

# UNIVERSITY OF NORTH BENGAL

Accredited by NAAC with Grade A

*Dr. Dilip K. Sarkar*  
REGISTRAR



ENLIGHTENMENT TO PERFECTION

Phone: (0353) 2699-008 (Office)  
Fax: (0353) 2776 313  
Visit us at <http://www.nbu.ac.in>  
E-mail: [regnbu@sancharnet.in](mailto:regnbu@sancharnet.in)  
[regnbu@nbu.ac.in](mailto:regnbu@nbu.ac.in)

Ref. No. 491/R-26

Date: 16.09.2020

## PROVISIONAL CERTIFICATE

To,  
Sri Debarghya Goswami,  
C/o. Prof. P.K. Mandal,  
Dept. of Physics, NBU.

Sir,

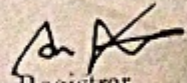
This is to certify that based on adjudication reports of the Board of Examiners, and on the basis of the recommendation of Board of Examiners on the *Viva-voce* Examinations of the undernoted thesis, you have been awarded the **Degree of Doctor of Philosophy in Physics (Faculty of Science)** of University of North Bengal on **15/09/2020** as per **UGC Regulations, 2009** relating to Ph.D. and in accordance with the provisions of the Ordinances of the University relating to Ph.D.

You shall be provided with the ceremonial certificate in the immediately next Convocation of the University.

Yours faithfully,

### TITLE OF THE THESIS:

**"STUDIES ON SOME BIPHENYL BENZOATE BASED  
CHIRAL LIQUID CRYSTAL COMPOUNDS"**

  
Registrar  
University of North Bengal