

Bankura University
B.Sc 4th Semester (Program) Examination,2021
Subject: Botany

Course ID: 41318

Course Code: SPBOT/401/C-1D

Course Title: Plant Physiology & Metabolism

Full Marks:25

Time: 1 h 15 min

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as per as practicable.

UNIT I

1. Answer any five questions from the following : **1×5=5**

- a. What is the full name of PGRs?
- b. State two functions ethylene in plant metabolism.
- c. What are antenna molecules?
- d. Why C₄ plant is so called?
- e. State two functions of auxin in plant growth.
- f. Name one symbiotic and one non symbiotic N₂fixer.
- g. Define vernalization.
- h. What is substrate level phosphorylation?

UNIT II

2. Give brief answers to any two of the following: **5×2=10**

- a. Describe briefly the transpiration pull theory in plants. (5)
- b. Describe the process of phloem loading and unloading process. (5)
- c. Describe briefly the CAM mode of carbon fixation . (5)
- d. Describe briefly the properties of enzyme. (5)

UNIT III

3. Answer any one question from the following : **1×10=10**

- a. What is glycolysis? Describe TCA cycle in details. (2+8)
- b. Classify plants on the basis of photoperiodism. Describe the role of phytochrome in flowering. (4+6=10)