

# Lesson Plan for session 2023-2024

Name of Assistant Professor - Dr. MANJUDEVI

Class - B.Sc III<sup>rd</sup> / B.A III<sup>rd</sup>  
(V<sup>th</sup> Sem.)

Subject - Mathematics

Paper - Real and complex Analysis

## Months

## Topic to be covered

### January

1 <sup>st</sup> week -	Jacobians
2 <sup>nd</sup> week -	Beta and Gamma functions
3 <sup>rd</sup> week -	Double and Triple integral
4 <sup>th</sup> week -	Double and Triple integral

### February

1 <sup>st</sup> week -	Fourier series
2 <sup>nd</sup> week -	Fourier series
3 <sup>rd</sup> week -	Fourier series
4 <sup>th</sup> week -	Fourier series

### March

1 <sup>st</sup> week -	Calculus of complex functions
2 <sup>nd</sup> week -	Calculus of complex functions
3 <sup>rd</sup> week -	Calculus of complex functions
4 <sup>th</sup> week -	Holi Break

### April

1 <sup>st</sup> week -	Elementary functions and Mobius Transformations
2 <sup>nd</sup> week -	Elementary functions and Mobius Transformations
3 <sup>rd</sup> week -	Elementary functions and Critical Mapping
4 <sup>th</sup> week -	Critical Mapping, test

Maya  
01/01/2024

Principal  
GOVT. COLLEGE  
REHRAMPUR (Babauli)

Lesson Plan for session 2023-24

Name of Assistant Professor - Dr. Manoj Dey. Class - B.Com I<sup>st</sup> sem  
Subject - Mathematics Paper - Business Mathematics

Months

Topics to be covered

- July - Matrices - Definition of matrix, order, equality types of matrices, operation on matrices
- August - Matrices, Determinants, Adjoint, inverse of matrices and application, solution of a system of linear equations by examples.
- September - Different types of interest, rates, Present value and amount of an annuity, Problems related to sinking fund.
- October - Set Theory, Logical statements and Truth tables
- November - Logarithms, Arithmetical Progression, Geometrical Progression.

Manoj  
24/07/2023

Principal  
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BENRAMPUR (B.D.S.)

Lesson Plan for session 2023-24

Name of Assistant Professor - Dr. Mayadevi Class - BA/B.Sc - 3<sup>rd</sup> Sem

Subject - Mathematics

Paper - Numerical Analysis  
(Practical.)

Months

Topics to be covered

August -

1. Newton Forward interpolation
2. Newton Backward interpolation
3. Langrang's interpolation

September -

1. Execute Trapezoidal rule
2. Execute Simpson's  $\frac{1}{3}$  rule
3. Execute Simpson's  $\frac{3}{8}$  rule

October -

1. Execute Euler's method
2. Execute Euler's modified method
3. Execute Runge's Kutta method

November -

1. Execute Milne Simpson method.

Maya 24/07/2023

Principal  
GOVT. COLLEGE  
REHRAMPUR (Bapatoli)

Name of Assistant Professor - Dr. Manju Devi  
 Subject - Mathematics

Class - B.A/B.Sc III<sup>rd</sup> Advanced calculus

July - Continuous function

August - The derivative and mean

1<sup>st</sup> week - value Thm

2<sup>nd</sup> week - The Derivative and M.V.Thm

3<sup>rd</sup> week - indeterminate forms

4<sup>th</sup> week - limit and continuity of first of two variables.

September

1<sup>st</sup> week - Partial Differentiation

2<sup>nd</sup> week - Partial differentiation

3<sup>rd</sup> week - Diff. of functions of two variables

4<sup>th</sup> week - Maximum and minimum of functions

October

1<sup>st</sup> week - Curves in Spaces

2<sup>nd</sup> week - Curves in Spaces

3<sup>rd</sup> week - Curves in Spaces

4<sup>th</sup> week - Circle of Curvature

November - involutes and Evolutes

1<sup>st</sup> week - Dividi Break

2<sup>nd</sup> week - concept of a surface and

3<sup>rd</sup> week - Examinations.

Class - BA/BSc V<sup>th</sup> Sem, Groups and Rings

July - Some Basic concept

August - Riemann integral

1<sup>st</sup> week - Riemann integral

2<sup>nd</sup> week - Riemann integral

3<sup>rd</sup> week - Riemann integral

4<sup>th</sup> week - improper Integ. and their convergence

September - Imp. Integ. and their convergence

1<sup>st</sup> week - Continues -

2<sup>nd</sup> week - integral as a function of big

3<sup>rd</sup> week - Metric space

4<sup>th</sup> week - Metric space

October - Open and closed set in M.S.

1<sup>st</sup> week - Completeness in metric space

2<sup>nd</sup> week - Completeness in metric space

3<sup>rd</sup> week - Metric space continue -

4<sup>th</sup> week - continuity and uniform cont.

November - compactness in Metric space

1<sup>st</sup> week - Dividi Break

2<sup>nd</sup> week - Revision, test

3<sup>rd</sup> week - Examination -

Manju 24/07/2023

Class BA/BSc V<sup>th</sup> Sem, Real Analysis

July - Groups

August - Groups and endomorphisms

1<sup>st</sup> week - Groups and Subgroup

2<sup>nd</sup> week - Cosets

3<sup>rd</sup> week - Homomorphism and

4<sup>th</sup> week - Automorphism

September - Automorphism

1<sup>st</sup> week - Permutation groups

2<sup>nd</sup> week - Rings

3<sup>rd</sup> week - Rings

4<sup>th</sup> week - fields

October - ideals and Quotient Rings

1<sup>st</sup> week - Homomorphism of Ring

2<sup>nd</sup> week - Euclidean Rings

3<sup>rd</sup> week - Polynomial Rings

4<sup>th</sup> week - Polynomial Rings

November - Polynomial Rings

1<sup>st</sup> week - Dividi Break

2<sup>nd</sup> week - Polynomial Rings, test

3<sup>rd</sup> week - Examination

Manju 24/07/2023

Lesson Plan for Session 2023-2024

Name of Assistant Professor - Dr. MANJU DEVI; class - B.Sc III<sup>rd</sup> / B.A III<sup>rd</sup>  
(VI Sem)  
Subject - Mathematics Paper - Linear Algebra II

Months

Topics to be covered

January

- I<sup>st</sup> week - Vector spaces and subspaces
- 2<sup>nd</sup> week - Basis and dimension
- 3<sup>rd</sup> week - Basis and dimension
- 4<sup>th</sup> week - Quotient space

February

- I<sup>st</sup> week - Linear Transformation
- 2<sup>nd</sup> week - Rank and Nullity
- 3<sup>rd</sup> week - Algebra of Linear Transformation
- 4<sup>th</sup> week - Matrix of a Linear Transformation


March

- I<sup>st</sup> week - Dual space
- 2<sup>nd</sup> week - Eigen values and eigen vectors
- 3<sup>rd</sup> week - Eigen values and Eigen vectors
- 4<sup>th</sup> week - Holi Break.

April

- I<sup>st</sup> week - Inner Product spaces
- 2<sup>nd</sup> week - Inner product spaces
- 3<sup>rd</sup> week - inner Product spaces, linear operators
- 4<sup>th</sup> week - Revision, Test

May 01/02/2024

  
Principal  
GOVT. COLLEGE  
BEHRAMPUR (S.B.)

Lesson Plan for Session 2023-2024

Name of Asstt Prof. — Dr. Mayju Devi class — B.com I<sup>st</sup> (II<sup>nd</sup> Sem)

Subject — Mathematics

Paper — Business Mathematics

Months


Topic to be covered

February — Linear Programming (Graphical and simplex method)

March — Binomial Thm, Permutation, Combination

April — Differentiation, Application of Differentiation, integration.

Mayju  
14/02/2024

  
PRINCIPAL  
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REHRAMPUR (Badrakh)

# Lesson Plan for session 2023-2024

Name of Assistant Professor - Dr. Manju Devi

Class - B.Sc II<sup>nd</sup> (IV<sup>th</sup> Sem)  
/ B.A II<sup>nd</sup>

Subject - Mathematics

Paper - Sequence and Series

Months :-

Topic to be covered.

January

- 1<sup>st</sup> week - Boundedness of the set of real nos, lub, glb of a set, nbd  
2<sup>nd</sup> week - interior points, isolated points, open set, closed set,  
3<sup>rd</sup> week - interior of set, closure of set and their properties  
4<sup>th</sup> week - Bolzano Weierstrass thm, open covers, Compact set, Heine  
Borel thm.

February -

- 1<sup>st</sup> week - Real sequence and their convergence, thm on limits of sq,  
2<sup>nd</sup> week - Bdd and Monotonic sequence, Cauchy sequence, Cauchy's general  
Principle of Convergence, Subsequence  
3<sup>rd</sup> week - Infinite Series, Comparison test of Positive Terms infinite  
series, C.G.P of series,  
4<sup>th</sup> week - Convergence / divergence of geometric series, P-series

March

- 1<sup>st</sup> week - D'Alembert's Ratio test, Cauchy root test  
2<sup>nd</sup> week - Raabe's test, Logarithmic test, de Morgan and  
Bertrand's test.  
3<sup>rd</sup> week - Gauss test, Cauchy's integral test, Cauchy condensation Test.  
4<sup>th</sup> week - Holi Break

April: 1<sup>st</sup> week - Leibnitz test, absolute and conditional convergence

2<sup>nd</sup> week - Arbitrary series, Abel's Lemma, Dirichlet test,

3<sup>rd</sup> week - Arbitrary series, Infinite Products

4<sup>th</sup> week - Revision, Test

Manju Devi  
11/11/2024

Principal  
GOVT. COLLEGE  
REHMA

Lesson Plan for session 2023-2024

Name of Assistant Professor - Dr. Manya Devi, class B.Sc/BA <sup>III<sup>th</sup></sup> Sem

Subject - Mathematics

Paper - Programming in C and Numerical method (Practical)

Months

Topics to be covered

January -

1. Program to find sum of three numbers
2. Program to calculate Compound interest
3. Program to find greatest of three nos.

February -

1. Program to generate first n prime numbers
2. Program to solve a quadratic equations.
3. Program to execute Bisection Method

March

1. Program to demonstrate Regula-falsi Method.
2. Program to execute Newton Raphson Method.
3. Program to demonstrate Gauss elimination Method

April

1. Program to demonstrate Gauss Seidal Method
2. Program to demonstrate Gauss Jordan Method
3. Program to demonstrate Crout's Method

Manya Devi  
01/01/2024

Principal  
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BEHRAMPUR (Bardoli)