Declaration

I hereby declare that:

- (i) the thesis comprises only my original work towards the Ph.D except where indicated,
- (ii) due acknowledgment has been made in the text to all other materials used,
- (iii) this work has not formed the basis for the award of any degree, diploma, associateship or similar title of any University or Institution.

muld

Mittal K. Patel Department of Applied Mathematics Faculty of Technology & Engineering The M. S. University of Baroda Vadodara -390 002