



QP CODE: 25050627



25050627

Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION DECEMBER 2025

First Semester

M Sc BOTANY

Core Courses - BY010104 - GYMNOSPERMS, PALEOBOTANY AND EVOLUTION

2019 Admission Onwards

BC900E93

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

Answer any **eight** questions.

Weight **1** each.

1. Briefly describe the classification of Gymnosperms by Christenhusz.
2. Define cupule.
3. What is the peculiarity of stem cortex of *Agathis*?
4. Describe the leaf morphology of *Ginkgo biloba*.
5. Comment on the morphology of Ephedraceae.
6. Comment on ephedrine, write the binomial of source plant and describe its usages.
7. What are the major types of fossils?
8. Briefly explain biome extension and resurrection.
9. Write a note on any three indirect evidences of evolution.
10. Add a note on mutualism.

(8×1=8 weightage)

Part B (Short Essay/Problems)

Answer any **six** questions.

Weight **2** each.

11. Write the name of families under the order Pteridospermales.
12. Explain the vascular anatomy of Medullosaceae, with schematic diagrams.
13. Draw the labelled diagram of T.S of *Cycas* leaflet.
14. *Ginkgo biloba* is a global treasure. Justify.
15. Explain the methods used in plant fossil studies.





16. Give an account on the limiting factors of natural selection.
17. Describe Homeostasis. Add notes on its evolutionary role.
18. Write a short essay on speciation.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Explain vegetative morphology and reproductive characteristics of genera *Cupressus* and *Podocarpus*.
20. Annotate *Gnetum* with its characteristic features. Why it is considered as an advanced Gymnosperm?
21. Discuss "Earth through time"
22. Give an elaborate account on evolution of species.

(2×5=10 weightage)

