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[Roll No.

BOT-503

M.Sc. (Botany) Ist Year Examination Dec., 2023

GYMNOSPERMS, TAXONOMY OF ANGIOSPERMS AND ANATOMY

Time: 2 Hours]

[Max. Marks: 70

Note :- This paper is of Seventy (70) marks divided into two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given there in. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section-A

(Long Answer Type Questions) 2×19=38

Note :- Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

(1)



- 1. Write a detailed account of distribution of gymnosperms in India.
- 2. Discuss the angiospermic characters of Gnetales.
- 3. Write a detailed account of anatomy of vegetative structures of cycadales.
- 4. Discuss the development of male gametophyte in coniferales with the help of suitable diagrams.
- 5. Give a detailed account of anatomy in relation to taxonomy.

Section-B

(Short Answer Type Questions) 4×8=32

- *Note* :- Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.
- Write a short note on anomalous secondary growth in monocot stem.
- 2. Write a short note on pollination of fertilization in gymnosperms.
- 3. Write a short note on origin and phylogeny of angiosperms.
- 4. Write briefly about Typification, in Taxonomy.
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- 5. Write a short note on threat categories and threatened flora.
- 6. What are the different types of fibers ? Give a brief account of their economic importance.
- 7. Differentiate between sap wood and heart wood.
- 8. Write a short note on growth rings (annual rings).
