Quadrant II – Transcript and Related Materials

Programme: Bachelor of Science (Second Year)

Subject: Botany

Paper Code: BOC 104

Paper Title: Plant Physiology

Unit: 01

Module Name: Factors Affecting Transpiration

Module No: 08

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Glossary of terms/words:

- Atmospheric humidity: is the amount of water vapour carried in the air.
- Atmospheric pressure: is the force exerted against a surface by the weight of the air above the surface.
- **Magnitude**:- great size or extent
- **Soil water:** Soils can process and hold considerable amount of **water**. They can take in water, and will keep doing so until they are full.
- **Xerophytes**: is a species of plant that has adaptations to survive in an environment with little liquid water, such as a desert or an ice- or snow-covered region in the Alps or the Arctic.
- **Stomatal Transpiration:** It is the evaporation of water from the stomata of the plants. Most of the water from the plants is transpired this way. The water near the surface of the leaves changes into vapour and evaporates when the stomata are open.
- Lenticular Transpiration: Lenticels are minute openings in the bark of branches and twigs. Evaporation of water from the lenticels of the plants is known as lenticular transpiration. Lenticels are not present in all the plants. A minimal amount of water is lost through lenticels.

• **Cuticular Transpiration:** - It is the evaporation of water from the cuticle of the plants. The cuticle is a waxy covering on the surface of the leaves of the plants. About 5-10% of the water from the leaves is lost through cuticular transpiration. During dry conditions when the stomata are closed, more water is transpired through the cuticles.