

**2021**

**BOTANY**

**[HONOURS]**

**(CBCS)**

**(B.Sc. Fifth End Semester Examination-2021)**

**PAPER-C12T**

***Full Marks: 40***

***Time: 02 Hrs***

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

**Group - A**

- 1. Answer any five of the following: 5x2=10**
- a) What is antitranspirant. Cite example. 2
  - b) What is CDL? 2
  - c) What is guttation? Where it is found? 2
  - d) What do you mean vernalization? 2
  - e) What is facilitated diffusion? How is it different from active transport?
  - f) Differentiate between Low energy responses (LER) and High irradiance responses (HIR)?
  - g) What is florigen? Which protein shows the properties of florigen? (1+1)

- h) What is triple role of ethelene? 2  
i) What is symplast and apoplast? 2

**Group – B**

- 2. Answer any four of the following: 4x5=20**
- a) Describe the ion movement events during stomatal opening and closing. 5
- b) Briefly describe the ascent of sap on the basis of cohesion – tension theory. 5
- c) Discuss the role of florigen for flowering. 5
- d) What are trace elements? Mention the role of Fe and Mn in plant life. 5
- e) Classify plants on the basis of photoperiodic response with example. 5
- f) Discuss chemical nature of ethylene. What are the functions of this hormone? (2+3)
- g) With apoplastic diagram, explain apoplectic, symplastic and transmembrane pathway for movement of water in the root.

**Group – C**

- 3. Answer any one of the followings: 1x10=10**
- a) How does phloem loading and unloading translocate photosynthates in plants? 2+8 = 10

- b) Explain with figure the bioassay of Auxin through Avena curvature test. What is the role of ABA in stomatal closure? Who discovered Gibberellins and from where?

(5+3+2)

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