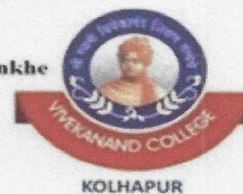


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DEPARTMENT OF MATHEMATICS

Course Outcomes (COs)

B.Sc. Part II Mathematics (Introduced in year 2024-25)	
Semester III	
Multivariable Calculus (DSC03MAT31)	
CO No.	On completion of the course, the students will be able to:
CO1	Understand computation of Jacobians of several variables and their applications.
CO2	Series expansion of two variable functions and applications of Lagrange's method to compute maxima/minima.
CO3	Understand concept of vector differentiation and meaning of gradient, divergence and curl.
CO4	Understand concept of vector integration to transform line integral to surface integral surface to volume integral and vice versa.
Integral Calculus (DSC03MAT32)	
CO No.	On completion of the course, the students will be able to:
CO1	Acquire the information about beta, gamma function and evaluate it in various problems
CO2	Apply Leibnitz rule for differential under integral sign
CO3	Learn definition of Fourier Series, Odd and Even Functions, Half range series.
CO4	Use the knowledge of double and triple integrals for finding area and volume
Calculus of Multiple Variables (MIN03MAT31)	
CO No.	On completion of the course, the students will be able to:
CO1	Understand computation of Jacobians of several variables and their applications.
CO2	Series expansion of two variable functions and applications of Lagrange's method to compute maxima/minima.
CO3	Understand concept of vector differentiation and meaning of gradient, divergence and curl.
CO4	Understand concept of vector integration to transform line integral to surface integral surface to volume integral and vice versa.
Calculus of Integrable functions (MIN03MAT32)	
CO No.	On completion of the course, the students will be able to:
CO1	Acquire the information about beta, gamma function and evaluate it in various problems
CO2	Apply Leibnitz rule for differential under integral sign
CO3	Learn definition of Fourier Series, Odd and Even Functions, Half range series.
CO4	Use the knowledge of double and triple integrals for finding area and volume



Author
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DEPARTMENT OF MATHEMATICS

Course Outcomes (COs)

B.Sc. Part II Mathematics (Introduced in year 2024-25)	
Semester IV	
Discrete Mathematics (DSC03MAT41)	
CO No.	On completion of the course, the students will be able to:
CO1	Understand Recurrence Relation, generating functions and solving problems involving recurrence equations.
CO2	Understand basic concept of graph theory to apply in various fields.
CO3	Formulate Recurrence Relations to solve problems involving an unknown sequence.
CO4	Familiarize with the types of graphs, types of paths and their properties.
Integral Transform (DSC03MAT42)	
CO No.	On completion of the course, the students will be able to:
CO1	Recognize the different methods of finding Laplace transforms and Fourier transforms of different functions.
CO2	Explain the applications and the usefulness of these special functions.
CO3	Determine Fourier transform, Relation between Laplace and Fourier Transform. .
CO4	Apply the knowledge of Laplace transforms, Fourier transforms and Finite Fourier transforms in finding the solutions of differential equations,
Graph Theory and Recurrence Relations (MIN03MAT41)	
CO No.	On completion of the course, the students will be able to:
CO1	Understand Recurrence Relation, generating functions and solving problems involving recurrence equations.
CO2	Understand basic concept of graph theory to apply in various fields.
CO3	Formulate Recurrence Relations to solve problems involving an unknown sequence.
CO4	Familiarize with the types of graphs, types of paths and their properties.
Laplace and Fourier Transformations (MIN03MAT42)	
CO No.	On completion of the course, the students will be able to:
CO1	Recognize the different methods of finding Laplace transforms and Fourier transforms of different functions.
CO2	Explain the applications and the usefulness of these special functions.
CO3	Determine Fourier transform, Relation between Laplace and Fourier Transform.
CO4	Apply the knowledge of Laplace transforms, Fourier transforms and Finite Fourier transforms in finding the solutions of differential equations.



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