## CONTRIBUTIONS TO IDENTITIES FOR THE ROGERS-RAMANUJAN CONTINUED FRACTION, ARITHMETIC PROPERTIES OF CERTAIN RESTRICTED PARTITION FUNCTIONS, AND THE LEAST r-GAPS IN PARTITIONS

## A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY

BY
PRANJAL TALUKDAR
Roll No. MSP21105
(Reg. No. TZ200416)

