## CERTIFICATE

This is to certify that the dissertation entitled as "Bioavailability of metals in the mudflat sediments and their bioaccumulation in the edible bivalve, *Saccostrea cucullata* at the Chapora Estuary to understand metal toxicity" is a bonafide and an authentic record of the research carried out by Ms. Apurva Deepak Bhatkhande, Student of M.Sc. Marine Science, under my supervision and guidance at the School of Earth, Ocean and Atmospheric Sciences, Goa University, Goa, in partial fulfillment of the requirement of M.Sc. Marine Science Degree of the University and that no part has been submitted before for any other degree or diploma in any other University.

Date: 12/08/2020

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## BIOAVAILABILITY OF METALS IN THE MUDFLAT SEDIMENTS AND THEIR BIOACCUMULATION IN THE EDIBLE BIVALVE, Saccostrea cucullata AT THE CHAPORA ESTUARY TO UNDERSTAND METAL TOXICITY



Dissertation
Submitted To

## **GOA UNIVERSITY**

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF

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IN

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BY

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