

CONNECTIVITY IN FUZZY GRAPHS

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB01 AANANDHI.K

2018MB02 AKSHAYA.A

2018MB04 ARTHI.A

2018MB05 ASMATH HASEENA.R

Under the Guidance of

Dr. E. Helena M.Sc., M. Phil., PGDCA., Ph.D(HOD)



Fatima College (Autonomous)

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

College with Potential for Excellence (2004-2019)

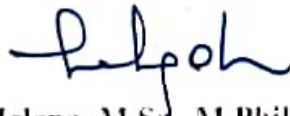
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL- 2020

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "CONNECTIVITY IN FUZZY GRAPHS" by AANANDHI K (2018MB01), AKSHAYA A (2018MB02), ARTHI A (2018MB04), ASMATH HASEENA R (2018MB05) in partial fulfillment of the requirement for the award of the Degree of Bachelor of Science in Mathematics submitted at FATIMA COLLEGE (AUTONOMOUS) under the guidance of Dr. E. Helena.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.21

Station: Madurai

K. Aanandhi
Aanandhi K (2018MB01)

A. Akshaya
Akshaya A (2018MB02)

Arthi A
Arthi A (2018MB04)

R. Asmath Haseena
Asmath Haseena R (2018MB05)

CONNECTIVITY IN FUZZY GRAPHS

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB01 AANANDHI.K

2018MB02 AKSHAYA.A

2018MB04 ARTHI.A

2018MB05 ASMATH HASEENA.R

Under the Guidance of

Dr. E. Helena M.Sc., M. Phil., PGDCA., Ph.D(HOD)



Fatima College (Autonomous)

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

College with Potential for Excellence (2004-2019)

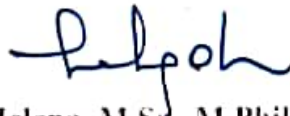
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL- 2020

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "CONNECTIVITY IN FUZZY GRAPHS" by AANANDHI K (2018MB01), AKSHAYA A (2018MB02), ARTHI A (2018MB04), ASMATH HASEENA R (2018MB05) in partial fulfillment of the requirement for the award of the Degree of Bachelor of Science in Mathematics submitted at FATIMA COLLEGE (AUTONOMOUS) under the guidance of Dr. E. Helena.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.21

Station: Madurai

K. Aanandhi
Aanandhi K (2018MB01)

A. Akshaya
Akshaya A (2018MB02)

Arthi A
Arthi A (2018MB04)

R. Asmath Haseena
Asmath Haseena R (2018MB05)

CONNECTIVITY IN FUZZY GRAPHS

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB01 AANANDHI.K

2018MB02 AKSHAYA.A

2018MB04 ARTHI.A

2018MB05 ASMATH HASEENA.R

Under the Guidance of

Dr. E. Helena M.Sc., M. Phil., PGDCA., Ph.D(HOD)



Fatima College (Autonomous)

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

College with Potential for Excellence (2004-2019)

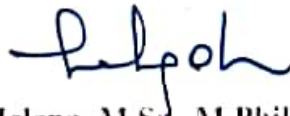
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL- 2020

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "CONNECTIVITY IN FUZZY GRAPHS" by AANANDHI K (2018MB01), AKSHAYA A (2018MB02), ARTHI A (2018MB04) ASMATH HASEENA R (2018MB05) in partial fulfillment of the requirement for the award of the Degree of Bachelor of Science in Mathematics submitted at FATIMA COLLEGE (AUTONOMOUS) under the guidance of Dr. E. Helena.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.21

Station: Madurai

K. Aanandhi
Aanandhi K (2018MB01)

A. Akshaya
Akshaya A (2018MB02)

Arthi A
Arthi A (2018MB04)

R. Asmath Haseena
Asmath Haseena R (2018MB05)

CONNECTIVITY IN FUZZY GRAPHS

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB01 AANANDHI.K

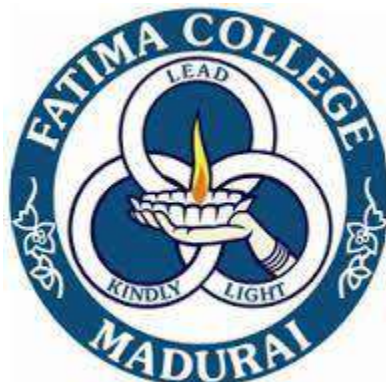
2018MB02 AKSHAYA.A

2018MB04 ARTHI.A

2018MB05 ASMATH HASEENA.R

Under the Guidance of

Dr. E. Helena M.Sc., M. Phil., PGDCA., Ph.D(HOD)



Fatima College (Autonomous)

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

College with Potential for Excellence (2004-2019)

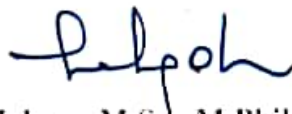
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL- 2020

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "CONNECTIVITY IN FUZZY GRAPHS" by AANANDHI K (2018MB01), AKSHAYA A (2018MB02), ARTHI A (2018MB04), ASMATH HASEENA R (2018MB05) in partial fulfillment of the requirement for the award of the Degree of Bachelor of Science in Mathematics submitted at FATIMA COLLEGE (AUTONOMOUS) under the guidance of Dr. E. Helena.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.21

Station: Madurai

K. Aanandhi
Aanandhi K (2018MB01)

A. Akshaya
Akshaya A (2018MB02)

Arthi A
Arthi A (2018MB04)

R. Asmath Haseena
Asmath Haseena R (2018MB05)

Fuzzy 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 (SF)

Submitted by

R. BAVANI (2018MB06)

P. CHERLIN MADHUMITHA (2018MB07)

S. DEEPADHARSHINI (2018MB08)

A. DESHKA (2018MB09)

Under the guidance of

Dr. E. Helena, M.Sc., M.Phil., PGDCA., Ph.D. (HOD)



FATIMA COLLEGE (AUTONOMOUS)

(Affiliated to Madurai Kamaraj University)

College with Potential for Excellence

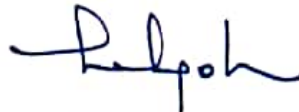
Re – Accredited with “A” Grade by NACC (3rd Cycle)

74th Rank in India Ranking 2021(NIRF) by MHRD

Mary Land, Madurai – 625018 Tamil Nadu, India.

BONAFIDE CERTIFICATE

This is to certify that the project entitled“ *FOREST AND TREES IN FUZZY GRAPH THEORY*” by R. BAVANI (2018MB06), P. CHERLIN MADHUMITHA (2018MB07), S. DEEPADHARSHINI (2018MB08), A. DESHIKA (2018MB09)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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

R. Bavani

Bavani R (2018MB06)

P. Cherlin Madhumitha

Cherlin Madhumitha P (2018MB07)

S. Deepadharshini

Deepadharshini S (2018MB08)

Deshika A.

Deshika A (2018MB09)

Fuzzy 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 (SF)

Submitted by

R. BAVANI (2018MB06)

P. CHERLIN MADHUMITHA (2018MB07)

S. DEEPADHARSHINI (2018MB08)

A. DESHKA (2018MB09)

Under the guidance of

Dr. E. Helena, M.Sc., M.Phil., PGDCA., Ph.D. (HOD)



FATIMA COLLEGE (AUTONOMOUS)

(Affiliated to Madurai Kamaraj University)

College with Potential for Excellence

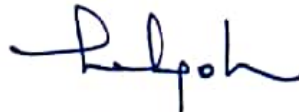
Re – Accredited with “A” Grade by NACC (3rd Cycle)

74th Rank in India Ranking 2021(NIRF) by MHRD

Mary Land, Madurai – 625018 Tamil Nadu, India.

BONAFIDE CERTIFICATE

This is to certify that the project entitled“ *FOREST AND TREES IN FUZZY GRAPH THEORY*” by R. BAVANI (2018MB06), P. CHERLIN MADHUMITHA (2018MB07), S. DEEPADHARSHINI (2018MB08), A. DESHIKA (2018MB09)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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

R. Bavani
Bavani R (2018MB06)

P. Cherlin Madhumitha
Cherlin Madhumitha P (2018MB07)

S. Deepadharshini
Deepadharshini S (2018MB08)

Deshika A.
Deshika A (2018MB09)

Fuzzy 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 (SF)

Submitted by

R. BAVANI (2018MB06)

P. CHERLIN MADHUMITHA (2018MB07)

S. DEEPADHARSHINI (2018MB08)

A. DESHKA (2018MB09)

Under the guidance of

Dr. E. Helena, M.Sc., M.Phil., PGDCA., Ph.D. (HOD)



FATIMA COLLEGE (AUTONOMOUS)

(Affiliated to Madurai Kamaraj University)

College with Potential for Excellence

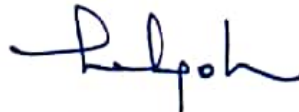
Re – Accredited with “A” Grade by NACC (3rd Cycle)

74th Rank in India Ranking 2021(NIRF) by MHRD

Mary Land, Madurai – 625018 Tamil Nadu, India.

BONAFIDE CERTIFICATE

This is to certify that the project entitled“ *FOREST AND TREES IN FUZZY GRAPH THEORY*” by R. BAVANI (2018MB06), P. CHERLIN MADHUMITHA (2018MB07), **S. DEEPADHARSHINI (2018MB08)**, A. DESHIKA (2018MB09)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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

R. Bavani
Bavani R (2018MB06)

P. Cherlin Madhumitha
Cherlin Madhumitha P (2018MB07)

S. Deepadharshini
Deepadharshini S (2018MB08)

Deshika A.
Deshika A (2018MB09)

Fuzzy 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 (SF)

Submitted by

R. BAVANI (2018MB06)

P. CHERLIN MADHUMITHA (2018MB07)

S. DEEPADHARSHINI (2018MB08)

A. DESHKA (2018MB09)

Under the guidance of

Dr. E. Helena, M.Sc., M.Phil., PGDCA., Ph.D. (HOD)



FATIMA COLLEGE (AUTONOMOUS)

(Affiliated to Madurai Kamaraj University)

College with Potential for Excellence

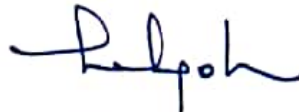
Re – Accredited with “A” Grade by NACC (3rd Cycle)

74th Rank in India Ranking 2021(NIRF) by MHRD

Mary Land, Madurai – 625018 Tamil Nadu, India.

BONAFIDE CERTIFICATE

This is to certify that the project entitled“ *FOREST AND TREES IN FUZZY GRAPH THEORY*” by R. BAVANI (2018MB06), P. CHERLIN MADHUMITHA (2018MB07), S. DEEPADHARSHINI (2018MB08), **A. DESHIKA (2018MB09)** 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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

R. Bavani
Bavani R (2018MB06)

P. Cherlin Madhumitha
Cherlin Madhumitha P (2018MB07)

S. Deepadharshini
Deepadharshini S (2018MB08)

Deshika A.
Deshika A (2018MB09)

FUZZY CUT SETS

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

2018MB10 Devadharshini M

2018MB11 Devadharshini R

2018MB12 Dharani K

2018MB13 Dhivya M

2018MB14 Gayathri G

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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.

MARCH, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "FUZZY CUT SETS" by M. DEVADHARSHINI (2018MB10), R. DEVADHARSHINI (2018MB11), K. DHARANI (2018MB12), M. DHIVYA (2018MB13), and G. GAYATHRI (2018MB14) 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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Devadharshini
Devadharshini M (2018MB10)

Devadharshini R
Devadharshini R (2018MB11)

K. Dharani
Dharani K (2018MB12)

H. Dhivya
Dhivya M (2018MB13)

G. Gayathri
Gayathri G (2018MB14)

FUZZY CUT SETS

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

2018MB10 Devadharshini M

2018MB11 Devadharshini R

2018MB12 Dharani K

2018MB13 Dhivya M

2018MB14 Gayathri G

Under the Guidance of

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

Assistant Professor

Department of Mathematics



FATIMA COLLEGE [Autonomous]

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

College with Potential for Excellence (2004-2019)

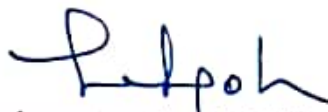
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

MARCH, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "FUZZY CUT SETS" by M. DEVADHARSHINI (2018MB10), R. DEVADHARSHINI (2018MB11), K. DHARANI (2018MB12), M. DHIVYA (2018MB13), and G. GAYATHRI (2018MB14) 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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Devadharshini
Devadharshini M (2018MB10)

Devadharshini R
Devadharshini R (2018MB11)

K. Dharani
Dharani K (2018MB12)

H. Dhivya
Dhivya M (2018MB13)

G. Gayathri
Gayathri G (2018MB14)

FUZZY CUT SETS

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

2018MB10 Devadharshini M

2018MB11 Devadharshini R

2018MB12 Dharani K

2018MB13 Dhivya M

2018MB14 Gayathri G

Under the Guidance of

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

Assistant Professor

Department of Mathematics



FATIMA COLLEGE [Autonomous]

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

College with Potential for Excellence (2004-2019)

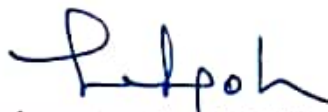
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

MARCH, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "FUZZY CUT SETS" by M. DEVADHARSHINI (2018MB10), R. DEVADHARSHINI (2018MB11), K. DHARANI (2018MB12) M. DHIVYA (2018MB13), and G. GAYATHRI (2018MB14) 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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Devadharshini
Devadharshini M (2018MB10)

Devadharshini R
Devadharshini R (2018MB11)

K. Dharani
Dharani K (2018MB12)

H. Dhivya
Dhivya M (2018MB13)

G. Gayathri
Gayathri G (2018MB14)

FUZZY CUT SETS

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

2018MB10 Devadharshini M

2018MB11 Devadharshini R

2018MB12 Dharani K

2018MB13 Dhivya M

2018MB14 Gayathri G

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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.

MARCH, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "FUZZY CUT SETS" by M. DEVADHARSHINI (2018MB10), R. DEVADHARSHINI (2018MB11), K. DHARANI (2018MB12), M. DHIVYA (2018MB13), and G. GAYATHRI (2018MB14) 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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Devadharshini
Devadharshini M (2018MB10)

Devadharshini R
Devadharshini R (2018MB11)

K. Dharani
Dharani K (2018MB12)

H. Dhivya
Dhivya M (2018MB13)

G. Gayathri
Gayathri G (2018MB14)

FUZZY CUT SETS

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

2018MB10 Devadharshini M

2018MB11 Devadharshini R

2018MB12 Dharani K

2018MB13 Dhivya M

2018MB14 Gayathri G

Under the Guidance of

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

Assistant Professor

Department of Mathematics



FATIMA COLLEGE [Autonomous]

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

College with Potential for Excellence (2004-2019)

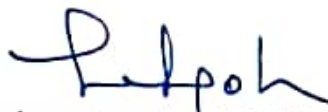
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

MARCH, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "FUZZY CUT SETS" by M. DEVADHARSHINI (2018MB10), R. DEVADHARSHINI (2018MB11), K. DHARANI (2018MB12), M. DHIVYA (2018MB13), and **G. GAYATHRI (2018MB14)** 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.



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, Head & Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Devadharshini
Devadharshini M (2018MB10)

Devadharshini R
Devadharshini R (2018MB11)

K. Dharani
Dharani K (2018MB12)

H. Dhivya
Dhivya M (2018MB13)

G. Gayathri
Gayathri G (2018MB14)

A STUDY ON RATE OF CONVERGENCE OF ITERATIVE METHODS IN NUMERICAL METHODS

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

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB15 S. Gayathri

2018MB16 J. Grailin Devotta

2018MB17 R. Gunashalini

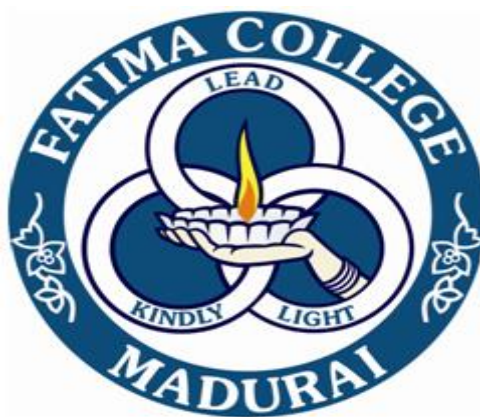
2018MB18 R. Guru Soundarya

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 (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-2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON RATE OF CONVERGENCE OF ITERATIVE METHODS IN NUMERICAL METHODS" by **S. Gayathri (2018MB15)**, J. Grailin Devotta (2018MB16), R. Gunashalini (2018MB17), R. Guru Soundarya (2018MB18) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under guidance of Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT.,



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



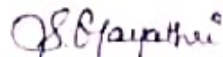
Signature of the External Examiner

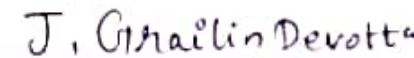
DECLARATION

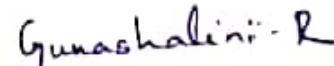
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai


Gayathri S (2018MB15)


Grailin Devotta J (2018MB16)


Gunashalini R (2018MB17)


Guru Soundarya R (2018MB18)

A STUDY ON RATE OF CONVERGENCE OF ITERATIVE METHODS IN NUMERICAL METHODS

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

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB15 S. Gayathri

2018MB16 J. Grailin Devotta

2018MB17 R. Gunashalini

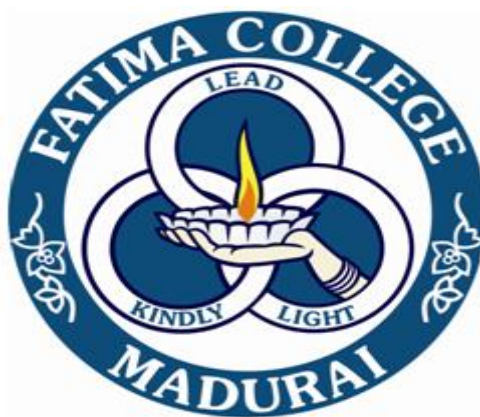
2018MB18 R. Guru Soundarya

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 (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-2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON RATE OF CONVERGENCE OF ITERATIVE METHODS IN NUMERICAL METHODS" by S. Gayathri (2018MB15), J. Grailin Devotta (2018MB16) R. Gunashalini (2018MB17), R. Guru Soundarya (2018MB18) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under guidance of Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT.,



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



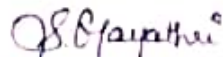
Signature of the External Examiner

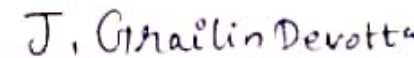
DECLARATION

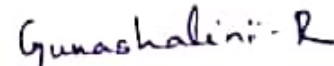
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai


Gayathri S (2018MB15)


Grailin Devotta J (2018MB16)


Gunashalini R (2018MB17)


Guru Soundarya R (2018MB18)

A STUDY ON RATE OF CONVERGENCE OF ITERATIVE METHODS IN NUMERICAL METHODS

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

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB15 S. Gayathri

2018MB16 J. Grailin Devotta

2018MB17 R. Gunashalini

2018MB18 R. Guru Soundarya

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 (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-2021

BONAFIDE CERTIFICATE

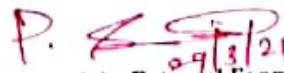
This is to certify that the project entitled "A STUDY ON RATE OF CONVERGENCE OF ITERATIVE METHODS IN NUMERICAL METHODS" by S. Gayathri (2018MB15), J. Grailin Devotta (2018MB16), R. Gunashalini (2018MB17), R. Guru Soundarya (2018MB18) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under guidance of Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT.,



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



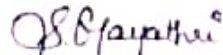
Signature of the External Examiner

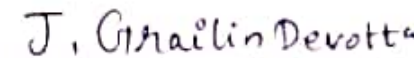
DECLARATION

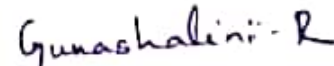
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

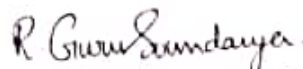
Date: 29.3.2021

Station: Madurai


Gayathri S (2018MB15)


Grailin Devotta J (2018MB16)


Gunashalini R (2018MB17)


Guru Soundarya R (2018MB18)

A STUDY ON RATE OF CONVERGENCE OF ITERATIVE METHODS IN NUMERICAL METHODS

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

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB15 S. Gayathri

2018MB16 J. Grailin Devotta

2018MB17 R. Gunashalini

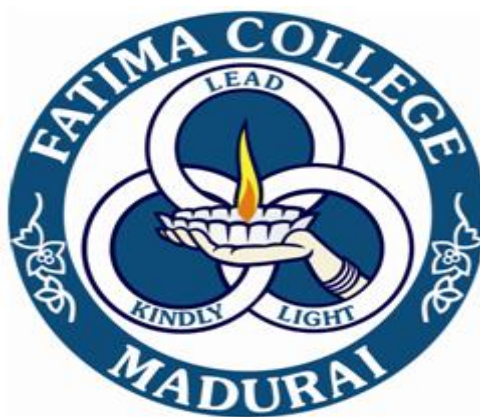
2018MB18 R. Guru Soundarya

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 (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-2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON RATE OF CONVERGENCE OF ITERATIVE METHODS IN NUMERICAL METHODS" by S. Gayathri (2018MB15), J. Grailin Devotta (2018MB16), R. Gunashalini (2018MB17), **R. Guru Soundarya (2018MB18)** in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College (Autonomous) under guidance of Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT.,



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



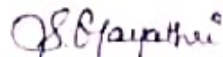
Signature of the External Examiner

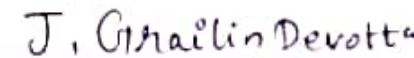
DECLARATION

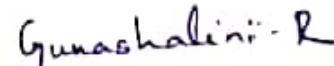
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai


Gayathri S (2018MB15)


Grailin Devotta J (2018MB16)


Gunashalini R (2018MB17)


Guru Soundarya R (2018MB18)

VARIOUS ITERATIVE METHOD FOR FINDING THE ROOTS OF THE POLYNOMIAL

A Project Submitted to Madurai Kamarajar University in Partial Fulfillment

of the Requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB19 Hari Nandhini . M

2018MB20 Harini . P

2018MB21 Harini . P

2018MB22 Harini . R. K

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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 2021**

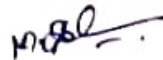
BONAFIDE CERTIFICATE

This is to certify that the project entitled "VARIOUS ITERATIVE
METHODFOR FINDING ROOTS OF THE POLYNOMIAL " by **M.**
Hari Nandhini (2018MB19), P. Harini (2018MB20), P. Harini
(2018MB21), R. K. Harini (2018MB22), inpartial fulfillment of the
requirements for the award of degree of Bachelor of Science in
Mathematicssubmitted at Fatima College(Autonomous) under the guidance of **Dr.**
M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT



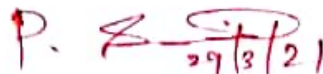
Dr.E.Helena,M.Sc.,M.Phil.,PGDCA.,Ph.d.

Head of the department



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

project Guide



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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Harinandhini
Hari Nandhini M (2018MB19)

P. Harini
Harini P (2018MB20)

P. Harini
Harini P (2018MB21)

R.K. Harini
Harini R K (2018MB22)

VARIOUS ITERATIVE METHOD FOR FINDING THE ROOTS OF THE POLYNOMIAL

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

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB19 Hari Nandhini . M

2018MB20 Harini . P

2018MB21 Harini . P

2018MB22 Harini . R. K

Under the Guidance of
Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT.,
Assistant Professor
Department of Mathematics



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 2021**

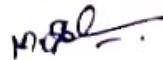
BONAFIDE CERTIFICATE

This is to certify that the project entitled "VARIOUS ITERATIVE METHODFOR FINDING ROOTS OF THE POLYNOMIAL " by M. Hari Nandhini (2018MB19) , P. Harini (2018MB20), P. Harini (2018MB21), R. K. Harini (2018MB22), inpartial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematicssubmitted at Fatima College(Autonomous) under the guidance of Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT



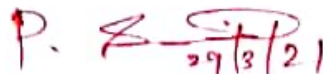
Dr.E.Helena,M.Sc.,M.Phil.,PGDCA.,Ph.d.

Head of the department



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

project Guide



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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Harinandhini
Hari Nandhini M (2018MB19)

P. Harini
Harini P (2018MB20)

P. Harini
Harini P (2018MB21)

R.K. Harini
Harini R K (2018MB22)

VARIOUS ITERATIVE METHOD FOR FINDING THE ROOTS OF THE POLYNOMIAL

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

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB19 Hari Nandhini . M

2018MB20 Harini . P

2018MB21 Harini . P

2018MB22 Harini . R. K

Under the Guidance of
Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT.,
Assistant Professor
Department of Mathematics



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 2021**

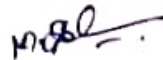
BONAFIDE CERTIFICATE

This is to certify that the project entitled "VARIOUS ITERATIVE
METHODFOR FINDING ROOTS OF THE POLYNOMIAL " by M.
Hari Nandhini (2018MB19) , P. Harini (2018MB20), P. Harini
(2018MB21), R. K. Harini (2018MB22), inpartial fulfillment of the
requirements for the award of degree of Bachelor of Science in
Mathematicssubmitted at Fatima College(Autonomous) under the guidance of Dr.
M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT



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



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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Harinandhini
Hari Nandhini M (2018MB19)

P. Harini
Harini P (2018MB20)

P. Harini
Harini P (2018MB21)

R.K. Harini
Harini R K (2018MB22)

VARIOUS ITERATIVE METHOD FOR FINDING THE ROOTS OF THE POLYNOMIAL

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

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB19 Hari Nandhini . M

2018MB20 Harini . P

2018MB21 Harini . P

2018MB22 Harini . R. K

Under the Guidance of
Dr. M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT.,
Assistant Professor
Department of Mathematics



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 2021**

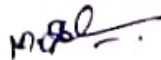
BONAFIDE CERTIFICATE

This is to certify that the project entitled "VARIOUS ITERATIVE
METHODFOR FINDING ROOTS OF THE POLYNOMIAL " by M.
Hari Nandhini (2018MB19) , P. Harini (2018MB20), P. Harini
(2018MB21), R. K. Harini (2018MB22), inpartial fulfillment of the
requirements for the award of degree of Bachelor of Science in
Mathematicssubmitted at Fatima College(Autonomous) under the guidance of Dr.
M. Subha M.Sc., M.Phil., Ph.D., DCA., ADHT



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



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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

M. Harinandhini
Hari Nandhini M (2018MB19)

P. Harini
Harini P (2018MB20)

P. Harini
Harini P (2018MB21)

R.K. Harini
Harini R K (2018MB22)

A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS

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

2018MB24 Infant Abisha J

2018MB25 Iswarya K

2018MB26 Janani K

2018MB27 Janaratchika R

2018MB28 Jasmine Sweatha J

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS" by INFANT ABISHA J (2018MB26), ISWARYA K (2018MB25), JANANI K (2018MB26), JANARATCHIKA R (2018MB27) and JASMINE SWEATHA J (2018MB28) 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



29/3/21

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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

J. Infant Abisha
Infant Abisha J (2018MB24)

Iswarya
Iswarya K (2018MB25)

K. Janani
Janani K (2018MB26)

R. Janaratchika
Janaratchika R (2018MB27) 21/3/21

J. Jasmine Sweetha
Jasmine Sweetha J (2018MB28)

A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS

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

2018MB24 Infant Abisha J

2018MB25 Iswarya K

2018MB26 Janani K

2018MB27 Janaratchika R

2018MB28 Jasmine Sweatha J

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS" by INFANT ABISHA J (2018MB26), ISWARYA K (2018MB25), JANANI K (2018MB26), JANARATCHIKA R (2018MB27) and JASMINE SWEATHA J (2018MB28) 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



29/3/21

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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

J. Infant Abisha
Infant Abisha J (2018MB24)

Iswarya
Iswarya K (2018MB25)

K. Janani
Janani K (2018MB26)

R. Janaratchika
Janaratchika R (2018MB27) ^{21/3/21}

J. Jasmine Sweetha
Jasmine Sweetha J (2018MB28)

A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS

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

2018MB24 Infant Abisha J

2018MB25 Iswarya K

2018MB26 Janani K

2018MB27 Janaratchika R

2018MB28 Jasmine Sweatha J

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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, 2021

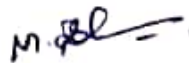
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS" by INFANT ABISHA J (2018MB26), ISWARYA K (2018MB25), JANANI K (2018MB26), JANARATCHIKA R (2018MB27) and JASMINE SWEATHA J (2018MB28) 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


29/3/21
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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

J. Infant Abisha
Infant Abisha J (2018MB24)

Iswarya
Iswarya K (2018MB25)

K. Janani
Janani K (2018MB26)

R. Janaratchika
Janaratchika R (2018MB27) ^{21/3/21}

J. Jasmine Sweetha
Jasmine Sweetha J (2018MB28)

A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS

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

2018MB24 Infant Abisha J

2018MB25 Iswarya K

2018MB26 Janani K

2018MB27 Janaratchika R

2018MB28 Jasmine Sweatha J

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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, 2021

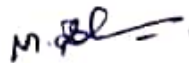
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS" by INFANT ABISHA J (2018MB26), ISWARYA K (2018MB25), JANANI K (2018MB26), JANARATCHIKA R (2018MB27) and JASMINE SWEATHA J (2018MB28) 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


29/3/21
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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

J. Infant Abisha
Infant Abisha J (2018MB24)

Iswarya
Iswarya K (2018MB25)

K. Janani
Janani K (2018MB26)

R. Janaratchika
Janaratchika R (2018MB27) 21/3/21

J. Jasmine Sweetha
Jasmine Sweetha J (2018MB28)

A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS

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

2018MB24 Infant Abisha J

2018MB25 Iswarya K

2018MB26 Janani K

2018MB27 Janaratchika R

2018MB28 Jasmine Sweatha J

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON EIGEN VALUES AND EIGEN VECTORS IN NUMERICAL METHODS" by INFANT ABISHA J (2018MB26), ISWARYA K (2018MB25), JANANI K (2018MB26), JANARATCHIKA R (2018MB27) and JASMINE SWEATHA J (2018MB28) 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



29/3/21

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. M. Subha, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

J. Infant Abisha
Infant Abisha J (2018MB24)

Iswarya
Iswarya K (2018MB25)

K. Janani
Janani K (2018MB26)

R. Janaratchika
Janaratchika R (2018MB27) 21/3/21

J. Jasmine Sweetha
Jasmine Sweetha J (2018MB28)

A STUDY ON DOMINATING SET

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

2018MB30 A. KEERTHANA

2018MB31 N. KEERTHANA

2018MB32 S. KIRUTHIKA

2018MB33 R. KOWSALYA

Under the Guidance of

Mrs. Jenovi Rosary Deepa M.sc., M.Phil.,SET, PGDCA

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

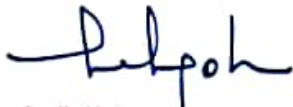
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL,2021

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON DOMINATING SET" by **A. KEERTHANA (2018MB30)**, **N. KEERTHANA (2018MB31)**, **S. KIRUTHIKA (2018MB32)** and **R. KOWSALYA (2018MB33)** 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
SET, PGDCA

Head Of The Department



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

Project Guide



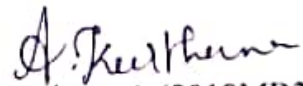
Signature of the External Examiner

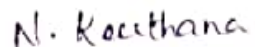
DECLARATION

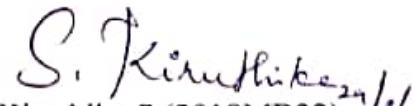
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. R. Jenovi Rosary Deepa, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

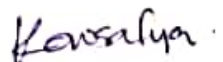
Date: 29.03.21

Station: Madurai


Keerthana A (2018MB30)


Keerthana N (2018MB31)


Kiruthika S (2018MB32) ^{24/3/21}


Kowsalya R (2018MB33)

A STUDY ON DOMINATING SET

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

2018MB30 A. KEERTHANA

2018MB31 N. KEERTHANA

2018MB32 S. KIRUTHIKA

2018MB33 R. KOWSALYA

Under the Guidance of

Mrs. Jenovi Rosary Deepa M.sc., M.Phil.,SET, PGDCA

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

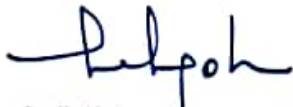
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL,2021

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON DOMINATING SET" by A. KEERTHANA (2018MB30), N. KEERTHANA (2018MB31), S. KIRUTHIKA (2018MB32) and R. KOWSALYA (2018MB33) 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
SET, PGDCA

Head Of The Department



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

Project Guide



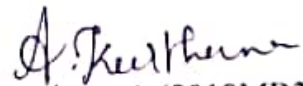
Signature of the External Examiner

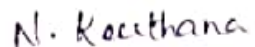
DECLARATION

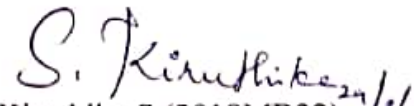
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. R. Jenovi Rosary Deepa, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

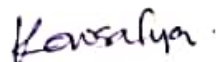
Date: 29.03.21

Station: Madurai


Keerthana A (2018MB30)


Keerthana N (2018MB31)


Kiruthika S (2018MB32) ^{24/3/21}


Kowsalya R (2018MB33)

A STUDY ON DOMINATING SET

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

2018MB30 A. KEERTHANA

2018MB31 N. KEERTHANA

2018MB32 S. KIRUTHIKA

2018MB33 R. KOWSALYA

Under the Guidance of

Mrs. Jenovi Rosary Deepa M.sc., M.Phil.,SET, PGDCA

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

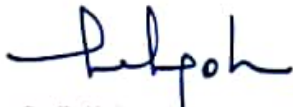
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL,2021

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON DOMINATING SET" by A. KEERTHANA (2018MB30), N. KEERTHANA (2018MB31), S. KIRUTHIKA (2018MB32) and R. KOWSALYA (2018MB33) 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
SET, PGDCA

Head Of The Department



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

Project Guide



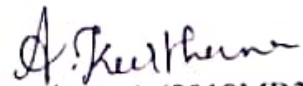
Signature of the External Examiner

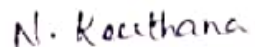
DECLARATION

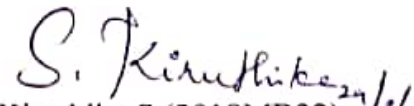
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. R. Jenovi Rosary Deepa, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

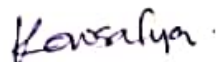
Date: 29.03.21

Station: Madurai


Keerthana A (2018MB30)


Keerthana N (2018MB31)


Kiruthika S (2018MB32) ^{24/3/21}


Kowsalya R (2018MB33)

A STUDY ON DOMINATING SET

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

2018MB30 A. KEERTHANA

2018MB31 N. KEERTHANA

2018MB32 S. KIRUTHIKA

2018MB33 R. KOWSALYA

Under the Guidance of

Mrs. Jenovi Rosary Deepa M.sc., M.Phil.,SET, PGDCA

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

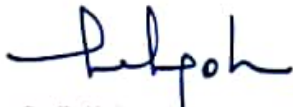
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL,2021

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON DOMINATING SET" by A. KEERTHANA (2018MB30), N. KEERTHANA (2018MB31), S. KIRUTHIKA (2018MB32) and R. KOWSALYA (2018MB33) 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
SET, PGDCA

Head Of The Department



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

Project Guide



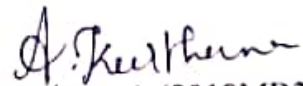
Signature of the External Examiner

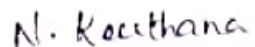
DECLARATION

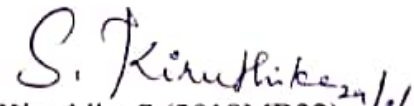
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. R. Jenovi Rosary Deepa, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

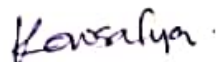
Date: 29.03.21

Station: Madurai


Keerthana A (2018MB30)


Keerthana N (2018MB31)


Kiruthika S (2018MB32) ^{24/3/21}


Kowsalya R (2018MB33)

DOMINANCE NUMBER

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

P. Lakshmi Prabha -2018MB34

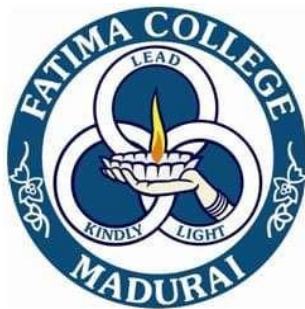
A. Lavanya -2018MB35

M. Mahalakshmi -2018MB36

K. Meera kumari -2018MB37

Under the Guidance of

Mrs.R.Jenovi Rosary Deepa Msc., M.Phil., SET, PGDCA
Assistant Professor
Department of Mathematics



Fatima College[Autonomous]

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

College with Potential for Excellence (2004-2019)

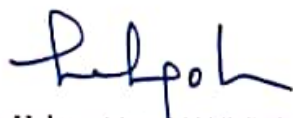
74th Rank in India Ranking 2020(NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

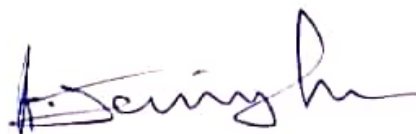
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project report entitle "DOMINANCE NUMBER" by **P. LAKSHMI PRABHA 2018MB34**, **A. LAVANYA 2018MB35**, **M. MAHALASKHIMI 2018MB36** and **K. MEERA KUMARI 2018MB37** in partial fulfillment of the requirements for the award of the degree of Bachelor of Science and Mathematics submitted at FATIMA COLLEGE (AUTOMOMOUS).



Dr.E. Helena M.Sc, M.Phil, PGDCA, P.hd



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

Head of the Department

Faculty 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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

P. Lakshmi Prabha

Lakshmi Prabha P (2018MB34)

Lavanya A

Lavanya A (2018MB35)

M. Mahalakshmi

Mahalakshmi M (2018MB36)

K. Meera Kumari

Meera Kumari K (2018MB37)

DOMINANCE NUMBER

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

P. Lakshmi Prabha -2018MB34

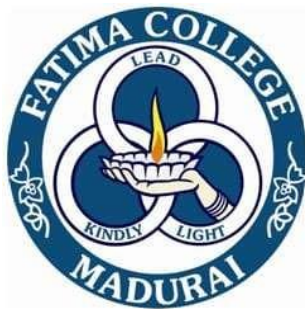
A. Lavanya -2018MB35

M. Mahalakshmi -2018MB36

K. Meera kumari -2018MB37

Under the Guidance of

Mrs.R.Jenovi Rosary Deepa Msc., M.Phil., SET, PGDCA
Assistant Professor
Department of Mathematics



Fatima College[Autonomous]

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

College with Potential for Excellence (2004-2019)

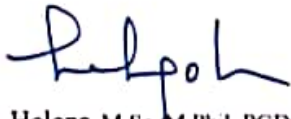
74th Rank in India Ranking 2020(NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

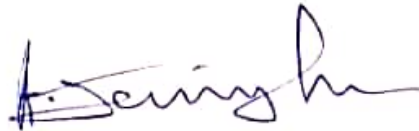
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project report entitle "DOMINANCE NUMBER" by P. LAKSHMI PRABHA 2018MB34, A. LAVANYA 2018MB35, M. MAHALASKHIMI 2018MB36 and K. MEERA KUMARI 2018MB37 in partial fulfillment of the requirements for the award of the degree of Bachelor of Science and Mathematics submitted at FATIMA COLLEGE (AUTOMOMOUS).



Dr.E. Helena M.Sc, M.Phil, PGDCA, P.hd



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

Head of the Department

Faculty 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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

P. Lakshmi Prabha

Lakshmi Prabha P (2018MB34)

Lavanya A

Lavanya A (2018MB35)

M. Mahalakshmi

Mahalakshmi M (2018MB36)

K. Meera Kumari

Meera Kumari K (2018MB37)

DOMINANCE NUMBER

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

P. Lakshmi Prabha -2018MB34

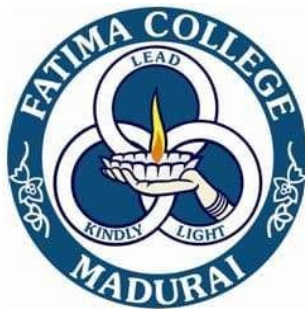
A. Lavanya -2018MB35

M. Mahalakshmi -2018MB36

K. Meera kumari -2018MB37

Under the Guidance of

Mrs.R.Jenovi Rosary Deepa Msc., M.Phil., SET, PGDCA
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project report entitle “DOMINANCE NUMBER” by P. LAKSHMI PRABHA 2018MB34 ,A. LAVANYA 2018MB35, **M. MAHALAKSHMI 2018MB36** and K. MEERA KUMARI 2018MB37 in partial fulfillment of the requirements for the award of the degree of Bachelor of Science and Mathematics submitted at FATIMA COLLEGE (AUTONOMOUS).

[Signature]

Dr.E. Helena M.Sc, M.Phil, PGDCA, P.hd

Spring

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

Head of the Department

Faculty 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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

P. Lakshmi Prabha

Lakshmi Prabha P (2018MB34)

Lavanya A

Lavanya A (2018MB35)

M. Mahalakshmi

Mahalakshmi M (2018MB36)

K. Meera Kumari

Meera Kumari K (2018MB37)

DOMINANCE NUMBER

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

P. Lakshmi Prabha -2018MB34

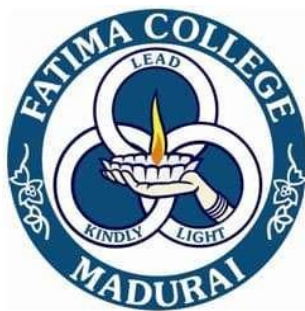
A. Lavanya -2018MB35

M. Mahalakshmi -2018MB36

K. Meera kumari -2018MB37

Under the Guidance of

Mrs.R.Jenovi Rosary Deepa Msc., M.Phil., SET, PGDCA
Assistant Professor
Department of Mathematics



Fatima College[Autonomous]

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

College with Potential for Excellence (2004-2019)

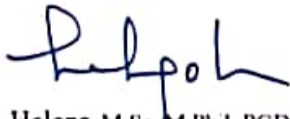
74th Rank in India Ranking 2020(NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

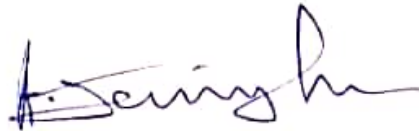
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project report entitle "DOMINANCE NUMBER" by P. LAKSHMI PRABHA 2018MB34 ,A. LAVANYA 2018MB35, M. MAHALASKIIMI 2018MB36 and **K. MEERA KUMARI 2018MB37** in partial fulfillment of the requirements for the award of the degree of Bachelor of Science and Mathematics submitted at FATIMA COLLEGE (AUTOMOMOUS).



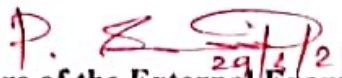
Dr.E. Helena M.Sc, M.Phil, PGDCA, P.hd



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

Head of the Department

Faculty 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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.3.2021

Station: Madurai

P. Lakshmi Prabha

Lakshmi Prabha P (2018MB34)

Lavanya A

Lavanya A (2018MB35)

M. Mahalakshmi

Mahalakshmi M (2018MB36)

K. Meera Kumari

Meera Kumari K (2018MB37)

A study on 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

2018MB38 Mekala C

2018MB39 Menaka K

2018MB40 Nivetha M

2018MB41 Pandi Selvi M

2018MB42 Priyadharshini V

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 (3rd cycle)

College with potential for excellence (2004-2019)

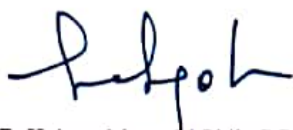
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL,2021

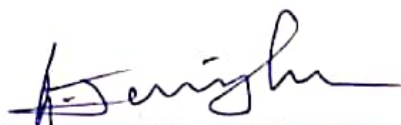
BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON TOPOLOGY"
by MEKALA.C(2018MB38), MENAKA.K (2018MB39),
NIVETHA.M (2018MB40), PANDI SELVI.M (2018MB41),
PRIYADHARSHINI.V (2018MB42) 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.



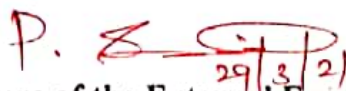
Dr.E. Helena M.sc., M.Phil., PGDCA, Ph.D

Head Of The Department



Mrs. Jenovi Rosary Deepa M.sc., M.Phil., SET.PGDCA

Project Guide


29/3/21

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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

Mekala C (2018MB38)

Menaka K (2018MB39)

Nivetha M (2018MB40)

Pandi Selvi M (2018MB41)

Priyadharshini V (2018MB42)

A study on 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

2018MB38 Mekala C

2018MB39 Menaka K

2018MB40 Nivetha M

2018MB41 Pandi Selvi M

2018MB42 Priyadharshini V

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 (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,2021

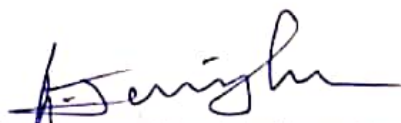
BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON TOPOLOGY"
by MEKALA.C(2018MB38), MENAKA.K (2018MB39),
NIVETHA.M (2018MB40), PANDI SELVI.M (2018MB41),
PRIYADHARSHINI.V (2018MB42) 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.



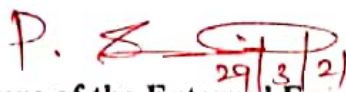
Dr.E. Helena M.sc., M.Phil., PGDCA, Ph.D

Head Of The Department



Mrs. Jenovi Rosary Deepa M.sc., M.Phil., SET.PGDCA

Project Guide


29/3/21

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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

Mekala C (2018MB38)

Menaka K (2018MB39)

Nivetha M (2018MB40)

Pandi Selvi M (2018MB41)

Priyadharshini V (2018MB42)

A study on 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

2018MB38 Mekala C

2018MB39 Menaka K

2018MB40 Nivetha M

2018MB41 Pandi Selvi M

2018MB42 Priyadharshini V

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 (3rd cycle)

College with potential for excellence (2004-2019)

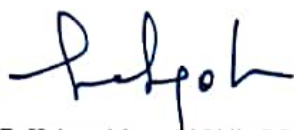
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL,2021

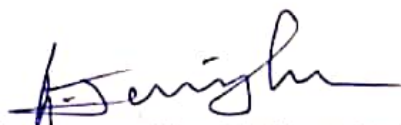
BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON TOPOLOGY"
by MEKALA.C(2018MB38), MENAKA.K (2018MB39),
NIVETHA.M (2018MB40), PANDI SELVI.M (2018MB41),
PRIYADHARSHINI.V (2018MB42) 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.



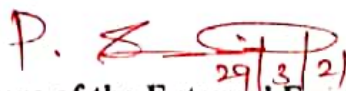
Dr.E. Helena M.sc., M.Phil., PGDCA, Ph.D

Head Of The Department



Mrs. 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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

Mekala C (2018MB38)

Menaka K (2018MB39)

Nivetha M (2018MB40)

Pandi Selvi M (2018MB41)

Priyadharshini V (2018MB42)

A study on 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

2018MB38 Mekala C

2018MB39 Menaka K

2018MB40 Nivetha M

2018MB41 Pandi Selvi M

2018MB42 Priyadharshini V

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 (3rd cycle)

College with potential for excellence (2004-2019)

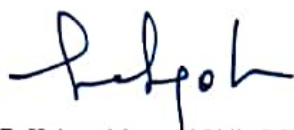
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL,2021

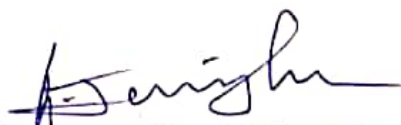
BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON TOPOLOGY"
by MEKALA.C(2018MB38), MENAKA.K (2018MB39),
NIVETHA.M (2018MB40), **PANDI SELVI.M (2018MB41)**,
PRIYADHARSHINI.V (2018MB42) 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.



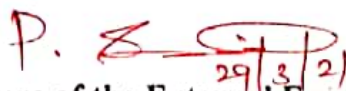
Dr.E. Helena M.sc., M.Phil., PGDCA, Ph.D

Head Of The Department



Mrs. Jenovi Rosary Deepa M.sc., M.Phil., SET.PGDCA

Project Guide


29/3/21

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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

Mekala C (2018MB38)

Menaka K (2018MB39)

Nivetha M (2018MB40)

Pandi Selvi M (2018MB41)

Priyadharshini V (2018MB42)

A study on 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

2018MB38 Mekala C

2018MB39 Menaka K

2018MB40 Nivetha M

2018MB41 Pandi Selvi M

2018MB42 Priyadharshini V

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 (3rd cycle)

College with potential for excellence (2004-2019)

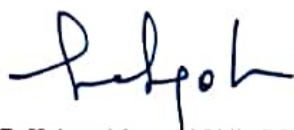
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL,2021

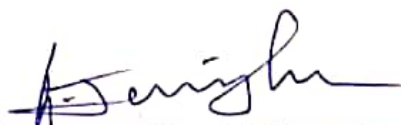
BONAFIDE CERTIFICATE

This is to certify that the project report entitled "A STUDY ON TOPOLOGY"
by MEKALA.C(2018MB38), MENAKA.K (2018MB39),
NIVETHA.M (2018MB40), PANDI SELVI.M (2018MB41),
PRIYADHARSHINI.V (2018MB42) 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.



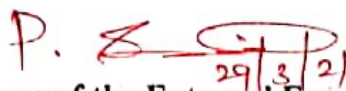
Dr.E. Helena M.sc., M.Phil., PGDCA, Ph.D

Head Of The Department



Mrs. Jenovi Rosary Deepa M.sc., M.Phil., SET.PGDCA

Project Guide


29/3/21

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, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29.03.21

Station: Madurai

Mekala C (2018MB38)

Menaka K (2018MB39)

Nivetha M (2018MB40)

Pandi Selvi M (2018MB41)

Priyadharshini V (2018MB42)

A STUDY ON CALCULUS OF VARIATIONS

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB43 RAJALAKSHMI.M.R

2018MB45 REVATHY.S

2018MB46 ROSHNE.B

2018MB47 SUGAPRIYA.S

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(3rd Cycle)

College with Potential for Excellence (2004-2019)

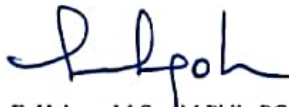
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

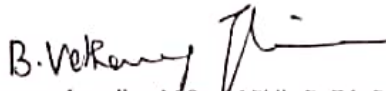
APRIL- 2020

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON CALCULUS OF VARIATIONS" by M.R. RAJALAKSHMI (2018MB43), S.REVATHY (2018MB45), B.ROSHNE (2018MB46), S.SUGA PRIYA (2018MB47) 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., PCDCA.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Rajalakshmi M.R
Rajalakshmi M R (2018MB43)

Revathy
Revathy S (2018MB45)

Roshne
Roshne B (2018MB46)

Sugapriya
Sugapriya S (2018MB47)

A STUDY ON CALCULUS OF VARIATIONS

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB43 RAJALAKSHMI.M.R

2018MB45 REVATHY.S

2018MB46 ROSHNE.B

2018MB47 SUGAPRIYA.S

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(3rd Cycle)

College with Potential for Excellence (2004-2019)

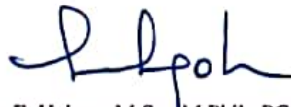
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

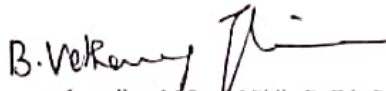
APRIL- 2020

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON CALCULUS OF VARIATIONS" by M.R. RAJALAKSHMI (2018MB43), S.REVATHY (2018MB45), B.ROSHNE (2018MB46), S.SUGA PRIYA (2018MB47) 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., PCDCA.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Rajalakshmi M.R
Rajalakshmi M R (2018MB43)

Revathy
Revathy S (2018MB45)

Roshne
Roshne B (2018MB46)

Sugapriya
Sugapriya S (2018MB47)

A STUDY ON CALCULUS OF VARIATIONS

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB43 RAJALAKSHMI.M.R

2018MB45 REVATHY.S

2018MB46 ROSHNE.B

2018MB47 SUGAPRIYA.S

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(3rd Cycle)

College with Potential for Excellence (2004-2019)

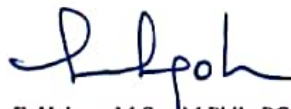
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

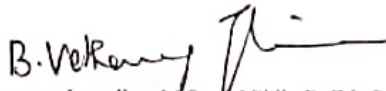
APRIL- 2020

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON CALCULUS OF VARIATIONS" by M.R. RAJALAKSHMI (2018MB43), S.REVATHY (2018MB45), **B.ROSHNE (2018MB46)**, S.SUGA PRIYA (2018MB47) 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., PCDCA.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Rajalakshmi M.R
Rajalakshmi M R (2018MB43)

Revathy
Revathy S (2018MB45)

Roshne
Roshne B (2018MB46)

Sugapriya
Sugapriya S (2018MB47)

A STUDY ON CALCULUS OF VARIATIONS

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB43 RAJALAKSHMI.M.R

2018MB45 REVATHY.S

2018MB46 ROSHNE.B

2018MB47 SUGAPRIYA.S

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(3rd Cycle)

College with Potential for Excellence (2004-2019)

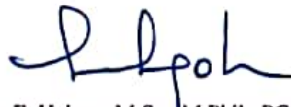
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

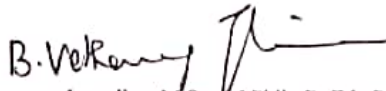
APRIL- 2020

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON CALCULUS OF VARIATIONS" by M.R. RAJALAKSHMI (2018MB43), S.REVATHY (2018MB45), B.ROSHNE (2018MB46), S.SUGA PRIYA (2018MB47) 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., PCDCA.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Rajalakshmi M.R
Rajalakshmi M R (2018MB43)

Revathy
Revathy S (2018MB45)

Roshne
Roshne B (2018MB46)

Sugapriya
Sugapriya S (2018MB47)

A STUDY ON JORDAN CANONICAL FORM

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB48 SALIETH PRISCILLA.S

2018MB49 SANDHYA DARSHINI.P

2018MB50 SASINIKA.M

2018MB51 SELVABAKKIAM D

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(3rd Cycle)

College with Potential for Excellence (2004-2019)


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

Mary Land, Madurai – 625018, Tamil Nadu.

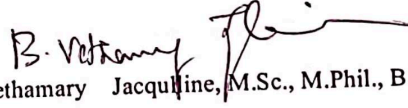
APRIL- 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON JORDAN CANONICAL FORM" by S. SALIETH PRISCILLA (2018MB48), P. SANDHYA DARSHINI (2018MB49), M. SASINIKA (2018MB50) and D. SEVABAKKIAM (2018MB51) 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


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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Salieth Priscilla

Salieth Priscilla S (2018MB48)

Sandhya Darshini

Sandhya Darshini P (2018MB49)

M. Sasnika

Sasinika M (2018MB50)

Selvabakkiam

Selvabakkiam D (2018MB51)

A STUDY ON JORDAN CANONICAL FORM

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB48 SALIETH PRISCILLA.S

2018MB49 SANDHYA DARSHINI.P

2018MB50 SASINIKA.M

2018MB51 SELVABAKKIAM D

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(3rd Cycle)

College with Potential for Excellence (2004-2019)

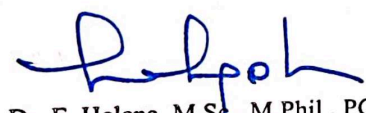
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

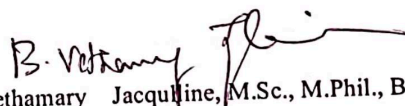
APRIL- 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON JORDAN CANONICAL FORM" by S. SALIETH PRISCILLA (2018MB48), P. SANDHYA DARSHINI (2018MB49), M. SASINIKA (2018MB50) and D. SEVABAKKIAM (2018MB51) 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

P. 
29/3/21
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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Salieth Priscilla

Salieth Priscilla S (2018MB48)

Sandhya Darshini

Sandhya Darshini P (2018MB49)

M. Sasnika

Sasinika M (2018MB50)

Selvabakkiam

Selvabakkiam D (2018MB51)

A STUDY ON JORDAN CANONICAL FORM

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB48 SALIETH PRISCILLA.S

2018MB49 SANDHYA DARSHINI.P

2018MB50 SASINIKA.M

2018MB51 SELVABAKKIAM D

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(3rd Cycle)

College with Potential for Excellence (2004-2019)


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

Mary Land, Madurai – 625018, Tamil Nadu.

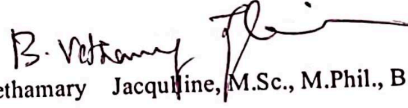
APRIL- 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “ A STUDY ON JORDAN CANONICAL FORM ” by S. SALIETH PRISCILLA (2018MB48), P. SANDHYA DARSHINI (2018MB49), M. SASINIKA (2018MB50) and D. SEVABAKKIAM (2018MB51) 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


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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Salieth Priscilla

Salieth Priscilla S (2018MB48)

Sandhya Darshini

Sandhya Darshini P (2018MB49)

M. Sasnika

Sasinika M (2018MB50)

Selvabakkiam

Selvabakkiam D (2018MB51)

A STUDY ON JORDAN CANONICAL FORM

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

BACHELOR OF SCIENCE IN MATHEMATICS(SF)

Submitted by

2018MB48 SALIETH PRISCILLA.S

2018MB49 SANDHYA DARSHINI.P

2018MB50 SASINIKA.M

2018MB51 SELVABAKKIAM D

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(3rd Cycle)

College with Potential for Excellence (2004-2019)

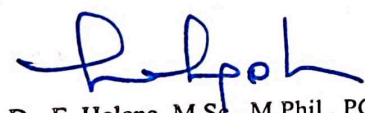
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

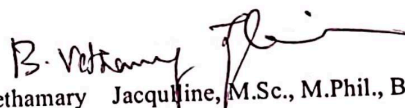
APRIL- 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON JORDAN CANONICAL FORM" by S. SALIETH PRISCILLA (2018MB48), P. SANDHYA DARSHINI (2018MB49), M. SASINIKA (2018MB50) and D. SEVABAKKIAM (2018MB51) 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


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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Salieth Priscilla

Salieth Priscilla S (2018MB48)

Sandhya Darshini

Sandhya Darshini P (2018MB49)

M. Sasnika

Sasinika M (2018MB50)

Selvabakkiam

Selvabakkiam D (2018MB51)

A STUDY ON QUADRATIC FORM

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

2018MB52 Selva Lakshmi M

2018MB53 Shalini Devi K

2018MB54 Shameera A

2018MB55 Shanthini Devi A

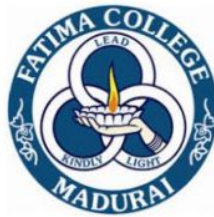
2018MB56 Shivani Kamalini M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

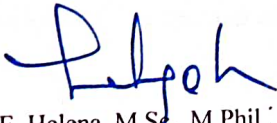
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON QUADRATIC FORM " by M. SELVA LAKSHMI (2018MB52) K. SHALINI DEVI (2018MB53), A. SHAMEERA (2018MB54), A. SHANTHINI DEVI (2018MB55) and M. SHIVANI KAMALINI (2018MB56) 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 B. Vethamary Jacqueline.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D Mrs. B. Vethamary Jacqueline, M.Sc., M.Phil., B. Ed., PCDC.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Selvalakshmi.M.

Selvalakshmi M (2018MB52)

Shalini Devi

Shalini Devi K (2018MB53)

Shameera

Shameera A (2018MB54)

Shanthini Devi.A

Shanthini Devi A (2018MB55)

Shivani Kamalini

Shivani Kamalini M (2018MB56)

A STUDY ON QUADRATIC FORM

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

2018MB52 Selva Lakshmi M

2018MB53 Shalini Devi K

2018MB54 Shameera A

2018MB55 Shanthini Devi A

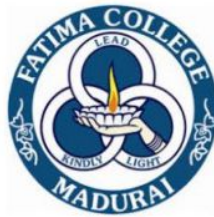
2018MB56 Shivani Kamalini M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

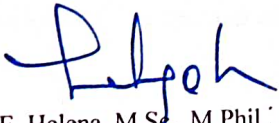
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON QUADRATIC FORM " by M. SELVA LAKSHMI (2018MB52), K. SHALINI DEVI (2018MB53), A. SHAMEERA (2018MB54), A. SHANTHINI DEVI (2018MB55) and M. SHIVANI KAMALINI (2018MB56) 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 B. Vethamary Jacqueline.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D Mrs. B. Vethamary Jacqueline, M.Sc., M.Phil., B. Ed., PCDC.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Selvalakshmi.M.

Selvalakshmi M (2018MB52)

Shalini Devi

Shalini Devi K (2018MB53)

Shameera

Shameera A (2018MB54)

Shanthini Devi.A

Shanthini Devi A (2018MB55)

Shivani Kamalini

Shivani Kamalini M (2018MB56)

A STUDY ON QUADRATIC FORM

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

2018MB52 Selva Lakshmi M

2018MB53 Shalini Devi K

2018MB54 Shameera A

2018MB55 Shanthini Devi A

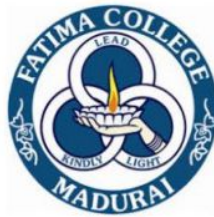
2018MB56 Shivani Kamalini M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

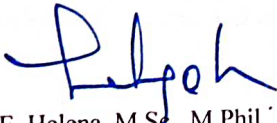
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON QUADRATIC FORM " by M. SELVA LAKSHMI (2018MB52), K. SHALINI DEVI (2018MB53), A. SHAMEERA (2018MB54), A. SHANTHINI DEVI (2018MB55) and M. SHIVANI KAMALINI (2018MB56) 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 B. Vethamary Jacqueline.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D Mrs. B. Vethamary Jacqueline, M.Sc., M.Phil., B. Ed., PCDC.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Selvalakshmi.M.

Selvalakshmi M (2018MB52)

Shalini Devi

Shalini Devi K (2018MB53)

Shameera

Shameera A (2018MB54)

Shanthini Devi.A

Shanthini Devi A (2018MB55)

Shivani Kamalini

Shivani Kamalini M (2018MB56)

A STUDY ON QUADRATIC FORM

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

2018MB52 Selva Lakshmi M

2018MB53 Shalini Devi K

2018MB54 Shameera A

2018MB55 Shanthini Devi A

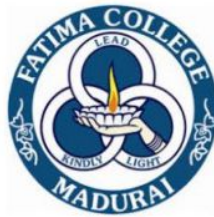
2018MB56 Shivani Kamalini M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

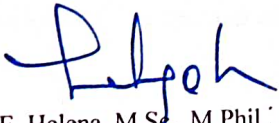
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON QUADRATIC FORM " by M. SELVA LAKSHMI (2018MB52), K. SHALINI DEVI (2018MB53), A. SHAMEERA (2018MB54), A. SHANTHINI DEVI (2018MB55) and M. SHIVANI KAMALINI (2018MB56) 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 B. Vethamary Jacqueline.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D Mrs. B. Vethamary Jacqueline, M.Sc., M.Phil., B. Ed., PCDC.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Selvalakshmi.M.

Selvalakshmi M (2018MB52)

Shalini Devi

Shalini Devi K (2018MB53)

Shameera

Shameera A (2018MB54)

Shanthini Devi.A

Shanthini Devi A (2018MB55)

Shivani Kamalini

Shivani Kamalini M (2018MB56)

A STUDY ON QUADRATIC FORM

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

2018MB52 Selva Lakshmi M

2018MB53 Shalini Devi K

2018MB54 Shameera A

2018MB55 Shanthini Devi A

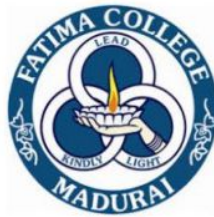
2018MB56 Shivani Kamalini M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

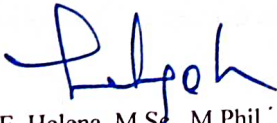
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON QUADRATIC FORM " by M. SELVA LAKSHMI (2018MB52), K. SHALINI DEVI (2018MB53), A. SHAMEERA (2018MB54), A. SHANTHINI DEVI (2018MB55) and M. SHIVANI KAMALINI (2018MB56) 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 B. Vethamary Jacqueline.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D Mrs. B. Vethamary Jacqueline, M.Sc., M.Phil., B. Ed., PCDC.

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. B. Vethamary Jacqueline, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Selvalakshmi.M.

Selvalakshmi M (2018MB52)

Shalini Devi

Shalini Devi K (2018MB53)

Shameera

Shameera A (2018MB54)

Shanthini Devi.A

Shanthini Devi A (2018MB55)

Shivani Kamalini

Shivani Kamalini M (2018MB56)

LINEAR ALGEBRA

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

2018MB57 SHOBIKA R

2018MB59 SNEHA A

2018MB60 SUBASRI S

2018MB61 SUJITHA K

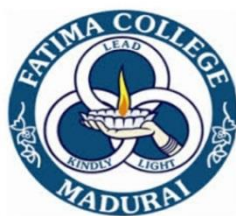
2018MB62 SURUTHI M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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.

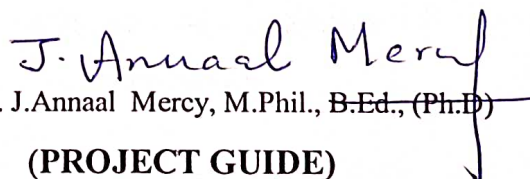
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "LINEAR ALGEBRA" by R. SHOBICA (2018MB57), A. SNEHA (2018MB59), S. SUBASRI (2018MB60), K. SUJITHA (2018MB61) and M. SURUTHI (2018MB62) 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.Annaal Mercy.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D
(HEAD OF THE DEPARTMENT)



Mrs. J. Annaal Mercy, M.Phil., B.Ed., (Ph.D)
(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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Shobika
Shobika R (2018MB57)

A. Sneha
Sneha A (2018MB59)

Subasri S
Subasri S (2018MB60)

K. Sujitha
Sujitha K (2018MB61)

Suruthi
Suruthi M (2018MB62)

LINEAR ALGEBRA

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

2018MB57 SHOBICA R

2018MB59 SNEHA A

2018MB60 SUBASRI S

2018MB61 SUJITHA K

2018MB62 SURUTHI M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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.

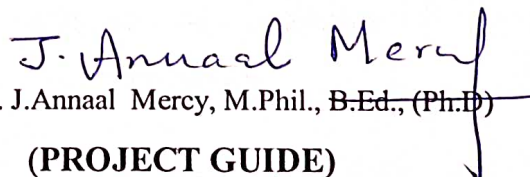
APRIL, 2021

BONAFIDE CERTIFICATE

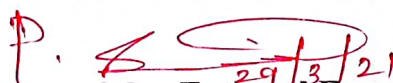
This is to certify that the project entitled "LINEAR ALGEBRA" by R. SHOBICA (2018MB57), A. SNEHA (2018MB59) S. SUBASRI (2018MB60), K. SUJITHA (2018MB61) and M. SURUTHI (2018MB62) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under the guidance of Mrs.Annaal Mercy.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D
(HEAD OF THE DEPARTMENT)



Mrs. J. Annaal Mercy, M.Phil., B.Ed., (Ph.D)
(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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Shobika
Shobika R (2018MB57)

A. Sneha
Sneha A (2018MB59)

Subasri S
Subasri S (2018MB60)

K. Sujitha
Sujitha K (2018MB61)

Suruthi
Suruthi M (2018MB62)

LINEAR ALGEBRA

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

2018MB57 SHOBICA R

2018MB59 SNEHA A

2018MB60 SUBASRI S

2018MB61 SUJITHA K

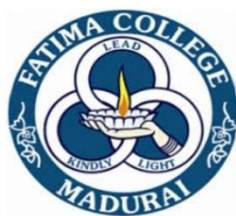
2018MB62 SURUTHI M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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.

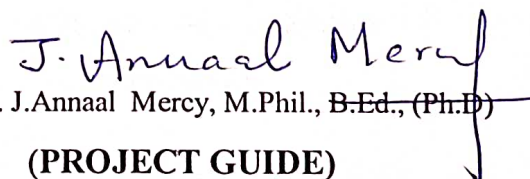
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "LINEAR ALGEBRA" by R. SHOBICA (2018MB57), A. SNEHA (2018MB59), S. SUBASRI (2018MB60), K. SUJITHA (2018MB61) and M. SURUTHI (2018MB62) 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. Annaal Mercy.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D
(HEAD OF THE DEPARTMENT)



Mrs. J. Annaal Mercy, M.Phil., B.Ed., (Ph.D)
(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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Shobika
Shobika R (2018MB57)

A. Sneha
Sneha A (2018MB59)

Subasri S
Subasri S (2018MB60)

K. Sujitha
Sujitha K (2018MB61)

Suruthi
Suruthi M (2018MB62)

LINEAR ALGEBRA

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

2018MB57 SHOBICA R

2018MB59 SNEHA A

2018MB60 SUBASRI S

2018MB61 SUJITHA K

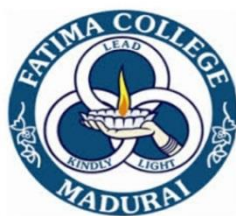
2018MB62 SURUTHI M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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.

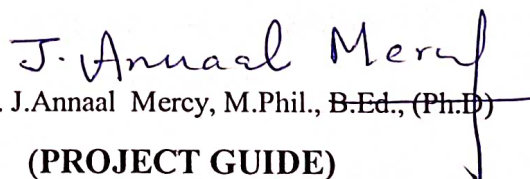
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "LINEAR ALGEBRA" by R. SHOBICA (2018MB57), A. SNEHA (2018MB59), S. SUBASRI (2018MB60), K. SUJITHA (2018MB61) and M. SURUTHI (2018MB62) 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.Annaal Mercy.

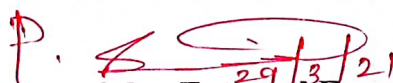


Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D
(HEAD OF THE DEPARTMENT)



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

(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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Shobika
Shobika R (2018MB57)

A. Sneha
Sneha A (2018MB59)

Subasri S
Subasri S (2018MB60)

K. Sujitha
Sujitha K (2018MB61)

Suruthi
Suruthi M (2018MB62)

LINEAR ALGEBRA

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

2018MB57 SHOBICA R

2018MB59 SNEHA A

2018MB60 SUBASRI S

2018MB61 SUJITHA K

2018MB62 SURUTHI M

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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.

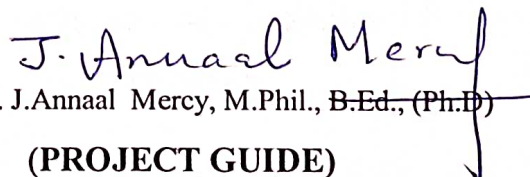
APRIL, 2021

BONAFIDE CERTIFICATE

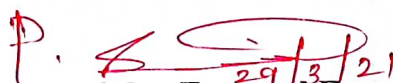
This is to certify that the project entitled "LINEAR ALGEBRA" by R. SHOBICA (2018MB57), A. SNEHA (2018MB59), S. SUBASRI (2018MB60), K. SUJITHA (2018MB61) and M. SURUTHI (2018MB62) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under the guidance of Mrs.Annaal Mercy.



Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D
(HEAD OF THE DEPARTMENT)



Mrs. J. Annaal Mercy, M.Phil., B.Ed., (Ph.D)
(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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 29/03/2021

Station: Madurai

Shobika
Shobika R (2018MB57)

A. Sneha
Sneha A (2018MB59)

Subasri S
Subasri S (2018MB60)

K. Sujitha
Sujitha K (2018MB61)

Suruthi
Suruthi M (2018MB62)

A STUDY ON 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

2018MB63	SUVETHA .S
-----------------	-------------------

2018MB64	SWETHA .T
-----------------	------------------

2018MB65	THASNEEM FATHIMA.S
-----------------	---------------------------

2018MB66	THIRUMALA .R
-----------------	---------------------

2018MB67	VALLIMEENAL .K
-----------------	-----------------------

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

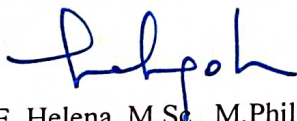
74 th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625 018, Tamil Nadu.

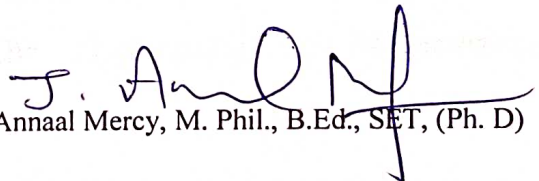
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DOMINATION IN GRAPH THEORY" by S. SUVETHA(2018MB63), T.SWETHA(2018MB64), S.THASNEEM FATHIMA(2018MB65), R.THIRUMALA(2018MB66) and K.VALLIMEENAL(2018MB67) 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



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

Head of the Department

Project Guide



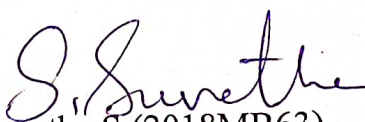
Signature of the External Examiner


DECLARATION

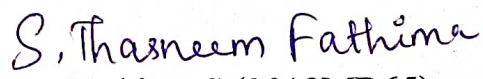
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

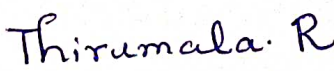
Date: 29/03/2021

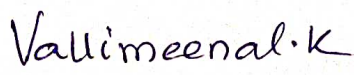
Station: Madurai


Suvetha S (2018MB63)


Swetha T (2018MB64)


Thasneem Fathima S (2018MB65)


Thirumala R (2018MB66)


Vallimeenal K (2018MB67)

A STUDY ON 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

2018MB63 SUVETHA .S

2018MB64 SWETHA .T

2018MB65 THASNEEM FATHIMA.S

2018MB66 THIRUMALA .R

2018MB67 VALLIMEENAL .K

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

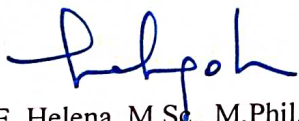
74 th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625 018, Tamil Nadu.

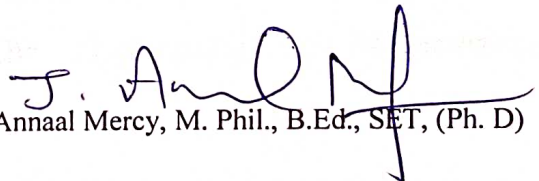
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DOMINATION IN GRAPH THEORY" by S. SUVETHA(2018MB63), T.SWETHA(2018MB64), S.THASNEEM FATHIMA(2018MB65), R.THIRUMALA(2018MB66) and K.VALLIMEENAL(2018MB67) 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.



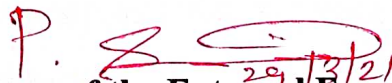
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D



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

Head of the Department

Project Guide



Signature of the External Examiner


DECLARATION

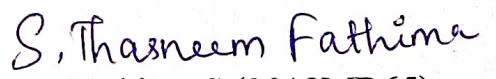
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

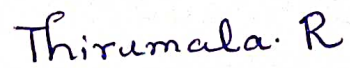
Date: 29/03/2021

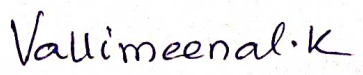
Station: Madurai


Suvetha S (2018MB63)


Swetha T (2018MB64)


Thasneem Fathima S (2018MB65)


Thirumala R (2018MB66)


Vallimeenal K (2018MB67)

A STUDY ON 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

2018MB63 SUVETHA .S

2018MB64 SWETHA .T

2018MB65 THASNEEM FATHIMA.S

2018MB66 THIRUMALA .R

2018MB67 VALLIMEENAL .K

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

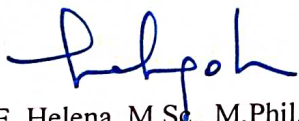
74 th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625 018, Tamil Nadu.

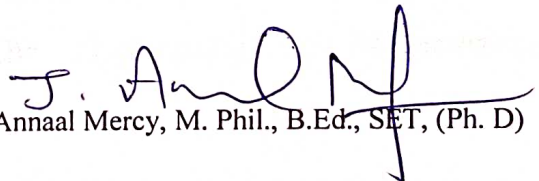
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DOMINATION IN GRAPH THEORY" by S. SUVETHA(2018MB63), T. SWETHA(2018MB64), S. THASNEEM FATHIMA(2018MB65), R. THIRUMALA(2018MB66) and K. VALLIMEENAL(2018MB67) 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



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

Head of the Department

Project Guide



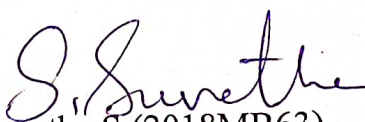
Signature of the External Examiner


DECLARATION

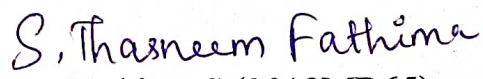
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

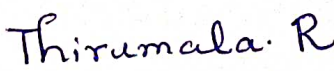
Date: 29/03/2021

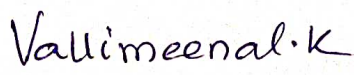
Station: Madurai


Suvetha S (2018MB63)


Swetha T (2018MB64)


Thasneem Fathima S (2018MB65)


Thirumala R (2018MB66)


Vallimeenal K (2018MB67)

A STUDY ON 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

2018MB63	SUVETHA .S
2018MB64	SWETHA .T
2018MB65	THASNEEM FATHIMA.S
2018MB66	THIRUMALA .R
2018MB67	VALLIMEENAL .K

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

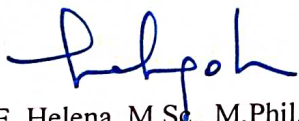
74 th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625 018, Tamil Nadu.

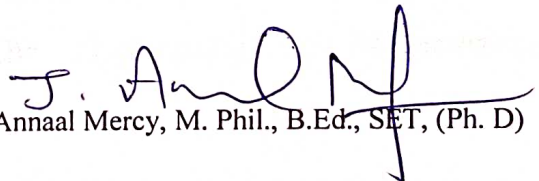
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DOMINATION IN GRAPH THEORY" by S. SUVETHA(2018MB63), T. SWETHA(2018MB64), S. THASNEEM FATHIMA(2018MB65), R. THIRUMALA(2018MB66) and K. VALLIMEENAL(2018MB67) 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.



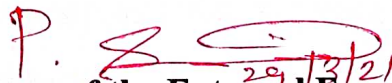
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D



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

Head of the Department

Project Guide



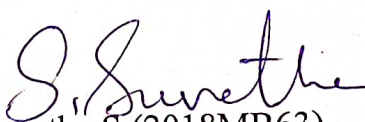
Signature of the External Examiner


DECLARATION

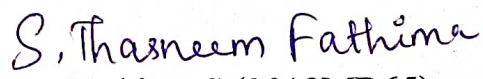
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

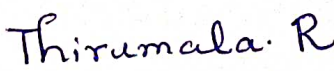
Date: 29/03/2021

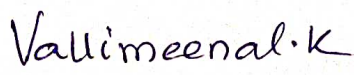
Station: Madurai


Suvetha S (2018MB63)


Swetha T (2018MB64)


Thasneem Fathima S (2018MB65)


Thirumala R (2018MB66)


Vallimeenal K (2018MB67)

A STUDY ON 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

2018MB63	SUVETHA .S
2018MB64	SWETHA .T
2018MB65	THASNEEM FATHIMA.S
2018MB66	THIRUMALA .R
2018MB67	VALLIMEENAL .K

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

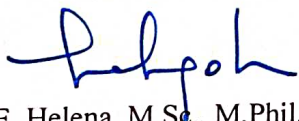
74 th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625 018, Tamil Nadu.

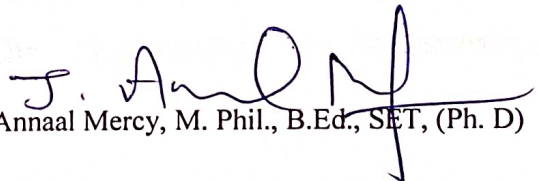
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DOMINATION IN GRAPH THEORY" by S. SUVETHA(2018MB63), T. SWETHA(2018MB64), S. THASNEEM FATHIMA(2018MB65), R. THIRUMALA(2018MB66) and K. VALLIMEENAL(2018MB67) 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.



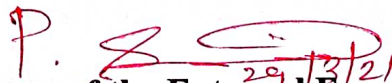
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D



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

Head of the Department

Project Guide



Signature of the External Examiner


DECLARATION

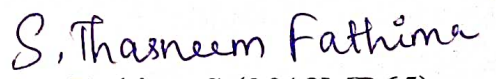
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

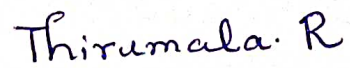
Date: 29/03/2021

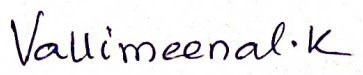
Station: Madurai


Suvetha S (2018MB63)


Swetha T (2018MB64)


Thasneem Fathima S (2018MB65)


Thirumala R (2018MB66)


Vallimeenal K (2018MB67)

A STUDY ON DIGRAPHS IN GRAPH THEORY

A project submitted Madurai Kamaraj University in Partial fulfillment of the requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB68 Varshini K

2018MB69 Vishali R

2018MB70 Aarthi D

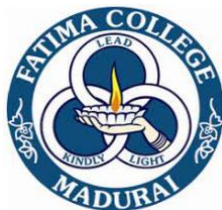
2018MB71 Abina T .

Under the Guidance of

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(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 – 2021.

BONAFIDE CERTIFICATE

This is to certify that the project entitled “ A STUDY ON DIGRAPHS” by Varshini K (2018MB68) Vishali R (2018MB69) , Aarthi D (2018MB70) and Abina T(2018MB71) in partial fulfillment of the requirement for the award of degree of Bachelor Of Science in Mathematics submitted at Fatima college(Autonomous) under the guidance of Mrs.J.Annal Mercy.

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

J.Annal MercyM.phil.,B.Ed.,SET(Ph.D)

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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

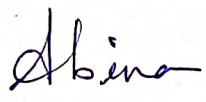
Date: 29/03/2021

Station: Madurai


Varshini K (2018MB68)


Vishali R (2018MB69)


Aarthi D (2018MB70)


Abina T (2018MB71)

A STUDY ON DIGRAPHS IN GRAPH THEORY

A project submitted Madurai Kamaraj University in Partial fulfillment of the
requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB68 Varshini K

2018MB69 Vishali R

2018MB70 Aarthi D

2018MB71 Abina T .

Under the Guidance of

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(3rd Cycle)

College with Potential for Excellence(2004-2019)

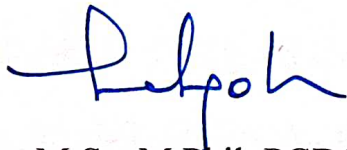
74th Rank in India Ranking 2020(NIRF) by MHRD

Mary land , Madurai-625018,Tamil Nadu

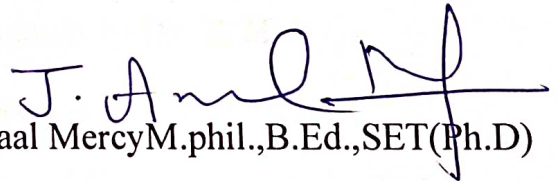
APRIL – 2021.

BONAFIDE CERTIFICATE

This is to certify that the project entitled “ A STUDY ON DIGRAPHS” by Varshini K (2018MB68), Vishali R (2018MB69), Aarthi D (2018MB70) and Abina T(2018MB71) in partial fulfillment of the requirement for the award of degree of Bachelor Of Science in Mathematics submitted at Fatima college(Autonomous) under the guidance of Mrs.J.Annal Mercy.



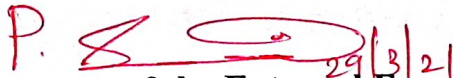
Dr.E.Helena,M.Sc.,M.Phil.,PGDCA ,Ph.D.,



J.Annal MercyM.phil.,B.Ed.,SET(Ph.D)

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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

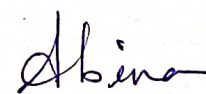
Date: 29/03/2021

Station: Madurai


Varshini K (2018MB68)


Vishali R (2018MB69)


Aarthi D (2018MB70)


Abina T (2018MB71)

A STUDY ON DIGRAPHS IN GRAPH THEORY

A project submitted Madurai Kamaraj University in Partial fulfillment of the requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB68 Varshini K

2018MB69 Vishali R

2018MB70 Aarthi D

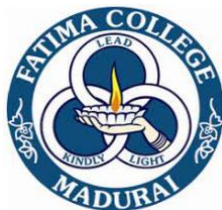
2018MB71 Abina T .

Under the Guidance of

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(3rd Cycle)

College with Potential for Excellence(2004-2019)

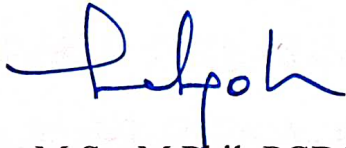
74th Rank in India Ranking 2020(NIRF) by MHRD

Mary land , Madurai-625018,Tamil Nadu

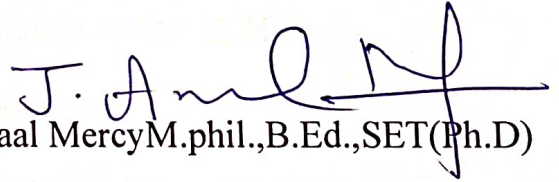
APRIL – 2021.

BONAFIDE CERTIFICATE

This is to certify that the project entitled “ A STUDY ON DIGRAPHS” by Varshini K (2018MB68), Vishali R (2018MB69), Aarthi D (2018MB70) and Abina T(2018MB71) in partial fulfillment of the requirement for the award of degree of Bachelor Of Science in Mathematics submitted at Fatima college(Autonomous) under the guidance of Mrs.J.Annal Mercy.



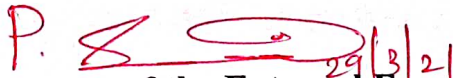
Dr.E.Helena,M.Sc.,M.Phil.,PGDCA ,Ph.D.,



J.Annal MercyM.phil.,B.Ed.,SET(Ph.D)

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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

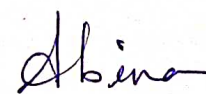
Date: 29/03/2021

Station: Madurai


Varshini K (2018MB68)


Vishali R (2018MB69)


Aarthi D (2018MB70)


Abina T (2018MB71)

A STUDY ON DIGRAPHS IN GRAPH THEORY

A project submitted Madurai Kamaraj University in Partial fulfillment of the requirement for the Award of Degree of

BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

2018MB68 Varshini K

2018MB69 Vishali R

2018MB70 Aarthi D

2018MB71 Abina T.

Under the Guidance of

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(3rd Cycle)

College with Potential for Excellence(2004-2019)

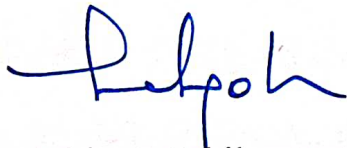
74th Rank in India Ranking 2020(NIRF) by MHRD

Mary land , Madurai-625018,Tamil Nadu

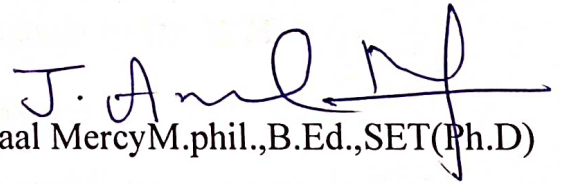
APRIL – 2021.

BONAFIDE CERTIFICATE

This is to certify that the project entitled “ A STUDY ON DIGRAPHS” by Varshini K (2018MB68), Vishali R (2018MB69) , Aarthi D (2018MB70) and Abina T(2018MB71) in partial fulfillment of the requirement for the award of degree of Bachelor Of Science in Mathematics submitted at Fatima college(Autonomous) under the guidance of Mrs.J.Annal Mercy.



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



J.Annal MercyM.phil.,B.Ed.,SET(Ph.D)

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. J. Annaal Mercy, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

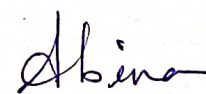
Date: 29/03/2021

Station: Madurai


Varshini K (2018MB68)


Vishali R (2018MB69)


Aarthi D (2018MB70)


Abina T (2018MB71)

A STUDY ON ELLIPTIC PARTIAL DIFFERENTIAL EQUATION
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

2018MB73 Aishwarya R

2018MB74 Aruna S R

2018MB75 Baby Saarone X

2018MB76 Bakkiyasri P

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

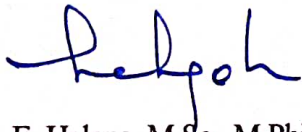
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL, 2021

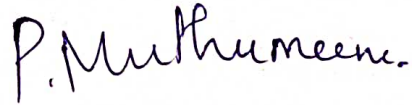
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON ELLIPTIC PARTIAL DIFFERENTIAL EQUATION" by **R. AISHWARYA** **(2018MB73)**, **S.R. ARUNA (2018MB74)**, **X. BABY SAARONE (2018MB75)**, and **P. BAKKIASRI (2018MB76)** 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 **Ms. P. Muthumeena**.



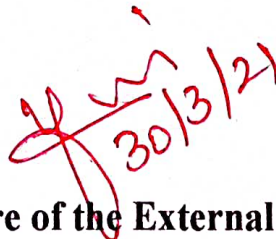
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.Ed.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

R. Aishwarya

Aishwarya R (2018MB73)

Aruna

Aruna S R (2018MB74)

Baby Saarone X

Baby Saarone X (2018MB75)

Bakkiarasi

Bakkiarasi P (2018MB76)

A STUDY ON ELLIPTIC PARTIAL DIFFERENTIAL EQUATION
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

2018MB73 Aishwarya R

2018MB74 Aruna S R

2018MB75 Baby Saarone X

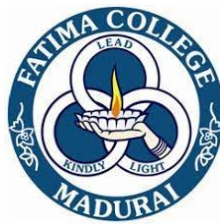
2018MB76 Bakkiyasri P

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

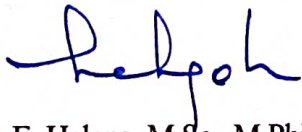
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

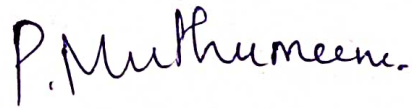
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON ELLIPTIC PARTIAL DIFFERENTIAL EQUATION" by R. AISHWARYA (2018MB73), S.R. ARUNA (2018MB74), X. BABY SAARONE (2018MB75), and P. BAKKIASRI (2018MB76) 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 Ms. P. Muthumeena.



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



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.Ed.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

R. Aishwarya

Aishwarya R (2018MB73)

Aruna

Aruna S R (2018MB74)

Baby Saarone X

Baby Saarone X (2018MB75)

Bakkiasri

Bakkiasri P (2018MB76)

A STUDY ON ELLIPTIC PARTIAL DIFFERENTIAL EQUATION
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

2018MB73 Aishwarya R

2018MB74 Aruna S R

2018MB75 Baby Saarone X

2018MB76 Bakkiyasri P

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

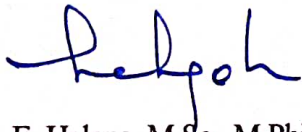
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

APRIL, 2021

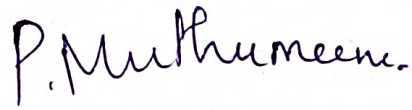
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON ELLIPTIC PARTIAL DIFFERENTIAL EQUATION" by R. AISHWARYA (2018MB73), S.R. ARUNA (2018MB74), **X. BABY SAARONE (2018MB75)**, and P. BAKKIASRI (2018MB76) 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 Ms. P. Muthumeena.



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

Head of the Department



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.Ed.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

R. Aishwarya

Aishwarya R (2018MB73)

Aruna

Aruna S R (2018MB74)

Baby Saarone X

Baby Saarone X (2018MB75)

Bakkiasri

Bakkiasri P (2018MB76)

A STUDY ON ELLIPTIC PARTIAL DIFFERENTIAL EQUATION
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

2018MB73 Aishwarya R

2018MB74 Aruna S R

2018MB75 Baby Saarone X

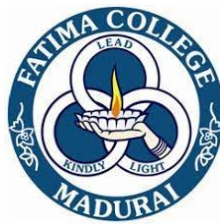
2018MB76 Bakkiyasri P

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

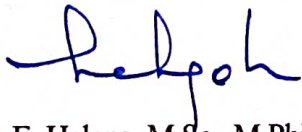
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai – 625018, Tamil Nadu.

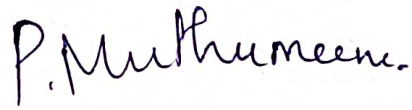
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON ELLIPTIC PARTIAL DIFFERENTIAL EQUATION" by R. AISHWARYA (2018MB73), S.R. ARUNA (2018MB74), X. BABY SAARONE (2018MB75), and P. BAKKIASRI (2018MB76) 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 Ms. P. Muthumeena.



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



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.Ed.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

R. Aishwarya

Aishwarya R (2018MB73)

Aruna

Aruna S R (2018MB74)

Baby Saarone X

Baby Saarone X (2018MB75)

Bakkiasri

Bakkiasri P (2018MB76)

A STUDY OF HYPERBOLIC 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

2018MB77Deephiga rani X

2018MB78Deepika S

2018MB79 Dharini S

2018MB80Divya sneha K

Under the Guidance of
Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,
Assistant Professor
Department of Mathematics

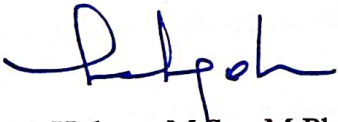


Fatima College [Autonomous]
Re-Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai - 625018, Tamil Nadu.

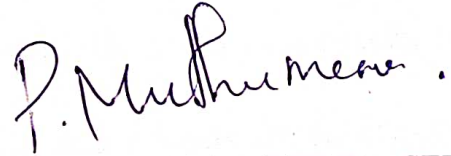
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON HYPERBOLIC DIFFERENTIAL EQUATION" by X. DEEPHIGA RANI(2018MB77), S.DEEPIKA(2018MB78), S.DHARINI(2018MB79), K.DIVYA SNEHA(2018MB80) 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 Ms. P. Muthumeena.



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



Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

X. Deephiga Rani
Deephiga Rani X (2018MB77)

S. Deepika
Deepika S (2018MB78)

S. Dharini
Dharini S (2018MB79)

Divya Sneha
Divya Sneha K (2018MB80)

A STUDY OF HYPERBOLIC 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

2018MB77Deephiga rani X

2018MB78Deepika S

2018MB79 Dharini S

2018MB80Divya sneha K

Under the Guidance of
Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,
Assistant Professor
Department of Mathematics

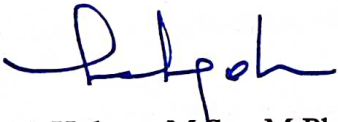


Fatima College [Autonomous]
Re-Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai - 625018, Tamil Nadu.

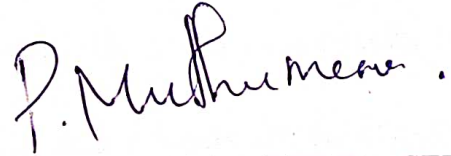
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON HYPERBOLIC DIFFERENTIAL EQUATION" by X. DEEPHIGA RANI(2018MB77), S.DEEPIKA(2018MB78), S.DHARINI(2018MB79), K.DIVYA SNEHA(2018MB80) 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 Ms. P. Muthumeena.



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



Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

X. Deephiga Rani
Deephiga Rani X (2018MB77)

S. Deepika
Deepika S (2018MB78)

S. Dharini
Dharini S (2018MB79)

Divya Sneha
Divya Sneha K (2018MB80)

A STUDY OF HYPERBOLIC 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

2018MB77Deephiga rani X

2018MB78Deepika S

2018MB79 Dharini S

2018MB80Divya sneha K

Under the Guidance of
Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,
Assistant Professor
Department of Mathematics

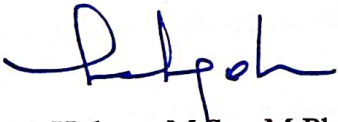


Fatima College [Autonomous]
Re-Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai - 625018, Tamil Nadu.

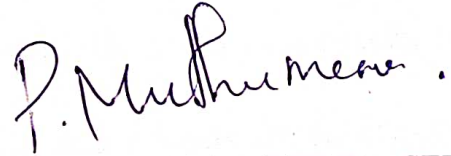
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON HYPERBOLIC DIFFERENTIAL EQUATION" by X. DEEPHIGA RANI(2018MB77), S.DEEPIKA(2018MB78), S.DHARINI(2018MB79) K.DIVYA SNEHA(2018MB80) 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 Ms. P. Muthumeena.



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



Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

X. Deephiga Rani
Deephiga Rani X (2018MB77)

S. Deepika
Deepika S (2018MB78)

S. Dharini
Dharini S (2018MB79)

Divya Sneha
Divya Sneha K (2018MB80)

A STUDY OF HYPERBOLIC 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

2018MB77Deephiga rani X

2018MB78Deepika S

2018MB79 Dharini S

2018MB80Divya sneha K

Under the Guidance of
Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,
Assistant Professor
Department of Mathematics

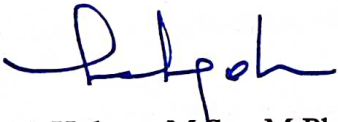


Fatima College [Autonomous]
Re-Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai - 625018, Tamil Nadu.

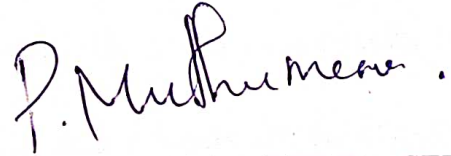
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON HYPERBOLIC DIFFERENTIAL EQUATION" by X. DEEPHIGA RANI(2018MB77), S.DEEPIKA(2018MB78), S.DHARINI(2018MB79), **K.DIVYA** **SNEHA(2018MB80)** 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 Ms. P. Muthumeena.



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



Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

X. Deephiga Rani
Deephiga Rani X (2018MB77)

S. Deepika
Deepika S (2018MB78)

S. Dharini
Dharini S (2018MB79)

Divya Sneha
Divya Sneha K (2018MB80)

A STUDY ON PARABOLIC 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

2018MB81	Elzin Shekina D
----------	-----------------

2018MB82	Gayathri Devi S
----------	-----------------

2018MB83	Gowri V
----------	---------

2018MB84	Gunaseeli V
----------	-------------

2018MB85	Harini S
----------	----------

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

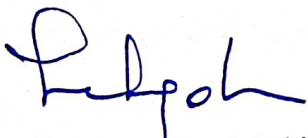
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON PARABOLIC DIFFERENTIAL EQUATION" by D. ELZIN SHEKINA (2018MB81), S. GAYATHRI DEVI (2018MB82), V. GOWRI (2018MB83), V. GUNASEELI (2018MB84) and S. HARINI (2018MB85) 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 Ms. P. Muthumeena.



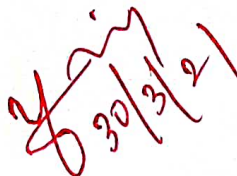
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.ED.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

Elzin Shekina

Elzin Shekina D (2018MB81)

Gayathri Devi

Gayathri Devi S (2018MB82)

V. Gowri

Gowri V (2018MB83)

V. Gunaseeli

Gunaseeli V (2018MB84)

S. Harini

Harini S (2018MB85)

A STUDY ON PARABOLIC 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

2018MB81 Elzin Shekina D

2018MB82 Gayathri Devi S

2018MB83 Gowri V

2018MB84 Gunaseeli V

2018MB85 Harini S

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

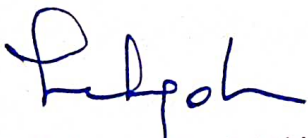
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021


BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON PARABOLIC DIFFERENTIAL EQUATION" by D. ELZIN SHEKINA (2018MB81), S. GAYATHRI DEVI (2018MB82), V. GOWRI (2018MB83), V. GUNASEELI (2018MB84) and S. HARINI (2018MB85) 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 Ms. P. Muthumeena.



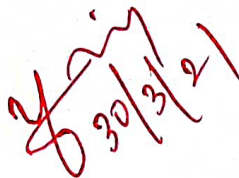
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.ED.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

Elzin Shekina

Elzin Shekina D (2018MB81)

Gayathri Devi

Gayathri Devi S (2018MB82)

V. Gowri

Gowri V (2018MB83)

V. Gunaseeli

Gunaseeli V (2018MB84)

S. Harini

Harini S (2018MB85)

A STUDY ON PARABOLIC 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

2018MB81 Elzin Shekina D

2018MB82 Gayathri Devi S

2018MB83 Gowri V

2018MB84 Gunaseeli V

2018MB85 Harini S

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

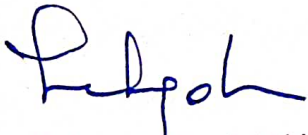
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021


BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON PARABOLIC DIFFERENTIAL EQUATION" by D. ELZIN SHEKINA (2018MB81), S. GAYATHRI DEVI (2018MB82), V. GOWRI (2018MB83), V. GUNASEELI (2018MB84) and S. HARINI (2018MB85) 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 Ms. P. Muthumeena.



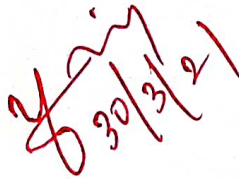
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.ED.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

Elzin Shekina

Elzin Shekina D (2018MB81)

Gayathri Devi

Gayathri Devi S (2018MB82)

V. Gowri

Gowri V (2018MB83)

V. Gunaseeli

Gunaseeli V (2018MB84)

S. Harini

Harini S (2018MB85)

A STUDY ON PARABOLIC 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

2018MB81 Elzin Shekina D

2018MB82 Gayathri Devi S

2018MB83 Gowri V

2018MB84 Gunaseeli V

2018MB85 Harini S

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

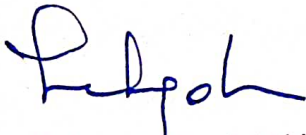
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON PARABOLIC DIFFERENTIAL EQUATION" by D. ELZIN SHEKINA (2018MB81), S. GAYATHRI DEVI (2018MB82), V. GOWRI (2018MB83), V. GUNASEELI (2018MB84) and S. HARINI (2018MB85) 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 Ms. P. Muthumeena.



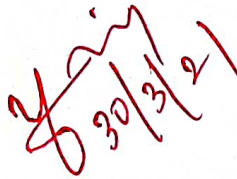
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.ED.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

Elzin Shekina

Elzin Shekina D (2018MB81)

Gayathri Devi

Gayathri Devi S (2018MB82)

V. Gowri

Gowri V (2018MB83)

V. Gunaseeli

Gunaseeli V (2018MB84)

S. Harini

Harini S (2018MB85)

A STUDY ON PARABOLIC 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

2018MB81 Elzin Shekina D

2018MB82 Gayathri Devi S

2018MB83 Gowri V

2018MB84 Gunaseeli V

2018MB85 Harini S

Under the Guidance of

Ms. P. Muthumeena, M. Sc., PGDCA., SET., B.Ed.,

Assistant Professor

Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

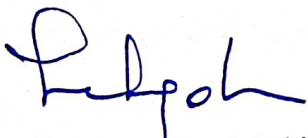
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021


BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON PARABOLIC DIFFERENTIAL EQUATION" by D. ELZIN SHEKINA (2018MB81), S. GAYATHRI DEVI (2018MB82), V. GOWRI (2018MB83), V. GUNASEELI (2018MB84) and S. HARINI (2018MB85) 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 Ms. P. Muthumeena.



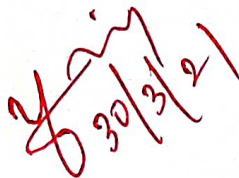
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Ms. P. Muthumeena, M.Sc., PGDCA., SET., B.ED.

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 Ms. P. Muthumeena, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2024

Station: Madurai

Elzin Shekina

Elzin Shekina D (2018MB81)

Gayathri Devi

Gayathri Devi S (2018MB82)

V. Gowri

Gowri V (2018MB83)

V. Gunaseeli

Gunaseeli V (2018MB84)

S. Harini

Harini S (2018MB85)

A STUDY ON LABEL GRAPHOIDAL GRAPH AND INDUCED ACYCLIC GRAPHOIDAL COVER 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

2018MB86 Harsha Vardhini R

2018MB87 Hemarani P

2018MB88 Jai Ananthi S

2018MB89 Jeyalakshmi S

Under the Guidance of

Dr. M. Rasi, M. Sc., M. Phil., Ph. D, SET

Assistant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON LABEL GRAPHOIDAL GRAPH AND INDUCED CYCLIC GRAPHOIDAL COVER OF A GRAPH" BY HARSHAVARDHINI. R (2018MB86), HEMARANI. P (2018MB87), JAI ANANTHI. S (2018MB88) AND JEYALAKSHMI. S (2018MB89) 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. Rasi



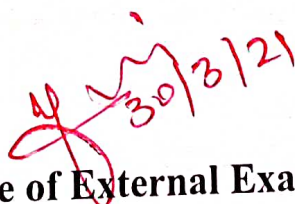
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

Project Guide



30/3/21

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

Harshavarthini R.
Harshavarthini R (2018MB86)

P. Hemarani
Hemarani P (2018MB87)

Jai Ananthi S
Jai Ananthi S (2018MB88)

Jeyalakshmi S
Jeyalakshmi S (2018MB89)

A STUDY ON LABEL GRAPHOIDAL GRAPH AND INDUCED ACYCLIC GRAPHOIDAL COVER 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

2018MB86 Harsha Vardhini R

2018MB87 Hemarani P

2018MB88 Jai Ananthi S

2018MB89 Jeyalakshmi S

Under the Guidance of

Dr. M. Rasi, M. Sc., M. Phil., Ph. D, SET

Assistant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON LABEL GRAPHOIDAL GRAPH AND INDUCED CYCLIC GRAPHOIDAL COVER OF A GRAPH" BY HARSHAVARDHINI. R (2018MB86), HEMARANI. P (2018MB87), JAI ANANTHI. S (2018MB88) AND JEYALAKSHMI. S (2018MB89) 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. Rasi



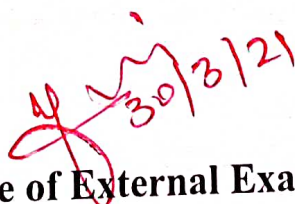
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

Harshavarthini R.
Harshavarthini R (2018MB86)

P. Hemarani
Hemarani P (2018MB87)

Jai Ananthi S
Jai Ananthi S (2018MB88)

Jeyalakshmi S
Jeyalakshmi S (2018MB89)

A STUDY ON LABEL GRAPHOIDAL GRAPH AND INDUCED ACYCLIC GRAPHOIDAL COVER 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

2018MB86 Harsha Vardhini R

2018MB87 Hemarani P

2018MB88 Jai Ananthi S

2018MB89 Jeyalakshmi S

Under the Guidance of

Dr. M. Rasi, M. Sc., M. Phil., Ph. D, SET

Assistant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON LABEL GRAPHOIDAL GRAPH AND INDUCED CYCLIC GRAPHOIDAL COVER OF A GRAPH" BY HARSHAVARDHINI. R (2018MB86), HEMARANI. P (2018MB87), JAI ANANTHI. S (2018MB88) AND JEYALAKSHMI. S (2018MB89) 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. Rasi



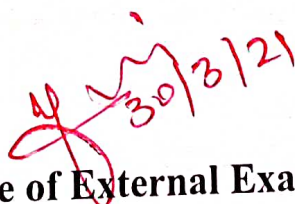
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

Project Guide



30/3/21

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

Harshavarthini R.
Harshavarthini R (2018MB86)

P. Hemarani
Hemarani P (2018MB87)

Jai Ananthi S
Jai Ananthi S (2018MB88)

Jeyalakshmi S
Jeyalakshmi S (2018MB89)

A STUDY ON LABEL GRAPHOIDAL GRAPH AND INDUCED ACYCLIC GRAPHOIDAL COVER 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

2018MB86 Harsha Vardhini R

2018MB87 Hemarani P

2018MB88 Jai Ananthi S

2018MB89 Jeyalakshmi S

Under the Guidance of

Dr. M. Rasi, M. Sc., M. Phil., Ph. D, SET

Assistant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON LABEL GRAPHOIDAL GRAPH AND INDUCED CYCLIC GRAPHOIDAL COVER OF A GRAPH" BY HARSHAVARDHINI. R (2018MB86), HEMARANI. P (2018MB87), JAI ANANTHI. S (2018MB88) AND JEYALAKSHMI. S (2018MB89) 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. Rasi



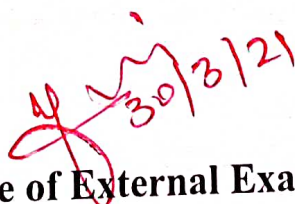
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

Project Guide



30/3/21

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

Harshavarthini R.
Harshavarthini R (2018MB86)

P. Hemarani
Hemarani P (2018MB87)

Jai Ananthi S
Jai Ananthi S (2018MB88)

Jeyalakshmi S
Jeyalakshmi S (2018MB89)

A STUDY ON GRAPHOIDAL COVERING 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

2018MB90 Keerthana K

2018MB91 Madhumitha R S

2018MB92 Mahalakshmi M

2018MB93 Mariya Shibani A

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D, SET
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

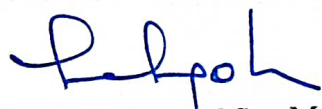
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON GRAPHOIDAL COVERING NUMBER OF A GRAPH" by K. KEERTHANA (2018MB90), R.S. MADHUMITHA (2018MB91), M. MAHALAKSHMI (2018MB92) and A. MARIYA SHIBANI (2018MB93) 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. Rasi.



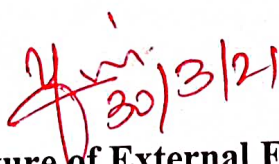
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. M. Rasi, M.Sc., M. Phil., Ph. D, SET

Project Guide



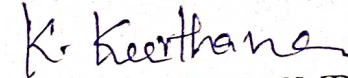
Signature of External Examiner


DECLARATION

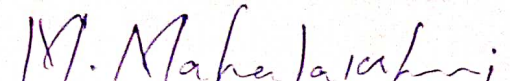
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

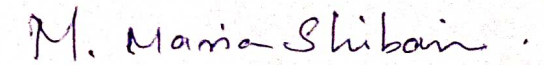
Date: 30.3.2021

Station: Madurai


Keerthana K (2018MB90)


Madhumitha R S (2018MB91)


Mahalakshmi M (2018MB92)


Maria Shibani A (2018MB93)

A STUDY ON GRAPHOIDAL COVERING 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

2018MB90 Keerthana K

2018MB91 Madhumitha R S

2018MB92 Mahalakshmi M

2018MB93 Mariya Shibani A

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D, SET
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

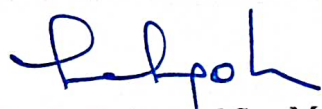
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON GRAPHOIDAL COVERING NUMBER OF A GRAPH" by K. KEERTHANA (2018MB90), R.S. MADHUMITHA (2018MB91), M. MAHALAKSHMI (2018MB92) and A. MARIYA SHIBANI (2018MB93) 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. Rasi.



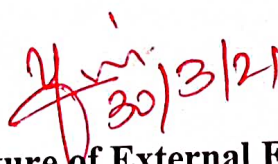
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. M. Rasi, M.Sc., M. Phil., Ph. D, SET

Project Guide



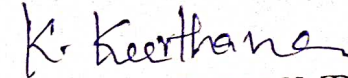
Signature of External Examiner


DECLARATION

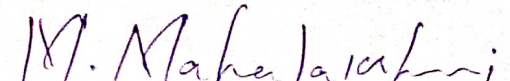
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

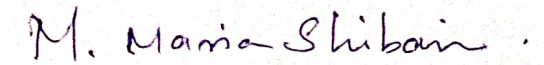
Date: 30.3.2021

Station: Madurai


Keerthana K (2018MB90)


Madhumitha R S (2018MB91)


Mahalakshmi M (2018MB92)


Maria Shibani A (2018MB93)

A STUDY ON GRAPHOIDAL COVERING 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

2018MB90 Keerthana K

2018MB91 Madhumitha R S

2018MB92 Mahalakshmi M

2018MB93 Mariya Shibani A

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D, SET
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

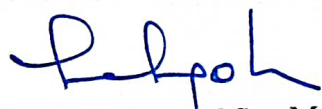
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON GRAPHOIDAL COVERING NUMBER OF A GRAPH" by K. KEERTHANA (2018MB90), R.S. MADHUMITHA (2018MB91), M. MAHALAKSHMI (2018MB92) and A. MARIYA SHIBANI (2018MB93) 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. Rasi.



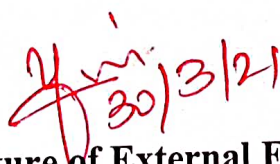
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. M. Rasi, M.Sc., M. Phil., Ph. D, SET

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

K. Keerthana
Keerthana K (2018MB90)

R.S. Madhumitha
Madhumitha R S (2018MB91)

M. Mahalakshmi
Mahalakshmi M (2018MB92)

M. Maria Shibani
Maria Shibani A (2018MB93)

A STUDY ON GRAPHOIDAL COVERING 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

2018MB90 Keerthana K

2018MB91 Madhumitha R S

2018MB92 Mahalakshmi M

2018MB93 Mariya Shibani A

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D, SET
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

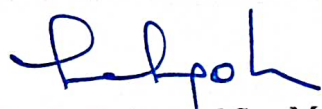
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON GRAPHOIDAL COVERING NUMBER OF A GRAPH" by K. KEERTHANA (2018MB90), R.S. MADHUMITHA (2018MB91), M. MAHALAKSHMI (2018MB92) and **A. MARIYA SHIBANI** (2018MB93) 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. Rasi.



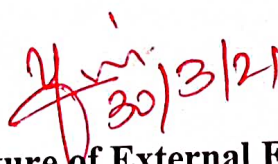
Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



Dr. M. Rasi, M.Sc., M. Phil., Ph. D, SET

Project Guide



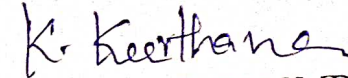
Signature of External Examiner


DECLARATION

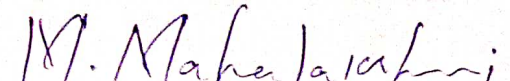
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

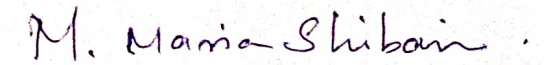
Date: 30.3.2021

Station: Madurai


Keerthana K (2018MB90)


Madhumitha R S (2018MB91)


Mahalakshmi M (2018MB92)


Maria Shibani A (2018MB93)

A STUDY ON 2- GRAPHOIDAL COVERING 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

2018MB94 Nagajothi S

2018MB96 Nandhini S

2018MB97 Naskhath Aara K

2018MB98 Nithya C

2018MB99 Nivetha K

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D,
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

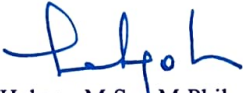
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON 2-GRAPHOIDAL COVERING NUMBER OF A GRAPH" by **S. NAGAJOTHI** **(2018MB94)** S. NANDHINI (2018MB96), K. NASKHATH AARA (2018MB97) C. NITHYA (2018MB98) and K. NIVETHA (2018MB99) 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. Rasi.



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



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

Head of the Department

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

S. Nagajothi
Nagajothi S (2018MB94)

Nandhini
Nandhini S (2018MB96)

Naskhath Aara K
Naskhath Aara K (2018MB97)

Nithya
Nithya C (2018MB98)

K. Nivetha
Nivetha K (2018MB99)

A STUDY ON 2- GRAPHOIDAL COVERING 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

2018MB94 Nagajothi S

2018MB96 Nandhini S

2018MB97 Naskhath Aara K

2018MB98 Nithya C

2018MB99 Nivetha K

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D,
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON 2-GRAPHOIDAL COVERING NUMBER OF A GRAPH” by S. NAGAJOTHI (2018MB94), S. NANDHINI (2018MB96), K. NASKHATH AARA (2018MB97) C. NITHYA (2018MB98) and K. NIVETHA (2018MB99) 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. Rasi.



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

Head of the Department



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

Project Guide



20/3/21

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

S. Nagajothi
Nagajothi S (2018MB94)

Nandhini
Nandhini S (2018MB96)

Naskhath Aara K
Naskhath Aara K (2018MB97)

Nithya
Nithya C (2018MB98)

K. Nivetha
Nivetha K (2018MB99)

A STUDY ON 2- GRAPHOIDAL COVERING 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

2018MB94 Nagajothi S

2018MB96 Nandhini S

2018MB97 Naskhath Aara K

2018MB98 Nithya C

2018MB99 Nivetha K

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D,
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

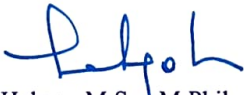
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON 2-GRAPHOIDAL COVERING NUMBER OF A GRAPH” by S. NAGAJOTHI (2018MB94), S. NANDHINI (2018MB96), K. NASKHATH AARA (2018MB97) C. NITHYA (2018MB98) and K. NIVETHA (2018MB99) 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. Rasi.



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

Head of the Department



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

S. Nagajothi
Nagajothi S (2018MB94)

Nandhini
Nandhini S (2018MB96)

Naskhath Aara K
Naskhath Aara K (2018MB97)

Nithya
Nithya C (2018MB98)

K. Nivetha
Nivetha K (2018MB99)

A STUDY ON 2- GRAPHOIDAL COVERING 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

2018MB94 Nagajothi S

2018MB96 Nandhini S

2018MB97 Naskhath Aara K

2018MB98 Nithya C

2018MB99 Nivetha K

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D,
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

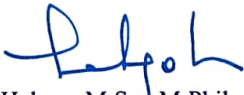
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON 2-GRAPHOIDAL COVERING NUMBER OF A GRAPH” by S. NAGAJOTHI (2018MB94), S. NANDHINI (2018MB96), K. NASKHATH AARA (2018MB97) C. NITHYA (2018MB98) and K. NIVETHA (2018MB99) 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. Rasi.



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



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

Head of the Department

Project Guide



20/3/21

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

S. Nagajothi
Nagajothi S (2018MB94)

Nandhini
Nandhini S (2018MB96)

Naskhath Aara K
Naskhath Aara K (2018MB97)

Nithya
Nithya C (2018MB98)

K. Nivetha
Nivetha K (2018MB99)

A STUDY ON 2- GRAPHOIDAL COVERING 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

2018MB94 Nagajothi S

2018MB96 Nandhini S

2018MB97 Naskhath Aara K

2018MB98 Nithya C

2018MB99 Nivetha K

Under the Guidance of
Dr. M. Rasi, M. Sc., M. Phil., Ph. D,
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON 2-GRAPHOIDAL COVERING NUMBER OF A GRAPH” by S. NAGAJOTHI (2018MB94), S. NANDHINI (2018MB96), K. NASKHATH AARA (2018MB97) C. NITHYA (2018MB98) and K. NIVETHA (2018MB99) 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. Rasi.



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

Head of the Department



Dr. M. Rasi M.Sc., M. Phil., Ph. D, SET

Project Guide



20/3/21

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 Dr. M. Rasi, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

S. Nagajothi
Nagajothi S (2018MB94)

Nandhini
Nandhini S (2018MB96)

Naskhath Aara K
Naskhath Aara K (2018MB97)

Nithya
Nithya C (2018MB98)

K. Nivetha
Nivetha K (2018MB99)

A STUDY ON 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

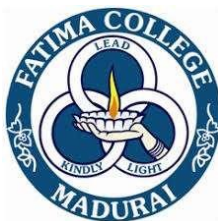
2018MB100 PADMAPRIYA.A

2018MB101PADMAVATHI.A

2018MB102 PAMEENA.K

2018MB103 PAVITHIRA.M

Under the Guidance of
C Jeslyn Sathya Msc.,Mphil, Phd
Assistant Professor
Department of Mathematics



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, 2021**

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOPOLOGY" by

A.PADMAPRIYA(2018MB100),A.PADMAVATHI(2018MB101),K.PAMEENA(2018MB102)

and **M.PAVITHRA(2018MB103)** 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 C .Jeslyn Sathya.

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

Head of the Department

C. Jeslyn Sathya Msc.,Mphil.,Phd

Project Guide

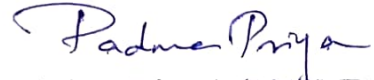
Signature of the External Examiner

DECLARATION

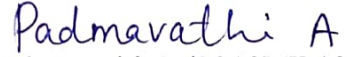
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. C. Jeslyn Sathya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



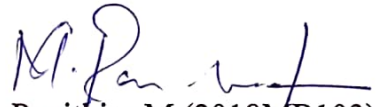
Padma Priya A (2018MB100)



Padmavathi A (2018MB101)



Pameena K (2018MB102)



Pavithira M (2018MB103)

A STUDY ON 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

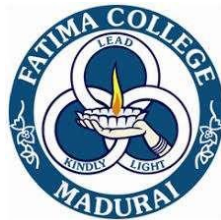
2018MB100 PADMAPRIYA.A

2018MB101PADMAVATHI.A

2018MB102 PAMEENA.K

2018MB103 PAVITHIRA.M

Under the Guidance of
C Jeslyn Sathya Msc.,Mphil, Phd
Assistant Professor
Department of Mathematics



Fatima College[Autonomous]

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

College with Potential for Excellence (2004-2019)

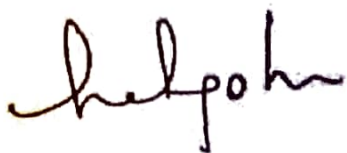
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu. **APRIL, 2021**

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOPOLOGY" by

A.PADMAPRIYA(2018MB100), A.PADMAVATHI(2018MB101), K.PAMEENA(2018MB102)
and M.PAVITHRA(2018MB103) 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 C .Jeslyn Sathya.



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

Head of the Department



C. Jeslyn Sathya Msc.,Mphil.,Phd

Project Guide



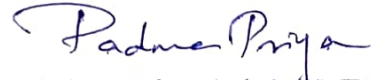
Signature of the External Examiner

DECLARATION

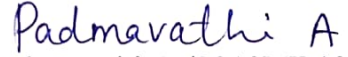
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. C. Jeslyn Sathya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



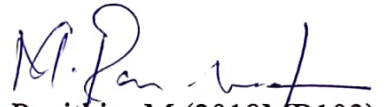
Padma Priya A (2018MB100)



Padmavathi A (2018MB101)



Pameena K (2018MB102)



Pavithira M (2018MB103)

A STUDY ON 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

2018MB100 PADMAPRIYA.A

2018MB101PADMAVATHI.A

2018MB102 PAMEENA.K

2018MB103 PAVITHIRA.M

Under the Guidance of
C Jeslyn Sathya Msc.,Mphil, Phd
Assistant Professor
Department of Mathematics



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, 2021**

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOPOLOGY" by

A.PADMAPRIYA(2018MB100),A.PADMAVATHI(2018MB101),**K.PAMEENA(2018MB102)**
and M.PAVITHRA(2018MB103) 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 C .Jeslyn Sathya.

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

Head of the Department

C. Jeslyn Sathya Msc.,Mphil.,Phd

Project Guide

Signature of the External Examiner

DECLARATION

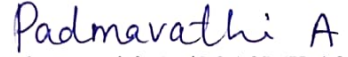
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. C. Jeslyn Sathya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021


Station: Madurai



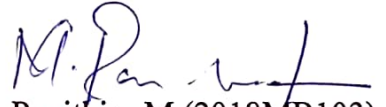
Padma Priya A (2018MB100)



Padmavathi A (2018MB101)



Pameena K (2018MB102)



Pavithira M (2018MB103)

A STUDY ON 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

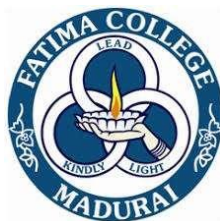
2018MB100 PADMAPRIYA.A

2018MB101PADMAVATHI.A

2018MB102 PAMEENA.K

2018MB103 PAVITHIRA.M

Under the Guidance of
C Jeslyn Sathya Msc.,Mphil, Phd
Assistant Professor
Department of Mathematics



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

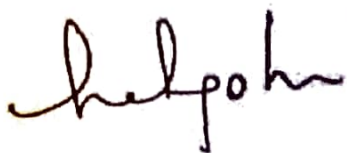
Mary Land, Madurai - 625018, Tamil Nadu. **APRIL, 2021**

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOPOLOGY" by

A.PADMAPRIYA(2018MB100),A.PADMAVATHI(2018MB101),K.PAMEENA(2018MB102)

and M.PAVITHRA(2018MB103) 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 C .Jeslyn Sathya.



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

Head of the Department



C. Jeslyn Sathya Msc.,Mphil.,Phd

Project Guide



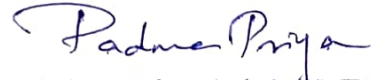
Signature of the External Examiner

DECLARATION

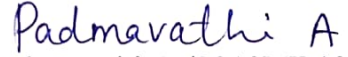
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. C. Jeslyn Sathya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



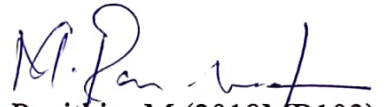
Padma Priya A (2018MB100)



Padmavathi A (2018MB101)



Pameena K (2018MB102)



Pavithira M (2018MB103)

A STUDY ON COUNTABILITY AND SEPARATION AXIOMS

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

2018MB104 Pon kowshika M

2018MB105 Ponsharmila C

2018MB106 Prathipaa S

2018MB107 Priyanka R

Under the Guidance of _____
C.Jeslyn Sathya ,M.Sc., M.Phil.,Ph.D
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled " A STUDY ON COUNTABILITY AND SEPERATION AXIOMS " by M. Pon Kowshika (2018MB104), C. Ponsharmila (2018MB105) , S. Prathipaa (2018MB106) and R.Priyanka (2018MB107) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under



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

Head of the Department



C.Jeslyn Sathya ,M.Sc., M.Phil.,Ph.D

Project Guide


30/3/21
External examiner

DECLARATION

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

Date: 30.3.2021

Station: Madurai



Pon Kowshika M (2018MB104)



Ponsharmila C (2018MB105)



Prathipaa S (2018MB106)



Priyanka R (2018MB107)

A STUDY ON COUNTABILITY AND SEPARATION AXIOMS

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

2018MB104 Pon kowshika M

2018MB105 Ponsharmila C

2018MB106 Prathipaa S

2018MB107 Priyanka R

Under the Guidance of _____
C.Jeslyn Sathya ,M.Sc., M.Phil.,Ph.D
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled " A STUDY ON COUNTABILITY AND SEPERATION AXIOMS " by M. Pon Kowshika (2018MB104), C. Ponsharmila (2018MB105), S. Prathipaa (2018MB106) and R.Priyanka (2018MB107) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under



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

Head of the Department



C.Jeslyn Sathya ,M.Sc., M.Phil.,Ph.D

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. C. Jeslyn Sathya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



Pon Kowshika M (2018MB104)



Ponsharmila C (2018MB105)



Prathipaa S (2018MB106)



Priyanka R (2018MB107)

A STUDY ON COUNTABILITY AND SEPARATION AXIOMS

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

2018MB104 Pon kowshika M

2018MB105 Ponsharmila C

2018MB106 Prathipaa S

2018MB107 Priyanka R

Under the Guidance of _____
C.Jeslyn Sathya ,M.Sc., M.Phil.,Ph.D
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled " A STUDY ON COUNTABILITY AND SEPERATION AXIOMS " by M. Pon Kowshika (2018MB104), C. Ponsharmila (2018MB105) , S. Prathipaa (2018MB106) and R.Priyanka (2018MB107) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under



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

Head of the Department



C.Jeslyn Sathya ,M.Sc., M.Phil.,Ph.D

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. C. Jeslyn Sathya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



Pon Kowshika M (2018MB104)



Ponsharmila C (2018MB105)



Prathipaa S (2018MB106)



Priyanka R (2018MB107)

A STUDY ON COUNTABILITY AND SEPARATION AXIOMS

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

2018MB104 Pon kowshika M

2018MB105 Ponsharmila C

2018MB106 Prathipaa S

2018MB107 Priyanka R

Under the Guidance of _____
C.Jeslyn Sathya ,M.Sc., M.Phil.,Ph.D
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled " A STUDY ON COUNTABILITY AND SEPERATION AXIOMS " by M. Pon Kowshika (2018MB104), C. Ponsharmila (2018MB105) , S. Prathipaa (2018MB106) and R.Priyanka (2018MB107) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematics submitted at Fatima College(Autonomous) under



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

Head of the Department



C.Jeslyn Sathya ,M.Sc., M.Phil.,Ph.D

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. C. Jeslyn Sathya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



Pon Kowshika M (2018MB104)



Ponsharmila C (2018MB105)



Prathipaa S (2018MB106)



Priyanka R (2018MB107)

A STUDY ON COMPLETE METRIC SPACES AND FUNCTION SPACES

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

2018MB108 RAJARAJESWARI .A

2018MB109 RAJESWARI .B

2018MB110 SAKTHI SRIDEVI .S

2018MB111 SANTHANAPRIYA .P

2018MB113 SATHYA SAI LAWANYA.R

Under the Guidance of

C.Jeslyn Sathya ,M.Sc.,M.Phil.,Ph.D.

Assistant Professor

Department of Mathematics



FATIMA COLLEGE [AUTONOMOUS]

Re-Accredited with 'A' Grade by NAAC

College with Potential for Excellence(2004-2019)

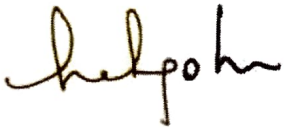
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018,Tamil Nadu.

APRIL, 2021.

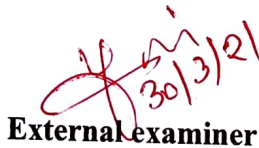
BONAFIDE CERTIFICATE

This is to certify that the project entitled "TOPOLOGY" by **A.Rajarajeswari**
(2018MB108), B.Rajeswari(2018MB109), S.SakthiSridevi(2018MB110), P.Santhan
apriya(2018MB111) and Sathyasai lawanya(2018MB113) in partial fulfillment of
the requirements for the award of degree of Bachelor of Science in
Mathematicssubmitted at Fatima College(Autonomous) under the guidance of
C.Jeslyn Sathya.

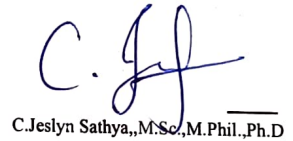


Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



External examiner



C.Jeslyn Sathya, M.Sc., M.Phil., Ph.D

Project Guide

DECLARATION

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

Date: 30.03.2021

Station: Madurai

A. Raja Rajeswari
Raja Rajeswari A (2018MB108)

Rajeswari
Rajeswari B (2018MB109)

S. Sakthi Sridevi
Sakthi Sridevi S (2018MB110)

Santhana Priya
Santhanapriya P (2018MB111)

R. Sathya Sai Lawanya
Sathya Sai Lawanya R (2018MB113)

A STUDY ON COMPLETE METRIC SPACES AND FUNCTION SPACES

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

2018MB108 RAJARAJESWARI .A

2018MB109 RAJESWARI .B

2018MB110 SAKTHI SRIDEVI .S

2018MB111 SANTHANAPRIYA .P

2018MB113 SATHYA SAI LAWANYA.R

Under the Guidance of

C.Jeslyn Sathya ,M.Sc.,M.Phil.,Ph.D.

Assistant Professor

Department of Mathematics



FATIMA COLLEGE [AUTONOMOUS]

Re-Accredited with 'A' Grade by NAAC

College with Potential for Excellence(2004-2019)

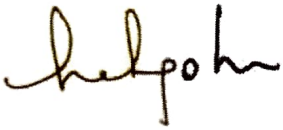
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021.

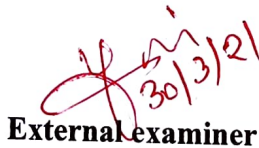
BONAFIDE CERTIFICATE

This is to certify that the project entitled "TOPOLOGY" by A.Rajarajeswari (2018MB108), B.Rajeswari(2018MB109) S.SakthiSridevi(2018MB110), P.Santhan apriya(2018MB111) and Sathyasai lawanya(2018MB113) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematicssubmitted at Fatima College(Autonomous) under the guidance of C.Jeslyn Sathya.

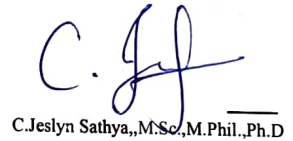


Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



External examiner



C.Jeslyn Sathya, M.Sc., M.Phil., Ph.D

Project Guide

DECLARATION

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

Date: 30.03.2021

Station: Madurai

A. Raja Rajeswari
Raja Rajeswari A (2018MB108)

Rajeswari
Rajeswari B (2018MB109)

S. Sakthi Sridevi
Sakthi Sridevi S (2018MB110)

Santhana Priya
Santhanapriya P (2018MB111)

R. Sathya Sai Lawanya
Sathya Sai Lawanya R (2018MB113)

A STUDY ON COMPLETE METRIC SPACES AND FUNCTION SPACES

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

2018MB108 RAJARAJESWARI .A

2018MB109 RAJESWARI .B

2018MB110 SAKTHI SRIDEVI .S

2018MB111 SANTHANAPRIYA .P

2018MB113 SATHYA SAI LAWANYA.R

Under the Guidance of

C.Jeslyn Sathya ,M.Sc.,M.Phil.,Ph.D.

Assistant Professor

Department of Mathematics



FATIMA COLLEGE [AUTONOMOUS]

Re-Accredited with 'A' Grade by NAAC

College with Potential for Excellence(2004-2019)

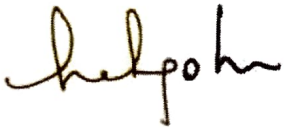
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021.

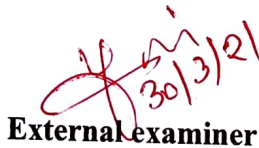
BONAFIDE CERTIFICATE

This is to certify that the project entitled "TOPOLOGY" by A.Rajarajeswari (2018MB108), B.Rajeswari(2018MB109) S.SakthiSridevi(2018MB110), P.Santhan apriya(2018MB111) and Sathyasai lawanya(2018MB113) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematicssubmitted at Fatima College(Autonomous) under the guidance of C.Jeslyn Sathya.

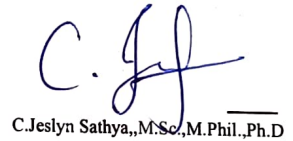


Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



External examiner



C.Jeslyn Sathya, M.Sc., M.Phil., Ph.D

Project Guide

DECLARATION

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

Date: 30.03.2021

Station: Madurai

A. Raja Rajeswari
Raja Rajeswari A (2018MB108)

Rajeswari
Rajeswari B (2018MB109)

S. Sakthi Sridevi
Sakthi Sridevi S (2018MB110)

Santhana Priya
Santhanapriya P (2018MB111)

R. Sathya Sai Lawanya
Sathya Sai Lawanya R (2018MB113)

A STUDY ON COMPLETE METRIC SPACES AND FUNCTION SPACES

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

2018MB108 RAJARAJESWARI .A

2018MB109 RAJESWARI .B

2018MB110 SAKTHI SRIDEVI .S

2018MB111 SANTHANAPRIYA .P

2018MB113 SATHYA SAI LAWANYA.R

Under the Guidance of

C.Jeslyn Sathya ,M.Sc.,M.Phil.,Ph.D.

Assistant Professor

Department of Mathematics



FATIMA COLLEGE [AUTONOMOUS]

Re-Accredited with 'A' Grade by NAAC

College with Potential for Excellence(2004-2019)

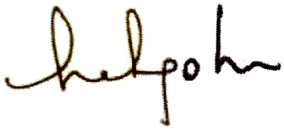
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021.

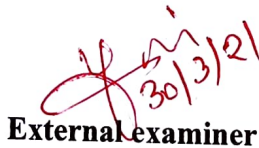
BONAFIDE CERTIFICATE

This is to certify that the project entitled "TOPOLOGY" by A.Rajarajeswari (2018MB108), B.Rajeswari(2018MB109), S.SakthiSridevi(2018MB110), **P.Santhan** **apriya(2018MB111)** and Sathyasai lawanya(2018MB113) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematicssubmitted at Fatima College(Autonomous) under the guidance of C.Jeslyn Sathya.

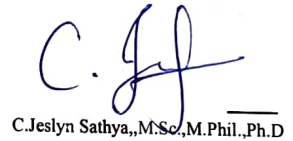


Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



External examiner



C.Jeslyn Sathya, M.Sc., M.Phil., Ph.D

Project Guide

DECLARATION

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

Date: 30.03.2021

Station: Madurai

A. Raja Rajeswari
Raja Rajeswari A (2018MB108)

Rajeswari
Rajeswari B (2018MB109)

S. Sakthi Sridevi
Sakthi Sridevi S (2018MB110)

Santhana Priya
Santhanapriya P (2018MB111)

R. Sathya Sai Lawanya
Sathya Sai Lawanya R (2018MB113)

A STUDY ON COMPLETE METRIC SPACES AND FUNCTION SPACES

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

2018MB108 RAJARAJESWARI .A

2018MB109 RAJESWARI .B

2018MB110 SAKTHI SRIDEVI .S

2018MB111 SANTHANAPRIYA .P

2018MB113 SATHYA SAI LAWANYA.R

Under the Guidance of

C.Jeslyn Sathya ,M.Sc.,M.Phil.,Ph.D.

Assistant Professor

Department of Mathematics



FATIMA COLLEGE [AUTONOMOUS]

Re-Accredited with 'A' Grade by NAAC

College with Potential for Excellence(2004-2019)

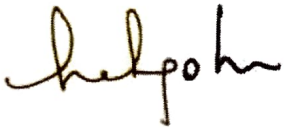
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018,Tamil Nadu.

APRIL, 2021.

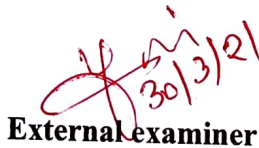
BONAFIDE CERTIFICATE

This is to certify that the project entitled "TOPOLOGY" by A.Rajarajeswari (2018MB108), B.Rajeswari(2018MB109), S.SakthiSridevi(2018MB110), P.Santhan apriya(2018MB111) and Sathyasai lawanya(2018MB113) in partial fulfillment of the requirements for the award of degree of Bachelor of Science in Mathematicssubmitted at Fatima College(Autonomous) under the guidance of C.Jeslyn Sathya.

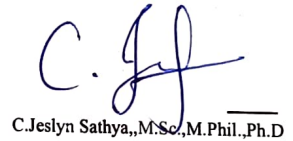


Dr. E. Helena, M.Sc., M.Phil., PGDCA, Ph.D

Head of the Department



External examiner



C.Jeslyn Sathya, M.Sc., M.Phil., Ph.D

Project Guide

DECLARATION

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

Date: 30.03.2021

Station: Madurai

A. Raja Rajeswari
Raja Rajeswari A (2018MB108)

Rajeswari
Rajeswari B (2018MB109)

S. Sakthi Sridevi
Sakthi Sridevi S (2018MB110)

Santhana Priya
Santhanapriya P (2018MB111)

R. Sathya Sai Lawanya
Sathya Sai Lawanya R (2018MB113)

A STUDY ON COMBINATORIAL STRUCTURE AND ITS PROPERTY

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

2018MB114 SATHYABAMA M

2018MB115 SHAKTHI M

2018MB116 SHANMUGA PRIYA P

2018MB117 SHIVA KAAMINI R

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON COMBINATORIAL STRUCTURE AND ITS PROPERTY " by M. SATHYABAMA (2018MB114), M.SHAKTHI (2018MB115), P. SHANMUGA PRIYA (2018MB116), and R.SHIVA KAAMINI (2018MB117) 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., M.Phil., Ph.D

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 Dr. K. Mano, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

M. Sathyabama

Sathyabama M (2018MB114)

M. Shakthi

Shakthi M (2018MB115)

Shanmuga Priya

Shanmuga Priya P (2018MB116)

Shiva Kaamini R

Shiva Kaamini R (2018MB117)

A STUDY ON COMBINATORIAL STRUCTURE AND ITS PROPERTY

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

2018MB114 SATHYABAMA M

2018MB115 SHAKTHI M

2018MB116 SHANMUGA PRIYA P

2018MB117 SHIVA KAAMINI R

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON COMBINATORIAL STRUCTURE AND ITS PROPERTY " by M. SATHYABAMA (2018MB114), M.SHAKTHI (2018MB115), P. SHANMUGA PRIYA (2018MB116), and R.SHIVA KAAMINI (2018MB117) 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., M.Phil., Ph.D

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 Dr. K. Mano, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

M. Sathyabama

Sathyabama M (2018MB114)

M. Shakthi

Shakthi M (2018MB115)

Shanmuga Priya

Shanmuga Priya P (2018MB116)

Shiva Kaamini R

Shiva Kaamini R (2018MB117)

A STUDY ON COMBINATORIAL STRUCTURE AND ITS PROPERTY

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

2018MB114 SATHYABAMA M

2018MB115 SHAKTHI M

2018MB116 SHANMUGA PRIYA P

2018MB117 SHIVA KAAMINI R

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON COMBINATORIAL STRUCTURE AND ITS PROPERTY " by M. SATHYABAMA (2018MB114), M.SHAKTHI (2018MB115), P. SHANMUGA PRIYA (2018MB116), and R.SHIVA KAAMINI (2018MB117) 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., M.Phil., Ph.D

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 Dr. K. Mano, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

M. Sathyabama

Sathyabama M (2018MB114)

M. Shakthi

Shakthi M (2018MB115)

Shanmuga Priya

Shanmuga Priya P (2018MB116)

Shiva Kaamini R

Shiva Kaamini R (2018MB117)

A STUDY ON COMBINATORIAL STRUCTURE AND ITS PROPERTY

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

2018MB114 SATHYABAMA M

2018MB115 SHAKTHI M

2018MB116 SHANMUGA PRIYA P

2018MB117 SHIVA KAAMINI R

Under the Guidance of

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

Assistant Professor

Department of Mathematics



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 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON COMBINATORIAL STRUCTURE AND ITS PROPERTY " by M. SATHYABAMA (2018MB114), M.SHAKTHI (2018MB115), P. SHANMUGA PRIYA (2018MB116), and R.SHIVA KAAMINI (2018MB117) 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

Head of the Department



Dr. K. MANO, M.Sc., M.Phil., Ph.D

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 Dr. K. Mano, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai

M. Sathyabama

Sathyabama M (2018MB114)

M. Shakthi

Shakthi M (2018MB115)

Shanmuga Priya

Shanmuga Priya P (2018MB116)

Shiva Kaamini R

Shiva Kaamini R (2018MB117)

A STUDY ON DIJKSTRA'S ALGORITHM 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 MATHEMATICS

Submitted by

2018MB118- Shruthi R

2018MB119- Sindhuja M

2018MB120-Sivaranjani k

2018MB121-Sowmiya Mary M

Under the Guidance of

Dr . K. MANO, M.Sc , M.Phill,B.Ed.,Ph.D

Assintant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DIJKSTRA'S ALGORITHM OF A GRAPH" by **R. SHRUTHI**

(201MB118) M. SINDHUJAA (2018MB119), K. SIVARANJANI (201MB120), M. SOWMIYA MARY (2018MB121) 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.



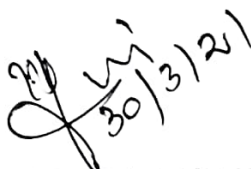
DR .E . Helena, M.Sc, M.Phill, PGDCA, Ph.D

Head of the Department



Dr . K.MANO, M.Sc, M.Phill, B.Ed., Ph.D

Project Guide



SIGNATURE OF THE EXTERNAL

DECLARATION

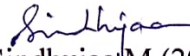
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. K. Mano, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



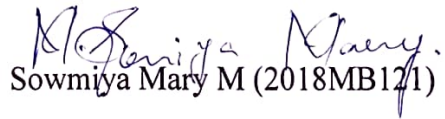
Shruthi R (2018MB118)



Sindhuja M (2018MB119)



Sivaranjani K (2018MB120)



Sowmiya Mary M (2018MB121)

A STUDY ON DIJKSTRA'S ALGORITHM 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 MATHEMATICS

Submitted by

2018MB118- Shruthi R

2018MB119- Sindhuja M

2018MB120-Sivaranjani k

2018MB121-Sowmiya Mary M

Under the Guidance of

Dr . K. MANO, M.Sc , M.Phill,B.Ed.,Ph.D

Assintant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DIJKSTRA'S ALGORITHM OF A GRAPH" by R. SHRUTHI (201MB118), M. SINDHUJAA (2018MB119), K. SIVARANJANI (201MB120), M. SOWMIYA MARY (2018MB121) 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.



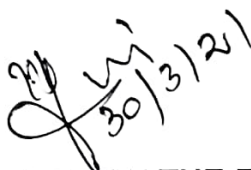
DR .E . Helena, M.Sc, M.Phill, PGDCA,Ph.D

Head of the Department



Dr . K.MANO, M.Sc, M.Phill,B.Ed., Ph.D

Project Guide



SIGNATURE OF THE EXTERNAL

DECLARATION

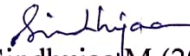
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. K. Mano, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



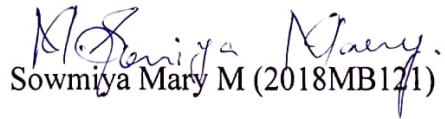
Shruthi R (2018MB118)



Sindhuja M (2018MB119)



Sivaranjani K (2018MB120)



Sowmiya Mary M (2018MB121)

A STUDY ON DIJKSTRA'S ALGORITHM 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 MATHEMATICS

Submitted by

2018MB118- Shruthi R

2018MB119- Sindhuja M

2018MB120-Sivaranjani k

2018MB121-Sowmiya Mary M

Under the Guidance of

Dr . K. MANO, M.Sc , M.Phill,B.Ed.,Ph.D

Assintant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DIJKSTRA'S ALGORITHM OF A GRAPH" by R. SHRUTHI (201MB118), M. SINDHUJAA (2018MB119), K. SIVARANJANI (201MB120), M. SOWMIYA MARY (2018MB121) 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.



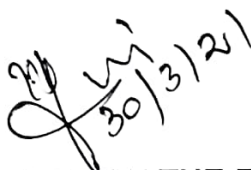
DR .E . Helena, M.Sc, M.Phill, PGDCA, Ph.D

Head of the Department



Dr . K.MANO, M.Sc, M.Phill, B.Ed., Ph.D

Project Guide



SIGNATURE OF THE EXTERNAL

DECLARATION

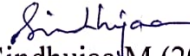
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. K. Mano, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



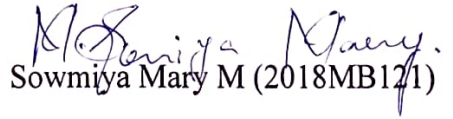
Shruthi R (2018MB118)



Sindhuja M (2018MB119)



Sivaranjani K (2018MB120)



Sowmiya Mary M (2018MB121)

A STUDY ON DIJKSTRA'S ALGORITHM 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 MATHEMATICS

Submitted by

2018MB118- Shruthi R

2018MB119- Sindhuja M

2018MB120-Sivaranjani k

2018MB121-Sowmiya Mary M

Under the Guidance of

Dr . K. MANO, M.Sc , M.Phill,B.Ed.,Ph.D

Assintant Professor

Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON DIJKSTRA'S ALGORITHM OF A GRAPH" by R. SHRUTHI (201MB118), M. SINDHUJAA (2018MB119), K. SIVARANJANI (201MB120), **M. SOWMIYA MARY (2018MB121)** 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.



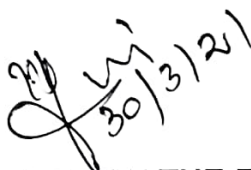
DR .E . Helena, M.Sc, M.Phill, PGDCA, Ph.D

Head of the Department



Dr . K.MANO, M.Sc, M.Phill, B.Ed., Ph.D

Project Guide



SIGNATURE OF THE EXTERNAL

DECLARATION

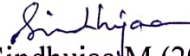
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Dr. K. Mano, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

Station: Madurai



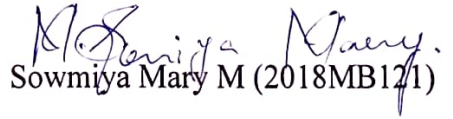
Shruthi R (2018MB118)



Sindhuja M (2018MB119)



Sivaranjani K (2018MB120)



Sowmiya Mary M (2018MB121)

A STUDY ON TOTAL GRAPH OF COMMUTATIVE RINGS
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

2018MB122 Sowmiyadevi S

2018MB123 Sri Karpagam A

2018MB124 Sri Nivethitha D

2018MB125 Shrimathi S

2018MB126 Subalakshmi C

Under the Guidance of
Dr. K. MANO, M. Sc., M. Phil., B. Ed., Ph. D
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

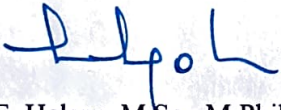
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOTAL GRAPH OF COMMUTATIVE RING" by S.SOWMIYADEVI (2018MB122), A.SRI KARPAGAM (2018MB123), D.SRI NIVETHITHA (2018MB124), S.SHRIMATHI (2018MB125) and C.SUBALAKSHMI (2018MB126) 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., M. Phil., B. Ed., Ph. D

Head of the Department

Project Guide



Signature of the External Examiner

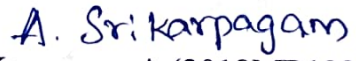
DECLARATION

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

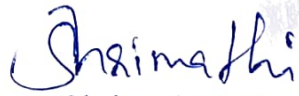
Date: 30.03.2021

Station: Madurai


Sowmiyadevi S (2018MB122)


Sri Karpagam A (2018MB123)


Sri Nivethitha D (2018MB124)


Shrimathi S (2018MB125)


Subalakshmi C (2018MB126)

A STUDY ON TOTAL GRAPH OF COMMUTATIVE RINGS
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

2018MB122 Sowmiyadevi S

2018MB123 Sri Karpagam A

2018MB124 Sri Nivethitha D

2018MB125 Shrimathi S

2018MB126 Subalakshmi C

Under the Guidance of
Dr. K. MANO, M. Sc., M. Phil., B. Ed., Ph. D
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOTAL GRAPH OF COMMUTATIVE RING" by S.SOWMIYADEVI (2018MB122), A.SRI KARPAGAM (2018MB123), D.SRI NIVETHITHA (2018MB124), S.SHRIMATHI (2018MB125) and C.SUBALAKSHMI (2018MB126) 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

Head of the Department



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

Project Guide



Signature of the External Examiner

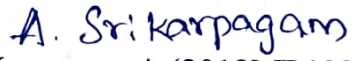
DECLARATION

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

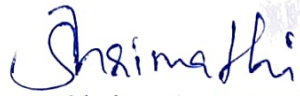
Date: 30.03.2021

Station: Madurai


Sowmiyadevi S (2018MB122)


Sri Karpagam A (2018MB123)


Sri Nivethitha D (2018MB124)


Shrimathi S (2018MB125)


Subalakshmi C (2018MB126)

A STUDY ON TOTAL GRAPH OF COMMUTATIVE RINGS
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

2018MB122 Sowmiyadevi S

2018MB123 Sri Karpagam A

2018MB124 Sri Nivethitha D

2018MB125 Shrimathi S

2018MB126 Subalakshmi C

Under the Guidance of
Dr. K. MANO, M. Sc., M. Phil., B. Ed., Ph. D
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

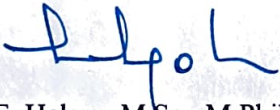
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOTAL GRAPH OF COMMUTATIVE RING" by S.SOWMIYADEVI (2018MB122), A.SRI KARPAGAM (2018MB123), D.SRI NIVETHITHA (2018MB124), S.SHRIMATHI (2018MB125) and C.SUBALAKSHMI (2018MB126) 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., M. Phil., B. Ed., Ph. D

Head of the Department

Project Guide



Signature of the External Examiner

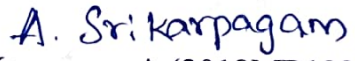
DECLARATION

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

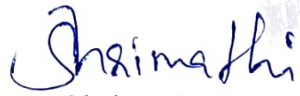
Date: 30.03.2021

Station: Madurai


Sowmiyadevi S (2018MB122)


Sri Karpagam A (2018MB123)


Sri Nivethitha D (2018MB124)


Shrimathi S (2018MB125)


Subalakshmi C (2018MB126)

A STUDY ON TOTAL GRAPH OF COMMUTATIVE RINGS
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

2018MB122 Sowmiyadevi S

2018MB123 Sri Karpagam A

2018MB124 Sri Nivethitha D

2018MB125 Shrimathi S

2018MB126 Subalakshmi C

Under the Guidance of
Dr. K. MANO, M. Sc., M. Phil., B. Ed., Ph. D
Assistant Professor
Department of Mathematics



Fatima College [Autonomous]

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

College with Potential for Excellence (2004-2019)

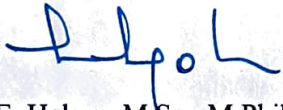
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOTAL GRAPH OF COMMUTATIVE RING" by S.SOWMIYADEVI (2018MB122), A.SRI KARPAGAM (2018MB123), D.SRI NIVETHITHA (2018MB124), S.SHRIMATHI (2018MB125) and C.SUBALAKSHMI (2018MB126) 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., M. Phil., B. Ed., Ph. D

Head of the Department

Project Guide



Signature of the External Examiner

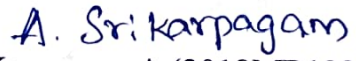
DECLARATION

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

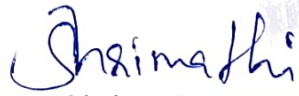
Date: 30.03.2021

Station: Madurai


Sowmiyadevi S (2018MB122)


Sri Karpagam A (2018MB123)


Sri Nivethitha D (2018MB124)


Shrimathi S (2018MB125)


Subalakshmi C (2018MB126)

A STUDY ON TOTAL GRAPH OF COMMUTATIVE RINGS
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

2018MB122 Sowmiyadevi S

2018MB123 Sri Karpagam A

2018MB124 Sri Nivethitha D

2018MB125 Shrimathi S

2018MB126 Subalakshmi C

Under the Guidance of
Dr. K. MANO, M. Sc., M. Phil., B. Ed., Ph. D
Assistant Professor
Department of Mathematics



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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON TOTAL GRAPH OF COMMUTATIVE RING" by S.SOWMIYADEVI (2018MB122), A.SRI KARPAGAM (2018MB123), D.SRI NIVETHITHA (2018MB124), S.SHRIMATHI (2018MB125) and C.SUBALAKSHMI (2018MB126) 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

Head of the Department



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

Project Guide



Signature of the External Examiner

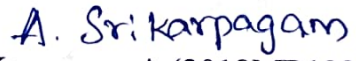
DECLARATION

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

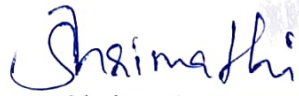
Date: 30.03.2021

Station: Madurai


Sowmiyadevi S (2018MB122)


Sri Karpagam A (2018MB123)


Sri Nivethitha D (2018MB124)


Shrimathi S (2018MB125)


Subalakshmi C (2018MB126)

A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS

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

2018MB128 Suganya. D

2018MB131 Swathi. S

2018MB132 Swetha Doss.K

2018MB 133 Swetha.R

2018MB 134 Vidhya Lakshmi V.G

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

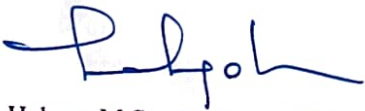
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

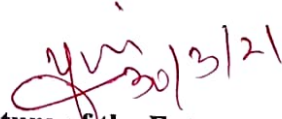
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS" by Suganya. D (2018MB128), Swathi. S(2018MB131), Swetha Doss.K (2018MB132), Swetha.R(2018MB 133), Vidhya Lakshmi V.G (2018MB 134) 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 Mrs.P.Dhanapriya.



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

Head of the Department



**Signature of the External
Examiner**



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

Project Guide-Internal

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: 30.3.2021

Station: Madurai

D. Suganya
Suganya D (2018MB128)

S. Swathi
Swathi S (2018MB131)

R. Swetha Doss
Swetha Doss K (2018MB132)

R. Swetha
Swetha R (2018MB133)

Vidhya Lakshmi
Vidhya Lakshmi V G (2018MB134)

A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS

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

2018MB128 Suganya. D

2018MB131 Swathi. S

2018MB132 Swetha Doss.K

2018MB 133 Swetha.R

2018MB 134 Vidhya Lakshmi V.G

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

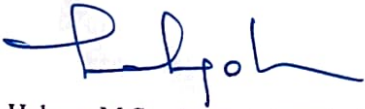
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

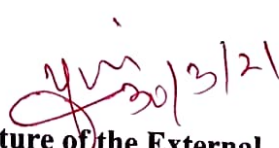
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS" by Suganya. D (2018MB128), Swathi. S(2018MB131), Swetha Doss.K (2018MB132), Swetha.R(2018MB 133), Vidhya Lakshmi V.G (2018MB 134) 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 Mrs.P.Dhanapriya.



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

Head of the Department


Signature of the External Examiner



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

Project Guide-Internal

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: 30.3.2021

Station: Madurai

D. Suganya
Suganya D (2018MB128)

S. Swathi
Swathi S (2018MB131)

R. Swetha Doss
Swetha Doss K (2018MB132)

R. Swetha
Swetha R (2018MB133)

Vidhya Lakshmi
Vidhya Lakshmi V G (2018MB134)

A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS

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

2018MB128 Suganya. D

2018MB131 Swathi. S

2018MB132 Swetha Doss.K

2018MB 133 Swetha.R

2018MB 134 Vidhya Lakshmi V.G

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

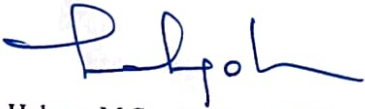
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

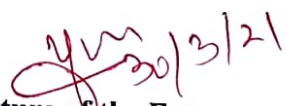
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS" by Suganya. D (2018MB128), Swathi. S(2018MB131), Swetha Doss.K (2018MB132), Swetha.R(2018MB 133), Vidhya Lakshmi V.G (2018MB 134) 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 Mrs.P.Dhanapriya.



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

Head of the Department



**Signature of the External
Examiner**



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

Project Guide-Internal

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: 30.3.2021

Station: Madurai

D. Suganya
Suganya D (2018MB128)

S. Swathi
Swathi S (2018MB131)

R. Swetha Doss
Swetha Doss K (2018MB132)

R. Swetha
Swetha R (2018MB133)

Vidhya Lakshmi
Vidhya Lakshmi V G (2018MB134)

A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS

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

2018MB128 Suganya. D

2018MB131 Swathi. S

2018MB132 Swetha Doss.K

2018MB 133 Swetha.R

2018MB 134 Vidhya Lakshmi V.G

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

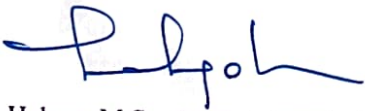
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

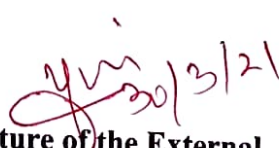
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS" by Suganya. D (2018MB128), Swathi. S(2018MB131), Swetha Doss.K (2018MB132) Swetha.R(2018MB 133), Vidhya Lakshmi V.G (2018MB 134) 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 Mrs.P.Dhanapriya.



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

Head of the Department


**Signature of the External
Examiner**



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

Project Guide-Internal

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: 30.3.2021

Station: Madurai

D. Suganya
Suganya D (2018MB128)

S. Swathi
Swathi S (2018MB131)

R. Swetha Doss
Swetha Doss K (2018MB132)

R. Swetha
Swetha R (2018MB133)

Vidhya Lakshmi
Vidhya Lakshmi V G (2018MB134)

A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS

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

2018MB128 Suganya. D

2018MB131 Swathi. S

2018MB132 Swetha Doss.K

2018MB 133 Swetha.R

2018MB 134 Vidhya Lakshmi V.G

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 (3rd Cycle)

College with Potential for Excellence (2004-2019)

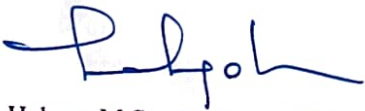
74th Rank in India Ranking 2020 (NIRF) by MHRD

Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

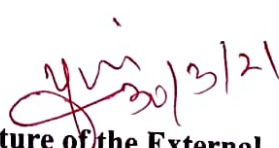
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON FINITE DIFFERENCE SOLUTION OF SECOND ORDER PARTIAL DIFFERENCE EQUATIONS" by Suganya. D (2018MB128), Swathi. S(2018MB131), Swetha Doss.K (2018MB132) ,Swetha.R(2018MB 133), Vidhya Lakshmi V.G (2018MB 134) 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 Mrs.P.Dhanapriya.



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

Head of the Department


Signature of the External Examiner



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

Project Guide-Internal

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: 30.3.2021

Station: Madurai

D. Suganya
Suganya D (2018MB128)

S. Swathi
Swathi S (2018MB131)

R. Swetha Doss
Swetha Doss K (2018MB132)

R. Swetha
Swetha R (2018MB133)

Vidhya Lakshmi
Vidhya Lakshmi V G (2018MB134)

A STUDY ON CRYPTOGRAPHY

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

2018MB135 Vigneshwary.S

2018MB136 Vinothini.V

2018MB 137 Vishali.V

2018MB 138 Vishalini.G

2018MB 139 Aishwarya.J

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 (3rd Cycle)
College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai - 625018, Tamil Nadu.

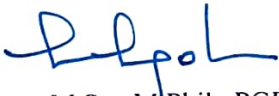
APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON CRYPTOGRAPHY” by

Vigneshwary.S(2018MB135), Vinothini.V (2018MB136), Vishali.V (2018MB 137),

Vishalini.G(2018MB 138), Aishwarya.J (2018MB 139) 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.P.Dhanapriya.



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



**Signature of the External
Examiner**



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

Project Guide

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: 30.3.2021

Station: Madurai

Vigneshwary
Vigneshwary S (2018MB135)

Vinothini V
Vinothini V (2018MB136)

Vishali
Vishali V (2018MB137)

G. Vishalini
Vishalini G (2018MB138)

Aishwarya
Aishwarya J (2018MB139)

A STUDY ON CRYPTOGRAPHY

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

2018MB135 Vigneshwary.S

2018MB136 Vinothini.V

2018MB 137 Vishali.V

2018MB 138 Vishalini.G

2018MB 139 Aishwarya.J

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 (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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON CRYPTOGRAPHY” by Vigneshwary.S(2018MB135), Vinothini.V (2018MB136), Vishali.V (2018MB 137), Vishalini.G(2018MB 138), Aishwarya.J (2018MB 139) 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.P.Dhanapriya.

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

**Signature of the External
Examiner**

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

Project Guide

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: 30.3.2021

Station: Madurai

Vigneshwary
Vigneshwary S (2018MB135)

Vinothini V
Vinothini V (2018MB136)

Vishali
Vishali V (2018MB137)

G. Vishalini
Vishalini G (2018MB138)

Aishwarya
Aishwarya J (2018MB139)

A STUDY ON CRYPTOGRAPHY

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

2018MB135 Vigneshwary.S

2018MB136 Vinothini.V

2018MB 137 Vishali.V

2018MB 138 Vishalini.G

2018MB 139 Aishwarya.J

Under the Guidance of
Mrs.P. Dhanapriya, M. Sc., M. Phil., SET
Assistant Professor
Department of Mathematics

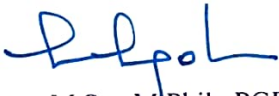


Fatima College [Autonomous]
Re-Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai - 625018, Tamil Nadu.

APRIL, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON CRYPTOGRAPHY” by Vigneshwary.S(2018MB135), Vinothini.V (2018MB136), Vishali.V (2018MB 137), Vishalini.G(2018MB 138), Aishwarya.J (2018MB 139) 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.P.Dhanapriya.



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



Signature of the External Examiner



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

Project Guide

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: 30.3.2021

Station: Madurai

Vigneshwary
Vigneshwary S (2018MB135)

Vinothini V
Vinothini V (2018MB136)

Vishali
Vishali V (2018MB137)

G. Vishalini
Vishalini G (2018MB138)

Aishwarya
Aishwarya J (2018MB139)

A STUDY ON CRYPTOGRAPHY

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

2018MB135 Vigneshwary.S

2018MB136 Vinothini.V

2018MB 137 Vishali.V

2018MB 138 Vishalini.G

2018MB 139 Aishwarya.J

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 (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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON CRYPTOGRAPHY” by Vigneshwary.S(2018MB135), Vinothini.V (2018MB136), Vishali.V (2018MB 137), Vishalini.G(2018MB 138), Aishwarya.J (2018MB 139) 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.P.Dhanapriya.

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

Signature of the External Examiner

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

Project Guide

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: 30.3.2021

Station: Madurai

Vigneshwary
Vigneshwary S (2018MB135)

Vinothini V
Vinothini V (2018MB136)

Vishali
Vishali V (2018MB137)

G. Vishalini
Vishalini G (2018MB138)

Aishwarya
Aishwarya J (2018MB139)

A STUDY ON CRYPTOGRAPHY

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

2018MB135 Vigneshwary.S

2018MB136 Vinothini.V

2018MB 137 Vishali.V

2018MB 138 Vishalini.G

2018MB 139 Aishwarya.J

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 (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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON CRYPTOGRAPHY” by Vigneshwary.S(2018MB135), Vinothini.V (2018MB136), Vishali.V (2018MB 137), Vishalini.G(2018MB 138), Aishwarya.J (2018MB 139) 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.P.Dhanapriya.

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

**Signature of the External
Examiner**

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

Project Guide

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: 30.3.2021

Station: Madurai

Vigneshwary
Vigneshwary S (2018MB135)

Vinothini V
Vinothini V (2018MB136)

Vishali
Vishali V (2018MB137)

G. Vishalini
Vishalini G (2018MB138)

Aishwarya
Aishwarya J (2018MB139)

A STUDY ON NUMERICAL LINEAR ALGEBRA

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

2018MB 140 Likitha .M

2018MB 141 Antony Oviya. A

2018MB 142 Priyadharshini.S

2018MB 144 Seba Mourin.J

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 (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, 2021

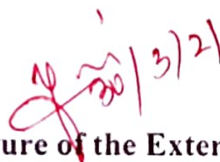
BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON
NUMERICAL LINEAR ALGEBRA” by Likitha .M (2018MB 140), Antony
Oviya. A (2018MB 141), Priyadharshini.S (2018MB 142) and Seba Mourin.J
(2018MB 144) 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.P.Dhanapriya.



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

Head of the Department



**Signature of the External
Examiner**



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

Project Guide

DECLARATION

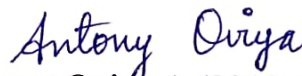
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. P. Dhanapriya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

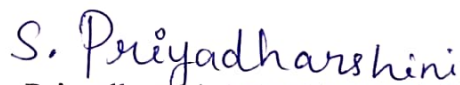
Station: Madurai



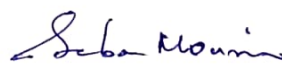
Likitha M (2018MB140)



Antony Oviya A (2018MB141)



Priyadharshini S (2018MB142)



Seba Mourin J (2018MB144)

A STUDY ON NUMERICAL LINEAR ALGEBRA

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

2018MB 140 Likitha .M

2018MB 141 Antony Oviya. A

2018MB 142 Priyadharshini.S

2018MB 144 Seba Mourin.J

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 (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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON
NUMERICAL LINEAR ALGEBRA” by Likitha .M (2018MB 140), Antony
Oviya. A (2018MB 141), Priyadharshini.S (2018MB 142) and Seba Mourin.J
(2018MB 144) 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.P.Dhanapriya.



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

Head of the Department



**Signature of the External
Examiner**



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

Project Guide

DECLARATION

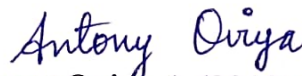
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. P. Dhanapriya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

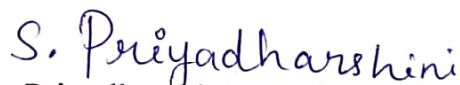
Station: Madurai



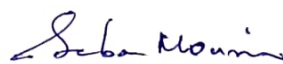
Likitha M (2018MB140)



Antony Oviya A (2018MB141)



Priyadharshini S (2018MB142)



Seba Mourin J (2018MB144)

A STUDY ON NUMERICAL LINEAR ALGEBRA

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

2018MB 140 Likitha .M

2018MB 141 Antony Oviya. A

2018MB 142 Priyadharshini.S

2018MB 144 Seba Mourin.J

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 (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, 2021

BONAFIDE CERTIFICATE

This is to certify that the project entitled “A STUDY ON
NUMERICAL LINEAR ALGEBRA” by Likitha .M (2018MB 140), Antony
Oviya. A (2018MB 141), Priyadharshini.S (2018MB 142) and Seba Mourin.J
(2018MB 144) 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.P.Dhanapriya.

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

Head of the Department

**Signature of the External
Examiner**

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

Project Guide

DECLARATION

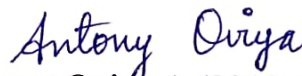
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. P. Dhanapriya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

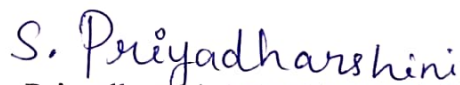
Station: Madurai



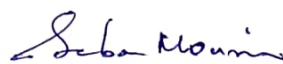
Likitha M (2018MB140)



Antony Oviya A (2018MB141)



Priyadharshini S (2018MB142)



Seba Mourin J (2018MB144)

A STUDY ON NUMERICAL LINEAR ALGEBRA

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

2018MB 140 Likitha .M

2018MB 141 Antony Oviya. A

2018MB 142 Priyadharshini.S

2018MB 144 Seba Mourin.J

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 (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, 2021

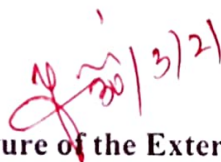
BONAFIDE CERTIFICATE

This is to certify that the project entitled "A STUDY ON
NUMERICAL LINEAR ALGEBRA" by Likitha .M (2018MB 140), Antony
Oviya. A (2018MB 141), Priyadharshini.S (2018MB 142) and Seba Mourin.J
(2018MB 144) 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.P.Dhanapriya.



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

Head of the Department



**Signature of the External
Examiner**



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

Project Guide

DECLARATION

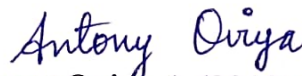
We do hereby declare that this work has been originally carried out by us under the guidance and supervision of Mrs. P. Dhanapriya, Assistant Professor, Department of Mathematics, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for any other degree.

Date: 30.3.2021

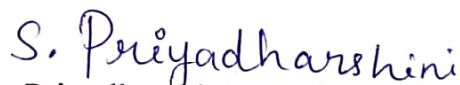
Station: Madurai



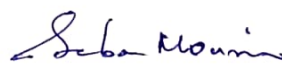
Likitha M (2018MB140)



Antony Oviya A (2018MB141)



Priyadharshini S (2018MB142)



Seba Mourin J (2018MB144)