Dr. Pradeep Kr. Das Mohapatra

Associate Professor & Head Department of Microbiology and Director Environment Conservation Centre



RAIGANJ UNIVERSITY

Raiganj - 733134 Uttar Dinajpur West Bengal, India

Certificate

This is to certify that the nevised thesis entitled "Studies on acidophilus amylase from newly isolated soil fungus and its potential application in starch sacchanification" submitted by Riddha Muchenjee for the award of Ph.D. Degree in Microbiology, Faculy of Science, Vidyasagar University, is a record of bonafide investigation carried out/completed by her under joint supervision of orgself and frotessor Bikas Ranjan Poti (Rtd.), Separtment of Microbiology, Vidyasagar University.

This is further to certify that, the candidate has duly incorporated all the necessary corrections suggested by the Adjudicator. She has followed the rules and regulations as laid down by the University. The results are original and have not been submitted anywhere for any other Degree or superior and sources of information availed apploma. The assistance, help and sources of information availed during the course of investigation have been duly acknowledged.

(Sn. P. K. Bas Mohapatra) Supervisor

Dr. P.K. Das Mohapatra Associate Professor & Head Department of Microbiology Raiganj University, Raiganj-733134, U/D., W.B.



Phone: (91) 03222-276554 / 55, Ext. - 477

**Tax* (91) 03222 - 275329 / 244538
e-mail. mscrobiology@mail.vidyasazar.ac in

**cobate*: www.vidyasazar.ac in

Ref 1'U/PG/MICRO/

-Date:

CERTIFICATE

This is to certify that the revised thesis entitled "Studies on acidophilus amylase from newly isolated soil fungus and its potential application in starch saccharification" submitted by Riddha Mukherjee for the award of Ph.D. degree in Science (Microbiology) by Vidyasagar University, Midnapore, is a record of bonafide research work carried out under joint supervision of myself and Dr. Pradeep Kumar Das Mohapatra, Associate Professor, Department of Microbiology, Raiganj University.

This is to further certify that the candidate has duly incorporated all the necessary correctness suggested by the adjudicator. The candidate has followed all the rules and regulations as laid down by the university. The results are original and have not been submitted anywhere for any other degree or diploma. The assistance and sources of information availed during the course of investigation have been duly acknowledged.

> SUPERVISOR Prof. Bikas Ranjan Pati (Rtd.)

> > Dr. Bikasranjan Pati Professor Department of Microbiology VIDYASAGAR UNIVERSITY Midnapore - 721 102., W. B.



Phone: (91) 03222-276554 / 55, Ext. - 477 Fax (91) 03222 - 275329 / 264338 e-mail: microbiology@mail.vidyasagar.ac.in website: www.vidyasagar.ac.in

Ref. VU/PG/MICRO/

Date:

CERTIFICATE

This is to certify that the thesis entitled "Studies on acidophilus amylase from newly isolated soil fungus and its potential application in starch saccharification", submitted by Riddha Mukherjee to Vidyasagar University, Midnapore, West Bengal is a record of bonafide research work under joint supervision of myself and Dr. Pradeep Kumar Das Mohapatra, Associate Professor, Department of Microbiology, Raiganj University and I consider it worthy of consideration for the award of the degree of Doctor of Philosophy of the University.

> Supervisor: Prof. Bikas Ranjan Pati (Rtd.) Date:

> > Dr. Bikasranjan Pati Refd. Professor Department of Microbiology VIDYASAGAR UNIVERSITY Midnapore - 721 102., W. B.



Dr. Pradeep Kr. Das Mohapatra

Associate Professor & Head Department of Microbiology and Director Environment Conservation Centre



RAIGANJ UNIVERSITY

Raiganj - 733134 Uttar Dinajpur West Bengal, India

Certificate

This is to certify that the thesis entitled "Studies on acidophilus amylase from newly isolated soil fungus and its potential application in starch saccharification" submitted by Riddha Mukherjee for the award of Ph.D. Degree in Microbiology, Faculty of Science, Vidyasagar University, is a record of bonafide investigation carried out and completed by her under joint supervision of myself and Professor Bikas Ranjan Pati (Rtd.), Department of Microbiology, Vidyasagar University. She has followed the rules and regulations as laid down by the University (Ph.D. Regulation, 2009). The results are original and have not been submitted anywhere for any other Degree or Diploma. The assistance, help and sources of information availed during the course of investigation have been duly acknowledged.

(Dr. P. K. Des Mahapatra)

Ph.D. Supervisor Associate Professor & Head Department of Microbiology