

E-Content Module for B.Sc. General (Botany) Fifth Semester

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Paper A: Plant Physiology I (0454)

Objective: The basic aim of this paper is to familiarize the students with various concepts of functions and metabolism of plants.

UNIT – I

Plant Water Relations: Imbibition, diffusion, osmosis, concept of osmotic potential, water potential and pressure potential, plasmolysis and de-plasmolysis.

Lecture Video Links:

Imbibition:

https://drive.google.com/file/d/1eOvVDutVwAfN7Xm8lhItEq_58Fjhes2X/view?usp=sharing

Diffusion:

https://drive.google.com/file/d/14-NQULWcs0gmfhqPtGuinJ2LCQjvpuf_/view?usp=sharing

Osmosis:

<https://drive.google.com/file/d/1n9IFsC9XrR0j47L0dSCBrwziaHosWKti/view?usp=sharing>

Concept of Solute potential, water potential and pressure potential:

<https://drive.google.com/file/d/1AG2MoXcjINxZzRqK0sHxtcxkH4s3MFRJ/view?usp=sharing>

Osmotic Relations of Plant Cell:

<https://drive.google.com/file/d/1AxFJMqy864CQBxWxgSy2g1emsjy39ieM/view?usp=sharing>

Plasmolysis and De-Plasmolysis:

<https://drive.google.com/file/d/1iP-5U2pOr8ADaib9SDjp0NseZjseq3gx/view?usp=sharing>

E-Notes:

https://drive.google.com/file/d/1RnZWbgFZPAkPXcm_P4En5yEoXOMfD63L/view?usp=sharing

Glossary:

https://drive.google.com/file/d/1QbRU81hFNDWDH1tTtP6f0_evzO86_D8K/view?usp=sharing

References & Suggested Readings:

- Bhatia, K.N. Plant Physiology- A Modern Treatise, Trueman Book Co. Jalandhar, 2015.
- Hopkins, W.G. Introduction to Plant Physiology. John Wiley & Sons, Inc. New York, U.S.A., 1995.
- Taiz, L. and Zeiger, E. Plant Physiology (5th edition), Sinauer Associates, Inc., Publishers, Massachusetts, USA, 2010.
- <https://egyankosh.ac.in/handle/123456789/16368>

Self-assessment (Exercise/Practice Questions):

https://drive.google.com/file/d/1MQKSXPB_IytSXsmG-ZTNg0RkAs6XY36k/view?usp=sharing