptations.
- 13. What is Corolline corona?
- 14. With suitable illustrations, describe the structure of Cyathium.
- 15. Elaborate the structure of Spikelet of paddy with suitable illustrations.
- 16. Explain head inflorescence in Asteraceae.
- 17. Identify the characters of Rubiaceae. Name the economically important members from this family.
- 18. Explain how taxonomy is important in conservation.
- 19. List out the differences between lectotype and neotype.
- 20. What are the reasons for choosing Latin for Botanical nomenclature?
- 21. What is author citation?
- 22. Explain how chromosome number helps in resolving taxonomic impasse?
- 23. What is obdiplostemonous condition?
- 24. Comment on monadelphous stamens in Malvaceae.

- 25. Write the diagnostic features of Apocynaceae.
- 26. What is an aggregate fruit?

 $(8 \times 2 = 16 \text{ Marks})$

SECTION - C

Answer any six questions. Each question carries 4 marks. (Answer not to exceed 120 words).

- 27. What is a Botanical garden? Explain with examples.
- 28. List out the general characters of the family Acanthaceae. Give binomial of any two economically important members of the family with its specific uses.
- 29. Compare and contrast Nymphaeaceae with Annonaceae. List out its primitive characters.
- 30. Explain the principle of Priority.
- 31. Elaborate the concept 'flower as a modified shoot' with example evidence.
- 32. What are conserved names?
- 33. Comment on cohesion and adhesion of stamens.
- 34. Briefly describe the structure of an albuminous seed.
- 35. 'Orchidaceae is regarded as an advanced family'. Substantiate the statement.
- 36. Discuss the importance of chemotaxonomy in taxonomic studies.
- 37. Outline the classification of simple fruits.
- 38. List the important characters of Euphorbiaceae.

 $(6 \times 4 = 24 \text{ Marks})$

SECTION - D

Answer any two questions. Each question carries 15 marks. (Answer not to exceed three pages).

- 39. Briefly explain major rules of botanical nomenclature.
- 40. Explain how the subfamilies of Leguminosae related to one another.
- 41. Briefly outline a Natural system of classification with its merits and demerits.
- 42. With suitable illustrations, explain the classification of inflorescence. Mention examples of each type.
- 43. What is a herbarium? Explain the process of herbarium preparation.
- 44. Give an account on diagnostic characters of Asteraceae. Add a note on advanced features and economic importance of the family.

 $(2 \times 15 = 30 \text{ Marks})$