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CERTIFICATE OF THE PRINCIPAL SUPERVISOR

This is to certify that the work presented in the thesis entitled “A study on the functional role of ESX-3 Type VII Secretion System in *Mycobacterium smegmatis*” submitted to the School of Sciences, Tezpur University in partial fulfillment for the award of the degree of Doctor of Philosophy in **Molecular Biology and Biotechnology** is a record of research work carried out by **Ms. Yutika Nath** under the supervision and guidance jointly with Professor Suvendra Kumar Ray, Department of Molecular Biology and Biotechnology, Tezpur University. She has fulfilled the requirements of the rules and regulations related to the nature and prescribed period of research at Tezpur University.

All helps received from various sources have been duly acknowledged.

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

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Certificate of the External Examiner and ODEC

This is to certify that the thesis entitled “**A study on the functional role of ESX-3 Type VII Secretion System in *Mycobacterium smegmatis***”, submitted by **Ms. Yutika Nath**, **Department of Molecular Biology and Biotechnology, School of Sciences to Tezpur University** in partial fulfillment for the award of the degree of **Doctor of Philosophy in Molecular Biology and Biotechnology** has been examined by us on _____ and found to be satisfactory.

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

Principal Supervisor
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Co-supervisor
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External Examiner
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Date _____

Date: _____

Date: _____