

# **BILINEAR AND QUADRATIC FORMS**

A DISSERTATION SUBMITTED TO THE  
**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
**BACHELOR OF SCIENCE IN MATHEMATICS**

SUBMITTED BY

**NIVYA VC**

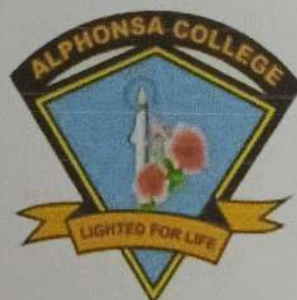
REG. NO.: 210021030740

**SANDRA ELEZABETH JOSEPH**

REG.NO.:210021030741

**VYSHNAVI PV**

REG.NO.:210021030742



UNDER THE GUIDANCE OF  
**Dr. SR. SHEENA MATHEW**

DEPARTMENT OF MATHEMATICS  
**ALPHONSA COLLEGE PALA**  
CBCS SEMESTER VI  
MARCH 2024



## CERTIFICATE

I do hereby certify that the dissertation entitled "BILINEAR AND QUADRATIC FORMS" is a bonafide record of work done by Ms. Nivya VC, Ms. Sandra Elezabeth Joseph and Ms. Vyshnavi PV under my supervision in partial fulfillment of the requirements for the Degree of Bachelor of Science in Mathematics of MG University and that no part of this work has been submitted earlier for the award of any degree.

Place: Arunapuram

Date: 27- 03- 2024

Dr.Sr. Sheena Mathew

(Supervising guide)

Forwaded :

Dr.Sr. Sonia K Thomas

Head of the Department

# **A STUDY ON Z- TRANSFORMS**

A dissertation submitted to the  
**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**  
in partial fulfillment of the requirements for the  
degree of

**BACHELOR OF SCIENCE IN MATHEMATICS**

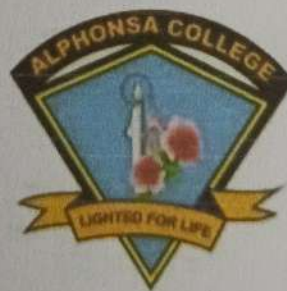
Submitted by

**AMINU HANEEFA**                      **210021030730**

**ANN TREESA JOE**                      **210021030731**

**NANDANA S.RAJEEV**                  **210021030739**

Under the guidance of  
**DR. SR. SONIA K THOMAS**



**DEPARTMENT OF MATHEMATICS**

**ALPHONSA COLLEGE PALA**

**MARCH 2024**



## CERTIFICATE

I do hereby certify that, the dissertation entitled "A STUDY ON Z-TRANSFORMS " is a bonafide record of work done by Ms. AMINU HANEEFA , Ms. ANN TREESA JOE and Ms. NANDANA S. RAJEEV under my supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Mathematics of MG University and that no part of this work has been submitted earlier for the award of any degree.

Dr. Sr. Sonia K Thomas  
(Supervising guide)

Place: Arunapuram  
Date: 27/03/2024

# **EXPLORING CHROMATIC NUMBERS IN GRAPH COLOURING**

A disseraration submitted to the  
**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**  
In partial fulfilment of the requirements for the degree of  
**BACHELOR OF SCIENCE IN MATHEMATICS**

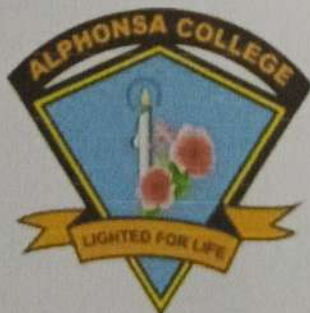
Submitted by,

**KEERTHI SANKAR**  
**REG NO.210021030747**

**MARIAT BIJU**  
**REG NO. 210021030748**

**NEETHU BIJU**  
**REG NO. 210021030749**

Under the guidance of  
**Dr. Sr. SONIA K THOMAS**



**DEPARTMENT OF MATHEMATICS**  
**ALPHONSA COLLEGE PALA**  
**MARCH 2024**



## CERTIFICATE

I do hereby certify that, the dissertation entitled "EXPLORING CHROMATIC NUMBERS IN GRAPH COLORUING " is a bonafide record of work done by Ms. KEERTHI SANKAR, Ms. MARIAT BIJU and Ms. NEETHU BIJU under my supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Mathematics of MG University and that no part of this work has been submitted earlier for the award of any degree.

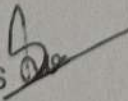
Dr. Sr. SONIA K THOMAS

(Supervising guide)

Place: Arunapuram

Date: 27/03/2024

Forwarded:

Dr. Sr. SONIA K THOMAS 

Head of the department

# CONTINUED FRACTIONS

A DISSERTATION SUBMITTED TO  
MAHATMA GANDHI UNIVERSITY, KOTTAYAM  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
BACHELOR OF SCIENCE IN MATHEMATICS

SUBMITTED BY

**JEETHU JOSE**

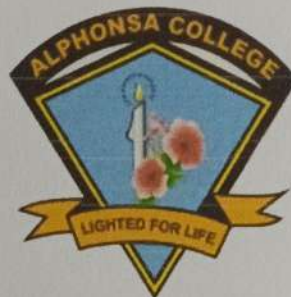
REG. NO. : 210021030736

**RIYA PRASAD**

REG.NO. : 210021030750

**SREELAKSHMI ANILKUMAR**

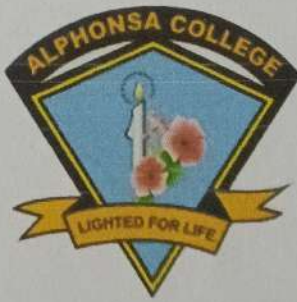
REG.NO. : 210021030751



UNDER THE GUIDANCE OF  
**DR.SR. SHEENA MATHEW**

DEPARTMENT OF MATHEMATICS  
ALPHONSA COLLEGE, PALA  
CBCS SEMESTER VI

MARCH 2024



CBCS SEMESTER VI  
DEPARTMENT OF MATHEMATICS  
ALPHONSA COLLEGE PALA  
ARUNAPURAM

CERTIFICATE

I do hereby certify that, the dissertation entitled " CONTINUED FRACTION" is a bonafide record of work done by Ms. JEETHU JOSE, Ms. RIYA PRASAD and Ms. SREELAKSHMI ANILKUMAR under my supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Mathematics of MG University and that no part of this work has been submitted earlier for the award of any degree. -

Place: Arunapuram

Date: 27/03/2024

DR. SR SHEENA MATHEW

(Supervising guide)

Forwarded:

DR SR SONIA K THOMAS

Head of the department



# **BIBLIOMETRIC ANALYSIS ON CANCER FRACTIONALS**

A DESSERTION SUBMITTED TO  
**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
**BACHELOR OF SCIENCE IN MATHEMATICS**

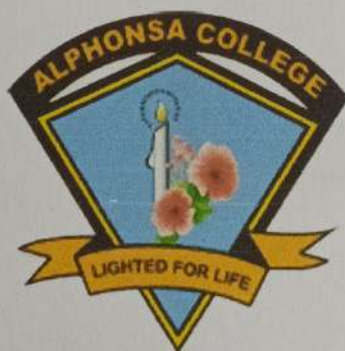
SUBMITTED BY

**JENIT K JOSE**

REG. NO.:210021030737

**KALYANI A PILLAI**

REG. NO.:210021030738



UNDER THE GUIDANCE OF  
**DR.SR. SHEENA MATHEW**

**DEPARTMENT OF MATHEMATICS  
ALPHONSA COLLEGE, PALA  
CBCS SEMESTER VI**

**MARCH 2024**



## CERTIFICATE

I do hereby certify that, the dissertation entitled "**BIBLIOMETRIC ANALYSIS ON CANCER FRACTIONALS**" is a bonafide record of work done by Ms. Jenit K Jose and Ms. Kalyani A Pillai under my supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Mathematics of MG University and that no part of this work has been submitted earlier for the award of any degree.

Place: Arunapuram

Date: 27/03/2024

Dr. Sr. Sheena Mathew  
(Supervising guide)

Forwarded:

Dr. Sr. Sonia K Thomas

Head of the department

# EGYPTIAN FRACTIONS AND SYLVESTER SEQUENCE

A Dissertation submitted to Mahatma Gandhi University in partial fulfillment  
of the requirements for the Degree of

**BACHELOR OF SCIENCE IN MATHEMATICS**

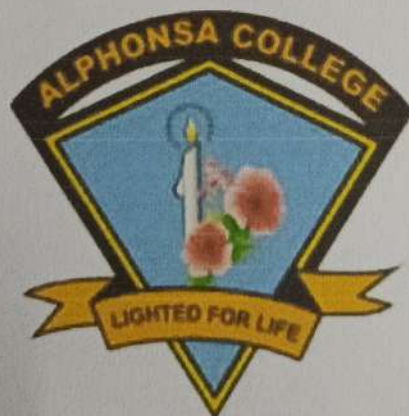
SUBMITTED BY:

ADEENA MARY VARGHESE (REG NO: 210021030728)

AKHILA M ANIL (REG NO: 210021030729)

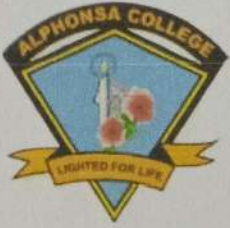
ATHIRA S (REG NO: 210021030733)

Under the Guidance of  
Mrs GINCY JOSE



DEPARTMENT OF MATHEMATICS  
ALPHONSA COLLEGE, PALA

MARCH 2024



## CERTIFICATE

I do certify that, the dissertation entitled "EGYPTIAN FRACTIONS AND SYLVESTER SEQUENCE" is a bonafide record of work done by Ms. ADEENA MARY VARGHESE, Ms. AKHILA M ANIL and Ms. ATHIRA S under my supervision in partial fulfillment of the requirements for the Degree of Bachelor of Science in Mathematics of MG University and that no part of this work has been submitted earlier for the award of any degree.

Mrs. GINCY JOSE

(Supervising guide)

Place: Arunapuram

Date: 23/3/2024

Forwarded:

DR SR SONIA K THOMAS

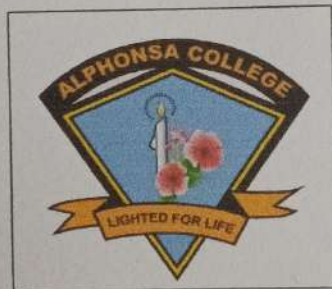
Head of the department

**BIBLIOMETRIC ANALYSIS OF RESEARCH PAPERS ON ZAGREB  
INDEX USING RSTUDIO**

A Dissertation submitted to  
**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**  
in partial fulfillment of the requirements for the Degree of  
**BACHELOR OF SCIENCE IN MATHEMATICS**

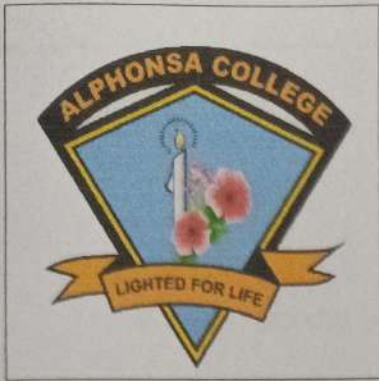
Submitted by

**ANNA J THERESE**      **REG. NO: 210021030732**  
**GOURI ARUN**      **REG. NO: 210021030734**  
**IRFANA MOHAMMED**      **REG. NO: 210021030735**



Under the Guidance of  
**Dr.Sr. SONIA K THOMAS**  
**DEPARTMENT OF MATHEMATICS**  
**ALPHONSA COLLEGE, PALA**


**MARCH 2024**



CBCS SEMESTER VI  
DEPARTMENT OF MATHEMATICS  
ALPHONSA COLLEGE PALA  
ARUNAPURAM

### CERTIFICATE

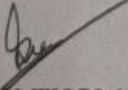
I hereby certify that, the dissertation entitled '**BIBLIOMETRIC ANALYSIS OF RESEARCH PAPERS ON ZAGREB INDEX USING RSTUDIO**' is a bonafide record of work done by Ms. ANNA J THERESE, Ms. GOURI ARUN and Ms. IRFANA MOHAMMED under my supervision in partial fulfillment of the requirements for the Degree of Bachelor of Science in Mathematics of MG University and that no part of this work has been submitted earlier for the award of any degree.

  
Dr. Sr. SONIA K THOMAS  
(Supervising guide)

Place: Arunapuram

Date: 23/03/2024

Forwarded:

  
Dr. Sr. SONIA K THOMAS  
Head of the Department

# **K-MAPS**

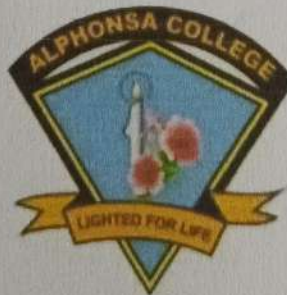
A dissertation submitted to the  
**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**  
in partial fulfillment of the requirements for the  
degree of

**BACHELOR OF SCIENCE IN MATHEMATICS**

Submitted by

ALEENA TOM	210021030743
ANJANA HARIDAS	210021030745
BHAVYA PRAKASAM	210021030746

Under the guidance of  
**MRS. GINCY JOSE**

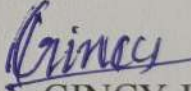


**DEPARTMENT OF MATHEMATICS**  
**ALPHONSA COLLEGE PALA**  
**MARCH 2024**



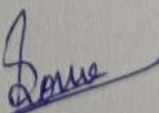
## CERTIFICATE

I do hereby certify that, the dissertation entitled "K-MAPS" is a bonafide record of work done by Ms. ALEENA TOM, Ms. ANJANA HARIDAS and Ms. BHAVYA PRAKASAM under my supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Mathematics of MG University and that no part of this work has been submitted earlier for the award of any degree.

  
Mrs. GINCY JOSE  
(Supervising guide)

Place : Arunapuram  
Date : 27/03/2024

Forwarded:

  
DR. SR. SONIA K THOMAS  
Head of the department