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CERTIFICATE OF THE PRINCIPAL SUPERVISOR

This is to certify that the thesis entitled *“Exploration of Target Oriented Ionic Liquid Based Systems as Efficient Catalysts for Synthesis of N-Heterocycles, 5-Hydroxymethylfurfural and Functionalized Alkenes”* submitted to the *School of Sciences*, Tezpur University in partial fulfillment for the award of the degree of Doctor of Philosophy in *Chemical Sciences* is a record of research work carried out by Ms. Pinky Gogoi under my supervision and guidance.

All helps received from various sources have been duly acknowledged.

No part of this thesis has been submitted elsewhere for award of any degree.

Date:

Place: Tezpur University

(Ruli Borah)

Professor

School of Sciences

Department of Chemical Sciences

Tezpur University



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CERTIFICATE OF THE EXTERNAL EXAMINER AND ODEC

This is to certify that the thesis entitled *“Exploration of Target Oriented Ionic Liquid Based Systems as Efficient Catalysts for Synthesis of N-Heterocycles, 5-Hydroxymethylfurfural and Functionalized Alkenes”* submitted by Ms. Pinky Gogoi to Tezpur University in the Department of **Chemical Sciences** under the **School of Sciences** in partial fulfillment for the award of the degree of Doctor of Philosophy in **Chemical Sciences** has been examined by us on _____ and found to be satisfactory.

The committee recommends for the award of the Degree of Doctor of Philosophy.

Signature of:

Principal Supervisor

External Examiner

Date:

Date: