## **CERTIFICATE**

It is certified that the work contained in the thesis titled "STUDIES ON SOME STATE DEPENDENT BULK SERVICE QUEUES WITH BALKING OR QUEUE LENGTH DEPENDENT VACATION" by GOPAL KUMAR GUPTA has been carried out under our supervision and that this work has not been submitted elsewhere for a degree.

It is further certified that the student has fulfilled all the requirements of Comprehensive Examination, Candidacy and SOTA for the award of Ph.D. Degree.

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