

DEPARTMENT OF BIOCHEMISTRY FACULTY OF SCIENCE THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA VADODARA - 390 002, GUJARAT, INDIA

CERTIFICATE

STATEMENT UNDER 0. PH.D.8/ (III) OF THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA, VADODARA.

This is to certify that the work incorporated in this thesis entitled "Genetic modification strategies in Rhizobia to combat abiotic stress in legumes" is based on original contribution of the research work carried out by Mr. Dave Akash Ashok towards the degree of Doctor of Philosophy (Ph.D.) in Biochemistry under my guidance and supervision. The work accomplished in the thesis is original and with innovative findings. This work or any part of it is not submitted for any other degree, diploma, unless otherwise stated. Whatever references have been made, to work of others, has been clearly indicated and included in the references. Materials and help obtained from various sources have been duly acknowledged in the thesis. The thesis appraises an original work gratifying the criteria more excellently for the award of degree.

Date: 3 05 203 Place: Vadodara

Prof. P ipa Robin (Ph.D. Supervisor)