



**CENTRE OF ADVANCED STUDIES IN EDUCATION (CASE)**  
DEPARTMENT OF EDUCATION  
FACULTY OF EDUCATION AND PSYCHOLOGY  
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA,  
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**Date:** 22/09/2016

### **CERTIFICATE**

*This is to certify that the thesis entitled 'TEACHING BIOLOGY AT SENIOR SECONDARY LEVEL THROUGH CONSTRUCTIVIST APPROACH' submitted by Sunil Kumar is a record of research work carried out by him for the Degree of Doctor of Philosophy under my guidance. Also, the thesis has not formed the basis for award of any other Diploma, Degree, Fellowship or other similar titles and that the thesis represents an independent endeavor on the part of Sunil Kumar, under my guidance. No portion of this thesis is a reproduction from any other source, published or unpublished without acknowledgement.*

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22<sup>nd</sup>, September, 2016

(Prof. Ashutosh Biswal)

Place: Vadodara Guide