

**Exam. Code : 103205**

**Subject Code : 1395**

**B.A./B.Sc. 5<sup>th</sup> Semester**

**BOTANY**

**(Plant Physiology)**

**Paper—VA**

Time Allowed—3 Hours] [Maximum Marks—35

**Note :—** There are total **NINE** questions. All questions have **7** marks each. Question No. **1** is compulsory. Answer each in **3-4** lines. From remaining **EIGHT** questions, candidate is required to attempt any **FOUR** questions.

1. Write notes on :
  - (A) Vernalization
  - (B) Photoperiodism
  - (C) Phytochrome
  - (D) Mechanism of stomatal movement
  - (E) 'Ascent of Sap' in plants
  - (F) Short day plants and long day plants
  - (G) Biological clock. 1×7=7
2. Comment upon "Transpiration is a necessary evil". 7
3. Describe passive and active uptake of ions in plants. 7

4. Discuss the mechanism of mineral absorption by cytochrome pump hypothesis. 7
5. Distinguish between Photosystem I and II. 7
6. Write notes on :
  - (A) Kranz anatomy 3
  - (B) Hatch slack cycle. 4
7. Differentiate between C<sub>3</sub> and C<sub>4</sub> plants. 7
8. Give a detailed account of Calvin cycle. 7
9. Discuss the role of :
  - (A) Cytokinins in leaf senescence 3
  - (B) Auxins in apical dominance 2
  - (C) Abscisic acid in abscission. 2