

**Studies on Physiology and Biochemistry of Swertia chirayita  
(Roxb.) Karsten in Darjeeling Hills: Influence of Plant growth  
substances on growth, metabolism and yield**

**Thesis submitted to the  
University of North Bengal  
for the Award of Doctor of Philosophy  
in  
BOTANY**

**by  
SABINA PRADHAN, M. Sc. (Botany)**

**Supervisor  
Dr. Projjwal Chandra Lama**

**Co-supervisor  
Dr. Subhas Chandra Roy**

**Department of Botany  
University of North Bengal  
June 2015**