

B.Sc. (CBCS Pattern) Semester - III
012B - Botany Paper-II : Plant Biochemistry and Physiology

P. Pages : 2

Time : Three Hours



GUG/S/23/11599

Max. Marks : 50

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

1. Write notes on :
- a) Structure of polysaccharides. 5
 - b) Properties of fatty acids. 5

OR

Write short notes on :

- c) Aldoses and Ketoses. 2½
- d) Phospholipids 2½
- e) Structure of amino acid 2½
- f) Primary structure of protein 2½

2. Write notes on :
- a) Characteristics of enzymes. 5
 - b) Biological nitrogen fixation. 5

OR

Write short notes on :

- c) Deficiency symptoms of macronutrients (Any two) 2½
- d) Sources of nitrogen to plants. 2½
- e) Nomenclature of enzymes (IUB System) 2½
- f) Lock and key model. 2½

3. Write notes on :
- a) Describe acent of Sap. 5
 - b) Munch Hypothesis. 5

OR

Write short notes on :

- c) Properties of water 2½

- d) Guttation 2½
- e) Carrier concept 2½
- f) Donnan Equilibrium Theory 2½

4. Write notes on :

- a) Non cyclic photophosphorylation 5
- b) Citric acid cycle 5

OR

Write short notes on :

- c) CAM Pathway 2½
- d) Photosynthetic pigments 2½
- e) Respiratory substrates 2½
- f) Anaerobic respiration 2½

5. Write **any ten** questions in one or two lines (Diagrams are not necessary) **10**

- a) Monosaccharides
- b) Sphingolipids
- c) Peptide bond
- d) Co-enzymes
- e) Bacteroides
- f) Micronutrients
- g) Osmosis
- h) Transpiration
- i) Water potential
- j) Action spectra
- k) R.Q.
- l) E.T.S.
