




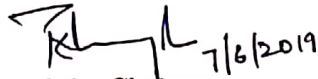
MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'GEOMETRIC ARITHMETIC TEMPERATURE INDEX OF GRAPHS' is the bonafide collective work carried out by Mr. Abhilash B (Reg. No:175265701), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2017-18, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


28/5/2019

Signature of the Supervisor with date
(Dr. Kishori P. Narayankar)


7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'MANIFOLDS' is the bonafide collective work carried out by Mr./Mis. AKANKSH A SHETTY (Reg. No: 175265702), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

MKS
03/06/2019

Signature of the Supervisor with date
(MOHANA K S)

[Signature]
7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies in Mathematics

MANGALORE UNIVERSITY

Mangalagangothri D.K.

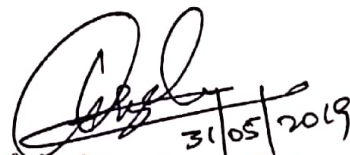
Karnataka India - 574 199




MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON VARIETIES OF DEFENSIVE ALLIANCES IN GRAPHS' is the bonafide collective work carried out by Mr./Mis. AKSHATHA B (Reg. No: 175265703), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


Signature of the Supervisor with date
(Dr. Chandru Hegde)


Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON FIELD OF P-ADIC NUMBERS' is the bonafide collective work carried out by Mr./Mis. AKSHATHA T.D PRABHU (Reg. No: 175265704), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 30/5/2019

Signature of the Supervisor with date
(Mr.Bhargava.K)

 7/6/2019

Signature of the Chairperson
(with date and seal)

Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A Study on Filters' is the bonafide collective work carried out by Mis. **ANKITHA S (Reg. No: 175265705)**, IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 28/05/2019
Signature of the Supervisor with date
(Dr. R. Rajendra)


R. Rajendra 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199




MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled '**Hypoenergetic and Hyperenergetic Graphs**' is the bonafide collective work carried out by Mis. **Bhavya R Patel** (Reg. No: **175265706**), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri. during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


28/5/2019

Signature of the Supervisor with date
(Mr. Dickson Selvan)


27/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON ARTINIAN RINGS AND DISCRETE VALUATION RINGS' is the bonafide collective work carried out by Mis. C. DEEPIKA BHAT (Reg. No: 175265707), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 28/05/2019
Signature of the Supervisor with date
(Name of the Supervisor)
Dr. RAJENDRA.R

[Signature] 6/6/2019
Signature of the Chairperson

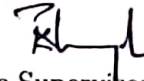
(with date and seal)
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'TOPOLOGICAL INDICES : WIENER INDEX AND DETOUR INDEX' is the bonafide collective work carried out by Miss. CAROL DSOUZA (Reg. No: 175265708), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 22/5/2019

Signature of the Supervisor with date

(Dr. Kishori P. Narayankar)

 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies In Mathematics

MANGALORE UNIVERSITY

Mangalagangothri D.K.

Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A BRIEF STUDY ON MATROIDS' is the bonafide collective work carried out by Mis. **CAROL REHA LOBO** (Reg. No: 175265709), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

M.K.S.
03/10/2017

Signature of the Supervisor with date
(Prof. Mohana K.S)

[Signature]
7/6/2019

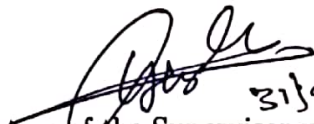
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled ' A STUDY ON BOOLEAN MATRIX AND ITS PROPERTIES' is the bonafide collective work carried out by Mis. **CHARISHMA M CHALUVADI (Reg. No: 175265710)**, IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.



31/05/2019

Signature of the Supervisor with date
(Dr. Chandru Hegde)



7/6/2019

Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



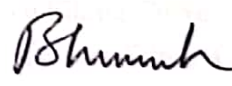
MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS

MANGALAGANGOTTHRI- 574 199

Contents

CERTIFICATE

This is to certify that the dissertation entitled 'Study on Space Filling Curves' is the bonafide collective work carried out by Ms. Cleeta DSouza (Reg. No: 175265711), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 30/5/2019

Signature of the Supervisor with date

(Mr. Bhargava K.)

 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies In Mathematics

MANGALORE UNIVERSITY

Mangalagangothri D.K.

Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON SEMIGRAPHS' is the bonafide collective work carried out by Mr./Mis. DEEKSHITHA (Reg. No: 175265712), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 30/05/2019
Signature of the Supervisor with date
(Dr. Rajendra. R)


[Signature] 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON SOME OF THE DISTANCE-BASED TOPOLOGICAL INDICES' is the bonafide collective work carried out by Mis. DEEKSHITHA K V (Reg. No: 175265713), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 28/5/2019

Signature of the Supervisor with date

 7/6/2019

Signature of the Chairperson
(with date and seal)

Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON CIRCULANT MATRICES' is the bonafide collective work carried out by Mis. DEEKSHITHA U. V. (Reg. No: 175265714), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 30/05/2019
Signature of the Supervisor with date
(Dr. Rajendra R)

[Signature] 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled ' A Study on the Laplacian Matrix and the Perturbed Laplacian Matrix of a Graph' is the bonafide collective work carried out by Mis. Fathimath Nousheena S. M. (Reg. No: 175265716), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

MMS
03/06/2019

Signature of the Supervisor with date
(MOHANA K. S.)

[Signature]
7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies in Mathematics

MANGALORE UNIVERSITY

Mangalagangothri D.K.

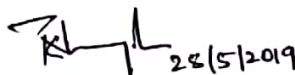
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled **THE ENERGY OF A GRAPH** is the bonafide collective work carried out by Mr./Mis. **STUDENT NAME** (Reg. No: 175265715), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


28/5/2019

Signature of the Supervisor with date
(Dr. Kishori P. Narayankar)


7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson


Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'SOME NUMERICAL METHODS IN LINEAR ALGEBRA' is the bonafide collective work carried out by Miss. FLAVITHA MOLITA DSOUZA (Reg. No: 175265717), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.



31/05/2019

Signature of the Supervisor with date
(Dr. Chandru Hegde)



7/6/2019

Signature of the Chairperson
(with date and seal)

Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'SVD AND QR FACTORIZATION OF MATRICES' is the bonafide collective work carried out by Mr. HEMANTH KAMATH (Reg. No: 175265718), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 30/5/2019

Signature of the Supervisor with date
(Name of the Supervisor)

(Bhargava K)

 7/6/2019

Signature of the Chairperson

(with date and seal)
Chairperson

Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A study on Adjacency and Laplacian Matrices of Graphs' is the bonafide collective work carried out by Mis. Jayalakshmi K N (Reg. No: 175265719), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 29/05/2019
Signature of the Supervisor with date
(Dr. Rajendra R.)


[Signature] 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'DISTANCE MATRIX AND SOME RELATED MATRICES OF GRAPHS' is the bonafide collective work carried out by Mis. JOVITA MENDONCA (Reg. No: 175265720), IV Semester, M.Sc.(Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 29/5/2019

Signature of the Supervisor with date

(Name of the Supervisor)

DICKSON SELVAN

 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies In Mathematics

MANGALORE UNIVERSITY

Mangalagangothri D.K.

Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON SUBTREES OF TREES' is the bonafide collective work carried out by Mis. MAITHRI (Reg. No: 175265721), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 30/05/2019
Signature of the Supervisor with date
(Dr. Rajendra. R)


[Signature] 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A Study on Color Energy of a Graph' is the bonafide collective work carried out by Mis. MALAVIKA V (Reg. No: 175265722), IV Semester, M.Sc.(Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 28/5/2019

Signature of the Supervisor with date
(Dr. Kishori P Narayankar)

 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON: LINEAR GROUPS' is the bonafide collective work carried out by Mr. N N DATTATREYA (Reg. No: 175265724), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Signature of the Supervisor with date
(Dr Chandru Hedge)

Signature of the Chairperson
(with date and seal)

Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A study on Hypergraphs' is the bonafide collective work carried out by Mr./Mis. **NIRUSHA SHETTY ANANDA SHETTY** (Reg. No: 175265726), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri. during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 28/05/2019
Signature of the Supervisor with date
(Dr. Rajendra R)

[Signature] 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199




MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON THE GCD SUM FUNCTION' is the bonafide collective work carried out by Mr. Paulo Joseph Ngayekamwe (Reg. No : 175265728), IV Semester, M.Sc.(Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 30/05/2019
Signature of the Supervisor with date
(Dr. RAJENDRA R)



Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Kannataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled **A study on Harmonic Temperature Index of Graphs** is the bonafide collective work carried out by Mis. Pooja K (Reg. No: 175265729), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.



29/5/2019

Signature of the Supervisor with date

(Dr. Kishori P Narayankar)



7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

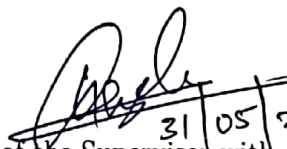
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A study on Numerical Semigroups' is the bonafide collective work carried out by Mis. **Prajna K** (Reg. No: 175265731), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2017-18, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.



31/05/2019

Signature of the Supervisor with date
(Dr Chandru Hegde)



7/6/2019

Signature of the Chairperson
(with date and seal)

Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON FOURIER SERIES AND ITS APPLICATIONS' is the bonafide collective work carried out by Mr./Mis. PRATHEEK RAI N (Reg. No: 175265732), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Bhargava K 30/5/2019

Signature of the Supervisor with date
(BHARGAVA K)

[Signature] 7/6/2019


Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199

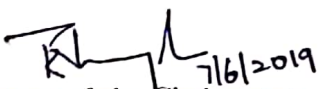


MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON SEMISIMPLE NONCOMMUTATIVE RINGS' is the bonafide collective work carried out by Miss. PRATHIKSHA (Reg. No: 175265733), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


Signature of the Supervisor with date
(Dr. Rajendra. R)



Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled ' A STUDY ON WIENER INDEX AND REVERSE WIENER INDEX OF GRAPHS' is the bonafide collective work carried out by Mis. PRATHVI (Reg.No: 175265734), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2017-18, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 29/5/2019

Signature of the Supervisor with date
(Dickson Selvan)

 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled '**STUDY ON MERSENNE PRIMES**' is the bonafide collective work carried out by Mr. **PREEETHESH** (Reg. No: 175265735), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 30/05/2019
Signature of the Supervisor with date
(Dr. Rajendra R)

[Signature] 7/6/2019

Signature of the Chairperson
(with date and seal)

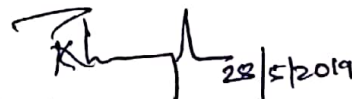
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



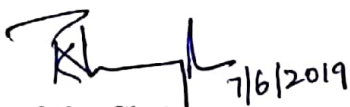
MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON LAPLACIAN ENERGY OF GRAPH' is the bonafide collective work carried out by Mr./Mis. R Shanthamma(Reg. No: 175265736), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.



Signature of the Supervisor with date
(Dr. Kishori P. Naryankar)



Signature of the Chairperson
(with date and seal)

Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON HADAMARD MATRICES' is the bonafide collective work carried out by Mis. R. SRIRAKSHA (Reg. No: 175265737), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Department of Mathematics, Mangalore University, Mangalagangothri
R. and Mr. Sriraksha
support, guidance and encouragement
constant support
I look at you, you are the only one who
people for their lovely work

MKS
3/06/2019

Signature of the Supervisor with date
(Mr. Mohana K.S.)

[Signature]
7/6/2019

Signature of the Chairperson
(with date and seal)

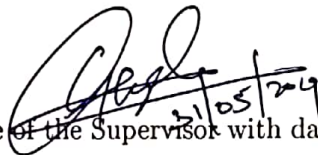
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON DOMINATION IN GRAPHS' is the bonafide collective work carried out by Mis. RAMYA (Reg. No: 175265738), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


Signature of the Supervisor with date
(Dr. Chandru Hegde)



Signature of the Chairperson
(with date and seal)

Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON HANOI GRAPHS AND SIERPINSKI TRIANGLES' is the bonafide collective work carried out by Mis. RAMYASHREE. K. R (Reg. No: 175265739), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Bhargava 30/5/2019

Signature of the Supervisor with date
(BHARGAVA. K)

R. K. R. 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON ALTERNATIVE RINGS' is the bonafide collective work carried out by Mr./Mis. RANJANA K (Reg. No: 175265740), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 30/5/2019
Signature of the Supervisor with date
(Dr. R. Rajendra)

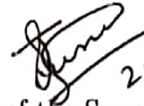
[Signature] 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'ATOM-BOND CONNECTIVITY TEMPERATURE INDEX' is the bonafide collective work carried out by Mr./Mis. RASHMI.K (Reg. No:175265741), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


28/5/2019

Signature of the Supervisor with date
(Dickson selvan)


7/6/2019

Signature of the Chairperson
(with date and seal)
Chairperson

Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON DERIVATIONS IN RINGS' is the bonafide collective work carried out by Miss. REEMA JESHMA CUTINHA (Reg. No: 175265742), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra
Signature of the Supervisor with date 30/5/2019
(Dr. R. Rajendra)

R. Rajendra
7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'Some Studies on Wiener Index and Schultz Index' is the bonafide collective work carried out by Mis. ROOPASHREE. K (Reg. No: 175265743), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Signature of the Supervisor with date

(Dr. Kishori P. Narayankar)

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



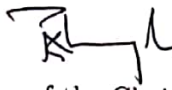
MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'a study on Baire Spaces ' is the bonafide collective work carried out by Mr. SACHIN MANJUNATH NAIK (Reg. No: 175265744), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

MKS
03/07/2019

Signature of the Supervisor with date
(Mohana K.S.)

 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

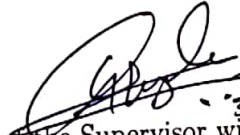
**Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199**

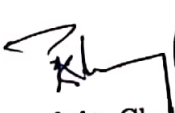


MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'Study on Similar matrices and frobenius normal form' is the bonafide collective work carried out by Mis. SAMEEKSHA (Reg. No: 175265745), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


Signature of the Supervisor with date 31/05/2019


Signature of the Chairperson
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'STUDY ON PERFECT GRAPHS' is the bonafide collective work carried out by Mis. Sannidhi K (Reg. No: 175265746), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Bhargava K 30/5/2019

Signature of the Supervisor with date
(Bhargava K)

[Signature] 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A Study On Pseudoprimes' is the bonafide collective work carried out by Mis. SHARADA. S (Reg. No: 175265747), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 28/05/2019
Signature of the Supervisor with date
(Dr. R. RAJENDRA)

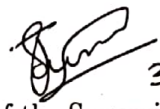
[Signature] 7/6/2019
Signature of the Chairperson
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199




MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A STUDY ON HARMONIC INDEX' is the bonafide collective work carried out by Mr. SHIVARAMA K N(Reg. No: 175265748), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 30/5/2019
Signature of the Supervisor with date
(Dickson Selvon)

 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A study on Harary index of Graphs' is the bonafide collective work carried out by Mis. SHONITHA (Reg. No: 175265749), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 30/5/2019
Signature of the Supervisor with date

(Name of the Supervisor)
Dr. RAJENDRA.R

[Signature] 6/6/2019
Signature of the Chairperson

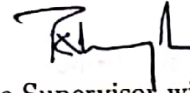
(with date and seal)
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



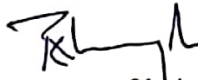
MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'STUDY ON FIRST ZAGREB TEMPERATURE INDEX OF SOME GRAPHS' is the bonafide collective work carried out by Mis. **SHRUTHI R HEGADE** (Reg. No: **175265750**), IV Semester, M.Sc.(Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

 29/5/2019

Signature of the Supervisor with date
(Dr. Kishori P Narayankar)

 7/6/2019

Signature of the Chairperson

(with date and seal)

Chairperson

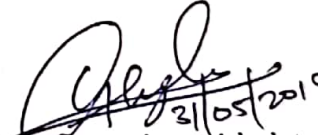
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199




MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTTHRI- 574 199

CERTIFICATE

This is to certify that the dissertation entitled 'A Study On Metric Dimension of Graphs' is the bonafide collective work carried out by Mr./Mis. Vasudha (Reg. No: 175265752), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2017-18, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Dissertation/Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.


Signature of the Supervisor with date
(Dr. Chandru Hegde)


Signature of the Chairperson
(with date and seal)

Chairperson
Dept. of Studies in Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199



MANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
MANGALAGANGOTHRI- 574 199

CERTIFICATE

This is to certify that the Project entitled 'A STUDY ON ZERO-DIVISOR GRAPH OF COMMUTATIVE RINGS' is the bonafide collective work carried out by Mr. VINAYAKA DATTATRAYA BHAT (Reg. No: 175265754), IV Semester, M.Sc. (Mathematics), Department of Mathematics, Mangalore University, Mangalagangothri, during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics and the Project Report has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

R. Rajendra 30/05/2019
Signature of the Supervisor with date
(Dr. Rajendra R)

[Signature] 7/6/2019
Signature of the Chairperson
(with date and seal)
Chairperson
Dept. of Studies In Mathematics
MANGALORE UNIVERSITY
Mangalagangothri D.K.
Karnataka India - 574 199