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(i) Photorespiration

(j) Red drops

(k) C-4 plants

(l) Nitrate reductase.

TKN/KS/16/5889

Bachelor of Science B.Sc. Semester–V (C.B.S.) Examination

BIOCHEMISTRY AND PLANT PHYSIOLOGY–I

Botany Paper—I

Time—Three Hours] [Maximum Marks—50

N.B. :— (1) **ALL** questions are compulsory and carry equal marks.

(2) Illustrate your answers with suitable examples and/or diagrams wherever necessary.

1. Write on :

(a) Nomenclature of enzymes 5

(b) Lock-key and induced fit model of enzyme action. 5

OR

Write short notes on :

(c) Structure of glucose 2.5

(d) Role of carbohydrate 2.5

(e) Properties of enzyme 2.5

(f) Holo enzyme. 2.5

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2. Write on :

(a) Cohesion-adhesion theory 5

(b) k^+– malate hypothesis 5

OR

Write short notes on :

(c) Properties of water 2.5

(d) Diffusion 2.5

(e) Osmosis 2.5

(f) Munch mass flow hypothesis 2.5

3. Write on :

(a) ß–oxidation 5

(b) Glycolysis 5

OR

Write short notes on :

(c) Role of N and P 2.5

(d) Glyoxylate Cycle (outline only) 2.5

(e) Alcoholic fermentation 2.5

(f) Respiratory Quotient (RQ) 2.5

4. Write on :

(a) Calvin cycle 5

(b) Symbiotic nitrogen fixation 5

OR

Write short notes on :

(c) Emerson enhancement effect 2.5

(d) Hill's reaction 2.5

(e) Cyclic photophosphorylation 2.5

(f) CAM-pathway. 2.5

5. Write in **TWO** or **THREE** lines only (any **TEN**). Diagrams are not necessary. 1×10=10

(a) Peptide bond

(b) Oils

(c) Sterols

(d) Imbibition

(e) D.P.D.

(f) Water potential

(g) Micronutrients

(h) ATP

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