



DEPARTMENT OF PHYSICS
UNIVERSITY OF NORTH BENGAL

P.O. NORTH BENGAL UNIVERSITY,
RAJA RAMMOHUNPUR :: DT. DARJEELING
WEST BENGAL, INDIA, PIN-734430
Phone : 414 (Bag)

This is to certify that the research work reported in this thesis entitled "Studies of structure and properties of liquid crystals" by Mrs. Aparna Nath has been carried out under joint supervision and guidance of myself and Dr. Basana Chaudhury, Lecturer, R. E. College, Silchar. She has fulfilled all the requirements for the Ph.D degree of the University of North Bengal. Some part of the research work presented in this dissertation has been performed in collaboration with others. However, major work has been performed by her and her contribution is very substantial. In character and disposition Mrs. Aparna Nath is fit to submit the thesis for Ph.D degree.

Sukla Paul

(Sukla Paul)