



MSc MATHEMATICS







A STUDY ON SEMIGROUP THEORY

Dissertation submitted to the University of Kerala in partial fulfillment of the requirement for the award of Degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

Ву

Candidate Code: 62021138002

Exam Code: 62020402

Subject Code: MM245

Year: 2023

This is to certify that the thesis entitled "A STUDY ON SEMIGROUP THEORY", submitted, to the University of Kerala, in partial fullfilment for the award of the degree of Master of Science in Mathematics, is a bonafide record of the research work done by AMEENA B of this department.

Dr. Sibi C.Babu (July and St. Head Head of the Department

Department of Mathematics

St. Johns College, Anchal

Dr. Tony Philip

Supervising Teacher

Department of Mathematics



AVERAGES OF ARITHMETIC FUNCTIONS

Dissertation submitted for the partial fulfillment of requirement for the degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

Ву

Candidate code: 62021138013

Exam Code: 62020402 Subject Code: MM245

Year: 2023

I here by certify that this dissertation here entitled AVERAGES OF ARITHEMATIC FUNCTIONS is a bonafide record of the work carried out by Miss SYAMA M S MSc second year Mathematics student (2021-2023) of this department under my guidance and supervision in the partial fulfillment of the requirements for the Degree of Master Science in Mathematics of the University of Kerala.

D'S

Dr. Dilip.D.S

Head of the Department

Department of Mathematics

July

Dr. Sibi C Babu Asst Professor Supervising Teacher



A STUDY ON p-ADIC NUMBERS AND VALUATION THEORY

Dissertation submitted to the University of Kerala in partial fulfillment of the requirement for the award of Degree of

MASTER OF SCIENCE IN MATHEMATICS



UNIVERSITY OF KERALA

BY

62021138001 CANDIDATE CODE

62020401 **EXAM CODE**

MM 245 SUBJECT CODE

2023

YEAR

THEORY is a bonafide review of the literature on the topic carried out by AKSA KUNJUMON, under my supervision in partial fulfillment of the requirements for the Degree of Master of Science in Mathematics of the University of Kerala and no part of this has been submitted earlier for the award of any Degree.

Dr. LIMNARAJ B.P.

Assistant Professor

Department of Mathematics

St. John's College, Anchal

July

Dr. SIBI C. BABU

Assistant Professor & HOD,

Department of Mathematics

St.John's College, Anchal



Anchal

Date:

BITOPOLOGICAL SPACE

Dissertation submitted for the partial fulfillment of requirement for the degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

Ву

Candidate code : 62021138008

Exam Code

Subject Code : MM 245

Year : 2023

St. John's College, Anchal, Kollam

CERTIFICATE

I hereby certify that this project entitled BITOPOLOGICAL SPACE is a project work carried out by MUHAMMED AFSAL N S under my guidance and supervision, in partial fulfilment of the requirement for the MSc Degree in Mathematics of the University of Kerala and that no part of this work has been submitted for the award of any degree.

Prof. Sibi C Babu

Head of the Department
Department of Mathematics.

LIFER, MERITY X

Dr. Sunitha Grace Zacharia

Supervising Teacher

Nonstandard Finite Difference Schemes

Dissertation submitted to the University of Kerala in partial fulfillment of the requirement for the award of Degree of

MASTER OF SCIENCE IN MATHEMATICS



University of Kerala

By

Candidate Code : 62021138014

Exam Code : 62020402

Subject Code

: MM 245

Year

: 2023

St. John's College, Anchal, Kollam

CERTIFICATE

I hereby certify that this project entitled "Nonstandard Finite Difference Schemes" is a project work carried out by VISHNU S under my guidance and supervision, in partial fulfilment of the requirement for the MSc Degree in Mathematics of the University partial and that no part of this work has been submitted for the award of any degree.

Dr. Sibi C Babu

Head of the department

Department of Mathematics.

Dr. D.S. Dilip

Supervisor

MEASURABLE DOMINATING FUNCTIONS

Dissertation Submitted to the University of Kerala in partial fulfillment of requirements for the award of the degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

Ву

Candidate Code : 62021138005

Exam Code : 62020402

Subject Code : MM 245

: 2023

Year :

St. John's College, Anchal, Kollam CERTIFICATE

I hereby certify that this project entitled "MEASURABLE DOMINATING FUNCTIONS" is a project work carried out by ASHINA S T under my guidance and supervision, in partial fulfilment of the requirement for the MSc Degree in Mathematics of the University of Kerala and that no part of this work has been submitted for the award of any degree.

STATIMENT DE MATHE

Dr.Sibi C Babu

Head of the Department

Assistant Professor

Department of Mathematics

St. John's College, Anchal

Dr. Dhanya Ramachandran

Supervising Teacher

Assistant Professor

Department of Mathematics

St. John's College, Anchal

AN INTRODUCTION TO HYPERGRAPH THEORY AND ITS APPLICATIONS

Dissertation submitted for the partial fulfillment of requirement for the degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

Ву

Candidate code : 62021138011

Exam Code : 62020402

Subject Code : MM 245

Year : 2023

St. John's College, Anchal, Kollam

CERTIFICATE

I hereby certify that this project entitled "AN INTRODUCTION TO HYPER-GRAPH THEORY AND ITS APPLICATIONS" is a project work carried out by SELINA SAMUELKUTTY under my guidance and supervision, in partial fulfilment of the requirement for the MSc Degree in Mathematics of the University of Kerala and that no part of this work has been submitted for the award of any degree.

SEPARIMENT OF MAINE

Dr. Sibi C Babu

Head of the Department

Department of Mathematics.

Dr. Sunitha Grace Zacharia
Supervising Teacher

BANACH ALGEBRA

Dissertation submitted for the partial fulfillment of requirement for the degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

Ву

Candidate code: 62021138004

Exam Code: 62020402

Subject Code: MM245

Year: 2023

St. John's College, Anchal, Kollam

CERTIFICATE

I hereby certify that this project entitled "BANACH ALGEBRA" is a project work carried out by ARABHI ANIL under my guidance and supervision, in partial fulfilment of the requirement for the MSc Degree in Mathematics of the University of Kerala and that no part of this work has been submitted for the award of any degree.

CARLINENI OF MATHEMATINE

Dr. Sibi C Babu

Head of the Department

Department of Mathematics.

Dr. Smitha Mary Mathew

Supervising Teacher

MANIFOLDS

Dissertation submitted to the University of Kerala in the partial fulfilment of requirement for the award of Degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

Ву

Candidate Code : 62021138006

Exam Code : 62020402

Subject Code : MM 245

Year : 2023

This is to certify that the thesis entitled MANIFOLDS, submitted, to the University of Kerala, in partial fulfilment for the award of the degree of Master of Science in Mathematics, is a bonafide record of the research work done by ATHIRA S of this department.

Dr. Sibi C Mathew.

Head of the Department

Department of Mathematics

St John's College, Anchal.



Dyly.

Dr. Smitha Mary Mathew.

Supervising Teacher

Department of Mathematics.

AFFINE SPACES

Dissertation submitted to the University of Kerala in partial fulfillment of the requirement for the award of Degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

By

Candidate Code: 62021138010

Exam Code : 62020402 Subject Code : MM 245

Year : 2023

This is to certify that the thesis entitled AFFINE SPACES, submitted, to the University of Kerala, in partial fullfilment for the award of the degree of Master of Science in Mathematics, is a bonafide record of the research work done by SANDRA SIVAN of this department.

Dr. Sibi C.Babu

Head of the Department Department of Mathematics St Johns College, Anchal

Dr. Tony Philip

Supervising Teacher Department of Mathematics



A STUDY ON QUADRATIC FORMS

Dissertation submitted to the University of Kerala in partial fulfillment of the requirement for the award of Degree of

MASTER OF SCIENCE IN MATHEMATICS



UNIVERSITY OF KERALA

BY

CANDIDATE CODE : 62021138012

EXAM CODE : 62020402

SUBJECT CODE : MM 245

YEAR : 2023

I hereby certify that this project "A STUDY ON QUADRATIC FORMS" is a bonafide review of the literature on the topic carried out by SURYA R.S. under my supervision in partial fulfillment of the requirements for the Degree of Master of Science in Mathematics of the University of Kerala and no part of this has been submitted earlier for the award of any Degree.

Dr. LIMNARAJ B.P.

Assistant Professor

Department of Mathematics

St. John's College, Anchal

Dr. SIBI C. BABU

Assistant Professor & HOD,

Department of Mathematics

St.John's College, Anchal



FUZZY METRIC SPACES

Dissertation submitted to the University of Kerala in the partial fulfillment of the requirement for the award of Degree of

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of



University of Kerala

By

Candidate Code : 62021138009

Exam Code

: 62020402

Subject Code

: MM 245

Year

: 2023

This is to certify that the thesis entitled FUZZY METRIC SPACES, submitted ,to the University of Kerala, in partial fulfilment for the award of the degree of Master of Science in Mathematics, is a bonafide record of the research work done by RESHMA S of this department.

Dr.Sibi C.Babu

Head of the Department

Department of Mathematics

St Johns College, Anchal.



Dr.Dilip D.S
Supervising Teacher

Department of Mathematics.

STUDY ON RICKART *-RING

Dissertation submitted to the University of Kerala in partial fulfillment of the requirement for the award of Degree of

MASTER OF SCIENCE IN MATHEMATICS

of



University of Kerala

By

Candidate Code: 62021138003

Exam Code: 62020402

Subject Code: MM245

Year: 2023

This is to certify that this project work entitled "STUDY ON RICKART *-RING" is done by Ms. Angel Varghese (Register No. 62021138003) at the Department of Mathematics, St John's College, Anchal under my supervision and guidance for the partial fullfillment for the award of Master of Science in mathematics from Kerala University during the period 2021 -2023.

Head of the Department

Dr. Sibi C Babu

Assistant Professor

Department of Mathematics

St. John's College, Anchal.

Guided by

Dr Dhanya Ramachandran

Assistant Professor

Department of Mathematics

St. John's College, Anchal.

