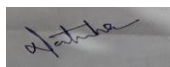


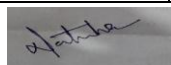
Name of College : Government College for Women, Shahzadpur (Ambala)				
Academic Session : Sept- Dec.(2022-23)				
Class : B.Sc. I Year				
Paper : Calculus(BM-112)				
Teacher's Name :Ms. Natasha,Assistant Professor (Mathematics)				
Month	Dates	Topic to be covered	Academic Activity to be organized	Assignments /Tests etc.
September	1-3	Limits and its basic properties		
	5-10	Continuous functions and Classification of discontinuities		Test
	12-17	Differentiability and successive differentiation		
	19-24	Leibnitz theorem, Maclaurin and Taylor's series expansion		
	27-30	Taylor's series expansion		Assignment 1
October	01,3-8	Asymptotes in cartesian coordinate, intersection of curve and its asymptotes		
	10-15	Asymptotes in polar coordinates ,Types of cusps		
	17-21	Tests for concavity and convexity ,point of inflexion		Doubt session
	27-31	Multiple roots , cusps nodes and conjugate points		test
November	01-05	Curvature , Radius of curvature for cartesian curves		
	07-12	Polar curves ,radius of curvature for pedal curves		
	14-19	Quadrature sectorial area		
	21-26	Reduction formulae,rectification		
	28-30	Intrinsic equations of curve, tracing of curve		Assignment 2
December	01-03	Area bounded by closed curves		
	05-10	Volume and surfaces of solid of revolution		
	12-17	Theorems of pappu's and Guilden ,		Revision/Test 2
	19-24	Revision		



Natasha

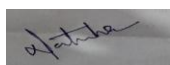
Asst. Prof. in Mathematics

Name of College : Government College for Women, Shahzadpur (Ambala)				
Academic Session : Sept- Dec(2022-23)				
Class : B.Sc. I Year				
Paper : Partial Differential Equations (BM-232)				
Teacher's Name :Ms. Natasha, Assistant Professor (Mathematics)				
Month	Dates	Topic to be covered	Academic Activity to be organized	Assignments /Tests etc.
September	1-3	Partial differential equations: Formation, order and degree,		
	5-10	Linear and Non-Linear Partial differential equations of the first order: Complete solution, singular solution, Generalsolution,		Test
	12-17	Solution of Lagrange's linear equations, Charpit's general method of solution		
	19-24	Compatible systems of first order equations, Jacobi's method.		
	27-30	Linear partial differential equations of second and higher orders		Assignment 1
October	01,3-8	Linear and non-linear homogenous and non-homogenous equations with constant co-efficients		
	10-15	Partial differential equation with variable co-efficients reducible to equations with constant coefficients,		
	17-21	their complimentary functions and particular Integrals, Equations reducible to linear equations with constant co-efficients.		Doubt session
	27-31	their complimentary functions and particular Integrals, Equations reducible to linear equations with constant co-efficients.		Test
November	01-05	Classification of linear partial differential equations of second order, Hyperbolic, parabolic and elliptic types,		
	07-12	Reduction of second order linear partial differential equations to Canonical (Normal) forms and their solutions		
	14-19	Solution of linear hyperbolic equations		Test
	21-26	Monge's method for partial differential equations of second order		
	28-30	Monge's method for partial differential equations of second order		Assignment 2
December	01-03	Cauchy's problem for second order partial differential equations, Characteristic equations and characteristic curves of second order partial differential equation		
	05-10	Method of separation of variables: Solution of Laplace's equation,		
	12-17	Wave equation (one and two dimensions), Diffusion (Heat) equation,		Revision/Test 2
	19-24	Revision		



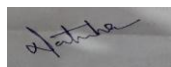
Natasha, Asst. Prof. in Mathematics

Name of College : Government College for Women, Shahzadpur (Ambala)				
Academic Session : Sept-Dec.(2022-23)				
Class : B.Sc. IInd Year				
Paper : Statics(BM-233)				
Teacher's Name :Ms. Natasha,Assistant Professor (Mathematics)				
Month	Dates	Topic to be covered	Academic Activity to be organized	Assignments /Tests etc.
September	1-3	Composition and resolution of forces		
	5-10	Composition and resolution of forces		
	12-17	Composition and resolution of forces		
	19-24	Parallel forces		
	27-30	Moments		Assignment 1
October	01,3-8	Couples		
	10-15	Analytical conditions of equilibrium of coplanar forces		
	17-21	Analytical conditions of equilibrium of coplanar forces		Doubt session
	27-31	Centre of Gravity.		Test
November	01-05	Virtual work		
	07-12	Forces in three dimensions		
	14-19	Forces in three dimensions		
	21-26	Poinsots central axis		
	28-30	Wrenches		Assignment 2
December	01-03	Null lines and planes		
	05-10	Stable and unstable equilibrium		
	12-17	Friction		Revision/Test 2
	19-24	Revision		



Natasha
Asst. Prof. in Mathematics

Name of College : Government College for Women, Shahzadpur (Ambala) Academic Session : Sept-(2022-23) Class : B.Sc. IIIrd Year Paper : Group and Rings (BM-352) Teacher's Name : Ms. Natasha, Assistant Professor (Mathematics)				
Month	Dates	Topic to be covered	Academic Activity to be organized	Assignments /Tests etc.
September	1-3	Definition of a group with example and,		
	5-10	simple properties of groups		
	12-17	Subgroups and Subgroup criteria, Generation of groups		
	19-24	cyclic groups,		
	27-30	Cosets, Left and right cosets, Index of a sub-group		Assignment 1
October	01,3-8	Coset decomposition, Lagrange's theorem and its consequences		
	10-15	Normal subgroups, Quotient groups		
	17-21	Homomorphisms, isomorphisms, automorphisms and inner automorphisms of a group. Automorphisms of cyclic groups		Doubt session
	27-31	Permutations groups. Even and odd permutations		test
November	01-05	Alternating groups, Cayley's theorem,		
	07-12	Center of a group and derived group of a group.		
	14-19	Introduction to rings, subrings, integral domains and fields, Characteristics of a ring		
	21-26	Ring homomorphisms, ideals (prime and Maximal)		
	28-30	Quotient rings, Field of quotients of an integral domain.		Assignment 2
December	01-03	Euclidean rings, Polynomial rings, Polynomials over the rational field		
	05-10	The Eisenstein's criterion, Polynomial rings over commutative rings,		
	12-17	Unique factorization domain, R unique factorization domain implies so is $R[X_1, X_2, \dots, X_n]$		Revision/Test 2
	19-24	Revision		



Natasha
Asst. Prof. in Mathematics

