

A STUDY ON STRONG AND WEAK DOMINATION IN GRAPH THEORY

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB01	AKSHAYA .G
2020MB02	ANANTHIKA .A
2020MB03	AZHAGURANI .P

Under the Guidance of
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D
Assistant Professor & Head
Department of Mathematics

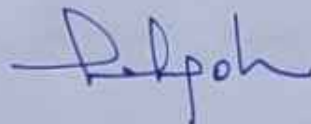


Fatima College [Autonomous]
Re-Accredited with 'A++' Grade by NAAC (4th Cycle)
Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "**A STUDY ON STRONG AND WEAK DOMINATION IN GRAPH THEORY**" by G.AKSHAYA(2020MB01), A.ANANTHIKA(2020MB02) and P.AZHAGURANI(2020MB03) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under the guidance of Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Project Guide & Head of the Department



Signature of the External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D, Assistant Professor and Head Department of Mathematics(SF), Fatima College (Autonomous), Madurai -18 and this work has not been submitted elsewhere for any other degree.

G. Akshaya

2020MB01

AKSHAYA .G

A. Ananthika

2020MB02

ANANTHIKA .A

P. Azhagurani

2020MB03

AZHAGURANI .P

A STUDY ON BONDAGE NUMBER OF A GRAPH

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB04 V. BAVITHA SREE

2020MB05 R.BHUVANESHWARI

2020MB06 P.K.S.BIRUNDHA

Under the Guidance of

Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Assistant Professor & Head

Department of Mathematics



Fatima College [Autonomous]

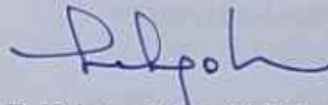
Re-Accredited with 'A++' Grade by NAAC (4th Cycle)

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2023

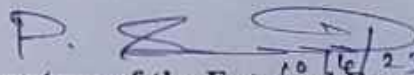
BONAFIDE CERTIFICATE

This is to certify that the project entitled "**A STUDY ON BONDAGE NUMBER OF A GRAPH**" by V. BAVITHA SREE (2020MB04), R. BHUVANESHWARI (2020MB05), P. K. S. BIRUNDHA (2020MB06) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

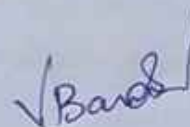
Project Guide & Head of the Department



Signature of the External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D. Assistant Professor, Department of Mathematics(SF), Fatima College (Autonomous), Madurai - 18 and this work has not been submitted elsewhere for any other degree.



V. BAVITHA SREE (2020MB04)

R. Bhuvaneshwari
R. BHUVANESHWARI (2020MB05)

P.K.S. Birundha
P.K.S.BIRUNDHA (2020MB06)

A STUDY ON DIGRAPHS IN GRAPH THEORY

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment of the
Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

SUBMITTED BY

2020MB07 DEVADHARSHINLS

2020MB08 DEVIBALA.S

2020MB09 DHARSHINLC

2020MB10 DHIVYA.G

Under the Guidance of

Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Assistant Professor & Head

Department of Mathematics(SF)



Fatima College [Autonomous]

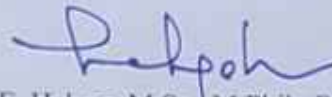
Re-Accredited with 'A++' Grade by NAAC (4th Cycle)

Mary Land, Madurai – 625 018,

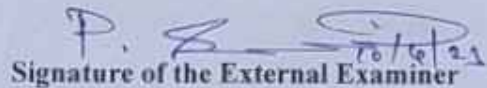
APRIL, 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DIGRAPHS IN GRAPH THEORY" by S.DEVADHARSHINI (2020MB07), S.DEVIBALA (2020MB08), C.DHARSHINI (2020MB09) and G.DHIVYA (2020MB10) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Dr. E. Helena M.Sc., M.Phil., PGDCA, Ph.D.



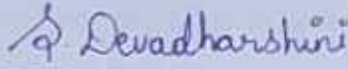
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D.
Project guide and Head of the Department



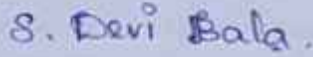
Signature of the External Examiner

DECLARATION

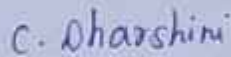
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D Assistant Professor and Head of the Department of Mathematics(SF), Fatima College (Autonomous), Madurai -18 and this work has not been submitted elsewhere for any other degree.

 Devadharshini

DEVADHARSHINI. S(2020MB07)

 S. Devi Bala.

DEVIBALA. S(2020MB08)

 C. Dharshini

DHARSHINI. C(2020MB09)

 G. Dhivya

DHIVYA. G(2020MB10)

A STUDY ON FUZZY GRAPH AND ITS APPLICATION

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment of the Requirement
for the Award of the Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted By

2020MB11 DURGA PARVATHI R.T

2020MB12 HEMA M

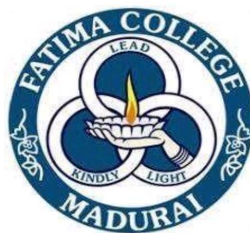
2020MB13 JEYAPOORNIMA J

Under the guidance of

Mrs. R. RAJESWARI M.Sc., M.Phil., PGDCA., SET

Assistant Professor

DEPARTMENT OF MATHEMATICS(SF)



FATIMA COLLEGE (AUTONOMOUS)

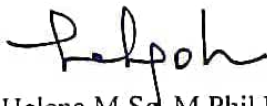
RE-ACCREDITED WITH 'A++' GRADE BY NAAC (CYCLE -IV)

MARY LAND, MADURAI – 625018, TAMIL NADU

APRIL - 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled on "A STUDY ON FUZZY GRAPH AND ITS APPLICATION " by DURGA PARVATHI R.T (2020MB11), HEMA M (2020MB12), JEYAPOORNIMA J (2020MB13) in partial fulfillment of the requirement for the award of degree Bachelor of Science in Mathematics submitted at FATIMA COLLEGE (Autonomous) under the guidance of Mrs. R. Rajeswari.



Dr.E.Helena M.Sc.,M.Phil,PGDCA.,Ph.D

Head of the Department



Mrs.R.Rajeswari M.Sc.,M.Phil.,SET.,PGDCA

Project Guide



External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs.R.Rajeswari, M.Sc.,M.Phil.,PGDCA.,SET, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of Bachelor of Science in Mathematics.

Date: 10.04.2023

Station: Madurai


Durga Parvathi R.T (2020MB11)


Hema M (2020MB12)


Jeyapoornima J (2020MB13)

ACKNOWLEDGEMENT

We hereby express our great pleasure in thanking all those who helped us to complete this project. First of all, we express our gratitude to our **ALMIGHTY GOD** who showered his grace and blessings to complete our project successfully.

It is a great honour for us to be the students of the **FATIMA COLLEGE**, one of the more prestigious institutions in Madurai. We express our sincere gratitude to our principal **Dr. Sr. G. CELINE SAHAYA MARY** for giving us the opportunity to be the part of **FATIMA** family, there by being a milestone in our path towards success.

We take great pleasure in thanking **Mrs. R. RAJESWARI** for her valuable guidance throughout the project. We also extend our thanks to all staffs of our department for their kind advices, idea, encouragement, co-operation and constant help.

We then express our heartfelt thanks to **Dr. E. HELENA** Head of the Department of Mathematics for here valuable support and help.

Above all, we indebted to our **BELOVED PARENTS**, whose blessings and best have gone a long way in making this final year project work a grand success.

PLACE: MADURAI

DATE : 10.04.2023

A STUDY ON CRYPTOGRAPHY

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment of the Requirement
for the Award of the Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted By

2020MB14 JOSIKA.M

2020MB15 KARSHI JAISHIKA.K

2020MB16 KARTHIKA.S A

Under the guidance of

Mrs. R. RAJESWARI M.Sc., M.Phil., PGDCA., SET

Assistant Professor

DEPARTMENT OF MATHEMATICS(SF)



FATIMA COLLEGE (AUTONOMOUS)

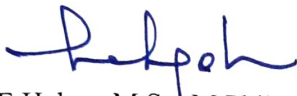
RE-ACCREDITED WITH 'A++' GRADE BY NAAC (CYCLE -IV)

MARY LAND, MADURAI – 625018, TAMIL NADU

APRIL - 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled on "A STUDY ON CRYPTOGRAPHY" by JOSIKA .M (2020MB14), KARSHI JAISHIKA.K (2020MB15), KARTHIKA .S A (2020MB16) in partial fulfillment of the requirement for the award of degree Bachelor of Science in Mathematics submitted at FATIMA COLLEGE (Autonomous) under the guidance of Mrs. R. Rajeswari.



Dr.E.Helena M.Sc.,M.Phil,PGDCA.,Ph.D

Head of the Department



Mrs.R.Rajeswari M.Sc.,M.Phil.,SET.,PGDCA

Project Guide



External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs.R.Rajeswari, M.Sc.,M.Phil.,PGDCA.,SET, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of Bachelor of Science in Mathematics.

Date: 10.04.2023

Station: Madurai

M. Josika

Josika M (2020MB14)

Karshi Jaishika K.

Karshi Jaishika K (2020MB15)

S.A. Karthika

Karthika S.A (2020MB16)

ACKNOWLEDGEMENT

We hereby express our great pleasure in thanking all those who helped us to complete this project. First of all, we express our gratitude to our **ALMIGHTY GOD** who showered his grace and blessings to complete our project successfully.

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We then express our heartfelt thanks to **Dr. E. HELENA** Head of the Department of Mathematics for here valuable support and help.

Above all, we indebted to our **BELOVED PARENTS**, whose blessings and best have gone a long way in making this final year project work a grand success.

PLACE: MADURAI

DATE : 10.04.2023

A STUDY ON ALGEBRAIC GRAPH THEORY

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment of the Requirement
for the Award of the Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted By

2020MB17 KARUNYAA.M

2020MB18 KAVI PRIYA.K

2020MB19 KEERTHEKA RANIV R

2020MB20 KIRIJHA.P S

Under the guidance of

Mrs. R. RAJESWARI M.Sc., M.Phil., PGDCA., SET

Assistant Professor

DEPARTMENT OF MATHEMATICS(SF)



FATIMA COLLEGE (AUTONOMOUS)

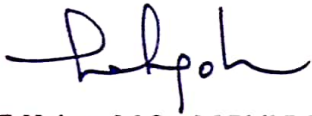
RE-ACCREDITED WITH 'A++' GRADE BY NAAC (CYCLE -IV)

MARY LAND, MADURAI – 625018, TAMIL NADU

APRIL - 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled on "A STUDY ON ALGEBRAIC GRAPH THEORY" by KARUNYAA.M (2020MB17), KAVI PRIYA.K (2020MB18), KEERTHEKA RANI.V R (2020MB19), KIRIJHA.P S (2020MB20) in partial fulfillment of the requirement for the award of degree Bachelor of Science in Mathematics submitted at FATIMA COLLEGE (Autonomous) under the guidance of Mrs. R. Rajeswari.



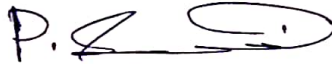
Dr.E.Helena M.Sc.,M.Phil,PGDCA.,Ph.D

Head of the Department



Mrs.R.Rajeswari M.Sc.,M.Phil.,SET.,PGDCA

Project Guide



External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs.R.Rajeswari, M.Sc.,M.Phil.,PGDCA.,SET, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of Bachelor of Science in Mathematics.

Date: 10.04.2023

Station: Madurai

M. Karunyaa
Karunyaa M (2020MB17)

Kavi Priya K.
KaviPriya K (2020MB18)

Keerthika Rani V.R
Keerthika Rani V R (2020MB19)

Kirijha P.S
Kirijha P S (2020MB20)

ACKNOWLEDGEMENT

We hereby express our great pleasure in thanking all those who helped us to complete this project. First of all, we express our gratitude to our **ALMIGHTY GOD** who showered his grace and blessings to complete our project successfully.

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PLACE: MADURAI

DATE: 10-04-2023

A STUDY ON BASICS OF FUZZY MATHEMATICS

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB21

K. SOWMIYA

2020MB23

M. MAHESWARI

2020MB24

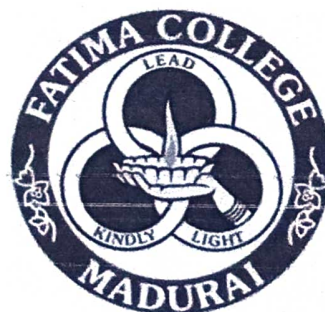
S. MARAGATHA LAKSHMI

Under the Guidance of

Mrs. R. Jenovi Rosary Deepa M.Sc., M.Phil., SET, PGDCA

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

Re-Accredited with 'A++' Grade by NAAC (Cycle IV)

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL - 2023

BONAFIDE CERTIFICATE

This is to certify that the project report entitled A STUDY ON "BASICS OF FUZZY MATHEMATICS" by K.SOWMIYA(2020MB21), M.MAHESWARI(2020MB23),S.MARAGATHA LAKSHMI(2020MB24) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under the guidance of Mrs. R. Jenovi Rosary Deepa.



Dr. E. Helena M.Sc., M.Phil., PGDCA, Ph.D.



Mrs. R. Jenovi Rosary Deepa M.Sc.,

M.Phil., SET, PGDCA

Head Of The Department

Project Guide



Signature of the External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. R. Jenovi Rosary Deepa M.Sc., M.Phil., SET., PGDCA, department of mathematics, Fatima college (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

SIGNATURE

K. Sowmiya

K. SOWMIYA (2020MB21)

Date: 10.04.2023

Station: Madurai

M. Maheswari

M.MAHESWARI (2020MB23)

S. Maragatha Lakshmi

S.MARAGATHA LAKSHMI (2020MB24)

A Study on Basics of Topology

A Project Submitted to Madurai Kamaraj University in Partial
Fulfillment of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB25 R. Mathana

2020MB26 M. Megala Devi

2020MB27 S. Nilofar Nisha

Under the Guidance of

Mrs. R. Jenovi Rosary Deepa M.Sc., M.Phil., SET, PGDCA

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

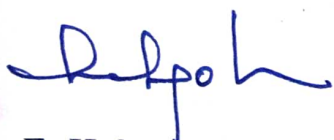
Re-Accredited with 'A++' Grade by NAAC (Cycle IV)

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL - 2023

BONAFIDE CERTIFICATE

This is to certify that the project report entitled “A study on Basics of Topology” by R. Mathana (2020MB25), M. Megala Devi (2020MB26), S. Nilofar Nisha (2020MB27) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Mrs. R. Jenovi Rosary Deepa.



Dr. E. Helena M.Sc., M.Phil., PGDCA, Ph.D.,

Head of The Department



Mrs. R. Jenovi Rosary Deepa M.Sc., M.Phil., SET., PGDCA

Project Guide



Signature of the External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. R. Jenovi Rosary Deepa M.Sc., M.Phil., SET., PGDCA, department of mathematics, Fatima college (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Signature

Date: 10.04.2023

Station: Madurai

R. Mathana

R. MATHANA (2020MB25)

M. Megala Devi

M. MEGALA DEVI (2020MB26)

S. Nilofar

S. NILOFAR NISHA (2020MB27)

A STUDY ON APPLICATIONS OF THE GRAPH THEORY

A project Submitted to Madurai Kamaraj University in

Partial Fulfilment of the Requirement for the Award of

Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted By

2020MB28 R.POORNIMA

2020MB29 M.PRITHIGA

2020MB30 A.SAJITHA

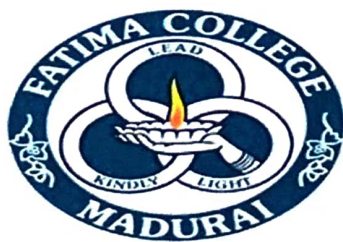
2020MB31 G.SAKTHI

Under the Guidance of

Mrs. R. Jenovi Rosary Deepa M.Sc., M.Phil., SET, PGDCA

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

Re-Accredited with 'A++' Grade by NAAC (IV-Cycle)

Mary Land, Madurai-625018, Tamil Nadu.

APRIL- 2023

BONAFIDE CERTIFICATE

This is to certify that the project report entitled “A STUDY ON APPLICATIONS OF THE GRAPH THEORY” by R.POORNIMA(2020MB28) M.PRITHIGA(2020MB29) A.SAJITHA(2020MB30) G.SAKTHI(2020MB31) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under the guidance of Mrs .R. Jenovi Rosary Deepa.



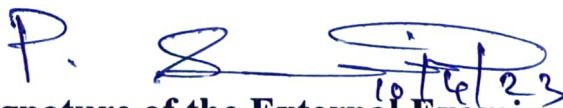
Dr.E.Helena M.Sc.,M.Phil.,PGDCA,Ph.D

Head Of The Department



Mrs. R. Jenovi Rosary Deepa M.Sc., M.Phil., SET, PGDCA

Project Guide



Signature of the External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. R. Jenovi Rosary Deepa M.Sc., M.Phil., SET, PGDCA, Assistant Professor, Department of Mathematics, Fatima College(Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Signature

R. Poornima

R.POORNIMA (2020MB28)

Date: 10.04.2023

Station: Madurai

M. Prithiga.

M.PRITHIGA (2020MB29)

A. Sajitha

A.SAJITHA (2020MB30)

G. Sakthi

G.SAKTHI (2020MB31)

A STUDY ON THE GEODETIC NUMBER OF GRAPHS

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment
Of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB33 S. Sathya

2020MB34 T. Sathyasheela

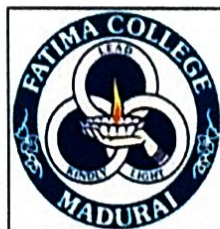
2020MB35 S. Shobana

Under the Guidance of

Mrs. B. Vethamary Jacqueline, M. Sc., M. Phil., B. Ed., PGDCA.

Assistant Professor

Department of Mathematics (SF)



Fatima College (Autonomous)

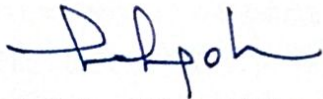
Re-Accredited with A++ Grade by NAAC (Cycle-IV)

Mary Land, Madurai - 625018, Tamil Nadu.

April - 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "THE GEODETIC NUMBER OF GRAPHS" by S. SATHYA (2020MB33), T. SATHYASHEELA (2020MB34), S. SHOBANA (2020MB35) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Mrs. B. Vethamary Jacqueline.



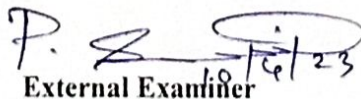
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Mrs. B. Vethamary Jacqueline M.Sc.,
M. Phil., B. Ed., PGDCA.

Project Guide



External Examiner

DECLARATION

We do hereby declare that this project is a bonafide record of work carried out by us under the guidance and supervision of **Mrs. B. Vethamary Jacqueline M.Sc., M.Phil., B.Ed., PGDCA.**, Assistant Professor, Department of Mathematics (SF), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of **Bachelor of Science in Mathematics**.

DATE: 10.04.2023

PLACE: MADURAI

S. Sathya
S. SATHYA(2020MB33)

T. Sathyasheela
T. SATHYASHEELA(2020MB34)

S. Shobana
S. SHOBANA(2020MB35)

A STUDY ON WAVE EQUATION

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment
Of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB37 R. Swathi

2020MB38 M. Swetha

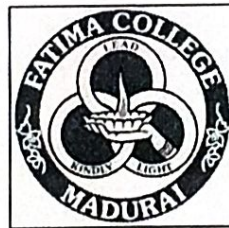
2020MB39 G. Vishva janani

Under the Guidance of

Mrs. B. Vethamary Jacqueline, M. Sc., M. Phil., B. Ed., PGDCA.

Assistant Professor

Department of Mathematics (SF)



Fatima College (Autonomous)

Re-Accredited with A++ Grade by NAAC (Cycle-IV)

Mary Land, Madurai - 625018, Tamil Nadu.

April-2023

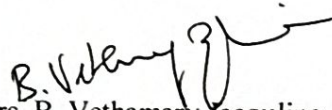
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON WAVE EQUATION" by
R.SWATHI(2020MB37) M.SWETHA(2020MB38) G.VISHVA JANANI(2020MB39) in partial
fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics
submitted at Fatima College (Autonomous) under the guidance of Mrs. B. Vethamary Jacqueline.



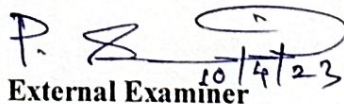
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph. D

Head of the Department



Mrs. B. Vethamary Jacqueline
M.Sc., M. Phil., B. Ed., PGDCA.

Project Guide


10/4/23

External Examiner

DECLARATION

We do hereby declare that this project is a bonafide record of work carried out by us under the guidance and supervision of **Mrs. B. Vethamary Jacqueline M.Sc., M.Phil., B.Ed., PGDCA.,** Assistant Professor, Department of Mathematics (SF), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of **Bachelor of Science in Mathematics.**

DATE: 10.04.2023

PLACE: MADURAI

R. Swathi
R.SWATHI(2020MB37)

M. Swetha
M.SWETHA(2020MB38)

G. Vishva Janani
G.VISHVA JANANI(2020MB39)

A STUDY ON SYLOW'S P - SUBGROUP

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment

Of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB40 K.YOGASREE

2020MB41 J.YONISHA

2020MB42 A.SANGEETHA

2020MB43 R.JEYASHRI

Under the Guidance of

Mrs. B. Vethamary Jacqueline, M. Sc., M. Phil., B. Ed., PGDCA.

Assistant Professor

Department of Mathematics (SF)



Fatima College (Autonomous)

Re-Accredited with A++ Grade by NAAC (Cycle-IV)

Mary Land, Madurai – 625018

Tamil Nadu.

April - 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled " A Study on SYLOW'S P - SUBGROUP" by K.YOGASREE(2020MB40), J.YONISHA(2020MB41), A.SANGEETHA (2020MB42), R.JEYASHRI(2020MB43) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Mrs. B. Vethamary Jacqueline.

Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph. D

Mrs. B. Vethamary Jacqueline M.Sc.,M. Phil.,
B. Ed., PGDCA.

Head of the Department

Project Guide

10/4/23
External Examiner

DECLARATION

We do hereby declare that this project is a bonafide record of work carried out by us under the guidance and supervision of **Mrs. B. Vethamary Jacqueline M.Sc., M.Phil., B.Ed., PGDCA.,** Assistant Professor, Department of Mathematics (SF), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of **Bachelor of Science in Mathematics.**

DATE: 10.04.2023

PLACE: MADURAI


K.YOGASREE(2020MB40)

J.Yonisha
J.YONISHA(2020MB41)

A.Sangeetha
A.SANGEETHA(2020MB42)

R.jeyashri
R.JEYASHRI(2020MB43)

A STUDY ON CONNECTED DOMINATION IN GRAPH THEORY

A project submitted to Madurai Kamaraj University in Partial fulfillment
of the Requirement for the award of degree of
BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB44 VEERACHINNAMMAL .V

2020MB45 JANANISOWMIYA .R

2020MB46 RAMYA G.V

Under the guidance of

Mrs. J. Annaal Mercy , M.Phil., B.Ed., SET,(Ph.D)

Assistant professor

Department of Mathematics(SF)



Fatima College[Autonomous]

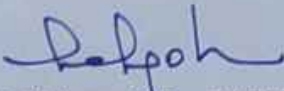
Re- Accredited with 'A++' Grade by NAAC (4th Cycle)

Mary land, Madurai -625018,

April, 2023

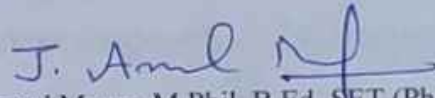
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON CONNECTED DOMINATION IN GRAPH THEORY" by V. VEERACHINNAMMAL(2020MB44), R. JANANISOWMIYA (2020MB45), G. V. RAMYA (2020MB46), in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under the guidance of Mrs. J. Annaal Mercy.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Mrs.J. Annaal Mercy, M.Phil., B.Ed., SET, (Ph.D)

Project Guide


10/6/23

Signature of the External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. J. Annaal Mercy, M.Phil., B.Ed., SET., (Ph. D), Assistant Professor , Department of Mathematics, Fatima College (Autonomous), Madurai -18 and this work has not been submitted elsewhere for any other degree.

V. Veerachinnammal.

VEERACHINNAMMAL .V(2020MB44)

R. Jananisowmiya.

JANANISOWMIYA .R (2020MB45)

G.V. Ramya.

RAMYA G.V(2020MB46)

A STUDY ON TYPES OF GRAPHS AND THEIR PROPERTIES

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment
of the Requirement for the Award of Degree of
BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB47 Shalini.K

2020MB49 Nagalakshmi.S

2020MB50 Shakthi.S

Under the Guidance of

Mrs. J. Annaal Mercy, M. Phil., B.Ed., SET, (Ph. D)

Assistant Professor

Department of Mathematics (SF)



Fatima College [Autonomous]

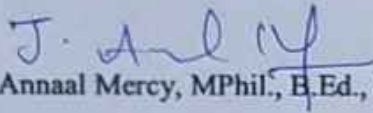
Re-Accredited with 'A++' Grade by NAAC (4th Cycle)

Mary Land, Madurai – 625 018, Tamil Nadu.

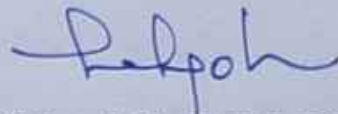
APRIL, 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TYPES OF GRAPHS AND THEIR PROPERTIES IN GRAPH THEORY" by K. SHALINI (2020MB47), S. NAGALAKSHMI (2020MB49) and S. SHAKTHI (2020MB50) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Mrs. J. Annaal Mercy.



Mrs.J.Annaal Mercy, MPhil., B.Ed., SET,



Dr. E. Helena, M.Sc., M.Phil., PGDCA ,Ph.D

PROJECT GUIDE

HEAD OF THE DEPARTMENT



SIGNATURE OF THE EXTERNAL EXAMINER

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. J. Annaal Mercy, M.Phil., B.Ed., SET., (Ph. D), Assistant Professor , Department of Mathematics, Fatima College (Autonomous), Madurai -18 and this work has not been submitted elsewhere for any other degree.

K. Shalini
SHALINI.K(2020MB47)

S. Nagalakshmi
NAGALAKSHMI.S(2020MB49)

S. Shakthi
SHAKTHI.S(2020MB50)

A STUDY ON STRONG DOMINATION IN GRAPH THEORY

A Project Submitted to Madurai Kamaraj University in Partial Fulfilment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB51

AISHVARYAASHRI . M

2020MB52

ALAGURANJANA . A

2020MB53

AMIRDHA VARSHINI . S

Under the Guidance of

Mrs. J. Annaal Mercy, M. Phil., B.Ed., SET, (Ph. D)

Assistant Professor

Department of Mathematics(sf)



Fatima College [Autonomous]

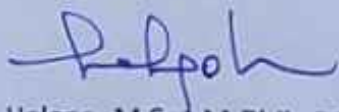
Re-Accredited with 'A⁺⁺' Grade by NAAC (4th Cycle)

Mary Land, Madurai – 625 018, Tamil Nadu.

APRIL, 2023.

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON STRONG DOMINATION IN GRAPH THEORY" by AISHVARYAASHRI . M (2020MB51), A . ALAGURANJANA (2020MB52) and S . AMIRDHA VARSHINI (2020MB53) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Mrs. J. Annaal Mercy.



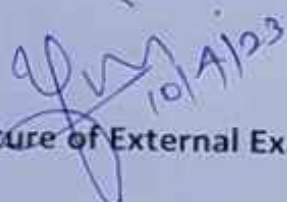
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Mrs.J.Annaal Mercy, M. Phil., B.Ed., SET, (Ph. D)

Project Guide



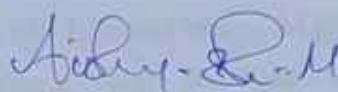
Signature of External Examiner

DECLARATION

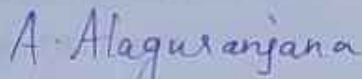
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. J. Annaal Mercy, M.Phil., B.Ed., SET., (Ph. D), Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai -18 and this work has not been submitted elsewhere for any other degree.

Place: Madurai

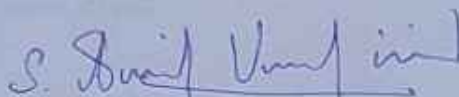
Date : 10.04.2023



AISHVARYAASHRI . M 2020MB51



ALAGURANJANA . A 2020MB52



AMIRDHA VARSHINI . S 2020MB53

MATRICES ON GRAPH THEORY

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB54 Angala parameshwari .M

2020MB55 Anushiya .M

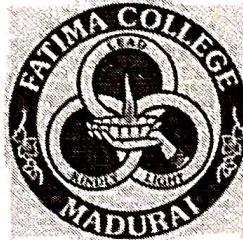
2020MB56 Asma begum.k

Under the Guidance of

Dr. K. Mano, M. Sc., B.Ed., M. Phil., Ph. D

Assistant Professor

Department of Statistics



Fatima College [Autonomous]

Re-Accredited with 'A' Grade by NAAC (3rd Cycle)

College with Potential for Excellence (2004-2019)

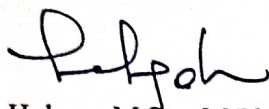
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

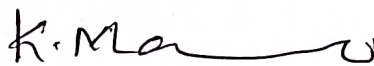
APRIL, 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "MATRICES ON GRAPH THEORY" by M.ANGALA PARAMESHWARI(2020MB54), M.ANUSHIYA(2020MB55), K.ASMA BEGUM(2020MB56) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under the guidance of Dr. K. Mano.



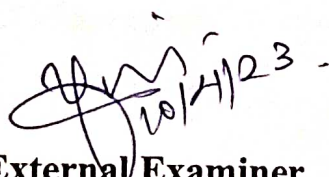
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D.



K. Mano, M.Sc., B.Ed., M. Phil., Ph.D

Head of the Department

Project Guide



10/4/23

External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. K. Mano, M. Sc., M. Phil., B. Ed., Ph. D., Assistant Professor, Department of Statistics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

M. Angalaparameshwari

M. ANGALA PARAMESHWARI (2020MB54)

M. Anushiya

M. ANUSHIYA (2020MB55)

K. Asma Begum

K. ASMA BEGUM (2020MB60)

ACKNOWLEDGEMENT

At times our own light goes off and we are rekindled by the spark of others. Some of the Persons who guided us and nurtured us are mentioned here.

We sincerely thank the almighty God for giving us strength and good health to complete this project successfully.

We express our heartfelt thanks to our principal Dr. Sr. G. CELINE SAHAYAM MARY for giving us the opportunity to be part of FATIMA family, thereby being a milestone in our path towards success.

I whole heartedly extend our warm gratitude to our Head of the department Dr. E. Helena, M. Sc., M. Phil., PGDCA, Ph. D for her valuable suggestion and kind guidance through this project.

It is great pleasure in thanking our project guide Dr. K. Mano, M. Sc., B.Ed., M. Phil., Ph. D project supervisor and Assistant professor of our department, who helps us a lot to complete our project successfully.

We owe a special gratitude to our family and friends for their motivation and support throughout the period of our study.

We heart fully thank all who have contributed directly and indirectly in bringing up this project.

Place: Madurai

Date: 10-04-2023

M. Angalaparameshwari
M.ANGALA PARAMESHWARI (2020MB54)

M. Anushiya
M.ANUSHIYA (2020MB55)

K. Asma Begum
K.ASMA BEGUM (2020MB56)

A STUDY ON MATRIX THEORY

A Project Submitted to Madurai Kamaraj University in Partial Fulfilment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB57 Bala Ambika A

2020MB59 Dharani P

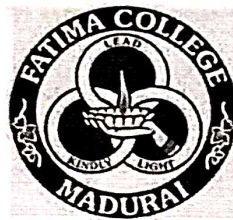
2020MB62 Jeya Lakshmi B

Under the Guidance of

Dr. K. Mano, M. Sc., B.Ed., M. Phil., Ph. D

Assistant Professor

Department of Statistics



Fatima College [Autonomous]

Re-Accredited with 'A' Grade by NAAC (3rd Cycle)

College with Potential for Excellence (2004-2019)

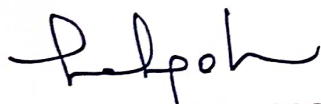
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON MATRIX THEORY" by A. BALA AMBIKA (2020MB57), P.DHARANI (2020MB59), B. JEYA LAKSHMI (2020MB62) in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under the guidance of Dr. K. Mano.



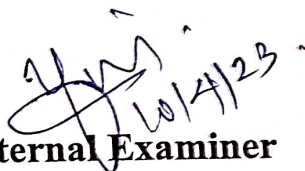
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. K. Mano, M.Sc., B.Ed., M. Phil., Ph.D

Project Guide


10/4/23

External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. K. Mano, M. Sc., M. Phil., B. Ed., Ph. D., Assistant Professor, Department of Statistics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

A. Bala Ambika
A. BALA AMBIKA (2020MB57)

P. Dharani
P. DHARANI (2020MB59)

B. Jeya Lakshmi
B. JEYA LAKSHMI (2020MB62)

ACKNOWLEDGEMENT

At times our own light goes off and we are rekindled by the spark of others. Some of the Persons who guided us and nurtured us are mentioned here.

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I whole heartedly extend our warm gratitude to our Head of the department Dr. E. Helena, M. Sc., M. Phil., PGDCA, Ph. D for her valuable suggestion and kind guidance through this project.

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We heart fully thank all who have contributed directly and indirectly in bringing up this project.

Place: Madurai

Date: 10-04-2023

A. Bala Ambika

A. BALA AMBIKA (2020MB57)

P. Dharani

P. DHARANI (2020MB59)

B. Jeya Lakshmi

B. JEYA LAKSHMI (2020MB62)

A STUDY ON AUTOMATA THEORY

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB63 Karthiyayini P

2020MB64 Keerthana S

2020MB65 Keerthana R

2020MB66 Keerthiga R

Under the Guidance of

Dr. K. Mano, M. Sc., B.Ed., M. Phil., Ph. D

Assistant Professor

Department of Statistics



Fatima College [Autonomous]

Re-Accredited with 'A' Grade by NAAC (3rd Cycle)

College with Potential for Excellence (2004-2019)

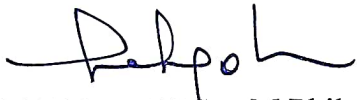
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

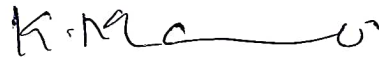
APRIL, 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON AUTOMATA THEORY" by KARTHIYAYINI.P (2020MB63), KEERTHANA .S (2020MB64), KEERTHANA .R (2020MB65) and KEERTHIGA. R (2020MB66) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Dr. K. Mano.



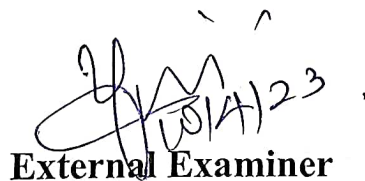
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D



Dr. K. Mano, M.Sc., B.Ed., M. Phil., Ph. D

Head of the Department

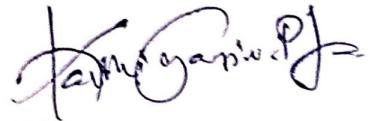
Project Guide



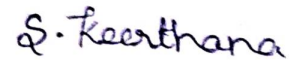
External Examiner

DECLARATION

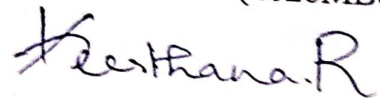
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. K. Mano, M. Sc., M. Phil., B. Ed., Ph. D., Assistant Professor, Department of Statistics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.



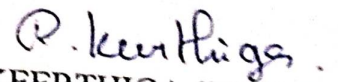
P. KARTHIYAYINI (2020MB63)



S. KEERTHANA (2020MB64)



R. KEERTHANA (2020MB65)



R. KEERTHIGA (2020MB66)

ACKNOWLEDGEMENT

At times our own light goes off and we are rekindled by the spark of others. Some of the Persons who guided us and nurtured us are mentioned here.

We sincerely thank the almighty God for giving us strength and good health to complete this project successfully.

We express our heartfelt thanks to our principal Dr. Sr. G. CELINE SAHAYAM MARY for giving us the opportunity to be part of the FATIMA family, thereby being a milestone in our path towards success.

I wholeheartedly extend our warm gratitude to our Head of the department Dr. E. Helena, M. Sc., M. Phil., PGDCA, Ph. D for her valuable suggestion and kind guidance through this project.

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We owe a special gratitude to our family and friends for their motivation and support throughout the period of our study.

We heart fully thank all who have contributed directly and indirectly in bringing up this project.

Place: Madurai

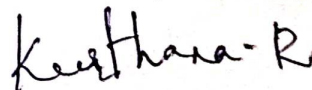
Date: 10-04-2023



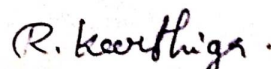
Karthiyayini. P (2020MB63)



Keerthana. S (2020MB64)



Keerthana. R (2020MB65)



Keerthiga. R (2020MB66)

FUZZY DECISION MAKING USING TOPSIS METHOD

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment

Of the Requirement for the Award of the Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB67 K.KRISHNAVENI

2020MB68 S.MAHALAKSHMI

2020MB70 G.MITRA

Under the Guidance of

Dr. J. Joseline Charisma, M. Sc., M.Phil., PGDCA., Ph. D

Assistant Professor

Department of Mathematics



Fatima College (Autonomous)

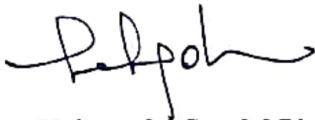
Re-Accredited with 'A++' Grade by NAAC (Cycle - IV)

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL - 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "FUZZY DECISION MAKING USING TOPSIS METHOD" by K.KRISHNAVENI (2020MB67), S. MAHALAKSHMI (2020MB68), G. MITRA (2020MB70), in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Dr. J. JOSELINE CHARISMA.



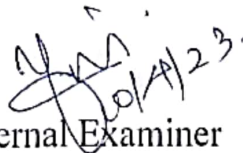
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. J. Joseline Charisma M.Sc.,
M.Phil., PGDCA, Ph.D

Project Guide


20/11/23

External Examiner

DECLARATION

We do hereby declare that this project is a bonafide record of work carried out by us under the guidance and supervision of **Dr. J. Joseline Charisma M.Sc., M.Phil., PGDCA., Ph. D.,** Assistant Professor, Department of Mathematics (SF), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of **Bachelor of Science in Mathematics.**

DATE: 10.04.2023

PLACE: Madurai

K. Krishnaveni
2020MB67 K. KRISHNAVENI

S. Mahalakshmi
2020MB68 S. MAHALAKSHMI

G. Mitra
2020MB70 G. MITRA

ACKNOWLEDGEMENT

At times our own light goes off and we are rekindled by the spark of others. Some of the Persons who guided us and nurtured us are mentioned here.

We sincerely thank the almighty God for giving us strength and good health to complete this project successfully.

We express our heartfelt thanks to our principal Dr. Sr. G. CELINE SAHAYAM MARY for giving us the opportunity to be part of FATIMA family, thereby being a milestone in our path towards success.

We whole heartedly extend our warm gratitude to our Head of the department Dr. E. Helena, M. Sc., M. Phil., PGDCA, Ph. D for her valuable suggestion and kind guidance through this project.

It is great pleasure in thanking our project guide Dr. J. Joseline Charisma M. Sc., M.Phil., PGDCA., Ph. D project supervisor and Assistant professor of our department, who helps us a lot to complete our project successfully.

We owe a special gratitude to our family and friends for their motivation and support throughout the period of our study.

We heart fully thank all who have contributed directly and indirectly in bringing up this project.

Place: Madurai

Date: 10.04.2023

FUZZY SETS AND FUZZY RELATION

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment

Of the Requirement for the Award of the Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB71 B. NANDHINI

2020MB72 S. NARMADHA

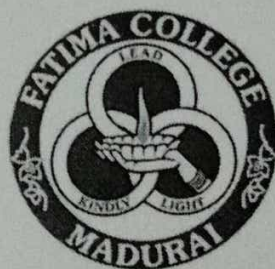
2020MB73 C. NAVOT NAVO

Under the Guidance of

Dr. J. Joseline Charisma, M. Sc., M.Phil., PGDCA., Ph. D

Assistant Professor

Department of Mathematics



Fatima College (Autonomous)

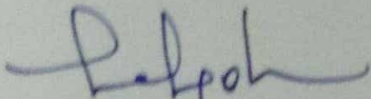
Re-Accredited with 'A++' Grade by NAAC (Cycle - IV)

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL - 2023

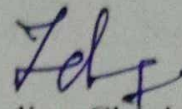
BONAFIDE CERTIFICATE

This is to certify that the project entitled "**FUZZY SETS AND FUZZY RELATION**" by
B. NANDHINI (2020MB71), S. NARMADHA (2020MB72), C. NAVOT NAVO
(2020MB73), in partial fulfillment of the requirements for the award of degree of Bachelor of
Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of
Dr. J. JOSELINE CHARISMA.



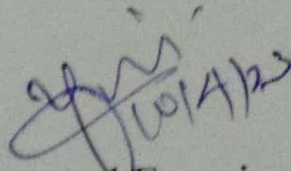
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. J. Joseline Charisma M.Sc.,
M.Phil., PGDCA, Ph.D

Project Guide



External Examiner

DECLARATION

We do hereby declare that this project is a bonafide record of work carried out by us under the guidance and supervision of **Dr. J. Joseline Charisma M.Sc., M.Phil., PGDCA., Ph. D.,** Assistant Professor, Department of Mathematics (SF), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of **Bachelor of Science in Mathematics.**

DATE: 10.04.2023

PLACE: Madurai

B. Nandhini

2020MB71 B. NANDHINI

S. Narmadha

2020MB72 S. NARMADHA

C. Navot

2020MB73 C. NAVOT NAVO

FUZZY NUMBERS

**A Project Submitted to Madurai Kamaraj University in Partial Fulfillment
Of the Requirement for the Award of the Degree of**

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB74 M. PADMA PRIYA

2020MB75 S. PETCHIYAMMAL SIVALAKSHMI

2020MB76 G. POOJA @ AKSHAYA

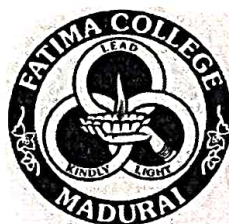
2020MB77 R. POORANI

Under the Guidance of

Dr. J. Joseline Charisma, M. Sc., M.Phil., PGDCA., Ph. D

Assistant Professor

Department of Mathematics



Fatima College (Autonomous)

Re-Accredited with 'A++' Grade by NAAC (Cycle - IV)

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL - 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "FUZZY NUMBERS" by M. PADMA PRIYA (2020MB74), S. PETCHIYAMMAL SIVALAKSHMI (2020MB75), G. POOJA@AKSHAYA (2020MB76), R. POORANI (2020MB77), in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Dr. J. JOSELINE CHARISMA.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. J. Joseline Charisma M.Sc.,
M.Phil., PGDCA, Ph.D

Project Guide


10/4/23
External Examiner

DECLARATION

We do hereby declare that this project is a bonafide record of work carried out by us under the guidance and supervision of **Dr. J. Joseline Charisma M.Sc., M.Phil., PGDCA., Ph. D.,** Assistant Professor, Department of Mathematics (SF), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award of degree of **Bachelor of Science in Mathematics.**

DATE: 10.4.23

PLACE: Madurai

M. Padmapriya
2020MB74 M. PADMA PRIYA
A. petchi yammal.
2020MB75 S. PETCHIYAMMAL

SIVALAKSHMI
G. pooja @ Akshaya
2020MB76 G. POOJA @ AKSHAYA
R. Poorani
2020MB77 R. POORANI

A STUDY ON GROUP REPRESENTATION AND CHARACTER THEORY

A Project Submitted To Madurai Kamaraj University in Partial Fulfilment of the

Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

SUBMITTED BY

2020MB78 PRAVAHANI M

2020MB79 RAAGASHWATHI S

2020MB80 RAGHAVI R

Under the Guidance of

Mrs.P.DHANAPRIYA, M.Sc, M.Phil., SET

Assistant Professor

Department of Mathematics



FATIMA COLLEGE (Autonomous)

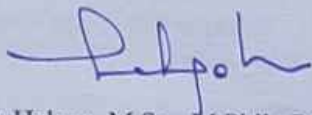
Re- Accredited with 'A++' Grade by NAAC(IV Cycle)

Madurai-625018,Tamilnadu.

APRIL 2023

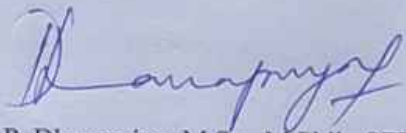
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON GROUP REPRESENTATION AND CHARACTER THEORY" by PRAVAHANI M (2020MB78) RAAGASHWATHI S (2020MB79), RAGHAVI R (2020MB80) in partial fulfillment of the requirements for the award of degree of Bachelor of Sciences in Mathematics submitted at Fatima College (Autonomous) under the guidance of Mrs. P. Dhanapriya.



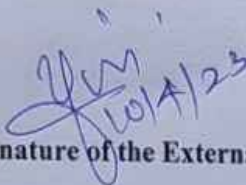
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Mrs. P. Dhanapriya, M.Sc., M.Phil., SET

Project Guide



10/11/23

Signature of the External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. P. Dhanapriya, Assistant Professor , Department of Mathematics, Fatima College (Autonomous), Madurai -18 and this work has not been submitted elsewhere for any other degree.

Date: 10/4/2023

Station : Madurai

M. Pravaheeni

M. PRAVAHENI (2020MB78)

S. Raagashwari

S. RAAGASHWATHI (2020MB79)

R. Raghavi

R. RAGHAVI (2020MB80)

STUDY ON ROOK POLYNOMIAL

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment
of the requirement for the award of the degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB81-Rajarajeswari.B

2020MB82-Sandhiya.P

2020MB83-Shalini.B.V

2020MB84-Shanmugapriya.M

Under the Guidance of

Mrs.P.Dhanapriya,M.Sc.,M.Phil., SET

Assistant Professor

Department of Mathematics



FATIMA COLLEGE (Autonomous)

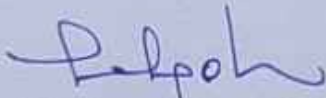
Re- Accredited with 'A++' Grade by NAAC(IV Cycle)

Madurai-625018, Tamilnadu.

APRIL 2023

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON ROOK POLYNOMIAL" by **RAJA RAJESWARLB(2020MB81), SANDHIYA.P(2020MB82), SHALINLB.V(2020MB83), SHANMUGAPRIYA.M(2020MB84)** in partial fulfillment of the requirements for the award of degree of Bachelor of Sciences in Mathematics submitted at Fatima College(Autonomous) under the guidance of Mrs. P. Dhanapriya.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D.

Head of the Department



Mrs. P. Dhanapriya, M.Sc., M.Phil., SET

Project Guide



Signature of the External Examiner

DECLARATION

We do here by declare that this work has been originally carried out by us under the guidance and supervision of Mrs.P.Dhanapriya M.Sc., M.Phil., SET., Assistant Professor , Department of Mathematics, Fatima college (Autonomous) , Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 10.04.2023

Station: MADURAI

B. Raja Rajeshwari

B. RAJARAJESWARI(2020MB81)

P. Sandhya

P.SANDHIYA(2020MB82)

B.V. Shalini

B. V.SHALINI(2020MB83)

M. Shanmugapriya

M.SHANMUGAPRIYA(2020MB84)

A STUDY ON HOMOTOPY PERTURBATION METHOD TO SOLVE QUASI-LINEAR PARTIAL DIFFERENTIAL EQUATION

A Project Submitted to Madurai Kamaraj University in Partial Fulfillment of
the requirement for the award of degree of

BACHELOR OF SCIENCE IN MATHEMATICS

SUBMITTED BY

2020MB85 SIVANANTHINI V

2020MB86 SIVARANJANI R

2020MB87 SONIGA R

2020MB88 SREE LAKSHMI R

Under the Guidance of

Mrs. P. DHANAPRIYA, M.Sc., M.Phil., SET

Assistant Professor

Department of Mathematics



FATIMA COLLEGE (Autonomous)

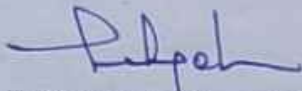
Re- Accredited with 'A++' Grade by NAAC (IV Cycle)

Madurai-625018, Tamilnadu.

APRIL 2023

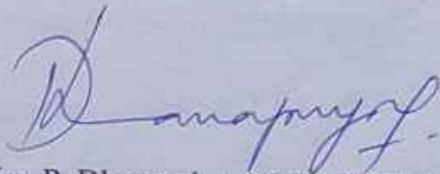
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON HOMOTOPY PERTURBATION METHOD TO SOLVE QUASI-LINEAR PARTIAL DIFFERENTIAL EQUATION" by SIVANANTHINI.V (2020MB85), SIVARANJANI.R(2020MB86), SONIGA.R (2020MB87), SREE LAKSHMI.R(2020MB88) in partial fulfillment of the requirements for the award of degree of Bachelor of Sciences in Mathematics submitted at Fatima College(Autonomous) under the guidance of Mrs. P. Dhanapriya.



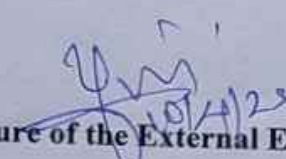
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D.

Head of the Department



Mrs. P. Dhanapriya, M.Sc., M.Phil., SET

Project Guide



Signature of the External Examiner

DECLARATION

We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. P. Dhanapriya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 10.04.2023

Station: Madurai.

V. Sivananthini

SIVANANTHINI.V (2020MB85)

R. Sivaranjani

SIVARANJANI.R (2020MB86)

R. Soniga

SONIGA.R (2020MB87)

Sree Lakshmi R

SREE LAKSHMI.R (2020MB88)

A STUDY ON ELEMENTARY THEORY OF POWER SERIES ON COMPLEX ANALYSIS

A Project submitted to Madurai Kamaraj University in Partial Fulfilment
of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB89 - SUBUHANIIYA.M

2020MB90 - SUVEETHA.R

2020MB91 - SWETHA.M

Under the Guidance of

Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA. ADHT.

Assistant professor

Department of Mathematics (SF)



Fatima College (Autonomous)

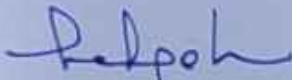
Re-Accredited with 'A++' Grade by NAAC (4th cycle)

Mary Land, Madurai – 625 018, Tamil Nadu.

APRIL - 2023.

BONAFIDE CERTIFICATE

This is to certify that the project entitled "**A STUDY ON ELEMENTARY THEORY OF POWER SERIES ON COMPLEX ANALYSIS**" by (2020MB89) SUBUHANIYA.M, (2020MB90) SUVEETHA.R, (2020MB91) SWETHA.M, in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Dr. M. Subha.



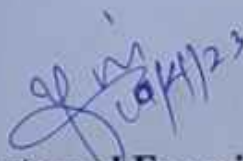
Dr.E.Helena.M.Sc.,M.Phil.,PGDCA.,Ph.D.

Head of the Department



Dr.M.Subha M.Sc.,M.Phil.,Ph.D.,DCA.,ADHT

Project Guide



External Examiner

DECLARATION

We do hereby declare that this project is a Bonafede record of work carried out by us under the guidance and supervision of Dr. M. SUBHA M.Sc., M.Phil., Ph.D., DCA., ADHT., Assistant professor, Department of Mathematics (S.F), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfilment for the award on degree of Bachelor of Science in Mathematics.

Date: 10 /04/2023

Station: Madurai.

M. Subuhaniya

SUBUHANIYA.M (2020MB89)

Suveetha.R.

SUVEETHA.R (2020MB90)

M. Swetha.

SWETHA.M (2020MB91)

A STUDY ON ANALYTIC FUNCTION AS MAPPING IN COMPLEX ANALYSIS

A Project submitted to Madurai Kamaraj University in Partial Fulfilment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB92 N.Thanga Meenakshi

2020MB93 V.Vairameena

2020MB95 A.Vinupriya

2020MB96 K.Yamini Karthiswari

Under the Guidance of

Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA. ADHT.

Assistant professor

Department of Mathematics (SF)



Fatima College (Autonomous)

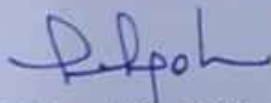
Re-Accredited with 'A++' Grade by NAAC (4th cycle)

Mary Land, Madurai – 625 018, Tamil Nadu.

APRIL - 2023.

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON ANALYTIC FUNCTION AS MAPPING IN COMPLEX ANALYSIS " by (2020MB92) N.Thanga Meenakshi, (2020MB93) V.Vairameena, (2020MB95) A.Vinupriya, (2020MB96) K.Yamini Karthiswari, in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Dr. M. Subha.



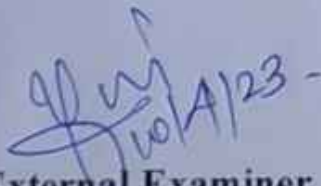
Dr. E. Helena. M.Sc., M.Phil., PGDCA., Ph.D.

Head of the Department



Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT

Project Guide



External Examiner

DECLARATION

We do hereby declare that this project is a bonafide record of work carried out by us under the guidance and supervision of **Dr. M. SUBHA M.Sc.,M.Phil.,Ph.D.,DCA.,ADHT.** Assistant professor, Department of Mathematics (S.F), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award on degree of **Bachelor of Science in Mathematics.**

Date: 10.04.2023

Station: Madurai.

N. Thanga Meenakshi
Thanga Meenakshi.N(2020MB92)

V.Vairameena
Vairameena.V(2020MB93)

A. Vinupriya
Vinupriya.A(2020MB95)

K. Yamini Karthiswari
Yamini Karthiswari.K(2020MB96)

**A STUDY ON LOCAL PROPERTIES OF ANALYTIC FUNCTION IN
COMPLEX ANALYSIS**

A Project submitted to Madurai Kamaraj University in Partial Fulfilment
of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2020MB97 A.Yogalakshmi

2020MB98 K.Swetha

2020MB99 M.Sushma

2019MB57 S.Dhanushka

Under the Guidance of

Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA- ADITT.

Assistant professor

Department of Mathematics (SF)



Fatima College (Autonomous)

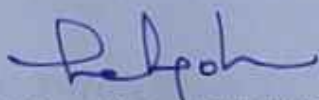
Re-Accredited with 'A++' Grade by NAAC (4th cycle)

Mary Land, Madurai – 625 018, Tamil Nadu.

APRIL 2023.

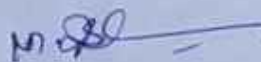
BONAFIDE CERTIFICATE

This is to certify that the project entitled "STUDY ON LOCAL PROPERTIES OF ANALYTIC FUNCTION IN COMPLEX ANALYSIS" by (2020MB97) A.Yogalakshmi, (2020MB98) K.Swetha . (2020MB99) M.Sushma, (2019MB57) S.Dhanushka. in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under the guidance of Dr. M. Subha.



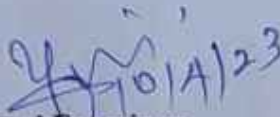
Dr.E.Helena,M.Sc.,M.Phil.,PGDCA.,Ph.D.

Head of the Department



Dr.M.Subha M.Sc.,M.Phil.,Ph.D.,DCA.,ADHT

Project guide



24/10/23

External Examiner

DECLARATION

We do hereby declare that this project is a bonafide record of work carried out by us under the guidance and supervision of **Dr. M. SUBHA M.Sc.,M.Phil.,Ph.D.,DCA.,ADHT.,** Assistant professor, Department of Mathematics (S.F), Fatima College, Madurai affiliated to Madurai Kamaraj University, Madurai in partial fulfillment for the award on degree of **Bachelor of Science in Mathematics.**

Date: 10/04/2023

Station: Madurai.

A.Yogalakshmi
Yogalakshmi.A(2020MB97)

K. Swetha
Swetha.K(2020MB98)

M.Sushma
Sushma.M(2020MB99)

S.Dhanushka
Dhanushka.S(2019MB57)