

B.Sc. Semester-V Examination, 2022-23**BOTANY**[Honours]

Course ID : 51312

Course Code : SH/BOT/502/C-12

Course Title : **Plant Physiology**

Time : 1 Hour 15 Minutes

Full Marks : 25

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***UNIT-I**

1. Answer any **five** from the following questions: $1 \times 5 = 5$
- What is florigen?
 - What do you mean by vernalization?
 - Mention two important deficiency symptoms of 'Fe' in plants.
 - Point out the fundamental difference between transpiration and guttation.
 - What are photo neutral plants?
 - What is the full form of the abbreviation-2,4D?
 - What do you mean by antiport?
 - Mention one physiological role of Jasmonic Acid.

2. Answer any **two** from the following questions:

 $5 \times 2 = 10$

- Track the passage of water through root during absorption. What is cavitation? 4+1
- Write down the methods of breaking seed dormancy by physical and chemical manipulative methods. 5
- With suitable diagram explain the structure of phytochrome. What is cytochrome? 4+1
- What is transpiration? Write a short note on mechanism of stomatal movement. 2+3

UNIT-III

3. Answer any **one** from the following questions:

 $10 \times 1 = 10$

- What are symplastic and apoplastic modes of phloem loading? Write a detailed note on the mechanism of phloem loading and unloading. 2+8
- Define natural and synthetic plant hormones mentioning one example of each. Enumerate the different physiological roles of cytokinins. What is Richmond-Lang effect? 2+6+2