

UNIVERSITY OF NORTH BENGAL DEPARTMENT OF CHEMISTRY

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CERTIFICATE

I certify that **Smt. Neelam Rai** has prepared the thesis entitled *Greener synthesis and* **1,3-Dipolar cycloaddition reactions of a amino nitrones and studies of biological activities of the cycloadducts,** for the award of PhD degree of the University of North Bengal, under my guidance. She has carried out the work at the Department of Chemistry, University of North Bengal.

Professor Pranab Ghosh Department of Chemistry University of North Bengal Raja Rammohunpur

Dist.: Darjeeling

Professor
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University of North Bengal
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SIKKIM GOVERNMENT COLLEGE

(A DEEMED STATE UNIVERSITY)

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Ref no: SGC/Chem/PhD-05

21/09/2017

CERTIFICATE

I certify that Ms. Neelam Rai has prepared the thesis entitled "Greener synthesis and 1,3-Dipolar cycloaddition reactions of α amino nitrones and studies of biological activities of the cycloadducts" for the award of Ph.D degree of the University of North Bengal, Siliguri, West Bengal under my guidance. She has carried out the entire research work under my supervision at the Organic Chemistry Laboratory, Sikkim Government College, Gangtok.

This is also to certify that the research work is *original and completely new*.

I wish her all the success in completion of her *Ph.D programme*.

Bhaskar Chakrabarly Bhaskar Chakrabarly

(21/09/2017)

Dr. Bhaskar Chakraborty (Co-Supervisor)

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Signature of Candidate

Signature of Supervisor

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000 21-11-2017 Signature of HOD Department of Chemistry University of North Bengal

Head Department of Chemistry University of North Bengal Darjeeling - 734013, India