

U.G. 5th Semester Examination - 2020**BOTANY****Course Code : BBOTCCHC502****Course Title : Plant Physiology**

Full Marks : 30

Time : 2 Hours

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

1. Answer any **ten** questions: $1 \times 10 = 10$
- What is turgor pressure?
 - What do you mean by diffusion potential?
 - What are electrogenic pumps?
 - Define proton motive force.
 - Write down an inhibitor of membrane transport.
 - What is scarification?
 - What do you mean by symplastic pathway?
 - Define photomorphogenesis.
 - Write down two inactive GAs.
 - What is hydroponics?
 - What do you mean by late-embryo-genesis-abundant proteins?

- What is secondary dormancy?
 - What do you mean by floral evocation?
 - Define vernalization.
 - What is brassinolide?
2. Answer any **five** questions: $2 \times 5 = 10$
- What is Ψ_w value of a cell? Mention its components.
 - What do you mean by ascent of sap?
 - What do you mean by secondary active transport mechanism?
 - Mention important physiological functions of cytokinin.
 - What do you mean by low fluence responses?
 - What do you mean by *phot1/phot2* mutants?
 - How IAA induces H^+ extrusion?
 - Mention two physiological roles of ABA.
3. Answer any **two** questions: $5 \times 2 = 10$
- Briefly explain the pressure flow model of phloem translocation with suitable diagram. $3+2$
 - With labelled diagram briefly explain the mechanism of GA induced production of α -amylase in alurone layer. $3+2$
 - In brief explain the mechanism of phytochrome mediated activation of light harvesting chlorophyll binding a/b gene in (LHCB) plants with diagram. $3+2$