

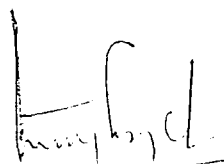
(ii)

FORM 'A'

CERTIFIED that the work incorporated in the thesis "*An Investigation on Evaluation and Optimisation of Process Parameters in Flow Forming of Sheetmetal Cones*" submitted by *Shri Prabal Kumar Roy* was carried out by the candidate under my supervision/ guidance. Such material as has been obtained from other sources has been duly acknowledged in the thesis.

PUNE

Dated 12 June, '97



(Dr. H. BAGCHI)

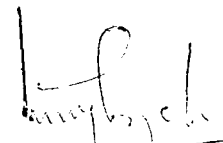
Scientist 'F'

**Mechanical Engineering Research
& Development Organisation,
PUNE - 411008**

(iii)

SUPERVISOR'S CERTIFICATE

This is to certify that the thesis entitled "*An Investigation on Evaluation and Optimisation of Process Parameters in Flow Forming of Sheetmetal Cones*", being submitted by *Shri Prabal Kumar Roy*, for the award of the degree of *Doctor of Philosophy (Ph.D) in Mechanical Engineering* of the University of Pune, is a record of bonafide research work carried out by him under my supervision and guidance. The work was carried out in *Armament Research & Development Establishment (ARDE)*, Pune and *Mechanical Engineering Research and Development Organisation (MERADO)*, Pune. He has worked on the problem for the last five years since August, 1991 and the thesis, in my opinion, is worthy of consideration for the award of the degree of Doctor of Philosophy (Ph.D) in Mechanical Engineering in accordance with the regulation of the University. The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree or diploma.



(Dr. H. BAGCHI)

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Dated 12 June, '97