



K23P 1369

Reg. No. :

Name :

III Semester M.Sc. Degree (C.B.S.S. – Reg./Supple./Imp.)
Examination, October 2023
(2020 Admission Onwards)
BOTANY
BOT3 C09 : Plant Systematics and Morphology

Time : 3 Hours

Max. Marks : 60

*Instruction : Draw diagrams wherever necessary.***SECTION – A**

1. a) Briefly explain the significance of palynology in plant systematics.

OR

- b) Anatomy has a significant role in systematics. Justify your views with example.

2. a) Discuss the transition of plant classification from morphology to molecular data.

OR

- b) Discuss the merits and demerits of Bentham and Hookers System of classification with that of Engler and Prantl.

(2×8=16)**SECTION – B**Answer **any two** :

3. a) What is ICBN ?

- b) Write down the botanical name of a species including author citation.

- c) Describe any three situations for rejection of a plant name.

(1+2+3)

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4. a) What is cladogram ?

- b) Distinguish between monophyly and polyphyly.

- c) Write a note on Adansonian Principles and describe how it is useful in taxonomy.

(1+2+3)

5. a) What is coevolution ?

- b) Describe the morphology of a flower.

- c) Discuss the evolutionary trends in stamen.

(1+2+3)**(2×6=12)****SECTION – C**Answer **any six** :

6. Discuss the advantages of dichotomous key with suitable examples.

7. Describe the concept of foliar origin of carpels.

8. Describe the salient features of the family asclepiadaceae.

9. Briefly explain the cytological characters considered in systematics.

10. What methods will you adopt to identify a new species ?

11. Write a note on taxonomic species concept.

12. How will you prepare herbarium sheets ?

13. Ranunculaceae is considered as a primitive family. Do you agree. Why ?

(6×3=18)**SECTION – D**Answer **any seven** :

14. What is cremocarp ? How does it differ from carcerulus ?

15. What do you mean by threatened species ?



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16. What is the significance of field note book ?

17. Name two world famous botanical garden.

18. Name the economically important species of the family Pedaliaceae and describe its use.

19. Distinguish between axile and parietal placentation.

20. What do you mean by obdiplostemonous ? Name a family that shows this condition.

21. Name a family and a species having gynandrophore.

22. List out any four pollen characters, used in taxonomy.

23. Write down the floral formula of oxalidaceae.

(7×2=14)