



# GOVERNMENT COLLEGE KASARAGOD

VIDYANAGAR, KASARAGOD, KERALA, 671123

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NAAC 3RD CYCLE ACCREDITATION

PROJECT WORK  
DEPARTMENT OF MATHEMATICS

# Government College Kasaragod

## Department of Mathematics



Project Work 2022-2023

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4. Front page and Certificate of UG project work done during 2022-23.

# 1. Department of Mathematics

List of PG Students who undertaken project work during 2022-23.

Sl No	Reg No.	NAME
1	C1PSMM1101	MRUDUL P P
2	C1PSMM1102	NISHANTH N M
3	C1PSMM1103	ANJU C S
4	C1PSMM1104	ANUSHREE B
5	C1PSMM1105	ANUSRI RAMACHANDRAN
6	C1PSMM1106	APARNA C V
7	C1PSMM1107	ATHIRA C
8	C1PSMM1108	ATHIRA K
9	C1PSMM1109	AYSHATH HASEENA
10	C1PSMM1110	AYSHATH MAHSHEENA C M
11	C1PSMM1111	HARSHITHA J
12	C1PSMM1112	KRITHIKA D
13	C1PSMM1113	MEGHA M
14	C1PSMM1114	MUNJIDA M
15	C1PSMM1115	NAVITHA P V
16	C1PSMM1116	NIMMYA CHANDRAN
17	C1PSMM1117	NITHYA CHANDRAN
18	C1PSMM1118	THEJASWI G



Name and Signature of the Principal  
**Dr. Ananthapadmanabha. A. L.**

PRINCIPAL  
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KASARAGOD

## Project front pages and Certificates

The following pages contains scanned copy of front pages of project works done by MSc Mathematics Students of Government College Kasaragod, submitted to Kannur University in partial fulfilment of the award of Degree of Master of Science in Mathematics during 2022-2023.

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (PO), KASARAGOD  
(Affiliated to Kannur University)

# ALGEBRAIC GRAPH THEORY

*A project report submitted to Kannur University*

By

MRUDUL P P  
Reg No: C1PSMM1101

*In partial fulfillment of the award of  
Degree of Master of Science in Mathematics  
during  
2021-2023*



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A. I.

PRINCIPAL  
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KASARAGOD

# KANNUR UNIVERSITY

## BONAFIDE CERTIFICATE

Certified that this project report "ALGEBRAIC GRAPH THEORY" is the bonafide work of " MRUDUL P P " who carried out the project work under my supervision.

  
Arunkumar R

Head of the Department  
HEAD OF THE DEPARTMENT  
DEPARTMENT OF MATHEMATICS  
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ARUNKUMAR R  
Assistant Professor  
Department of Mathematics  
Government College Kasaragod  
PEN : 708260

Submitted for examination held on .....

Register Number : C1PSMM1101



Internal Examiner

1. Maya P.V. 

2. Aswathi K.   
20/06/23.

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ASWATHI K.  
ASSISTANT PROFESSOR  
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Name and Signature of the Principal  
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PRINCIPAL  
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DEPARTMENT OF MATHEMATICS  
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VIDYANAGAR (P O), KASARAGOD  
(Affiliated to Kannur University)

## ISOMETRY OF $R^n$

*A Project report submitted to Kannur University*

By

NISHANTH N.M

Register Number: C1PSMM1102



*In partial fulfillment of the award of*

*Degree of Master of Science in  
Mathematics*

*during*

*2021-2023*



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.  
  
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## BONAFIDE CERTIFICATE

Certified that this project report " ISOMETRY OF  $R^n$  " is the bonafide work of " NISHANTH N.M " who carried out the project work under my supervision.

  
Head of the Department

HEAD OF THE DEPARTMENT  
DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD



  
Supervisor


**SAHARIYA**  
Assistant Professor  
Department of Mathematics  
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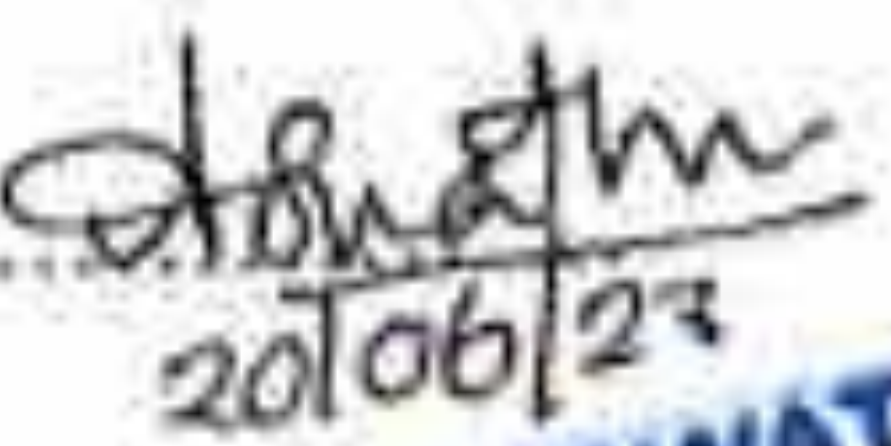
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Register Number : CIPSMM1102



Internal Examiner :

1. Maya. P.V. 

2. Aswathi K.   
20/06/23

External Examiner  
**ASWATHI K.**  
ASSISTANT PROFESSOR  
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PAYYANUR COLLEGE, PAYYANUR



Name and Signature of the Principal  
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KASARAGOD

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P O), KASARAGOD  
(Affiliated to Kannur University)

# FUZZY GRAPH THEORY

*A Project report submitted to Kannur University*



By

ANJU C S  
C1PSMM1103

*In partial fulfillment of the award of  
Degree of Master of Science in Mathematics*

during  
2021-2023



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A. L.  
The principal's stamp is a rectangular purple stamp. It contains the text "PRINCIPAL" at the top, "GOVERNMENT COLLEGE" in the middle, and "KASARAGOD" at the bottom.

**KANNUR UNIVERSITY**  
**BONAFIDE CERTIFICATE**

Certified that this project report **FUZZY GRAPH THEORY** is the bonafide work of  
**ANJU C S** who carried out the project work under my supervision.

  
Anandkumar R  
Head of the Department  
HEAD OF THE DEPARTMENT  
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Supervisor  
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1. Maya P. V. 

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20/06/23  
ASWATHI K.  
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DEPARTMENT OF MATHEMATICS  
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*Affiliated to Kannur University*

# COMMUTATIVE BANACH ALGEBRA



A project report submitted to Kannur University

*By*

ANUSHREE B.  
C1PSMM1104

In partial fulfillment of the award of  
Degree of Master of Science in Mathematics  
during  
2021-23



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.I.  


# KANNUR UNIVERSITY

## BONAFIDE CERTIFICATE

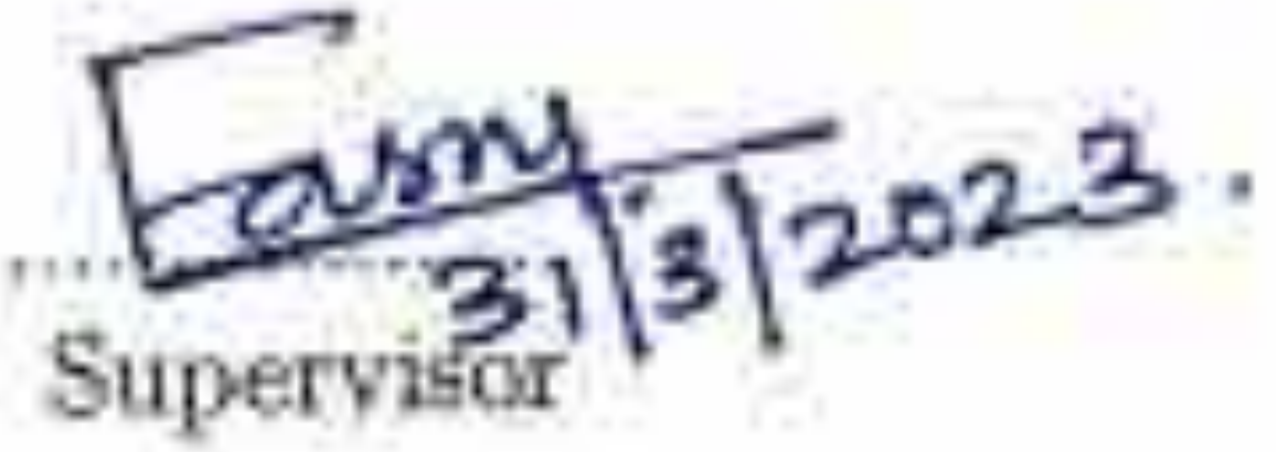
Certified that this project report "COMMUTATIVE BANACH ALGEBRA" is the bonafide work of "ANUSHREE B." who carried out the project work under my supervision.



Head of the Department  
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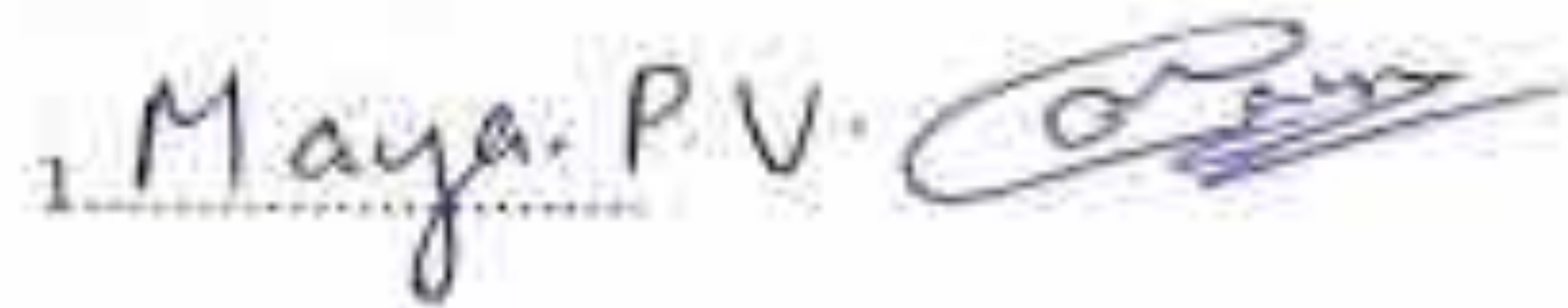


  
Supervisor

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Register Number: C1PSMM1104

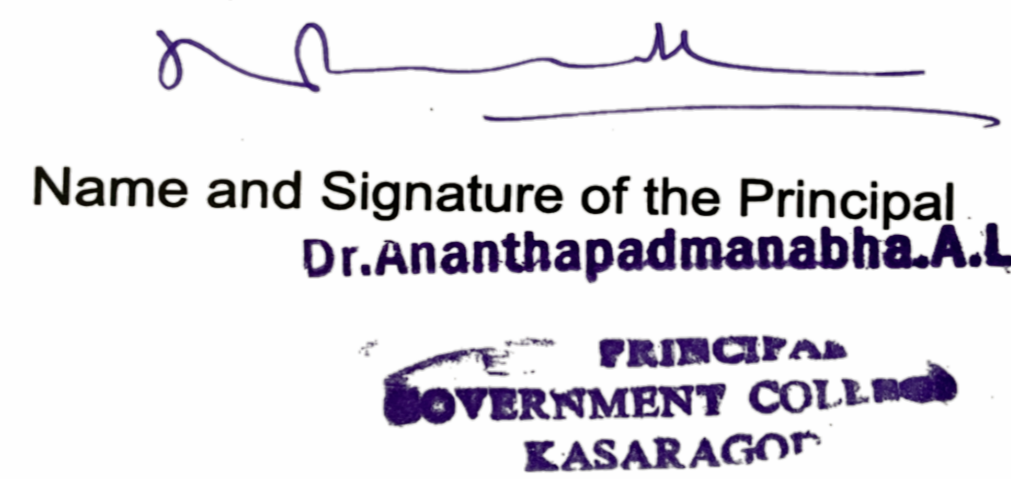
  
Internal Examiner

1.   
Maya P.V.

2.   
Aswathi K.  
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**ASWATHI K.**  
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## NETS AND FILTERS

*A Project report submitted to Kannur University*

By

ANUSRI RAMACHANDRAN

Reg. No: C1PSMM1105

*In partial fulfillment of the award of*

*Degree of Master of Science in  
Mathematics*

*during*

*2021-2023*



Name and Signature of the Principal  
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## BONAFIDE CERTIFICATE

Certified that this project report entitled "NETS AND FILTERS" is the bonafide work of Ms. ANUSRI RAMACHANDRAN who carried out the project work under my supervision.

  
Anusri R

Head of the Department  
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ARUNKUMAR R  
Assistant Professor  
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Register Number : C1PSMM1105



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1. Maya P.V. 

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## NOETHERIAN AND ARTINIAN RINGS

*A Project report submitted to Kannur University*

By

**APARNA C.V.**

**Register Number: CIPSM1106**


*In partial fulfillment of the award of*

*Degree of Master of Science in  
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*during*

**2021-2023**



  
Name and Signature of the Principal  
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Certified that this project report "NOETHERIAN AND ARTINIAN RINGS" is the bonafide work of "APARNA C.V." who carried out the project work under my supervision.

  
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AYISHATH FASNA T.P.  
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Assistant Professor, Dept. of Mathematics  
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1. Maya P.V. 

2. Aswathi K. 

External Examiner

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DEPARTMENT OF MATHEMATICS  
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## FRAMES IN HILBERT SPACES

*A project report submitted to Kannur  
University*

By

ATHIRA C.  
C1PSMM1107

*In partial fulfillment of the award of  
Master of Science Degree in Mathematics  
during  
2021-23.*



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

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**Kannur University**  
**BONAFIDE CERTIFICATE**

Certified that this project report FRAMES IN HILBERT SPACES is the bonafide work of ATHIRA C who carried out the project work under my supervision.

  
.....Anshu R

Head of the Department

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Submitted for examination held on .....

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1. Maya P. V.   
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External Examiners



  
Name and Signature of the Principal  
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## TOPOLOGICAL VECTOR SPACES

*A Project report submitted to Kannur University*

By

**ATHIRA K.**

**Register Number: C1PSMM1108**

*In partial fulfillment of the award of*



*Degree of Master of Science in*

*Mathematics*

*during*

**2021-2023**

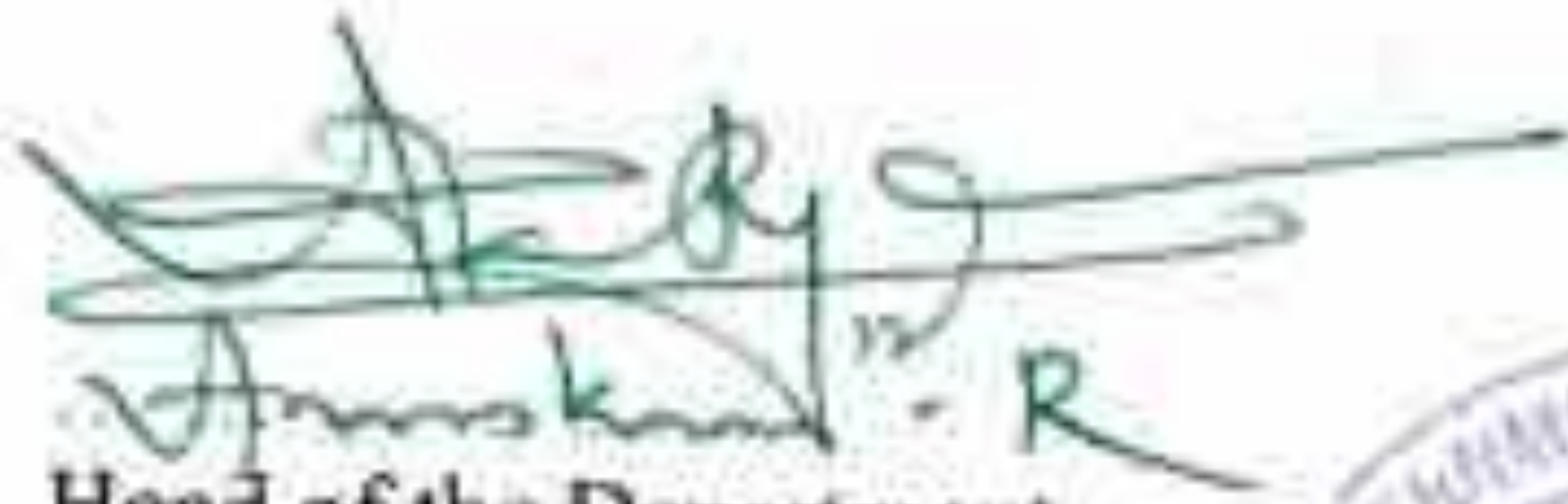


  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.  


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## BONAFIDE CERTIFICATE

Certified that this project report "TOPOLOGICAL VECTOR SPACES" is the bonafide work of "ATHIRA K." who carried out the project work under my supervision.



Head of the Department  
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Submitted for examination held on .....

Register Number : CIPSM1108

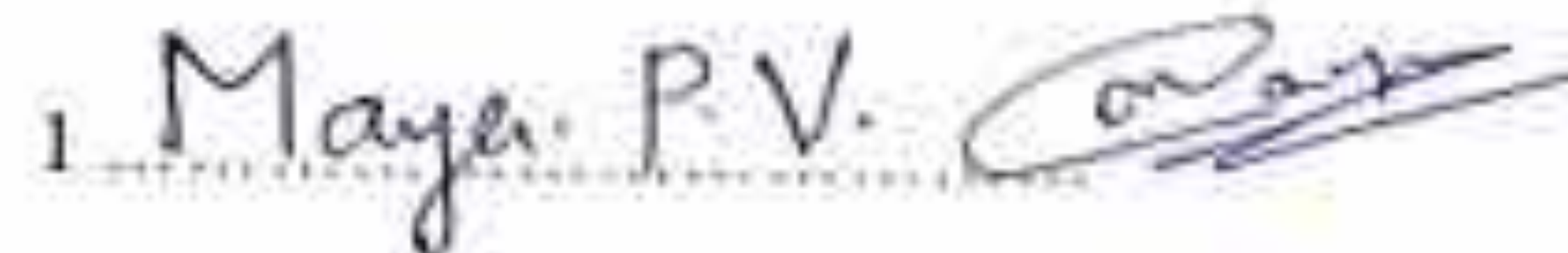


Internal Examiner



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
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1. Mayer P.V. 

2. Aswathi K. 

24/03/23  
ASWATHI K.  
ASSISTANT PROFESSOR  
DEPARTMENT OF MATHEMATICS  
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GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P. O), KASARAGOD  
(Affiliated to Kannur University)

# FRAMES IN FINITE DIMENSIONAL INNER PRODUCT SPACE

*A Project report submitted to Kannur University*

By

AYSHATH HASEENA  
C1PSMM1109

*In partial fulfillment of the award of*

*Degree of Master of Science in  
Mathematics*

*during*

*2021-2023*



  
Name and Signature of the Principal  
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PRINCIPAL  
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## BONAFIDE CERTIFICATE

Certified that this project report "FRAMES IN FINITE DIMENSIONAL INNER PRODUCT SPACE" is the bonafide work of "AYSHATH HASEENA" who carried out the project work under my supervision.

  
Head of the Department

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DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD





Supervisor

**Dr. P. PRASANTH**  
Asst Professor  
Dept. of Mathematics  
Govt. College, Kasaragod  
Kasaragod Dt - 671123

Submitted for examination held on .....

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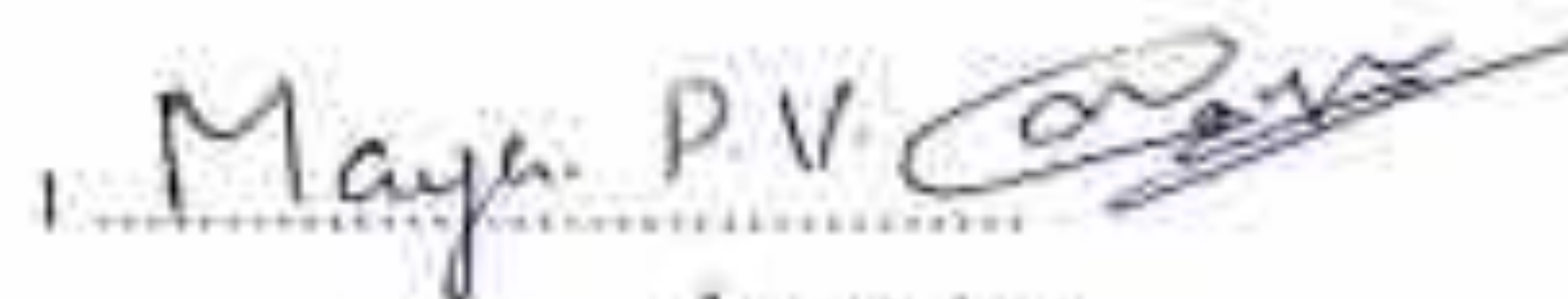


Internal Examiner

  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD



1. 

2. 

External Examiner  
**ASWATHI K.**  
ASSISTANT PROFESSOR  
DEPARTMENT OF MATHEMATICS  
PITHAMUR COLLEGE, PITHAMUR

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P O), KASARAGOD  
(Affiliated to Kannur University)

## LIE ALGEBRA

*A Project report submitted to Kannur University*

By

AYSHATH MAHSHEENA C M  
CIPSMM1110

*In partial fulfillment of the award of  
Degree of Master of Science in  
Mathematics*

during  
2021-2023

  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A. L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD



KANNUR UNIVERSITY  
BONAFIDE CERTIFICATE

Certified that this project report "LIE ALGEBRA" is the bonafide work of "AYSHATH MAHSHEENA C M" who carried out the project work under my supervision.

  
Head of the Department  
HEAD OF THE DEPARTMENT  
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GOVERNMENT COLLEGE KASARAGOD




  
Supervisor  
SAHARIYA  
Assistant Professor  
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Submitted for examination held on .....


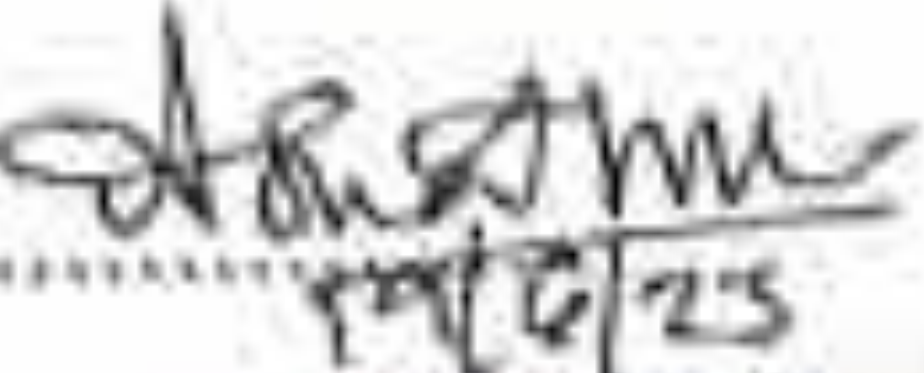
Register Number : C1PSMM1110



Internal Examiner

  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A. I.  
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1. Mayer P.V.   
2. Aswathi K.   
19/6/23

External Examiner  
ASWATHI K.  
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DEPARTMENT OF MATHEMATICS  
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VIDYANAGAR (P O), KASARAGOD  
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## MATRIX GROUPS

*A Project report submitted to Kannur University*

By

**HARSHITHA J**  
**Reg. No: C1PSMM1111**

*In partial fulfillment of the award of*

*Degree of Master of Science in*  
*Mathematics*

*during*

**2021-2023**



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.I.

PRINCIPAL  
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KASARAGOD

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## BONAFIDE CERTIFICATE

Certified that this project report entitled "MATRIX GROUPS" is the bonafide work of Ms. HARSHITHA J who carried out the project work under my supervision.



Head of the Department  
HEAD OF THE DEPARTMENT  
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Dr. F. PRASANTH  
Asst. Professor  
Dept. of Mathematics  
Govt. College, Kasaragod  
Kasaragod Dt.-671123

Submitted for examination held on .....

Register Number : CIPSM1111




Internal Examiner

  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
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1. Maya P.V. 

2. Aswathi K.   
19/6/23.

External   
ASWATHI K.  
ASSISTANT PROFESSOR  
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DEPARTMENT OF MATHEMATICS  
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VIDYANAGAR (PO), KASARAGOD  
(Affiliated to Kannur University)

# CALCULUS OF VARIATION

*A project report submitted to Kannur University*

By

KRITHIKA D  
Reg No: CIPSM1112

*In partial fulfillment of the award of  
Degree of Master of Science in Mathematics  
during  
2021-2023*



Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

# KANNUR UNIVERSITY

## BONAFIDE CERTIFICATE

Certified that this project report "CALCULUS OF VARIATION" is the bonafide work of "KRITHIKA D" who carried out the project work under my supervision.



Supervisor

ARUNKUMAR R  
Assistant Professor  
Department of Mathematics  
Government College Kasaragod  
PEN : 708260



Head of the Department  
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Register Number : CIPSM1112



Internal Examiner

  
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1. Maye P. V. 

2. Aswathi K.   
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External Examiner  
ASWATHI K.  
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VIDYANAGAR (P O), KASARAGOD.  
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# BANACH ALGEBRA

*A project report submitted to Kannur  
University*

By

MEGHA M.  
C1PSMM1113

*In partial fulfillment of the award of  
Master of Science Degree in Mathematics  
during  
2021-23.*

  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A. L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD



# Kannur University

## BONAFIDE CERTIFICATE

Certified that this project report BANACH ALGEBRA is the bonafide work of MEGHA M who carried out the project work under my supervision.



Head of the Department  
HEAD OF THE DEPARTMENT  
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GOVERNMENT COLLEGE KASARAGOD





ARUNKUMAR R  
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Government College Kasaragod  
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Internal Examiner

1. Mayer P.V 

2. Aswathi K   
19/6/23

External Examiners

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## **C\*-ALGEBRA**

*A Project report submitted to Kannur University*

By

**MUNJIDA M**  
**CIPSMM1114**

*In partial fulfillment of the award of*

*Degree of Master of Science in*  
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*during*  
**2021-2023**



  
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## BONAFIDE CERTIFICATE

Certified that this project report "C\*-ALGEBRA" is the bonafide work of "MUNJIDA M" who carried out the project work under my supervision.

  
Head of the Department  
HEAD OF THE DEPARTMENT  
DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD



  
Supervisor

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Assistant Professor  
Department of Mathematics  
Govt. College Yidyanagar P.O. Kasaragod-671123

Submitted for examination held on .....

Register Number : C1PSMM1114


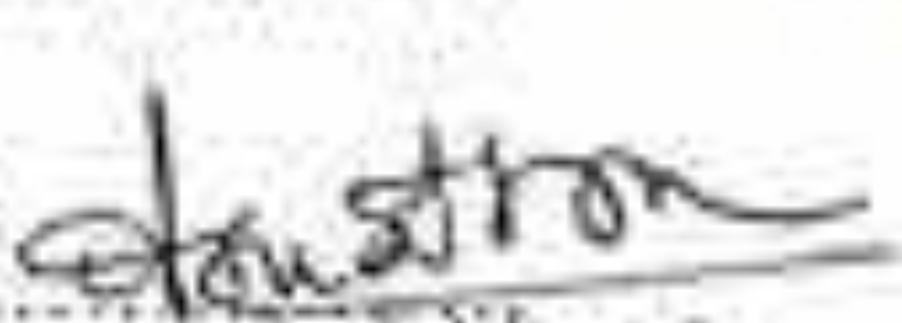


Internal Examiner

  
Name and Signature of the Principal  
Dr. Ananthapadmanabha.A.L

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD



1.   
2.   
19/04/23

External Examiner  
**ASWATHI K.**  
ASSISTANT PROFESSOR  
DEPARTMENT OF MATHEMATICS  
MUNJIDA COLLEGE, MUNJIDA

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR(P.O), KASARAGOD  
(Affiliated to Kannur University)

## SOFT SET THEORY

*A Project report submitted to Kannur University*

By

NAVITHA P V

Register number: C1PSMM1115

*In partial fulfillment of the award of*

*Degree of Master of Science in  
Mathematics*

during

2021 - 23




  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
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# KANNUR UNIVERSITY

## BONAFIDE CERTIFICATE

Certified that this project report entitled "SOFT SET THEORY" is the bonafide work of Ms. NAVITHA P V who carried out the project work under my supervision.

  
Aravindan. R

Head of the Department  
HEAD OF THE DEPARTMENT  
DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD

  
Supervisor  
**SAHARIYA**  
Assistant Professor  
Department of Mathematics  
Govt. College Vidyaneager P.O. Kasaragod-571123


Submitted for examination held on .....

Register Number : C1PSMM1115

  
.....


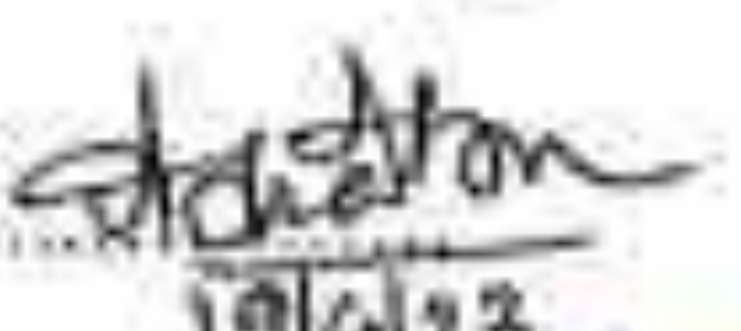
Internal Examiner

**SAHARIYA**  
Assistant Professor  
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Name and Signature of the Principal  
Dr. Ananthapadmanabha. A. I.

PRINCIPAL  
GOVERNMENT COLLEGE  
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1. Maya P. V.   
2. Aswathi. K.   
19/6/23

External Examiner  
ASSISTANT PROFESSOR  
DEPARTMENT OF MATHEMATICS  
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DEPARTMENT OF MATHEMATICS  
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VIDYANAGAR (P O), KASARAGOD  
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## CODING THEORY

*A Project report submitted to Kannur University*

By

**NIMMYA CHANDRAN**

**Reg. No: CIPSM1116**

*In partial fulfillment of the award of*

*Degree of Master of Science in  
Mathematics*

*during*

**2021-2023**



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A. I.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD


# KANNUR UNIVERSITY

## BONAFIDE CERTIFICATE

Certified that this project report entitled "CODING THEORY" is the bonafide work of Ms. NIMMYA CHANDRAN who carried out the project work under my supervision.

  
Head of the Department  
HEAD OF THE DEPARTMENT  
DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD




  
Supervisor  
ARUNKUMAR R  
Assistant Professor  
Department of Mathematics  
Government College Kasaragod  
PEN : 708260

Submitted for examination held on .....


Register Number :

  
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Internal Examiner

  
Name and Signature of the Principal  
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1. Mayer P. V. 

2. Aswathi K.   
ASWATHI K.  
ASSISTANT PROFESSOR  
DEPARTMENT OF MATHEMATICS  
KANNUR COLLEGE, KANNUR

External Examiner

DEPARTMENT OF MATHEMATICS GOVERNMENT  
COLLEGE KASARAGOD VIDYANAGAR (PO), KASARAGOD  
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## SEMIGROUP THEORY

*A Project report submitted to Kannur University*

By

NITHYA CHANDRAN

CIPSM1117

*In partial fulfillment of the award of*

*Degree of Master of Science in*

*Mathematics*

*during*

*2021-2023*



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

# KANNUR UNIVERSITY

## BONAFIDE CERTIFICATE

Certified that this project report **SEMIGROUP THEORY** is the bonafide work of **NITHYA CHANDRAN** who carried out the project work under my supervision.



Head of the Department

HEAD OF THE DEPARTMENT  
DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD





Supervisor

Dr. F PRASANTH  
Asst. Professor  
Dept. of Mathematics  
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1. Maya P.V. 

2. Aswathik 

ASWATHI K.  
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External Examiner

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*Affiliated to Kannur University*

# THE FUNDAMENTAL GROUP

*A project report submitted to Kannur University*

*By*

THEJASWI G.  
CIPSMM1118

*In partial fulfillment of the award of  
Degree of Master of Science in Mathematics  
during  
2021-2023*



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

# KANNUR UNIVERSITY

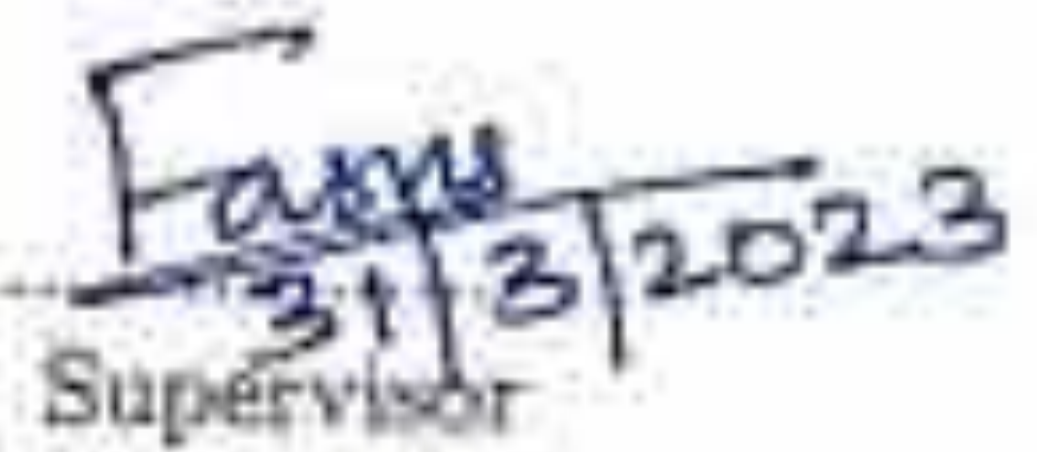
## BONAFIDE CERTIFICATE

Certified that this project report "THE FUNDAMENTAL GROUP"  
is the bonafide work of "THEJASWI G." who carried out the project work  
under my supervision.



Head of the Department  
HEAD OF THE DEPARTMENT  
DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD



  
Supervisor


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PEN: 712232

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1. Maya P. V. 

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ASWATHI K.  
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External Examiner

  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD



List of UG Students who undertaken project work during 2022-23.

Sl No Reg No. NAME

1	GK20CMSR02	KHADEEJATH THASMEENA
2	GK20CMSR03	ADWAITH NARAYAN
3	GK20CMSR04	ANURAJ M
4	GK20CMSR05	MOHAMMED WAZEER AHAMED CHEDEKAL
5	GK20CMSR06	UDITHRAJ N
6	GK20CMSR07	AKHILA K
7	GK20CMSR08	AKHILA SURESH
8	GK20CMSR09	AMBIKA C H
9	GK20CMSR10	AMRUTHA P
10	GK20CMSR11	ANJU ELIZABETH
11	GK20CMSR12	ANUPRIYA T
12	GK20CMSR14	DEEKSHITHA K
13	GK20CMSR15	FATHIMA SHAREEF
14	GK20CMSR17	MANJUSHREE SHIVANI B S
15	GK20CMSR18	MEGHA K R
16	GK20CMSR19	NANDANA M
17	GK20CMSR20	SALMA ABDULLA
18	GK20CMSR21	SHREYA C
19	GK20CMSR22	SHREYA D
20	GK20CMSR23	SNEHA K
21	GK20CMSR24	SWATHI B
22	GK20CMSR25	UNNIMAYA. M
23	GK20CMSR26	ANIRUDH M
24	GK20CMSR27	DIYA R M
25	GK20CMSR28	ANUJA K
26	GK20CMSR29	ANUSHA K
27	GK20CMSR30	ANUSREE P
28	GK20CMSR31	DIVYASREE P
29	GK20CMSR32	FATHIMATH DILSHANA
30	GK20CMSR33	FATHIMATH SAJIDA
31	GK20CMSR34	KHADEEJATH SAMAHA
32	GK20CMSR35	KRISHNA PRIYA P V
33	GK20CMSR36	MERRIN MARIYA JAISON
34	GK20CMSR37	RESHMA A
35	GK20CMSR38	SITHARA S
36	GK20CMSR39	VISHNU PRASAD M



Name and Signature of the Principal  
Dr. Ananthapadmanabha. A. I.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

## Project front pages and Certificates

The following pages contains scanned copy of front pages of project works done by BSc Mathematics Students of Government College Kasaragod, submitted to Kannur University in partial fulfilment of the award of Degree of Master of Science in Mathematics during 2022-2023.



A handwritten signature in purple ink, consisting of a series of loops and a long horizontal stroke.

Name and Signature of the Principal  
**Dr. Ananthapadmanabha.A.L**

A rectangular purple stamp with the text "PRINCIPAL" at the top, "GOVERNMENT COLLEGE" in the middle, and "KASARAGOD" at the bottom.

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

## SYLOW THEOREMS

A Project report submitted to Kannur University

By

**KHADEEJATH THASMEENA**  
Register Number : GK20CMSR02

In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
2020-2023



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

## CERTIFICATE

This is to certify that this project was presented by **KHADEEJATH THASMEENA** on **SYLOW THEOREMS** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

  
20/3/23

SIGNATURE  
ARUN KUMAR R  
HEAD OF THE DEPARTMENT  
Assistant Professor in  
Mathematics  
Government College Kasaragod  
Vidyanagar - 671123

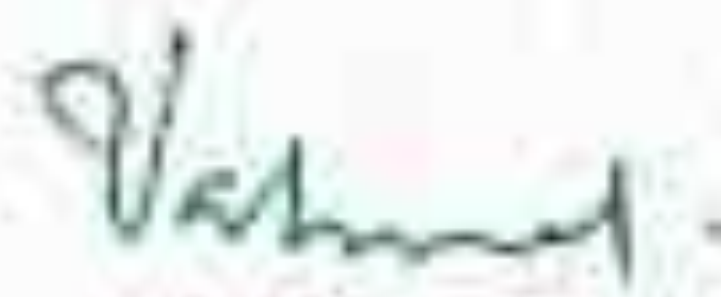
  
20/3/23

SIGNATURE  
SHRUTHY V  
SUPERVISOR  
Assistant Professor in  
Mathematics  
Government College Kasaragod  
Vidyanagar - 671123



Submitted for examination held on: 17.04.2023

Register Number: GK20CMSR02



  
Internal Examiner



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.I.

PRINCIPAL  
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KASARAGOD

1.   
16/4/23

2.   
17/4/23  
External Examiner

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
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## BOOLEAN ALGEBRA

A Project report submitted to Kannur University

By

ADWAITH NARAYAN

Register Number: GK20CMSR03



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics

during

2020-2023





Name and Signature of the Principal  
Dr. Ananthapadmanabha.A.L

PRINCIPAL  
GOVERNMENT COLLEGE  
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## CERTIFICATE

This is to certify that this project was presented by **ADWAITH NARAYAN** on **BOOLEAN ALGEBRA** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



SIGNATURE

ARUNKUMAR R

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Assistant Professor in Mathematics

Government College Kasaragod

Vidyanagar,

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SRUTHY V

SUPERVISOR

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PIN : 671123

Submitted for examination held on 17.4.23

Register Number: GK20CMSR03



  
Internal Examiner



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

1.   
17.4.23  
2.   
17.04.23  
External Examiner

**DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)**

**IDEALS**

**A Project report submitted to Kannur University**


**By**

**ANURAJ M  
Register Number: GK20CMSR04**



**In partial fulfillment of the award of Bachelor of  
Science Degree in Mathematics during  
2020-2023**

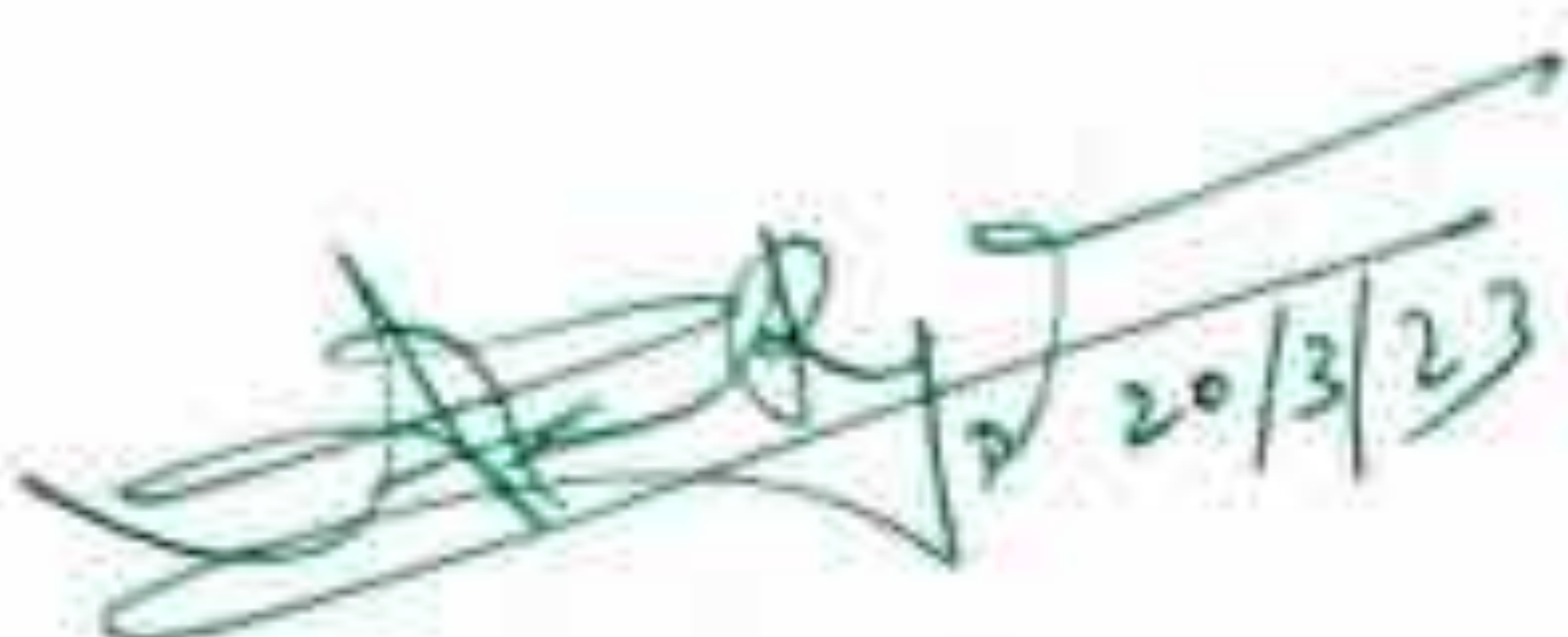


  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.I.

**PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD**

# CERTIFICATE

This is to certify that this project was presented by **ANURAJ M** on **IDEALS** in partial fulfillment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

 20/3/23

SIGNATURE

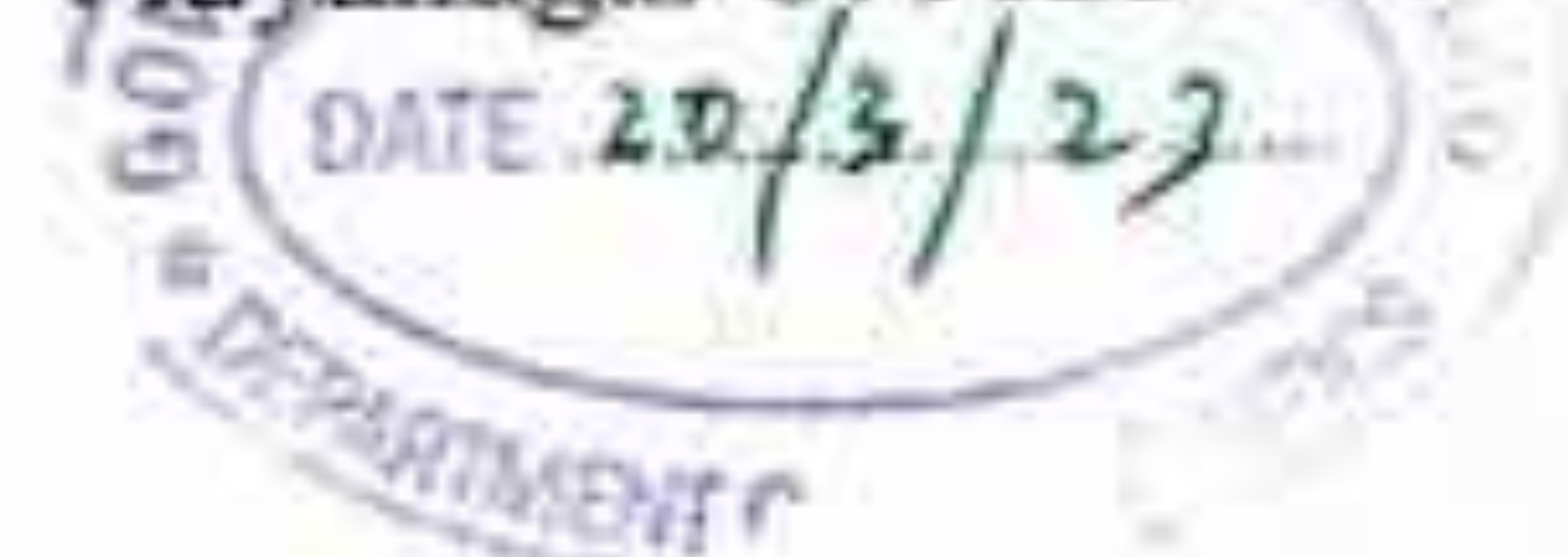
ARUNKUMAR R

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Submitted for examination held on 17.04.23

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Subrahmanya Prasad K  
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SUBRAHMANYA PRASAD K


SUPERVISOR

Assistant Professor in Mathematics (on contract)

Government College Kasaragod

Vidyanagar 671123



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17/4/23.

2.   
17.04.23  
External Examiner



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.



DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

**POWER SERIES SOLUTIONS AND  
SPECIAL FUNCTIONS**

A Project report submitted to Kannur University

By

**MOHAMMED WAZEER AHAMED  
CHEDEKAL**

Register Number: GK20CMSR05



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
2020-2023



Name and Signature of the Principal  
Dr. Ananthapadmanabha A. L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

# CERTIFICATE

This is to certify that this project was presented by MOHAMMED WAZEER AHAMED CHEDEKAL on POWER SERIES SOLUTIONS AND SPECIAL FUNCTIONS in partial fulfillment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

  
24/3/23

SIGNATURE

ARUNKUMAR R

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Assistant Professor in

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24/3/23

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Assistant Professor in

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Submitted for examination held on 17.04.23

Register Number: GK20CM15R05



Internal Examiner

1.   
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17.04.23

**DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
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**IDEALS**

**A Project report submitted to Kannur University**


**By**

**UDITH RAJ N  
Register Number: GK20CMSR06**



**In partial fulfillment of the award of Bachelor of  
Science Degree in Mathematics during  
2020-2023**



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

**PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD**

# CERTIFICATE

This is to certify that this project was presented by **UDITH RAJ N** on **IDEALS** in partial fulfillment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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Assistant Professor in Mathematics

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Subrahmanya Prasad K.  
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Vahini

1.   
17-4-23



External Examiner 17-04-23



  
Name and Signature of the Principal  
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PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
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## POWER SERIES SOLUTIONS AND SPECIAL FUNCTIONS

A Project report submitted to Kannur University

By

AKHILA K  
Register Number:GK20CMSR07



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
2020-2023



  
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Dr. Ananthapadmanabha A.I.

PRINCIPAL  
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KASARAGOD

## CERTIFICATE

This is to certify that this project was presented by AKHILA K on **POWER SERIES SOLUTIONS AND SPECIAL FUNCTIONS** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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HEAD OF THE  
DEPARTMENT  
Assistant Professor in  
Mathematics  
Government College  
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Vidyanagar - 671123



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Kasaragod  
Vidyanagar - 671123

Submitted for examination held on 17.04.23



Register Number: GK20CMSR07



Internal Examiner

1.   
17.4.23

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17.04.23  
External Examiner



Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.





**DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)**

**BILINEAR TRANSFORMATION AND  
CONFORMAL MAPPING**

A Project report submitted to Kannur University

**By**

**AKHILA SURESH**

**Register Number:GK20CMSR08**

In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics

during

**2020-2023**

## CERTIFICATE

This is to certify that this project was presented by **AKHILA SURESH** on **BILINEAR TRANSFORMATION AND CONFORMAL MAPPING** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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HEAD OF THE DEPARTMENT

Assistant Professor in

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Register Number: GK20CMSR08



Internal Examiner

1.   
17.04.23

2.   
17.04.23

External Examiner

# THEORY OF GAMES

A project report  
submitted by

*Ambika C H*  
(GK20CMSR09)

under the supervision of  
*RESHMA N*

in partial fulfillment of  
the requirements for the degree of  
Bachelor of Science (Mathematics)

to the



Department of Mathematics  
Government College Kasaragod, Vidyanagar

GOVERNMENT COLLEGE KASARAGOD, VIDYANAGAR  
DEPARTMENT OF MATHEMATICS

## DECLARATION

I hereby declare that the work reported in the project titled "THEORY OF GAMES" submitted for the partial fulfillment of B.Sc. degree at the Department of Mathematics, Government College Kasaragod, Vidyanagar, is record of my work carried out under the supervision of *RESHMA N.*



Ambika C H

(B.Sc. Final)

Department of Mathematics

Govt College Kasaragod

# MODULES

A project report  
submitted by

*AMRUTHA P*  
(GK20CMSR10)

under the supervision of  
*SRUTHY V*

in partial fulfillment of  
the requirements for the degree of  
Bachelor of Science (Mathematics)

to the



Department of Mathematics  
Government College Kasaragod, Vidyannagar

GOVERNMENT COLLEGE KASARAGOD, VIDYANAGAR  
DEPARTMENT OF MATHEMATICS

## DECLARATION

I hereby declare that the work reported in the project titled "MODULES" submitted for the partial fulfillment of B.Sc. degree at the Department of Mathematics, Government College Kasaragod, is record of my work carried out under the supervision of *SRUTHI V.*

AMRUTHA P

(B.Sc. Final)

Department of Mathematics  
Government College Kasaragod



DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
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## INTEGRAL EQUATIONS

A Project report submitted to Kannur University

By

ANJU ELIZABETH

Register Number: GK20CMSR11



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during 2020-2023

## CERTIFICATE

This is to certify that this project was presented by ANJU ELIZABETH on INTEGRAL EQUATIONS in partial fulfillment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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ARUNKUMAR R

HEAD OF THE DEPARTMENT

Assistant Professor in Mathematics

Government College Kasaragod

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SUPERVISOR

Assistant Professor in Mathematics

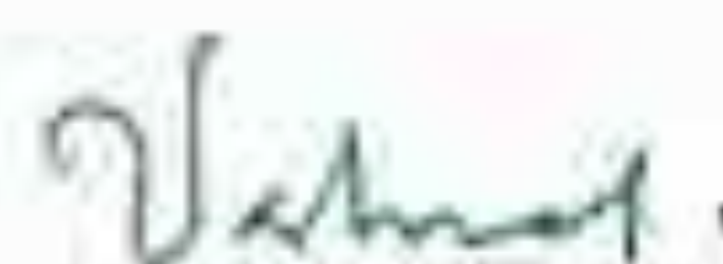
(On contract )

Government College Kasaragod

Vidyanagar

Pin 671123

Submitted for examination held on 17.04.2023



Register Number: GK20CMSR11



Internal Examiner

1.   
17.4.23

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17.04.2023

External Examiner

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
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## Z-TRANSFORM

A Project report submitted to Kannur University

By

ANUPRIYA.T

Register Number: GK20CMSR12



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
2020-2023

## CERTIFICATE

This is to certify that this project was presented by ANUPRIYA.T on Z-TRANSFORM in partial fulfillment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023



SIGNATURE

ARUNKUMAR R

HEAD OF THE DEPARTMENT

Assistant Professor in Mathematics

Government College Kasaragod

Vidyanagar A 671123



SIGNATURE

SUBRAHMANYA PRASAD.K

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Register Number: GK20CMSR12



Subrahmanya Prasad K  
Internal Examiner

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17-4-23

2.   
17-04-2023

External Examiner

**DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)**

## **INNER PRODUCT SPACE**

A Project report submitted to Kannur University

**By**

**DEEKSHITHA K  
Register Number : GK20CMSR14**



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
**2020-2023**

## CERTIFICATE

This is to certify that this project was presented by **DEEKSHITHA K** on **INNER PRODUCT SPACE** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



SIGNATURE  
ARUN KUMAR R  
HEAD OF THE DEPARTMENT  
Assistant Professor in  
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Kasaragod  
Vidyanagar - 671123



SIGNATURE  
SUBRAHMANYA PRASAD K  
SUPERVISOR  
Assistant Professor in  
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Submitted for examination held on 17.04.2023



Register Number : GK20CMSR14



Subrahmanya Prasad K.  
Internal Examiner

1.   
17.4.23

2. 

External Examiner

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

## GRAPH COLOURING

A Project report submitted to Kannur University

By

FATHIMA SHAREEF

Register Number: GK20CMSR15



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during 2020-2023

## CERTIFICATE

This is to certify that this project was presented by FATHIMA SHAREEF on GRAPH COLOURING in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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Assistant Professor in Mathematics

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Submitted for examination held on 18.04.2023.

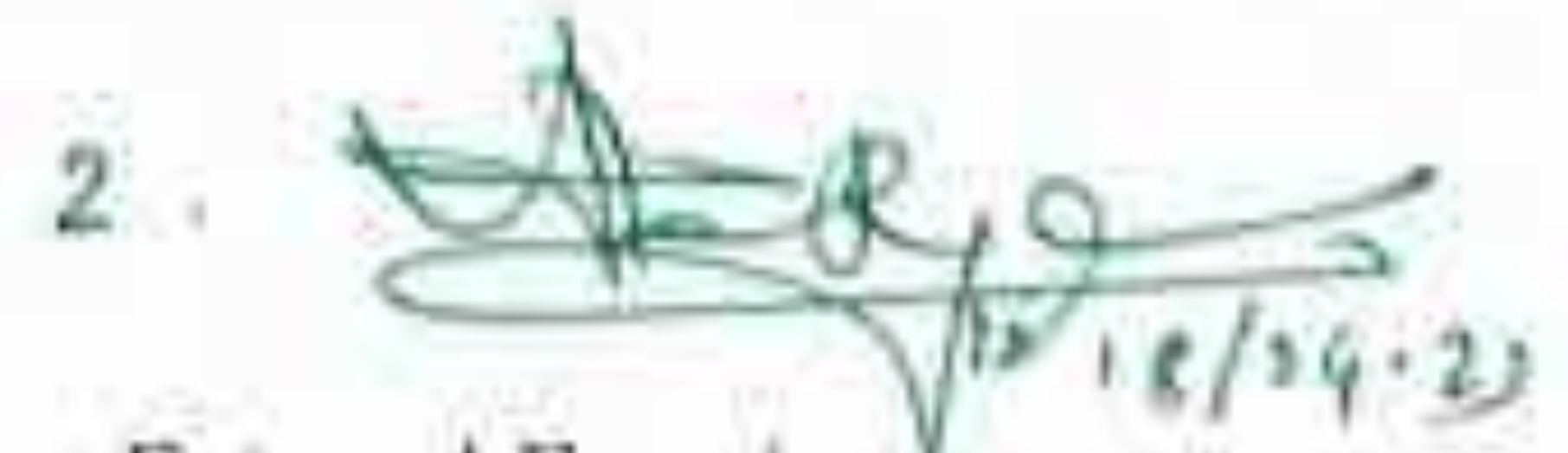


Register Number: GK20CMSR15



Subrahmanya Prasad K,  
Internal Examiner

1.   
18.4.23

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18/04/23

External Examiner

**DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)**

## **SYLOW THEOREMS**

A Project report submitted to Kannur University

By

**MANJUSHREE SHIVANI B S  
Register Number : GK20CMSR17**

In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
**2020-2023**

## CERTIFICATE

This is to certify that this project was presented by **MANJUSHREE SHIVANI B S** on **SYLOW THEOREMS** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



SIGNATURE  
ARUN KUMAR R  
HEAD OF THE DEPARTMENT  
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Government College Kasaragod  
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Assistant Professor in  
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Submitted for examination held on 18.04.2023

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Register Number: GK20CMSR17



Internal Examiner

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18.04.2023

External Examiner

DEPARTMENT OF MATHEMATICS  
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## BOOLEAN ALGEBRA

A Project report submitted to Kannur University

By

MEGHA.K.R

Register Number: GK20CMSR18



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
**2020-2023**

## CERTIFICATE

This is to certify that this project was presented by MEGHA.K.R on BOOLEAN ALGEBRA in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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ARUNKUMAR R

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18/04/23

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**DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
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**BILINEAR TRANSFORMATION AND  
CONFORMAL MAPPING**

A Project report submitted to Kannur University

**By**

**NANDANA M**

**Register Number: GK20CMSR19**

In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics

during

**2020-2023**

## CERTIFICATE

This is to certify that this project was presented by **NANDANA M** on **BILINEAR TRANSFORMATION AND CONFORMAL MAPPING** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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Register Number: GK20CMSR19



Internal Examiner

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18.04.23.

External Examiner

# THEORY OF GAMES

A project report

submitted by

*SALMA ABDULLA*

(GK20CMSR20)

under the supervision of

*RESHMA N*

in partial fulfillment of  
the requirements for the degree of  
Bachelor of Science (Mathematics)

to the



Department of Mathematics  
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## CERTIFICATE

This is to certify that this project was presented by **SALMA ABDULLA** on **THEORY OF GAMES** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

  
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Submitted for examination held on 18.04.2023


Vahnd.

Register Number: GK20CMSR20

  
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Internal Examiner

1.   
18.4.23

2.   
18.04.23

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# MODULES

A project report  
submitted by

*SHREYA C*  
(GK20CMSR21)

under the supervision of  
*SRUTHY V*

in partial fulfillment of  
the requirements for the degree of  
Bachelor of Science (Mathematics)

to the



Department of Mathematics  
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## CERTIFICATE

This is to certify that this project was presented by **SHREYA C** on **MODULES** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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Submitted for examination held on 18.04.2023

Valued.

Register Number GK20CMSR21

  
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18.04.2023

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18.04.2023  
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DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
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## INTEGRAL EQUATIONS

A Project report submitted to Kannur University

By

SHREYA D

Register Number: GK20CMSR22



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during **2020-2023**

## CERTIFICATE

This is to certify that this project was presented by **SHREYA D** on **INTEGRAL EQUATIONS** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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Internal Examiner



External Examiner

DEPARTMENT OF MATHEMATICS  
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VIDYANAGAR (P.O.), KASARAGOD  
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## Z-TRANSFORM

A Project report submitted to Kannur University

By

SNEHA.K

Register Number: GK20CMSR23



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
2020-2023

## CERTIFICATE

This is to certify that this project was presented by SNEHA.K on Z-TRANSFORM in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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Valued.

Register Number: GK20CMSR23



Subrahmanya Prasad K.

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1.   
18.04.23

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DEPARTMENT OF MATHEMATICS  
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VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

## CRYPTOGRAPHY

A Project report submitted to Kannur University

By

SWATHI B.

Register Number:GK20CMSR24



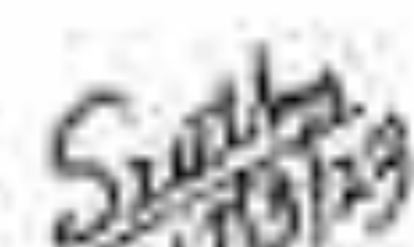
In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
2020-2023

## CERTIFICATE

This is to certify that this project was presented by SWATHI B on **CRYPTOGRAPHY** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

  
11/3/23

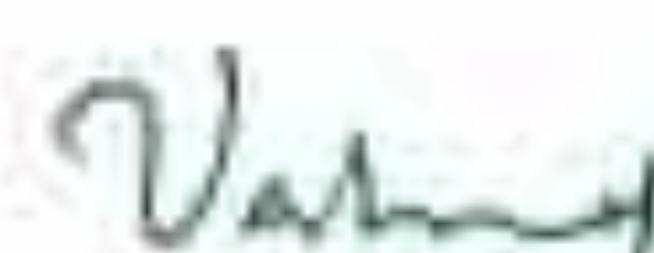
SIGNATURE  
ARUNKUMAR B  
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Register Number: GK20CMSR24

  
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18-04-23  
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DEPARTMENT OF MATHEMATICS  
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VIDYANAGAR (P.O.), KASARAGOD  
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## **INNER PRODUCT SPACE**

A Project report submitted to Kannur University

**By**

**UNNIMAYA M**  
**Register Number : GK20CMSR25**



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
**2020-2023**

## CERTIFICATE

This is to certify that this project was presented by **UNNIMAYA M** on **INNER PRODUCT SPACE** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

  
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Register Number : GK20CMSR25

  
Subrahmanya Prasad K,  
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1.   
18/4/23

2.   
18-04-2023

External Examiner

DEPARTMENT OF MATHEMATICS  
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VIDYANAGAR (P.O.), KASARAGOD  
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## GRAPH COLOURING

A Project report submitted to Kannur University

By


ANIRUDH M

Register Number: GK20CMSR26



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during 2020-2023



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.I.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

## CERTIFICATE

This is to certify that this project was presented by **ANIRUDH M** on **GRAPH COLOURING** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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Register Number: GK20CMSR26



Subrahmanya Prasad K

Internal Examiner

1.   
18.11.23

2.   
18.04.23

External Examiner

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

## SYLOW THEOREMS

A Project report submitted to Kannur University

By

DIYA R M

Register Number : GK20CMSR27

In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
2020-2023



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A. I.

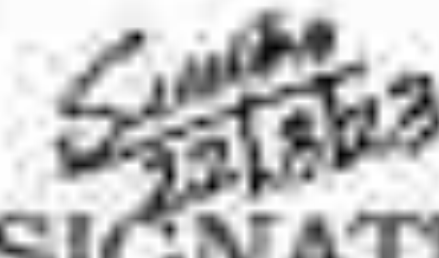
PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

## CERTIFICATE

This is to certify that this project was presented by **DIYA R M** on **SYLOW THEOREMS** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

  
22/9/23

SIGNATURE  
ARUN KUMAR R  
HEAD OF THE DEPARTMENT  
Assistant Professor in  
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SHRUTHY V  
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Submitted for examination held on 18.04.2023



Register Number: GK20CMSR27

  
22/9/23  
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18.04.23

  
18.04.23  
External Examiner

  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD



DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

## BOOLEAN ALGEBRA

A Project report submitted to Kannur University

By

ANUJA.K


Register Number: GK20CMSR28



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during

2020-2023



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

## CERTIFICATE

This is to certify that this project was presented by ANUJA.K on BOOLEAN ALGEBRA in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

 30/03/23

SIGNATURE

ARUNKUMAR R.

HEAD OF THE DEPARTMENT

Assistant Professor in Mathematics

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 30/03/23

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SRUTHY V

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Register Number: GK20CMSR28

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2.  15.04.2023  
External Examiner

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
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**POWER SERIES SOLUTIONS AND  
SPECIAL FUNCTIONS**

A Project report submitted to Kannur University

By

**ANUSHA K**

**Register Number: GK20CMSR29**



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
**2020-2023**

## CERTIFICATE

This is to certify that this project was presented by ANUSHA K on POWER SERIES SOLUTIONS AND SPECIAL FUNCTIONS in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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Vidyanagar - 671123



Submitted for examination held on 19.04.2023



Register Number: GK20CMSR29

  
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19/4/23

2.   
19.04.2023

External Examiner



**DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)**

**BILINEAR TRANSFORMATION AND  
CONFORMAL MAPPING**

A Project report submitted to Kannur University

**By**

**ANUSREE P**

**Register Number:GK20CMSR30**

In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics

during

**2020-2023**

## CERTIFICATE

This is to certify that this project was presented by **ANUSREE P** on **BILINEAR TRANSFORMATION AND CONFORMAL MAPPING** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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HEAD OF THE DEPARTMENT

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SUPERVISOR

Assistant Professor in

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Vidyanagar - 671123

Submitted for examination held on 19.04.2023



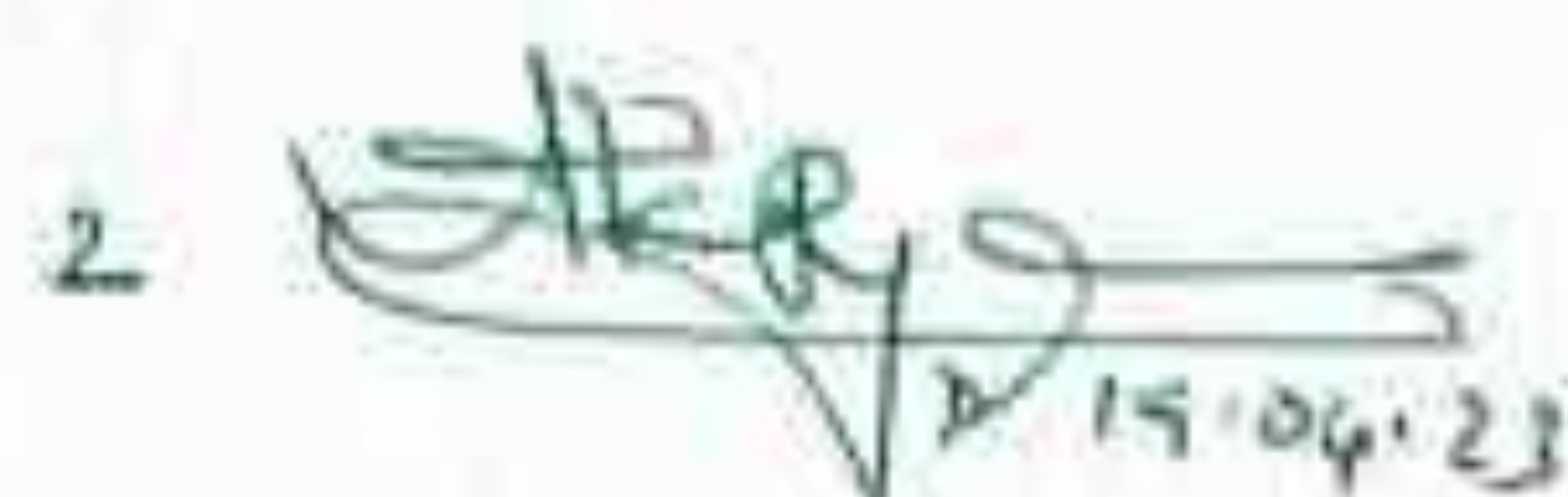
Register Number: GK20CMSR30



Internal Examiner



19.04.23



19.04.23

External Examiner

# THEORY OF GAMES

A project report  
submitted by

*Divyasree P*  
(GK20CMSR31)

under the supervision of  
*RESHMA N*

in partial fulfillment of  
the requirements for the degree of  
Bachelor of Science (Mathematics)

to the



Department of Mathematics  
Government College Kasaragod, Vidyannagar

GOVERNMENT COLLEGE KASARAGOD, VIDYANAGAR  
DEPARTMENT OF MATHEMATICS

## DECLARATION

I hereby declare that the work reported in the project titled "**THEORY OF GAMES**" submitted for the partial fulfillment of B.Sc. degree at the Department of Mathematics, Government College Kasaragod, Vidyannagar, is record of my work carried out under the supervision of *RESHMA N.*



Divyasree P

(B.Sc. Final)

Department of Mathematics

Govt College Kasaragod

# MODULES

A project report  
submitted by

*FATHIMATH DILSHANA*  
(GK20CMSR32)

under the supervision of  
*SRUTHY V*

in partial fulfillment of  
the requirements for the degree of  
Bachelor of Science (Mathematics)

to the



Name and Signature of the Principal  
Dr. Ananthapadmanabha A.I.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

Department of Mathematics  
Government College Kasaragod, Vidyanagar

GOVERNMENT COLLEGE KASARAGOD, VIDYANAGAR  
DEPARTMENT OF MATHEMATICS

## DECLARATION

I hereby declare that the work reported in the project titled "MODULES" submitted for the partial fulfillment of B.Sc. degree at the Department of Mathematics, Government College Kasaragod, is record of my work carried out under the supervision of *SRUTHI V.*

  
FATHIMATH DILSHANA

(B.Sc. Final)

Department of Mathematics  
Government College Kasaragod



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha. A. L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

## INTEGRAL EQUATIONS

A Project report submitted to Kannur University

By


**FATHIMATH SAJIDA**

**Register Number: GK20CMSR33**



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during 2020-2023



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

## CERTIFICATE

This is to certify that this project was presented by **EATHIMATH SAJIDA** on **INTEGRAL EQUATIONS** in partial fulfillment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.

  
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ARUNKUMAR R

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Internal Examiner

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External Examiner

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

**Z-TRANSFORM**

A Project report submitted to Kannur University

By

**KHADEEJATH SAMAHA**

Register Number: **GK20CMSR34**



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics

during  
2020-2023



Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

## CERTIFICATE

This is to certify that this project was presented by **KHADEEJATH SAMAHA** on **Z-TRANSFORM** in partial fulfilment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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ARUNKUMAR R

HEAD OF THE DEPARTMENT

Assistant Professor in Mathematics

Government College Kasaragod

Vidyanagar - 671123



SIGNATURE

SUBRAHMANYA PRASAD.K

SUPERVISOR

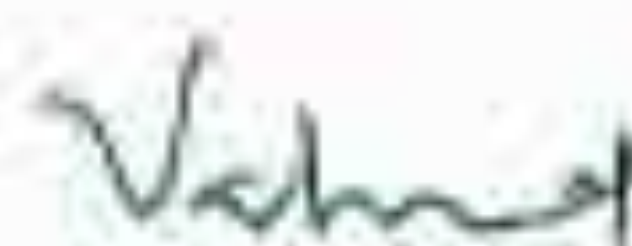
Assistant Professor in Mathematics

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Register Number: GK20CMSR34



Subrahmanya Prasad K  
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19/4/23

2.   
15.04.23  
External Examiner

DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)

## CRYPTOGRAPHY

A Project report submitted to Kannur University

By

KRISHNAPRIYA P V  
Register Number:GK20CMSR35



In partial fulfilment of the award of  
Bachelor of Science Degree in Mathematics  
during  
2020-2023





Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

PRINCIPAL  
GOVERNMENT COLLEGE  
KASARAGOD

## CERTIFICATE

This is to certify that this project was presented by  
**KRISHNAPRIYA P V** on **CRYPTOGRAPHY** in partial ful-  
filment of the Award of Bachelor of Science Degree in Mathematics  
during 2020-2023.



SIGNATURE  
ARUNKUMAR R  
HEAD OF THE  
DEPARTMENT

Assistant Professor in  
Mathematics  
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SIGNATURE  
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Register Number: GK20CMSR35

  
Internal Examiner

1.   
19/4/23

2.   
External Examiner 15.04.23



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.L.

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KASARAGOD

**DEPARTMENT OF MATHEMATICS  
GOVERNMENT COLLEGE KASARAGOD  
VIDYANAGAR (P.O.), KASARAGOD  
(Affiliated to Kannur University)**

**IDEALS**

**A Project report submitted to Kannur University**


**By**

**MERRIN MARIYA JAISON  
Register Number: GK20CMSR36**



**In partial fulfillment of the award of Bachelor of  
Science Degree in Mathematics during  
2020-2023**



  
Name and Signature of the Principal  
Dr. Ananthapadmanabha A.I.

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# CERTIFICATE

This is to certify that this project was presented by **MERRIN MARIYA JAISON** on **IDEALS** in partial fulfillment of the Award of Bachelor of Science Degree in Mathematics during 2020-2023.



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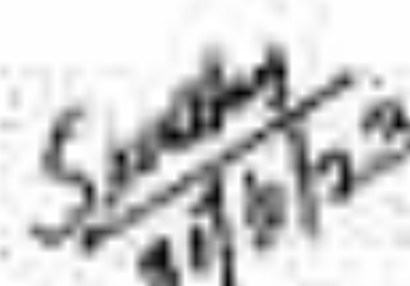
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