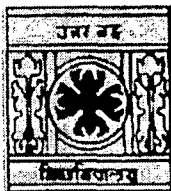


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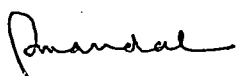
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(TO WHOM IT MAY CONCERN)

This is to certify that the research work reported in this thesis entitled "Investigation on The Properties of Few Thermotropic Liquid Crystalline Systems" by Mr. Pranab Kumar Sarkar has been carried out by the candidate himself under my supervision and guidance. He has fulfilled all the requirements for the submission of the thesis for Ph.D. degree of the University of North Bengal. A small portion of the research work presented in this dissertation has been performed in collaboration with others. Most of the work has been performed by him and his contribution is very substantial. In character and disposition Mr. Pranab Kumar Sarkar is fit to submit the thesis for Ph.D. degree.

Date: 11.7.2003


(Dr. Pradip Kumar Mandal)
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*'There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy.'*

William Shakespeare, *Hamlet* (Act I, Scene V)