

**DEVELOPMENT OF NEW ROUTES FOR SYNTHESIS
OF SUBSTITUTED [6,5], [6,7] FUSED AND SPIRO
HETEROCYCLES**

**A THESIS SUBMITTED IN FULFILLMENT OF THE
REQUIREMENT FOR THE
DEGREE OF
DOCTOR OF PHILOSOPHY**

**BY
RAMEN JAMATIA, *M. Sc.***

***DEPARTMENT OF CHEMISTRY
CENTRE FOR ADVANCED STUDIES
SCHOOL OF PHYSICAL SCIENCES
NORTH-EASTERN HILL UNIVERSITY
SHILLONG – 793022, INDIA
JUNE, 2017***

**DEVELOPMENT OF NEW ROUTES FOR
SYNTHESIS OF SUBSTITUTED [6,5], [6,7] FUSED
AND SPIRO HETEROCYCLES**

**A THESIS SUBMITTED IN FULFILLMENT OF THE
REQUIREMENT FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY IN CHEMISTRY**

BY

RAMEN JAMATIA, *M. Sc.*

(REG. No. 2060 OF 12.10.12)

SUPERVISOR

Dr. AMARTA KUMAR PAL



***DEPARTMENT OF CHEMISTRY
CENTRE FOR ADVANCED STUDIES
SCHOOL OF PHYSICAL SCIENCES
NORTH-EASTERN HILL UNIVERSITY
SHILLONG – 793022, INDIA
JUNE, 2017***