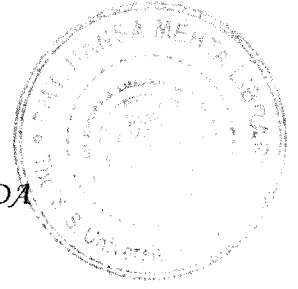


*DEPARTMENT OF EDUCATION
CENTRE OF ADVANCED STUDY IN EDUCATION
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA
VADODARA*



CERTIFICATE

This is to certify that the research work entitled, "Development and implementation of an activity based science teaching programme for pre-service student teachers" submitted by Mrs. Jyotsna A. Amin to the Maharaja Sayajirao University of Baroda, Vadodara, Gujarat for the degree of Doctor of Philosophy in Education is a record of bonafide original research work carried out by her under my supervision and guidance. The results embodied in the same have not been submitted elsewhere for the award of any degree or diploma. It is further stated that the doctoral research was carried out fulfilling the requisite attendance criteria as per O. Ph.D.: 3(i) of the Maharaja Sayajirao University of Baroda, Vadodara, Gujarat.

*April 2011
Vadodara*

*Dr. R.C. Patel
Guide*