

Office of the Department of Geography Vidyasagar University

West Medinipur- 721102 Telephone: Office: (03222) 276554. Extension 447

Ref. No.: Date: 08.10.2020

CERTIFICATE

This is to certify that Abhinanda Bal, Department of Geography, Vidyasagar University has carried out the Ph.D. research entitled "Assessment of Beach Stage and Dune Stage Dynamisms for Sustainable Management of Coastal Development Projects – A Study at Mardarmani Coast" under my supervision within the time period from 28th April, 2014 to 8th October, 2020 (with one year PhD extension) under the new Ph.D. regulation of this University and in accordance with UGC regulations, 2009.

The present work done by Abhinanda Bal, is an original research work carried out by the candidate herself and findings for this research have not been used for any other thesis submitted in any University. The result of the Ph.D. research will highlight the basis behind the threats of environmental change, geomorphic dynamism and livelihood diversity throughout the stretch of Mandarmani coast of West Bengal, India which will determine the future of tourism sector. This is the product of a multidisciplinary research work.

I wish her every success in her life.

08.10.2020 Dr. Ashis Kumar Paul

(Supervisor)

Professor Department of Geography Vidyasagar University

Dr. Ashis Kumar Paul Professor

Department of Geography & Environment Management

VIDYASAGAR UNIVERSITY Midnapore-721102, W.B.