

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

P. Pages : 2

Time : Three Hours



GUG/W/22/11599

Max. Marks : 50

1. Write on-
- a) Structure of polysaccharides. 5
 - b) Role of carbohydrates 5

OR

Write short notes on-

- c) Uses of fatty acids 2½
- d) Phospholipids 2½
- e) Classification of amino acids 2½
- f) Primary structure of protein 2½

2. Write on-
- a) Nomenclature of enzymes 5
 - b) Mechanism of root nodule formation. 5

OR

Write short notes on-

- c) Sources of nitrogen to plants 2½
- d) Importance of Nitrate Reductase 2½
- e) Deficiency symptoms of Magnesium. 2½
- f) Deficiency symptoms of Iron. 2½

3. Write on-
- a) K⁺ Molate theory. 5
 - b) Ascent of sap (cohesion-adhesion theory) 5

OR

Write short notes on-

- c) Properties of water 2½
- d) Guttation 2½
- e) Munch hypothesis 2½
- f) Active absorption (carrier concept) 2½

4. Write on-

- a) Photosynthetic pigments 5
- b) Factors affecting Respiration. 5

OR

Write short notes on-

- c) CAM pathway 2½
- d) Structure of ATP 2½
- e) Respiratory quotient 2½
- f) Cyclic-Photophosphorylation 2½

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

- a) Sucrose
- b) Aldose
- c) Sterol
- d) Holoenzyme
- e) Cofactor
- f) Macronutrients
- g) Plasmolysis
- h) Transpiration
- i) Passive absorption
- j) C₄ Plants
- k) Aerobic respiration
- l) Red drop
