Dedicated to my family

(Maa, Deuta, Ba, Vindeo, and Luvli)

DECLARATION BY THE CANDIDATE

I, Satyajit Gayan, hereby declare that the subject matter in this thesis entitled, **"Contributions to Congruences for Generalized Frobenius Partitions and Dissection of Euler Product",** is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other university/institute.

This thesis is being submitted to the Tezpur University for the degree of Doctor of Philosophy in Mathematical Sciences.

Place: Tezpur

Date: 19-09-2025 **Signature of the candidate**

TEZPUR UNIVERSITY

Dr. Bipul Kumar Sarmah

Department of Mathematical Sciences

Napaam–784028, Assam, India

Phone: +91-03712-27-5516(Ex. 5506)

+919435081058(M)

E-mail: bipul@tezu.ernet.in

CERTIFICATE OF THE SUPERVISOR

This is to certify that the thesis entitled **"Contributions to Congruences for Generalized Frobenius Partitions and Dissection of Euler Product"**, submitted to the School of Sciences of Tezpur University in partial fulfillment for the award of the degree of Doctor of Philosophy in Mathematical Sciences is a record of research work carried out by **Mr. Satyajit Gayan** under my supervision and guidance.

All help received by him from various sources have been duly acknowledged.

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

Place: Tezpur

Date: 19-09-2025

(Dr. Bipul Kumar Sarmah)

Assistant Professor

Department of Mathematical Sciences

School of Sciences

Tezpur University, Assam

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(Satyajit Gayan)