Lesson plan
April 2022 to July 2022
Name of Assistant Professor: Ajay Singh
Class: B.Sc 3rd (6th Sem)
Section: A, B and C
Subject: Mathematics
Paper: Special Function and Integral transformation
April: - Power Series, Bessel's Equation and
Function, Legenolre's Equation
Assymment -Ist
may: Hermite's Equation, Laplace Transforms,
Inverse Laplace Fransforms, Test (Assignment-Ind-Tyne)
June: — Use of Laplace Transforms in integral Equations, Solution of Pifferential Equations by Laplace Transformation
, Fourier Transforms
July: - Solution of diff. egn. by Fourier Transforms.  Text, Revision of syllabus

April 2022 to July 2022
Crost. P.C. callege, TIND
Name of Assistant/Associate Professor: Ajay Singh
class and Section: B.Sc 3rd (6th sem) Sec: A, Band C
Subject: Mathematics
Paper: Linear Algebra
Abril!- Vector Spaces and Subspaces, Basis and Dimension  Quotient Space, Assignment-Ist
May: — Linear Transformations, Rank and Nullity,  Algebra of Linear Transformations.  Test
June: - Matrix of a Linear Transformation, Dual Space
Eigen values and Eigen Vectors. Assignment-IInd

### Name of the Assistant/Associate Professor: BHAGWAN DASS

Class and Section: B.Sc. 3rd year (VIth Semester) Sec-A

Subject: Mathematics.

Paper: Real and Complex Analysis

### **April 2022**

**Topics** -Jacobians, Beta and Gama functions, Double and Triple integrals, Dirichlets integrals, change of order of integration in double integrals.

#### May 2022

**Topics-**Fourier expansion of piecewise monotonic functions, Properties of Fourier Co-efficients, Dirichlet's conditions, Parseval's identity for Fourier series, Fourier series for even and odd functions, Half range series, Change of Intervals..

Assignment-I

#### June 2022

**Topics-** Extended Complex Plane, Stereographic projection of complex numbers, continuity and differentiability of complex functions, Analytic functions, Cauchy-Riemann equations. Harmonic functions, Translation, Rotation.

Class Test

### July 2022

**Topics-** Magnification and Inversion. Conformal Mappings, Mobius transformations. Fixed pints, Cross ratio, Inverse Points and critical mappings

Assignment-II

### Name of the Assistant/Associate Professor: BHAGWAN DASS

Class and Section: B.Sc. 3rd year (VIth Semester) Sec-B

Subject: Mathematics.

Paper: Real and Complex Analysis

### **April 2022**

**Topics -** Jacobians, Beta and Gama functions, Double and Triple integrals, Dirichlets integrals, change of order of integration in double integrals.

### May 2022

**Topics-** Fourier expansion of piecewise monotonic functions, Properties of Fourier Co-efficients, Dirichlet's conditions, Parseval's identity for Fourier series, Fourier series for even and odd functions, Half range series, Change of Intervals..

Assignment-I

#### June 2022

**Topics-** Extended Complex Plane, Stereographic projection of complex numbers, continuity and differentiability of complex functions, Analytic functions, Cauchy-Riemann equations. Harmonic functions, Translation, Rotation.

Class Test

### July 2022

**Topics-** Magnification and Inversion. Conformal Mappings, Mobius transformations. Fixed pints, Cross ratio, Inverse Points and critical mappings

Assignment-II

### Name of the Assistant/Associate Professor: BHAGWAN DASS

Class and Section: B.Sc. 3<sup>rd</sup> year (VI<sup>th</sup> Semester) Sec-C

Subject: Mathematics.

Paper: Real and Complex Analysis

### **April 2022**

**Topics -** Jacobians, Beta and Gama functions, Double and Triple integrals, Dirichlets integrals, change of order of integration in double integrals.

### May 2022

**Topics-** Fourier expansion of piecewise monotonic functions, Properties of Fourier Co-efficients, Dirichlet's conditions, Parseval's identity for Fourier series, Fourier series for even and odd functions, Half range series, Change of Intervals..

Assignment-I

#### June 2022

**Topics-** Extended Complex Plane, Stereographic projection of complex numbers, continuity and differentiability of complex functions, Analytic functions, Cauchy-Riemann equations. Harmonic functions, Translation, Rotation.

Class Test

### July 2022

**Topics-** Magnification and Inversion. Conformal Mappings, Mobius transformations. Fixed pints, Cross ratio, Inverse Points and critical mappings

Assignment-II

## LESSON PLAN April 2022 to May 2022

### Gov. P.G college, JIND

Name of the Assistant/Associate Professor: GURDEEP

Class and Section: B.Com. 1st year (2nd Semester), Sec-C

Subject: Mathematics

Paper: Business Mathematics-II

### **APRIL**

Chapter: exercise of permutaion

Exercise and problem related to combination

Assignment -1st

### MAY

Chapter- Binomial Theorm

Exercise of binomial theorm

Linear inequality

Class Test

Solution of linear inquality in system of two variable

### JUNE

Chapter - linear programming

Formulation of equation

Graphical method of solution, Assignment-2nd

Mixed constraints solution

**DATA INTRODUCTION** 

CLASSIFICATION AND TABULATION

DIAGRAMATIC REPRESENTATION OF DATA

### JULY

Graphical representation of data

Data interpretation

## LESSON PLAN April 2022 to May 2022

### Gov. P.G college, JIND

Name of the Assistant/Associate Professor: GURDE	EΡ
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Class and Section: Bsc 2nd sec A,C / B.A 2 nd yr

Subject: Mathematics

Paper: Programming in C and numerical analysis

### **APRIL**

Chapter: computer A general introduction

Chapter -Intro to C

Chapter- Data typer

Chapter -operator and expression

Chapter - Decision control structure

Assignment 1st

### MAY

Chapter-solution of algebraic and transcendental equation

Chapter- simultaneous Linear Algebric equation

Class test

### JUNE

Chapter - Loops

Chapter-Functions

Assignment 2nd

Chapter - The C processor

Chapter - Arrays

Chapter- Puppeting of string

### JULY

Chapter -structure and unions

Chapter-pointers

Chapter-Files in C

Lesson Plan

April 2022 to July 2022 Growt P.G Gllege, JIND

Name of Assistant Professor: JYOTI

Class: BCA Ist year (2nd Sem)

Subject: Mathematical Foundation - II

Abril: — Proposition and Logical operator, Truth tables and Prepositions
generated by a set, Equivalence, Laws of Logic, Mathematical
system, Proposition over a Universe, Mathematical induction,
auantifiers, Binary operations on a non-empty set, groups,
subgroups, Cosests, Factor groups.

Assignment-Ist

May: — Rings, Sub rings, Ideals, Factor rings, Prime ideals, Minimal ideals, Fields, direct product of groups, Isomorphism of groups and rings, Test, Addition, Laws of matrix algebra, Singular & non Singular modrices. Inverse of a matrix.

June: — Rank of matrix, product of two matrices, system of linear egt, ch. of egt. of a square matrix, Gley-Hamiton Thm, Eigen values and Eigen vectors, Eigen values and Eigen vectors of symmetric skew symmetric.

Vectors of symmetric skew symmetric.

Assignment-Ind

July: - Hermitian and skew-Hermitian moutrices, Dagonalization of syllabus.

Lesson Plan

April 2022 to July 2022 Growt P.G Gllege, JIND

Name of Assistant Professor: JYOTI

Class: BCA Ist year (2nd Sem)

Subject: Mathematical Foundation - II

Abril: — Proposition and Logical operator, Truth tables and Prepositions
generated by a set, Equivalence, Laws of Logic, Mathematical
system, Proposition over a Universe, Mathematical induction,
auantifiers, Binary operations on a non-empty set, groups,
subgroups, Cosests, Factor groups.

Assignment-Ist

May: — Rings, Sub rings, Ideals, Factor rings, Prime ideals, Minimal ideals, Fields, direct product of groups, Isomorphism of groups and rings, Test, Addition, Laws of matrix algebra, Singular & non Singular modrices. Inverse of a matrix.

June: — Rank of matrix, product of two matrices, system of linear egt, ch. of egt. of a square matrix, Gley-Hamiton Thm, Eigen values and Eigen vectors, Eigen values and Eigen vectors of symmetric skew symmetric.

Vectors of symmetric skew symmetric.

Assignment-Ind

July: - Hermitian and skew-Hermitian moutrices, Dagonalization of syllabus.

	LESSION PLAN
SESSION	2021-2022(APRIL TO JULY)
TEACHER NAME	MANNU ARYA
CLASS	B.SC 1 <sup>ST</sup> YEAR
SECTION	A,B,C,D
SUBJECT/PAPER	NUMBER THEORY AND TRIGONOMETRY
SEMESTER	2 <sup>ND</sup>
APRIL	Divisibility, G.C.D.(greatest common divisors), L.C.M.(least common multiple) Primes, Fundamental Theorem of Arithmetic. Linear Congruence's, Fermat's theorem. Wilson's theorem and its converse. Linear Diophantine equations in two variables+1st assignment
MAY	Complete residue system and reduced residue system modulo m. Euler function Euler's generalization of Fermat's theorem. Chinese Remainder Theorem. Quadratic residues. Legendre symbols. Lemma of Gauss; Gauss reciprocity law. Greatest integer function [x]. The number of divisors and the sum of divisors of a natural number n (The functions d(n) and s (n)). Moebius function and Moebius inversion formula.+ 2nd assignment
JUNE	De Moivre's Theorem and its Applications. Expansion of trigonometrical functions. Direct circular and hyperbolic functions and their properties
JULY	Inverse circular and hyperbolic functions and their properties.  Logarithm of a complex quantity. Gregory's series. Summation of Trigonometry series
JULY	Revision of some important topic +test

### April 2022 to July 2022

Govt. P.G college, JIND

Name of the Assistant/Associate Professor: Mukesh kumari

Class and Section: B.Sc. 1st year (2nd Semester), Sec-A

**Subject: Mathematics** 

Paper: Ordinary Differential Equations

### **April**

Chapter: Section 1

Geometrical meaning of a differential equation. Exact differential equations, integrating factor. First order higher degree equations solvable for s,y,p. Lagrange's equations, Clairaut's equations. Equations reducible to Clariaut's form. Singular solutions.

### May

Chapter- Section 2

Homogeneous linear ordinary differential equations. Equations reducible to homogeneous.

system of two variable

#### June

Chapter – Section 3

Linear differential equations of second order. Reduction to normal form. Transformation fo the equation by changing the dependent variable / independent variable. Solution by operators of non-homogeneous liner differential equations.

## July

## Chapter - 4

Ordinary simultaneous differential equations. Soution of simultaneous differential equations involving operators x (d / dx) or t (d / dt) ete. Simultaneous equation fo the form ds/P = dy/W = dz/R. Total differential equations. Condition for Pdx = Qdy = Rdz = 0 to be exact.

SESSION	APRIL 2022 TO JULY 2022
TEACHER NAME	Mukesh kumari
CLASS	B.SC. 1 <sup>ST</sup> YEAR
SECTION	A
SUBJECT	MATHEMATICS
PAPER	VECTOR CALCULUS
SEMESTER	2 <sup>ND</sup>
APRIL	Scalar and Vector product of three and four vectors , Reciprocal vectors. Vector Differentiation , Scalar and Vector Valued point functions , derivative along a curve , directional derivatives. + 1st Assignment
MAY	Gradient of a scalar point function , Gradient , Divergence and curl of vector point function . Sums , Product and their related vector identities , Laplacial Operator. + Test
JUNE	Orthogonal curvilinear co-ordinates , Gradient , Divergence , curl and Laplacian operators in terms of orthogonal curvilinear , cylindrical and spherical co-ordinates. Vector Integration . + 2 nd Assignment
JULY	Theorem of Gauss , Green , Stokes and problems based on these. & Revision

	LESSIONPLAN
SESSION	2021-2022(APRILTOJULY)
TEACHERNAME	NEERU
CLASS	B.SC2ndYEAR
SECTION	A,B,C,D
SUBJECT/PAPER	SEQUENCE AND SERIES/
SEMESTER	4th
APRIL	BOUNDEDNESS of the set of real numbers, I u b, g I b of a set, nbdhoods, interior points, isolated points, limit points, open sets, closed sets, interior of a set, closure of a set in real numbers and their properties. Bolzano-Weierstrass theorem. Open covers. Compact sets and Heine-Borel Theorem+1 <sup>st</sup> assignment
MAY	Sequence: Real sequence and their convergence, thms on limits of sequence, Bounded and monotonic seq, Cauchy's seq, Cauchy general principal of convergence, Subsequences Infinite series: Convergence and divergence of infinite series, comparison tests of positive terms infinite series, cauchy's general principal of convergence of series, hyper harmonic series +2 <sup>nd</sup> assignment
JUNE	Infinite series: D'Alembert's test,Raabe's test,Logarithmic test,de morgan and Bertrands's test,cauchy'nth test,Gauss test,cauchy's integral test,cauchy's condensation test+ class test
JULY	Alternating series: Leibnitz's test, absolute and conditional convergence Arbitrary series: Abel's lemma, Abel's test, Dirichlet's test, Insertion and removal of parenthesis, re-arrangement of terms in a series, Dirichlet's thm, Riemann's Re-arrangement thm, convergence and absolute convergence of infinite products
JULY	Revisionofsomeimportanttopic +test

### Gov. P.G college, JIND

Name of the Assistant/Associate Professor: PRAGATI
Class and Section: B.Com. 1st year ( 2nd Semester), Sec-A
Subject: Mathematics
Paper: Business Mathematics-II
APRIL
Chapter: 1- "
Exercise and problem related to permutation
Chapter- combination
Assignment-1

## MAY

Chapter- Binomial Theorm

Exercise of binomial theorm

Linear inequality

Solution of linear inquality in system of two variable

Test

JUNE	
Chapter - linear programming	
Formulation of equation	
Graphical method of solution	
Mixed constraints solution	
DATA INTRODUCTION	
CLASSIFICATION AND TABULATION	
Assignment-2	

JULY	
Graphical representation of data	
Data interpretation	
Revision of all chapters	

## Gov. P.G college, JIND

Name of the Assistant/Associate Professor:Pragati
Class and Section:BA2rdyear (4th Semester)
Subject: Mathematics
Paper:Special functions and integral transforms
April
Chapter-Power Series
Chapter- Bessel equation and function
Chapter- Legendre's equation
Assignment-1

## May

Chapter- Hermite's equation

**Exercise of Hermite's equation** 

**Chapter- Laplace transforms** 

**CHAPTER- inverse Laplace transforms** 

Test

### June

**Chapter - Inverse Laplace transforms** 

Chapter - Use of laplace transforms in integral equations

**Chapter- Solution of differential equations by Laplace transforms** 

Assignment-2

### July

**Chapter- Fourier transforms** 

Chapter - Solution of differential equations by fourier transforms

SESSION	APRIL 2022 TO JULY 2022
TEACHER NAME	Poonam Devi
CLASS	B.SC. 1 <sup>ST</sup> YEAR
SECTION	D
SUBJECT	MATHEMATICS
PAPER	VECTOR CALCULUS
SEMESTER	2 <sup>ND</sup>
APRIL	Scalar and Vector product of three and four vectors, Reciprocal vectors. Vector Differentiation, Scalar and Vector Valued point functions, derivative along a curve, directional derivatives. + 1st Assignment
MAY	Gradient of a scalar point function , Gradient , Divergence and curl of vector point function . Sums , Product and their related vector identities , Laplacial Operator. + Test
JUNE	Orthogonal curvilinear co-ordinates , Gradient , Divergence , curl and Laplacian operators in terms of orthogonal curvilinear , cylindrical and spherical co-ordinates. Vector Integration . + 2 nd Assignment
JULY	Theorem of Gauss , Green , Stokes and problems based on these. & Revision

### April 2022 to July 2022

Govt. P.G college, JIND

Name of the Assistant/Associate Professor: Poonam Devi

Class and Section: B.Sc. 1st year (2nd Semester), Sec-D

Subject: Mathematics

Paper: Ordinary Differential Equations

### **April**

Chapter: Section 1

Geometrical meaning of a differential equation. Exact differential equations, integrating factor. First order higher degree equations solvable for s,y,p. Lagrange's equations, Clairaut's equations. Equations reducible to Clariaut's form. Singular solutions.

### May

Chapter- Section 2

Homogeneous linear ordinary differential equations. Equations reducible to homogeneous.

system of two variable

#### June

Chapter - Section 3

Linear differential equations of second order. Reduction to normal form. Transformation fo the equation by changing the dependent variable / independent variable. Solution by operators of non-homogeneous liner differential equations.

## July

## Chapter - 4

Ordinary simultaneous differential equations. Soution of simultaneous differential equations involving operators x (d / dx) or t (d / dt) ete. Simultaneous equation fo the form ds/P = dy/W = dz/R. Total differential equations. Condition for Pdx = Qdy = Rdz = 0 to be exact.

## Gov. P.G college, JIND

Name of the Assistant/Associate Professor:Pragati
Class and Section:Bca 2nd year
Subject: Mathematics
Paper:Computer oriented statistical methods
April
Chapter-Probability
Chapter- Data types
Chapter- Sampling
Assignment-1

May	
Chapter-Statistical Interference	
Chapter-Point estimation	
Chapter- Interval estimation	
CHAPTER- Testing hypothesis	
Test	

### June

Chapter - T-test,F-test

Chapter - Chi-sqaure test,One way Anova

Chapter- Two way anova, Single sample

Assignment-2

### July

**Chapter- Sample test for gaussian parameters** 

**Chapter - Two sample test for gaussian parameters** 

## Gov. P.G college, JIND

Name of the Assistant/Associate Professor:Pragati		
Class and Section:Bsc2nd year(B)		
Subject: Mathematics		
Paper:Programming in C and Numerical Methods		
April		
Chapter-Computers: A general Introduction		
Chapter- Introduction to C		
Chapter- Data-types		
Assignment-1		

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**Chapter-Operators and Expressions** 

**Chapter-Decision Control Structures** 

**Chapter- Loops** 

**CHAPTER- Functions** 

Test

### June

Chapter - Solution of algebraic and transcendental equation

Chapter - Bisection method, Regula falsi method, Secant method

**Chapter- Newton-Rapshon method** 

Assignment-2

### July

**Chapter- Simultaneous linear algebraic equations** 

Chapter - gauss sedial method, Relaxation method

### Gov. P.G college, JIND

Name of the Assistant/Associate Professor:Raj kamal
Class and Section:BSc 2rdyear (4th Semester), Section -B
Subject: Mathematics
Paper:Special functions and integral transforms

April
Chapter-Power Series

Chapter- Bessel equation and function

Chapter- Legendre's equation
Assignment-1

May

Chapter- Hermite's equation

Exercise of Hermite's equation

**Chapter- Laplace transforms** 

**CHAPTER- inverse Laplace transforms** 

Test

June

**Chapter - Inverse Laplace transforms** 

Chapter - Use of laplace transforms in integral equations

**Chapter- Solution of differential equations by Laplace transforms** 

**Assignment-2** 

July

**Chapter- Fourier transforms** 

Chapter - Solution of differential equations by fourier transforms

### Gov. P.G college, JIND

Name of the Assistant/Associate Professor:Raj kamal
Class and Section:BSc 2rdyear (4th Semester), Section -A
Subject: Mathematics
Paper:Special functions and integral transforms

April
Chapter-Power Series

Chapter- Bessel equation and function

Chapter- Legendre's equation
Assignment-1

May

Chapter- Hermite's equation

Exercise of Hermite's equation

**Chapter- Laplace transforms** 

**CHAPTER- inverse Laplace transforms** 

Test

June

**Chapter - Inverse Laplace transforms** 

Chapter - Use of laplace transforms in integral equations

**Chapter- Solution of differential equations by Laplace transforms** 

**Assignment-2** 

July

**Chapter- Fourier transforms** 

Chapter - Solution of differential equations by fourier transforms

SESSION	APRIL 2022 TO JULY 2022
TEACHER NAME	REENA DEVI
CLASS	B.SC. 1 <sup>ST</sup> YEAR
SECTION	B & C
SUBJECT	MATHEMATICS
PAPER	ORDINARY DIFFERENTIAL EQUATIONS
SEMESTER	2 <sup>ND</sup>
APRIL	Exact differential equations , equations of first order but not of
	first degree , Orthogonal Trajectories + 1st Assignment
MAY	Linear Differential Equations with constant Co-efficients,
	Homogeneous Linear Equations + Test
JUNE	Linear Differential Equations of Second Order , Ordinary
	Simultaneous Differential Equations + 2 <sup>nd</sup> Assignment
JULY	Total Differential Equations & Revision
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SESSION	APRIL 2022 TO JULY 2022
TEACHER NAME	REENA DEVI
CLASS	B.SC. 1 <sup>ST</sup> YEAR
SECTION	B & C
SUBJECT	MATHEMATICS
PAPER	VECTOR CALCULUS
SEMESTER	2 <sup>ND</sup>
APRIL	Scalar and Vector product of three and four vectors , Reciprocal vectors. Vector Differentiation , Scalar and Vector Valued point functions , derivative along a curve , directional derivatives. + 1 <sup>st</sup> Assignment
MAY	Gradient of a scalar point function, Gradient, Divergence and curl of vector point function. Sums, Product and their related vector identities, Laplacial Operator. + Test
JUNE	Orthogonal curvilinear co-ordinates , Gradient , Divergence , curl and Laplacian operators in terms of orthogonal curvilinear , cylindrical and spherical co-ordinates. Vector Integration . + 2 <sup>nd</sup> Assignment
JULY	Theorem of Gauss , Green , Stokes and problems based on these. & Revision

## LESSON PLAN April 2022 To July 2022

## Gov. P.G college, JIND

Graphical representation of data

Data Interpretation

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	Name of the Assistant/Associate Professor: Reena Rani
	Class and Section: B.Com. 1st year (2nd Semester), Sec B,D
	Subject: Mathematics
	Paper: Business Mathematics-II
	APRIL
	Chapter: exercise of permutaion
	Exercise and problem related to combination
	Assignment -1st
ſ	MAN
ŀ	MAY
ŀ	Chapter- Binomial Theorm
ļ	Exercise of binomial theorm
I	Linear inequality
ļ	Class Test
l	Solution of linear Inquality in system of two variable
ĺ	JUNE
ľ	Chapter - linear programming
ľ	Formulation of equation
ľ	Graphical method of solution, Assignment-2nd
	Mixed constraints solution
ľ	DATA INTRODUCTION
	CLASSIFICATION AND TABULATION
ĺ	DIAGRAMATIC REPRESENTATION OF DATA
	JULY

### Gov. P.G college, JIND

Name of the Assistant/Associate Professor: Reena Rani

Class and Section: BSc 3rd year (6th Semester), section - B&C

Subject: Mathematics

Paper: DYNAMIC

## **April**

### Chapter Section- 1

Velocity and acceleration along radial, transverse, tangential and normal directions. Relative velocity and acceleration.simple harmonic motion. Elastic strings.

Problems on chapters

Assignment - 1

## May

Chapter Section- 2

Mass, Momentum and Force. Newton's laws of motion. Work, power and energy.definitions of conservative forces and impulsive forces.

Problems on chapters

TEST

### June

Chapter Section- 3

Motion on smooth and rough plane curves. Projectile motion of a particle in a plane. Vector angular velocity.

Problems on chapters

## July

Chapter Section- 4

General motion of a rigid bboady: central orbits, Kepler's laws of motions. Motion of a particle in three dimensions. Acceleration in terms of different co-ordinate systems.

Problems on chapters

SESSION	APRIL 2022 TO JULY 2022
TEACHER NAME	REENA DEVI
CLASS	B.SC. 1 <sup>ST</sup> YEAR
SECTION	B & C
SUBJECT	MATHEMATICS
PAPER	VECTOR CALCULUS
SEMESTER	2 <sup>ND</sup>
APRIL	Scalar and Vector product of three and four vectors , Reciprocal vectors. Vector Differentiation , Scalar and Vector Valued point functions , derivative along a curve , directional derivatives. + 1 <sup>st</sup> Assignment
MAY	Gradient of a scalar point function, Gradient, Divergence and curl of vector point function. Sums, Product and their related vector identities, Laplacial Operator. + Test
JUNE	Orthogonal curvilinear co-ordinates , Gradient , Divergence , curl and Laplacian operators in terms of orthogonal curvilinear , cylindrical and spherical co-ordinates. Vector Integration . + 2 <sup>nd</sup> Assignment
JULY	Theorem of Gauss , Green , Stokes and problems based on these. & Revision