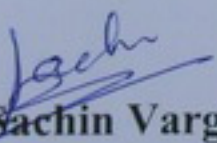


DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY




CERTIFICATE

This is to certify that this project entitled **A Study on Weibull Distribution** is a record of bonafide project work done by **Sebastian Mathew (11900027)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.


Mr. Sachin Varghese Biju

Assistant Professor
(Project Guide)


Dr. Shine C Mathew

Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery

Date : 24/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled **FUZZY MATHEMATICS** is a record of bonafide project work done by **Sreejith SS (11900009)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Mr Tibin Thomas

Assistant Professor

(Project Guide)

Changanassery

Date : 25/03/2022

Dr. Shine C Mathew

Assistant Professor and Head,

Department of Mathematics

St. Berchmans College

Changanassery



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ST. BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled **NORMED SPACES** is a record of bonafide project work done by **Richu Johan Koshy (11900026)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Rev Fr John J Chavara

Assistant Professor
(Project Guide)

Dr. Shine C Mathew

Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery

Date : 31/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERRY



CERTIFICATE

This is to certify that this project entitled **COMPACTNESS OF METRIC SPACES** is a record of bonafide project work done by **Naijel Roy (Reg No: 11900024)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfillment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Changanassery

Date : 27/03/2022



Dr. Shine C Mathew, Assistant

Professor and Head, Department of Mathematics

St. Berchmans College Changanassery

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
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CERTIFICATE

This is to certify that this project entitled Mathematics in Rubik's Cube is a record of bonafide project work done by Akshay Kumar B (11900001) BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Mr Fabin Thomas

Assistant Professor

(Project Guide)

Dr. Shine C Mathew

Assistant Professor and Head,

Department of Mathematics

St. Berchmans College

Changanassery



Changanassery

Date : 31/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled **KRONECKER PRODUCT** is a record of bonafide project work done by **Yedhumon Dinesan (11900031)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Ms. Treasa Maria Kuriakose
Assistant Professor
(Project Guide)

Dr. Shine C Mathew
Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery
Date : 30/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
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CERTIFICATE

This is to certify that this project entitled **Quaternions** is a record of bonafide project work done by **Aaron M Joseph (11900010)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.



Dr. Shine C Mathew
Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery

Changanassery

Date : 30/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)

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CERTIFICATE

This is to certify that this project entitled **THE CAYLEY DIGRAPH OF GROUPS** is a record of bonafide project work done by **Joseph Augustine (11900032)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Dr Ullas Thomas
Assistant Professor
(Project Guide)



Dr. Shine C Mathew
Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery

Changanassery

Date : 27/03/2022

DEPARTMENT OF MATHEMATICS
ST. BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled **NUMERICAL SOLUTIONS OF DIFFERENTIAL EQUATIONS** is a record of bonafide project work done by **Akshay Philip (11900011)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Mrs. Jinu Mary Jameson

Assistant Professor

(Project Guide)

Changanassery

Date : 31/03/2022

Dr. Shine C Mathew

Assistant Professor and Head,

Department of Mathematics

St. Berchmans College

Changanassery



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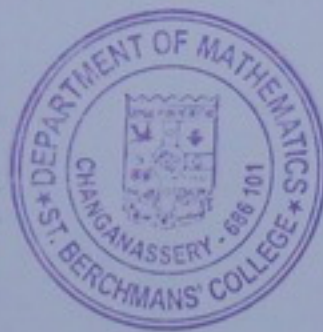


CERTIFICATE

This is to certify that this project entitled "*A STUDY ON QUADRATIC FORMS*" is a record of bonafide project work done by *Anto Antony (11900014)* BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Dr. Ullas Thomas

Assistant Professor
(Project Guide)



Dr. Shine C Mathew

(Assistant Professor)
Head of the Department

Changanassery

Date: 30/03/2022

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ST. BERCHMANS COLLEGE (AUTONOMOUS)
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CERTIFICATE

This is to certify that this project entitled **Transcendental Numbers** is a record of bonafide project work done by **Sachu John (11900008)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Mr Tibin Thomas
Assistant Professor
(Project Guide)

Dr. Shine C Mathew
Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery
Date : 21/03/2022

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ST.BERCHMANS COLLEGE (AUTONOMOUS)
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CERTIFICATE

This is to certify that this project entitled **TREES IN GRAPH THEORY** is a record of bonafide project work done by **George J Pullat (11900018)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Mrs. Jinu Mary Jameson

Assistant Professor

(Project Guide)

Dr. Shine C Mathew

Assistant Professor and Head,

Department of Mathematics

St. Berchmans College

Changanassery

Changanassery

Date : 31/03/2022

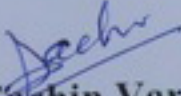



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ST.BERCHMANS COLLEGE
(AUTONOMOUS) CHANGANASSERRY



CERTIFICATE

This is to certify that this project entitled **A Study in Markov Chains** is a record of bonafide project work done by **Eldhose Mathai (Reg No: 11900004)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.


Mr. Sachin Varghese Biju
Assistant Professor
(Project Guide)


Dr. Shine C Mathew
Assistant Professor and Head
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery
Date: 24/03/2022

**DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY**



CERTIFICATE

This is to certify that this project entitled **GRAPH PEBBLING** is a record of bonafide project work done by **Chris Nicholin (11900003)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Dr. Shine C Mathew

Assistant Professor And Head,
Department Of Mathematics
St. Berchmans College
Changanassery



Changanassery

Date : 31/03/2021

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
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CERTIFICATE

This is to certify that this project entitled **Introduction to Cryptography** is a record of bonafide project work done by **Joval Joseph (11900023)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Dr. Ullas Thomas

Assistant Professor

(Project Guide)

Dr. Shine C Mathew

Assistant Professor and Head,

Department of Mathematics

St. Berchmans College

Changanassery



Changanassery


Date : 31/03/2022

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ST.BERCHMANS COLLEGE (AUTONOMOUS)
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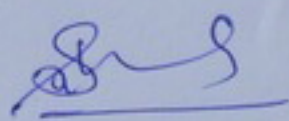


CERTIFICATE

This is to certify that this project entitled **ROUGH SET THEORY** is a record of bonafide project work done by **Chris Mathew (11900017)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.


Dr. Ullas Thomas
Assistant Professor
(Project Guide)




Dr. Shine C Mathew
Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery

Changanassery
Date : 31/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
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CERTIFICATE

This is to certify that this project entitled **Fractals** is a record of bonafide project work done by **Jobin Cheriyan (11900021)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Ms Jinu Mary Jameson
Assistant Professor
(Project Guide)

Dr. Shine C Mathew
Assistant Professor and Head of
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery
Date : 31/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
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CERTIFICATE

This is to certify that this project entitled Planar Graphs is a record of bonafide project work done by Mohammed Jabaroothulla (11900007), Tom Cherian (11900030) BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Ms. Treesa Maria Kuriakose

Assistant Professor

(Project Guide)



Changanassery

Date : 30-03-2022

Dr. Shine C Mathew

Assistant Professor and Head,

Department of Mathematics

St. Berchmans College

Changanassery

Dr. Ann Mary Philip

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled **Introduction to Bilinear Forms** is a record of bonafide project work done by **Justin Joseph (11900006)** and **Benat Johnson (11900015)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Ms Jinu Mary Jameson

Assistant Professor
(Project Guide)

Dr. Shine C Mathew

Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery

Date : 30/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled **INTRODUCTION TO GAME THEORY** is a record of bonafide project work done by **Gobu C Babu (11900019)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Dr. Shine C Mathew

Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery

Date : 14/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled **GOLDEN RATIO** is a record of bonafide project work done by **C Ananda krishnan(11900002)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Fr John J Chavara

Assistant Professor
(Project Guide)

Dr. Shine C Mathew

Assistant Professor and Head,
Department of Mathematics
St. Berchmans College
Changanassery



Changanassery

Date : 31/03/2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled DOMINATION IN GRAPH is a record of bonafide project work done by Gokul Ranju (11900005), Alen Somey (11900013) and Sidharath PS (11900028)BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Ms. Treesa Maria Kuriakose

Assistant Professor

(Project Guide)

Dr. Shine C Mathew

Assistant Professor and Head,

Department of Mathematics

St. Berchmans College

Changanassery



Changanassery

Date : 30-03-2022

DEPARTMENT OF MATHEMATICS
ST.BERCHMANS COLLEGE (AUTONOMOUS)
CHANGANASSERY



CERTIFICATE

This is to certify that this project entitled **VEDIC MATHEMATICS ON MULTIPLICATION , SQUARING AND SQUARE ROOTS, DIVISION** is a record of bonafide project work done by **Joel joseph (11900022)** BSc Mathematics student in the Department of Mathematics under my guidance and supervision, in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Mathematics and that this project has not been previously submitted for the award of any Degree, Diploma, Fellowship, Associateship, Title or Recognition.

Dr. Ullas Thomas

Assistant Professor

(Project Guide)

Dr. Shine C Mathew

Assistant Professor and Head,

Department of Mathematics

St. Berchmans College

Changanassery



Changanassery

Date : 24/03/2022