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**CERTIFICATE**

This is to certify that the thesis entitled "Studies on complexation of Humic Substances with metals and their effects on Bioavailability and Toxicity of metals in the Mangrove environment of Sundarbans, India" is the bonafide record of research carried out by Sri Haridas Ghatak, M. Sc. in partial fulfillment of the requirement for the Ph. D. degree in Chemistry of Calcutta University and no part thereof has been presented previously for any other degree under any university.

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