

# **AE-771**

M.Sc. (Previous)  
Term End Examination, 2016-17

## **BOTANY**

Paper - IV

Plant Physiology and Metabolism

*Time : Three Hours] [Maximum Marks : 100*  
*[Minimum Pass Marks : 36*

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**Note** : Answer any **four** questions. All questions carry equal marks. Draw well labelled diagram wherever necessary.

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1. Give an illustrative account on nature, properties of enzyme and its biological significance in Plant Physiology.
2. What is Transpiration ? How is stomata operated ? Mention its various factors affecting this process.
3. What essential elements are necessary for the normal development of green plants ?

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(2)

4. Give a detailed account on Translocation of organic solute in green plant.
5. Write notes on the following :
  - (a) Crassulacean Acid Metabolism
  - (b) Photorespiration and its significance
6. What is Auxin ? Write its mode of action and various practical applications in agriculture.
7. Write short notes on any **two** of the following :
  - (a) T.C.A. Cycle
  - (b) Biological Nitrogen Fixation
  - (c) Photoperiodism and its significance
8. Write notes on the following :
  - (a) Stress Physiology
  - (b) Sensory Photobiology