

QP CODE: 19002487



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Reg No : .....

Name : .....

**M.Sc. DEGREE (C.S.S ) EXAMINATION, NOVEMBER 2019**

**First Semester**

Faculty of Science

BOTANY

**Core - BY010104 - GYMNOSPERMS, PALEOBOTANY AND EVOLUTION**

2019 Admission Onwards

7BA952B0

Time: 3 Hours

Maximum Weight :30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight **1** each.*

1. Mention four Pteridophytic characters of Gymnosperms
2. Name two fossil gymnosperms excavated from India
3. Explain the structure of male and female cones of *Zamia*
4. What are the binomials of parasitic gymnosperm and its host?
5. Give an account on the distribution and morphology of Welwitschiaceae with comments by C.J. Chamberlain
6. Mention medicinal and food values of Gymnosperms
7. What are compression fossils?
8. What are Biomes? Mention the factors responsible for biome formation.
9. Describe punctuated equilibrium
10. What is mimicry?

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

Answer any **six** questions.

Weight **2** each.

11. Write an account on living Gymnosperms in India
12. Describe the development of male gametes in Araucariaceae
13. Draw a labelled diagram of *Taxus* ovule and briefly explain its development
14. Comment on resins extracted from Gymnosperms
15. Explain the nomenclature of fossils.
16. Describe Adaptive radiation.
17. Describe Homeostasis. Add notes on its evolutionary role.
18. What is extinction? What are the major causes of extinction?

(6×2=12 weighta

**Part C (Essay Type Questions)**

Answer any **two** questions.

Weight **5** each.

19. Explain salient features of *Medullosa* and *Pentoxylon*. Mention the affinities and differences both genera
20. Annotate *Gnetum* with its characteristic features. Why it is considered as an advanced Gymnosperm?
21. Write an essay on evolutionary time scale. Add notes on Meghalayan, Northgrippian and Greenlandian ages.
22. Write an essay on speciation.

(2×5=10 weighta