

PREFACE

The present thesis entitled “Certain Discussions in the Summability of Series and Approximation” is being resubmitted after revision in the light of the suggestions provided by the examiner. I am thankful to the honourable examiner for his valuable suggestions regarding improvement in the several chapters.

I am also grateful to my honourable Sir, Dr. V.N. Tripathi, Retired Associate Professor in Mathematics, SBPG College, Baragaon, Varanasi for his generous guidance in completing the work accordingly.

At present , there are seven chapters in this revised form of the thesis. Chapter I, being introductory, contains a brief account of the existing results having interconnections with subsequent investigations thereafter in several chapters. Chapter II deals with a theorem on $K^\lambda(C,1)$ summability of Fourier series while Chapter III contains a theorem on (E,q) $(C,1)$ summability of a Fourier series. Chapter IV is devoted to the study of $|C,1|$ summability factors of Fourier Hermite series. In Chapter V, a study on the degree of approximation to a function belonging to the class $Lip \alpha$ ($0 < \alpha \leq 1$), by $K^\lambda(E,1)$ means of its Fourier series has been performed while in Chapter VI,

a result has been obtained for the degree of approximation to a function belonging to the class $Lip(\xi(t), p)$ by (E, q) means of its Fourier series.

The last chapter VII deals with a theorem on the degree of approximation of Fourier Laguerre series of a function belonging to a certain Banach space.

A complete bibliography of the works, to which references have been made, has been given in the end.

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