



**UNIVERSITY OF NORTH BENGAL
DEPARTMENT OF CHEMISTRY**

P.O. NORTH BENGAL UNIVERSITY, RAJA RAMMOHUNPUR, DIST. DARJEELING, WEST BENGAL, INDIA, PIN - 734 013.
PHONE : (0353) 2776 381, FAX : (0353) 2699 001

Ref. No.

Dated20.....

CERTIFICATE

I certify that Mr. Prasanjit Ghosh has prepared the thesis entitled **Synthesis of functionalized 4-quinolones and their reactions: Approaches towards bioactive molecules** for the award of Ph.D. degree of the University of North Bengal, under my guidance. He has carried out the work at the Department of Chemistry, University of North Bengal. No part of this thesis has formed the basis for the award of any degree or fellowship previously.

Dr. Sajal Das

Assistant Professor

Department of Chemistry

University of North Bengal

Darjeeling-734013

West Bengal

India

DATE: 05-03-2017

*Assistant Professor
Department of Chemistry
University of North Bengal
Darjeeling - 734013, India*