



Project Report on

## EXTRACTION AND CHARACTERIZATION OF NATURAL POLYMER AND ITS IMPLICATION AS RELEASE RETARDANT FOR MICROSPHERIC **DRUG DELIVERY**

Submitted by ADARSHA DUTTA

University Regn. No. -221892310001 of 2022-23 Roll No. - 18921822001

Under the guidance of

PROF. (DR.) SANTANU CHAKRABORTY M Pharm., Ph.D. FIC **Professor and Divisional In-charge of Pharmaceutics** 

In partial fulfilment of the Requirement for the Degree of Master of Pharmacy in Industrial Pharmacy

Submitted to

Maulana Abul Kalam Azad University of Technology West Bengal

Dr. B. C. Roy College of Pharmacy and Allied, Health Sciences Durgapur 713206

Academic Year: 2023 - 2024

## DECLARATION

I hereby declare that the Project entitled "Extraction and characterization of natural polymer and its implication as release retardant for microspheric drug delivery" in partial fulfilment of the requirement for the award of Master of Pharmacy submitted to Maulana Abul Kalam Azad University of Technology, West Bengal, is an authentic record of bona fide work carried out by me under the guidance of Prof. (Dr.) Santanu Chakraborty.

The matter embodied in this Project has not been submitted for the award of any other degree or diploma to any University / Institution.

Adarsha Dutta

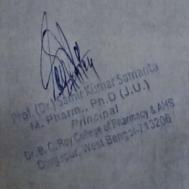
Name of Candidate: Adarsha Dutta

Roll No:: 18921822001

Date: 05/06/29

Place: Dr. B. C. Roy College of Pharmacy And Allied Health Sciences (Durgapur)





## CERTIFICATE

This is to certify that the Project entitled "Extraction and characterization of natural polymer and its implication as release retardant for microspheric drug delivery" by Adarsha Dutta in partial fulfilment for the MASTER OF PHARMACY (INDUSTRIAL PHARMACY) under MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY is a record of the original research work under our supervision and up to our satisfaction. To our knowledge, neither this thesis nor any part of it has been submitted for any other academic award anywhere before. The thesis is forwarded to Controller of Examination MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY for assessment.

| Gomlemu             | Chalorebor | hg. 106/24 |
|---------------------|------------|------------|
| Ganlemu Chalozerbar |            | 0021       |

Name of Guide: Prof. (Dr.) Santanu Chakraborty

Prof. (Dr.) Santanu Chakraborty

Date:

M. Pharm., Ph.D., FIC

DIC, Pharmaceutics Division Place

Dr. B. C. Roy College of Pharmacy and AHS

Bidhannagar, Durgapur-713206

PROF (DR.) SAMIR KR. SAMANTA

(PRINCIPAL)

Prof. (Dr.) Samir Kumar Samanta M. Pharm., Ph.D (J.U.) Principal

Dr. B. C. Roy College of Pharmacy & AHS Durgapur, West Bengal-713206

Place:

Date:

Signature

Name of External Examiner

Place