

Roll No.

21267

**B. Sc. (Hons.) Chemistry 2nd Semester
Examination – May, 2019**

BOTANY - II

Paper : CH(H)207 Opt.-I

Time : Three Hours] [Maximum Marks : 40

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all. Question No. 1 is *compulsory* and remaining four by selecting *one* from each Unit. All questions will carry equal marks.

1. Define the following terms : 1 × 8 = 8
- (a) Transpiration
 - (b) Symplast
 - (c) Chlorophyll
 - (d) Photorespiration

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- (e) Steroids
- (f) Leguminous plants
- (g) Vernalization
- (h) Senescence

UNIT - I

- 2. What is ascent of sap ? Discuss the most acceptable theory for ascent of sap. 8
- 3. Write short notes on the following : $2 \times 4 = 8$
 - (a) Osmosis
 - (b) Diffusion
 - (c) Imbibition
 - (d) Water potential

UNIT - II

- 4. Describe the TCA cycle diagrammatically and its regulation. 8
- 5. Differentiate the C_3 plants from C_4 plants. 8

UNIT - III

- 6. Explain the structure of various types of carbohydrates and their importance. 8

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7. Write notes on :

- (a) Biological nitrogen fixation
- (b) Oxidation of fatty acids

UNIT - IV

- 8. Distinguish between : 4
 - (a) Inductive and Noninductive cycles
 - (b) Phototropism and Geotropism
- 9. What are growth regulators ? Give an account of physiological role of various growth regulators. 4

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