



Department of Chemistry
Guru Nanak Dev University
Amritsar - 143005, India

Ph.: 091-(183)-2258802-9 Ext. 3202 (O)
091-(183)-2522652 (R)
Fax: 091-(183)-2258820 (O)
e-mail: vanmanan@yahoo.co.in

Dr. Vandana Bhalla
(Assistant professor)

CERTIFICATE

The work included in the thesis entitled “**Studies in the Synthesis and Photophysical Behaviour of Discoidal Materials**” submitted to **Faculty of Sciences**, Guru Nanak Dev University, Amritsar for the degree of Doctor of Philosophy, was carried out by **Mr. Hardev Singh** at the Department of **Chemistry**, Guru Nanak Dev University, Amritsar, under our supervision. This is an original work and has not been submitted in part or full for any other degree/diploma at this or any other university/institute. This thesis is fit to be considered for the award of degree of Ph. D.

Supervisor

Dr. Vandana Bhalla
(Assistant professor)

Co-supervisor

Dr. Manoj Kumar
(Professor)

Dated: