

BOT-503

Gymnosperms, Taxonomy of Angiosperms and Anatomy

M. Sc. BOTANY (MSCBOT-12/13/16/17)

First Year, Examination, 2018

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **Eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to attempt the questions contained in these Sections according to the detailed instructions given therein.

Section-A

(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. Give the distribution, morphology, anatomy and reproductive structures of Ginkgoales.
2. Discuss any phylogenetic system of classification studied by you giving its merits and demerits.
3. Give salient features of representative genera, range of morphological and floral structure and economic importance of Poales.

4. What are permanent tissues ? Describe with suitable diagrams the different types of simple permanent tissues and their functions.

Section-B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (8) marks each. Learners are required to answer *four* (04) questions only.

1. Give an account of distribution of gymnosperms in India with special reference to North-West Himalaya.
2. Describe the different steps in development of female gametophyte in gymnosperms.
3. What do you understand by biodiversity ? Mention the different measures of its conservation.
4. What is biosystematics ? How is it different from orthodox taxonomy ? Discuss its role in solving taxonomic problems ?
5. Discuss plant diversity of your area.
6. What is a herbarium ? Write about few important herbaria of world and India.
7. With suitable diagram discuss the primary structure of a dicot leaf.
8. With suitable example explain the significance of wood anatomy.

Section-C

(Objective Type Questions)

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this Section are compulsory.

Fill in the blanks :

1. Histogen theory was given by
2. Botanical name of sago palm is
3. The Dachigam Sanctuary is located in the state of
4. Main nomenclature type is
5. The abbreviation used for herbarium of Royal Botanical Gardens, Kew is

Indicate whether the following statements are True *or* False.

6. Pollination in *Pinus* is by insects. (True/False)
7. *Lyginopteris oldhamia* is a fossil angiosperm. (True/False)
8. Inflorescence in rice is a panicle of spikelets. (True/False)
9. Phloem is a complex tissue. (True/False)
10. Anomalous secondary growth is present in *Salvadora*. (True/False)