Roll No				
---------	--	--	--	--

## **BOT-503**

# Gymnosperms, Taxonomy of Angiosperms and Anatomy

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

First Year, Examination, 2017

Time: 3 Hours Max. Marks: 70

Note: This paper is of seventy (70) marks containing three (03) sections A, B and C. 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 fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

- 1. What is flora? Describe weed vegetation of cultivated fields of Rabi and Kharif season.
- 2. Explain collection techniques for special kinds of plants.
- 3. Describe species concept in plant taxonomy.
- 4. What do you understand by Ecotype? Describe nature, origin, types and significance of ecotypes.

A-78 **P. T. O.** 

#### Section-B

### (Short Answer Type Questions)

**Note:** Section 'B' contains eight (08) short answer type questions of five (05) marks each. Learners are required to answer *six* (06) questions only.

- 1. Differentiate between the following:
  - (i) Sap wood and Heart wood
  - (ii) Grain and Seed
- 2. Describe contributions of Linnaeus and Bentham and Hooker.
- 3. Write short notes on the following:
  - (a) Biosystematics
  - (b) Biotype
- 4. What is Endemism? Describe the causes of endemism.
- 5. Write an account on nature and value of biodiversity.
- 6. Describe various types of stomata and their ecological significance.
- 7. Explain briefly the root-shoot transition.
- 8. Describe economic importance of gymnosperms.

## Section-C

## (Objective Type Questions)

**Note:** Section 'C' contains ten (10) objective type questions of one (1) mark each. All the questions of this section are compulsory.

Indicate whether the following are True or False.

- 1. The father of botany is Theophrastus. (True/False)
- 2. *Nelumbo nucifera* is a hydrophyte. (True/False)

3. Sunken stomata are characteristics of hydrophytes.

(True/False)

- 4. Mangrooves are generally halophytes. (True/False)
  Write acronyms of the following:
- 5. WII
- 6. WWF
- 7. CITES
- 8. UNCED

Fill in the blanks:

- 9. Central national herbarium in India is located at ...........

BOT-503 430

A-78