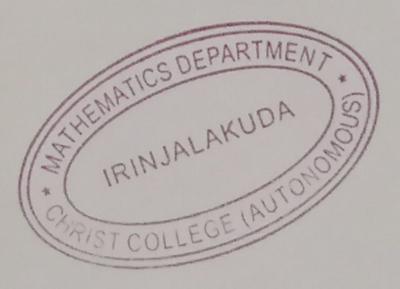
This is to certify that the project entitled "Linear algebra and its applications" submitted to Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc Degree programme in Mathematics, is a bonafide record of project work done by Mr. Viswanand A S during the period of their study in the Post Graduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda, under my supervision and guidance during the year 2021-2024.

Ms. Tintumol Sunny Department of Mathematics. Christ College(Autonomous) Irinjalakuda.



Alero Dr. Seena. V

Head of the Department Department of Mathematics Christ College(Autonomous) Irinjalakuda.

External Examiner : V. Wibithe

Place : Irinjalakuda

Date: 25-03-2024

Dr. V. VIBITHA KOCHAMANI **Assistant Professor Department Of Mathematics** Mar Dionysius College Pazhanji, Kunnamkulam -680 542

This is to certify that the project entitled "GAME THEORY" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a Bonafede record of work carried out by **Mr. Noyal Benny** during the period of his study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Ms. Kavitha E H Assistant Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda

Dr. Seena V

Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542 Place: Irinjalakuda

Date: 25-03-2024

register no: CCAVSMTO19

This is to certify that the project entitled "GAME THEORY" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a Bonafede record of work carried out by **Ms.Malavika P** during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

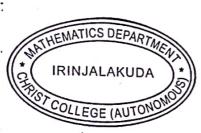
Ms. Kavitha E H

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda



External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

Date: 25-03-2024

Dr. Seena V

Auro

Head of the Department

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

This is to certify that the project entitled "Unraveling Medical Mysteries Through Mathematical Models" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree programme in Mathematics, is a bonafide record of project work conducted by Mr Adorn Joe Bobby (CCAVSMT017) during his period of study in the Department of Mathematics at Christ College (Autonomous), Irinjalakuda, under my supervision and guidance

Anand

Anand M.S Asst Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda



Sume Dr Seena V

Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda

External Examiner: Place: Irinjalakuda Date: 25 March 2024

VIBITHA KOCHAMAN sistant Professor ment Of Mathema ar Dionysius Colleg Pazhanji, Kunnamkulam -660

LINEAR ALGEBRA AND ITS APPLICATIONS

A project report submitted to Christ College (Autonomous) in partial fulfilment of the requirement for the award of the B.Sc. Degree Program in Mathematics

By

KRIPA SHAJU

Register No. CCAVSMT016



Postgraduate and Research Department of Mathematics

Christ College (Autonomous)

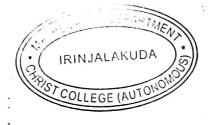
Irinjalakuda

2024

V.V. Sithe

This is to certify that the project entitled "Fractals" submitted to the Postgraduate and Research Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by **Ms. Josna T J** during the period of her study in the Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Seena V



Head of Department Postgraduate and Research Department of Mathematics Christ College (Autonomous) Irinjalakuda

libith KOCHA nal Examiner^f tant Professor Dr

Assistant Professor Department Of Mathematics Mar Dionysius College Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda Date: 25-03-2024

CONFORMAL MAPPING AND BILINEAR TRANSFORMATIONS

A project report submitted to Christ College (Autonomous) in partial fulfilment of the requirement for the award of the B.Sc. Degree Program in Mathematics

By

IRENE MARIYA LORANCE

Register No. CCAVSMT014



Postgraduate and Research Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

2024



This is to certify that the project entitled "Unraveling Medical Mysteries Through Mathematical Models" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree programme in Mathematics, is a bonafide record of project work conducted by Ms. Hiba Haneefa (CCAVSMT013) during her period of study in the Department of Mathematics at Christ College (Autonomous), Irinjalakuda, under my supervision and guidance from 2021 to 2024.

Anona

Anand M.S Asst Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda



lesse

Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda

Dr Seena V

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda Date: 25 March 2024



This is to certify that the project entitled "Conformal mapping & Bilinear Transformation" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Ms. Gifty Rose George, during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Shinto K

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

perm e-

Dr. Seena V

Head of the Department Department of Mathematics Christ College (Autonomous)

Irinjalakuda



External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

Date:

LINEAR ALGEBRA AND ITS APPLICATIONS

A project report submitted to Christ College (Autonomous) in partial fulfilment of the requirement for the award of the B.Sc. Degree Program in Mathematics

By

FATHIMA NISRIN A A

Register No. CCAVSMT011



Postgraduate and Research Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

2024



This is to certify that the project entitled "GAME THEORY" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Mr. Binso Biju during the period of his study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance Durme during the year 2023-2024.

Ms. Kavitha E H

Assistant Professor **Department of Mathematics** Christ College (Autonomous) Irinjalakuda

Dr. Seena V

Head of the Department **Department of Mathematics** Christ College (Autonomous) Irinjalakuda

Visithe

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

This is to certify that the project entitled "Fuzzy Set Theory" submitted to the Postgraduate and Research Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Mr. Athul N A during the period of his study in the Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Seena Varghese

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

IRINJALAKUDA OLLEGE (AUT

e Seena V

Head of Department Department of Mathematics Christ College (Autonomous) Irinjalakuda

External Examiner:

Dr. V. VIBITHA KOCHAMAN Assistant Professor Department Of Nathematics Mar Dionysius College Pazhenji, Kunnamkulam -660 663

Place: Irinjalakuda

This is to certify that the project entitled "**Cryptography**" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a Bonafede record of work carried out by **Mr. Athul Krishna K.A.** during the period of his study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Ms. Kavitha E H Assistant Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda

Here

Dr. Seena V Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda



ernal Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Parter Munnamkulam -680 542

Place: Irinjalakuda

Certificate

This is to certify that the project entitled "Boolean Algebra" submitted to the department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Anson Joseph Philip (CCAVSMT007) during the period of his study in the department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024

Dr. Fr. Vincent N. S.

Assistant Professor Department of Mathematics Christ College (Autono Irinjalakuda

Dr. Seena V

HOD in-charge Department of Mathematics Christ College (Autonomous) Irinjalakuda



External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Mar Dionysius College Mar Dionysius College

Place: Irinjalakuda

This is to certify that the project entitled "**Cryptography**" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a Bonafede record of work carried out by **Ms. Annmariya Lalu** during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Ms. Kavitha E H

Assistant Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda

5 Hume

Dr. Seena V Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda



External Examiner:

Place: Irinjalakuda

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji. Kunnamkulam -680 542

Certificate

This is to certify that the project entitled "Boolean Algebra" submitted to the department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Anmariya Jackson (CCAVSMT005) during the period of her study in the department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024

MATICS DEPARTM

IRINJALAKUDA

OLLEGE

Dr. Fr. Vincent N. S.

Assistant Professor Department of Mathematics Christ College (Autono Irinjalakuda

Dr. Seena V

HOD in charge Department of Mathematics Christ College (Autonomous) Irinjalakuda

Hame.

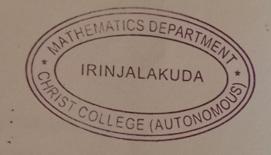
External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College F

Place: Irinjalakuda

This is to certify that the project entitled "Fractals" submitted to the Postgraduate and Research Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Ms. Anita Jose during the period of her study in the Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Seena V Head of Department Postgraduate and Research Department of Mathematics Christ College (Autonomous) Irinjalakuda



External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

lace: Irinjalakuda Date: 25-03-2024

This is to certify that the project entitled "Conformal mapping & Bilinear Transformation" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Ms. Angel Varghese, during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Shinto K G

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

Oberno e

Dr. Seena V

Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda

MATICS DEPAR IRINJAL AKUDA

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

Date: 2 - 4 - 2024

FUZZY SET THEORY

A project report submitted to Christ College (Autonomous) in partial fulfilment of the requirement for the award of the B.Sc. Degree Program in Mathematics

By

ANEENA E T

Register No. CCAVSMT002



Postgraduate and Research Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

2024



This is to certify that the project entitled "Conformal mapping & Bilinear Transformation" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by **Mr. Amalkrishna N A**, during the period of his study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Shinto K G

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

Herro P

Dr. Seena V

Head of the Department Department of Mathematics Christ College (Autonomous)

Irinjalakuda

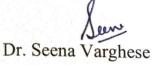
External Examiner:

caminer: Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

Date:

This is to certify that the project entitled "Fuzzy Set Theory" submitted to the Postgraduate and Research Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Mr. Alen Krishna T R during the period of his study in the Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.



Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

TICS DEPA IRINJALAKUDA OLLEGE (AU

Dr. Seena V

Head of Department

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

CRYPTOGRAPHY

A project report submitted to Christ College (Autonomous) in partial fulfilment of the requirement for the award of the B.Sc. Degree Program in Mathematics

By

SNEHINA K S

Register No. CCAVSMT047



Postgraduate and Research Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

2024

V.V. Bith

This is to certify that the project entitled "Fuzzy Set Theory" submitted to the Postgraduate and Research Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Ms. Nandita R Menon during the period of her study in the Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Seena Varghese

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

IRINJALAKUDA OLLEGE (AU

Dr. Seena V

Head of Department

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

This is to certify that the project entitled "GAME THEORY" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by **Ms. Mary Elna Shabu** during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

DEPARTMA

IRINJALAKUDA

COLLEGE

Ms. Kavitha E H

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

Dr. Seena V

100 e

Head of the Department

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542 Place: Irinjalakuda

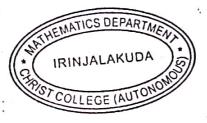
This is to certify that the project entitled "Cryptography" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a Bonafede record of work carried out by Ms. Krishnaveni V V during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Ms. Kavitha E H Assistant Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda

Hume

Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda

Dr. Seena V



External Examiner:

Dr. V. VIBITHA KOCHAMAM Assistant Professor Department Of Mathematics Mar Dionysius College Pathanji, Kunnamkulam 1989 646

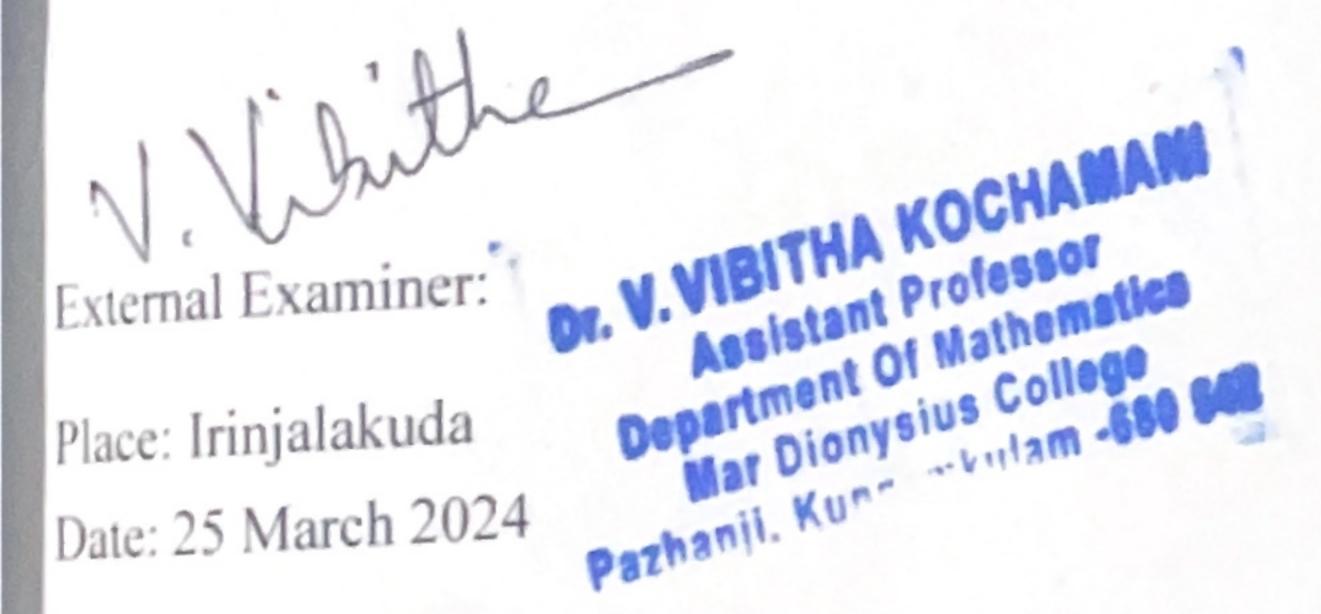
Place: Irinjalakuda

This is to certify that the project entitled "Unraveling Medical Mysteries Through Mathematical lodels" submitted to the Department of Mathematics in partial fulfillment of the requirement for award of the B.Sc. Degree programme in Mathematics, is a bonafide record of project work inducted by Mr Goutham S Menon (CCAVSMT042) during his period of study in the Department of Mathematics at Christ College (Autonomous), Irinjalakuda, under my supervision and guidance from 2021 to 2024.

Anand M.S Asst Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda



Dr Seena V Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda





This is to certify that the project entitled "GAME THEORY" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Ms. Dharshana A V during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Ms. Kavitha E H

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

Dr. Seena V

re e

Head of the Department **Department of Mathematics** Christ College (Autonomous)

Irinjalakuda FMATICS DEPAR RINJALAKUDA EGE (AUTO External Examiner: Dr. V. VIBITHA KOCHAN sistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542 Place: Irinjalakuda

This is to certify that the project entitled "**Cryptography**" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a Bonafede record of work carried out by **Mr.Aswin K.U** during the period of his study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Ms. Kavitha E H Assistant Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda

Here

Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda

Dr. Seena V



External Examiner:

Place: Irinjalakuda



This is to certify that the project entitled "Conformal mapping & Bilinear Transformation" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Ms. Aswathy Anand, during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Shinto K G

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

Huner

Dr. Seena V

Head of the Department

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

TICS DEPA IRINJALAKUDA COLLEGE

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanii Kumnamkulam -680 542

Place: Irinjalakuda

Certificate

This is to certify that the project entitled "Boolean Algebra" submitted to the department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Alpha John (CCAVSMT038) during the period of her study in the department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024

EMATICS DEPARTM

IRINJALAKUDA

OLLEGE (AU

Dr. Fr. Vincent N. S.

Assistant Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda

Harag Dr. Seena V

HOD in-charge Department of Mathematics Christ College (Autonomous) Irinjalakuda

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

This is to certify that the project entitled" **TOPOLOGY** " submitted to Department of Mathematics in partial fulfilment of the requirement for the award of the B.Sc. Degree programme in Mathematics, is a bonafide record of original research work done by Alina Francis during the period of her study in the Department of Mathematics. Christ College (Autonomous), Irinjalakuda, under my supervision and guidance during the year 2021-2024.

Dr. Shinto K G Assistant professor Department of Mathematics Christ College (Autonomous) Irinjalakuda.

VIVIE

External Examiner:

Place: Irinjalakuda Date: 25-03-2024

> Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pezhanji, Kunnamkulam -680 542

perce Dr. Seena, V

Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda.

IRINJALAKUDA OLLEGE IAU

This is to certify that the project entitled "Fractals" submitted to the Postgraduate and Research Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by **Mr. Sabareesh E S** during the period of his study in the Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.



Dr. Seena V Head of Department Postgraduate and Research Department of Mathematics Christ College (Autonomous) Irinjalakuda

xternal Examiner

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda Date: 25-03-2024

This is to certify that the project entitled "Linear algebra and its applications" submitted to Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc Degree programme in Mathematics, is a bonafide record of project work done by Mr. Nithin P Sunilkumar during the period of their study in the Post Graduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda, under my supervision and guidance during the year 2021-2024.

Ms. Tintumol Sunny Department of Mathematics Christ College(Autonomous) Irinjalakuda.

IRINJALAKUDA

Dr. Seena. V Head of the Department Department of Mathematics Christ College(Autonomous) Irinjalakuda.

External Examiner : V. Vibithe

Place : Irinjalakuda

Date: 25-03-2024

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 64

This is to certify that the project entitled "GAME THEORY" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by **Ms. Krishna Girish** during the period of her study in the Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Ms. Kavitha E H

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Dr. Seena V

Head of the Department Department of Mathematics Christ College (Autonomous)

Irinjalakuda

Irinjalakuda

MATICS DEPART IRINJALAKUDA OLLEGE (AU

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

Certificate

This is to certify that the project entitled "Boolean Algebra" submitted to the department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by K Mervin Dennis (CCAVSMT031) during the period of his study in the department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024

Dr. Fr. Vincent N. S.

Assistant Professor Department of Mathematics Christ College (Autono Irinjalakuda

IRINJALAKUDA

HOD in-charge Department of Mathematics Christ College (Autonomous) Irinjalakuda

Dr. Seena V

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

This is to certify that the project entitled "Linear algebra and its applications" submitted to Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc Degree programme in Mathematics, is a bonafide record of project work done by Ms. K A Athira during the period of their study in the Post Graduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda, under my supervision and guidance during the year 2021-2024.

Ms. Tintumol Sunny **Department of Mathematics** Christ College(Autonomous) Irinjalakuda.

MATICS DEPAR IRINJALAKUDA COLLEGE (AU

193202 Dr. Seena. V

Head of the Department

Department of Mathematics Christ College(Autonomous) Irinjalakuda.

External Examiner : V. Vibithe

Place : Irinjalakuda

Date: 25-03-2024

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

FRACTALS

A project report submitted to Christ College (Autonomous) in partial fulfilment of the requirement for the award of the B.Sc. Degree Program in Mathematics

By

ABHISHEK M S

Register No. CCAVSMT029



Postgraduate and Research Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

2024

V.V.Buth

This is to certify that the project entitled" **TOPOLOGY** " submitted to Department of Mathematics in partial fulfilment of the requirement for the award of the B.Sc. Degree programme in Mathematics, is a bonafide record of original research work done by **Gopikrishnan P G** during the period of his study in the Department of Mathematics. Christ College (Autonomous), Irinjalakuda, under my supervision and guidance during the year 2021-2024.

Dr. Shinto K G Assistant professor Department of Mathematics Christ College (Autonomous) Irinjalakuda.

House Dr. Seena, V

Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda.

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Place: Irinjalak Riftinysius College Date: 25-03-2024



This is to certify that the project entitled "Fractals" submitted to the Postgraduate and Research Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Ms. Diya Denny during the period of her study in the Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.



Dr. Seena V Head of Department Postgraduate and Research Department of Mathematics Christ College (Autonomous) Irinjalakuda

nal Examiner:

Place: Irinjalakuda Date: 25-03-2024 Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

This is to certify that the project entitled" **TOPOLOGY** " submitted to Department of Mathematics in partial fulfilment of the requirement for the award of the B.Sc. Degree programme in Mathematics, is a bonafide record of original research work done by **Aswin Dev V S** during the period of his study in the Department of Mathematics. Christ College (Autonomous), Irinjalakuda, under my supervision and guidance during the year 2021-2024.

Dr. Shinfo K G Assistant professor Department of Mathematics Christ College (Autonomous) Irinjalakuda.

External Examiner:

Place: Irinjalakuda Date: 25-03-2024



Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda.



Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College

Certificate

This is to certify that the project entitled "Boolean Algebra" submitted to the department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by Abhiya Benny (CCAVSMT025) during the period of her study in the department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024

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IRINJALAKUDA

OLLEGE

Dr. Fr. Vincent N. S.

Assistant Professor Department of Mathematics Christ College (Autono Irinjalakuda

Dr. Seena V

HOD in-charge Department of Mathematics Christ College (Autonomous) Irinjalakuda

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanii Kuna akutam -680 542

Place: Irinjalakuda

This is to certify that the project entitled "**Fuzzy Set Theory**" submitted to the Postgraduate and Research Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree program in Mathematics, is a bonafide record of work carried out by **Ms. Anurose P S** during the period of her study in the Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda under my supervision and guidance during the year 2023-2024.

Dr. Seena Varghese

Assistant Professor

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

External Examiner:

Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

Place: Irinjalakuda

Date: 25-03-2024

IRINJALAKUDA

Dr. Seena V

Head of Department

Department of Mathematics

Christ College (Autonomous)

Irinjalakuda

This is to certify that the project entitled "Unraveling Medical Mysteries Through Mathematical Models" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree programme in Mathematics, is a bonafide record of project work conducted by Ms. Anaswara Dilip P (CCAVSMT023) during her period of study in the Department of Mathematics at Christ College (Autonomous), Irinjalakuda, under my supervision and guidance from 2021 to 2024.

Anand M.S Anand . Asst Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda



Head of the Department Department of Mathematics Christ College (Autonomous) Irinjalakuda

Dr Seena V

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External Examiner:

Place: Irinjalakuda Date: 25 March 2024 Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanii, Kunnamkulam -680 542

This is to certify that the project entitled "Unraveling Medical Mysteries Through Mathematical Models" submitted to the Department of Mathematics in partial fulfillment of the requirement for the award of the B.Sc. Degree programme in Mathematics, is a bonafide record of project work conducted by Ms. Aarone Shaji (CCAVSMT022) during her period of study in the Department of Mathematics at Christ College (Autonomous), Irinjalakuda, under my supervision and guidance from 2021 to 2024.

Anand M.S Anard Asst Professor Department of Mathematics Christ College (Autonomous) Irinjalakuda



Dr Seena V Head of the Department Department of Mathematics Christ College (Autonomous)

Irinjalakuda

External Examiner:

Place: Irinjalakuda Date: 25 March 2024 Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542

This is to certify that the project entitled" **TOPOLOGY** " submitted to Department of Mathematics in partial fulfilment of the requirement for the award of the B.Sc. Degree programme in Mathematics, is a bonafide record of original research work done by **Aleena E D** during the period of her study in the Department of Mathematics. Christ College (Autonomous), Irinjalakuda, under my supervision and guidance during the year 2021-2024.

Dr. Shinto K G

Assistant professor Department of Mathematics Christ College (Autonomous) Irinjalakuda.

External Examiner:

IRINJALAKUDA EGE (AU

Dr. Seena. V Head of the Department

Department of Mathematics Christ College (Autonomous) Irinjalakuda.

Place: Irinjalakuda Date: 25-03-2024

> Dr. V. VIBITHA KOCHAMANI Assistant Professor Department Of Mathematics Mar Dionysius College Pazhanji, Kunnamkulam -680 542