

Bachelor of Science (B.Sc.) (CBCS Pattern) Third Semester
Botany Paper-II - Plant Biochemistry and Physiology

P. Pages : 2

Time : Three Hours



GUG/W/18/11599

Max. Marks : 50

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

1. Write on:-

- | | |
|-----------------------------------|---|
| a) Classification of amino acids. | 5 |
| b) Polysaccharides. | 5 |

OR

Write short notes on.

- | | |
|----------------------------------|----|
| c) Structure of Glucose. | 2½ |
| d) Uses of fatty acids. | 2½ |
| e) Primary structure of protein. | 2½ |
| f) Phospholipids. | 2½ |

2. Write on:-

- | | |
|---|---|
| a) IUB system of enzyme classification. | 5 |
| b) Biological Nitrogen Fixation. | 5 |

OR

Write short notes on.

- | | |
|--------------------------------------|----|
| c) Properties of enzymes. | 2½ |
| d) Sources of Nitrogen to plants. | 2½ |
| e) Deficiency symptoms of Ca and Mg. | 2½ |
| f) Nitrate Reductase. | 2½ |

3. Write on:-

- | | |
|----------------------------|---|
| a) Types of Transpiration. | 5 |
| b) Water potential. | 5 |

OR

Write short notes on:-

- | | |
|-------------|----|
| c) Osmosis. | 2½ |
|-------------|----|

- d) Guttation. 2½
- e) Carrier concept. 2½
- f) Munch hypothesis. 2½

4. Write on:-

- a) Red drop and Emerson enhancement effect. 5
- b) Glycolysis. 5

OR

Write short notes on.

- c) Action Spectra. 2½
- d) Types of photophosphorylation. 2½
- e) Structure of ATP. 2½
- f) ETS in Respiration. 2½

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

- a) Peptide bond.
- b) Waxes.
- c) Ketoses.
- d) Holoenzyme.
- e) Micro-nutrients.
- f) Chlorosis.
- g) Plasmolysis.
- h) Diffusion.
- i) Fixed ions.
- j) Photosynthetic pigments.
- k) R.Q. of lipids.
- l) Metabolic water.
