

M.Sc. (Botany) (CBCS Pattern) Semester-II
PSCBOTT05 - Paper-V - Plant Physiology and Biochemistry

P. Pages : 1

Time : Three Hours



GUG/S/25/11195

Max. Marks : 80

- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw diagrams wherever necessary.

1. Describe the Mechanism and Significance of C_3 and C_4 pathway of Photosynthesis in detail. 16

OR

Write notes on-

- a) Photorespiration. 8
b) ATP Synthesis in Mitochondria. 8

2. What is Respiration? Describe its substrate, types and mechanism in detail. 16

OR

Write notes on-

- a) Oxidative pentose phosphate pathway. 8
b) Plant mitochondrial electron transport. 8

3. What is nitrogen fixation and describes types giving special emphasis on Biological Nitrogen fixation by symbiotic bacteria. 16

OR

Write notes on-

- a) General classification and synthesis of starch and sucrose. 8
b) GS/GOGAT Cycle. 8

4. What is Enzyme? Describe its nomenclature, classification, properties and mechanism of action. 16

OR

Write notes on-

- a) Source and sink mechanism for phloem. 8
b) Mechanism of water transport through xylem. 8

5. Write short notes on-
- a) Photo protective mechanism. 4
b) Factor affecting the rate of Respiration. 4
c) Synthesis of membrane lipids. 4
d) Enzyme- Activators & Inhibitors. 4
