

IIT JAM - CUET PG Mathematics 2027

CLASS PLANNER (SUB CODE : SCQP19)

CHAPTERS	Topics	Day & DATE	TIME
Modern Algebra	Orientation	Wednesday, September 16, 2026	3:01 PM - 3:15 PM
	Groups, subgroups	Wednesday, September 16, 2026	3:00 PM - 4:00 PM
	Abelian groups, non-abelian groups	Friday, September 18, 2026	3:00 PM - 4:00 PM
	cyclic groups	Monday, September 21, 2026	3:00 PM - 4:00 PM
	permutation groups	Wednesday, September 23, 2026	3:00 PM - 4:00 PM
	Normal subgroups	Friday, September 25, 2026	3:00 PM - 4:00 PM
	Lagrange's Theorem for finite groups	Monday, September 28, 2026	3:00 PM - 4:00 PM
	group homomorphism and quotient groups	Wednesday, September 30, 2026	3:00 PM - 4:00 PM
	Rings part 1	Monday, October 5, 2026	3:00 PM - 4:00 PM
	Rings part 2	Wednesday, October 7, 2026	3:00 PM - 4:00 PM
	Fields part 1	Friday, October 9, 2026	3:00 PM - 4:00 PM
	Questions Practice	Monday, October 12, 2026	3:00 PM - 4:00 PM
	Vector spaces, Linear dependence and Independence of vectors	Wednesday, October 14, 2026	3:00 PM - 4:00 PM
	basis, dimension	Friday, October 16, 2026	3:00 PM - 4:00 PM
	linear transformations, matrix representation with respect to an ordered basis	Monday, October 19, 2026	3:00 PM - 4:00 PM
	Range space and null space, rank-nullity theorem	Wednesday, October 21, 2026	3:00 PM - 4:00 PM
	Rank and inverse of a matrix, determinant	Friday, October 23, 2026	3:00 PM - 4:00 PM
	solutions of systems of linear equations, consistency, Inconsistency	Monday, October 26, 2026	3:00 PM - 4:00 PM
Linear algebra	Eigenvalues and eigenvectors, Cayley-Hamilton theorem	Wednesday, October 28, 2026	3:00 PM - 4:00 PM
	Symmetric, Skew symmetric, Hermitian, Skew-Hermitian, Orthogonal and Unitary matrices.	Friday, October 30, 2026	3:00 PM - 4:00 PM
	Questions Practice	Thursday, November 5, 2026	3:00 PM - 4:00 PM
	Sequences – Basic Concepts & Convergence	Friday, November 6, 2026	3:00 PM - 4:00 PM
	Divergent, Bounded & Monotone Sequences	Tuesday, November 10, 2026	3:00 PM - 4:00 PM
Real analysis part 1	Convergence Criteria, Cauchy Sequences	Wednesday, November 11, 2026	3:00 PM - 4:00 PM
	Series – Absolute & Conditional Convergence	Thursday, November 12, 2026	3:00 PM - 4:00 PM
	Comparison & Limit Comparison Tests	Friday, November 13, 2026	3:00 PM - 4:00 PM
	Ratio & Root Tests	Monday, November 16, 2026	3:00 PM - 4:00 PM
	Leibniz Test & Alternating Series	Tuesday, November 17, 2026	3:00 PM - 4:00 PM
	Questions Practice	Wednesday, November 18, 2026	3:00 PM - 4:00 PM
	Functions of One Variable – Limits & Continuity	Thursday, November 19, 2026	3:00 PM - 4:00 PM
	Differentiation & Rolle's Theorem	Friday, November 20, 2026	3:00 PM - 4:00 PM
	Cauchy's Theorem & Taylor's Theorem	Monday, November 23, 2026	3:00 PM - 4:00 PM
	Point set topology	Tuesday, November 24, 2026	3:00 PM - 4:00 PM
Real analysis part 2 Functions of 1 variable	Interior, Limit & Accumulation Points, Connected & Compact Sets, Open, Closed & Bounded Sets	Wednesday, November 25, 2026	3:00 PM - 4:00 PM
	Power series (of real variable) including Taylor's and Maclaurin's, domain of convergence	Thursday, November 26, 2026	3:00 PM - 4:00 PM
	term-wise differentiation and integration of power series	Friday, November 27, 2026	3:00 PM - 4:00 PM
	Functions of Two Variables – Limits & Continuity	Monday, November 30, 2026	3:00 PM - 4:00 PM
	Partial Derivatives & Differentiability	Tuesday, December 1, 2026	3:00 PM - 4:00 PM
Real analysis part 3 Functions of 2 variable	Maxima & Minima of Two Variables	Wednesday, December 2, 2026	3:00 PM - 4:00 PM
	Lagrange Multipliers	Thursday, December 3, 2026	3:00 PM - 4:00 PM
	Method of Lagrange multipliers, Homogeneous functions including Euler's theorem	Friday, December 4, 2026	3:00 PM - 4:00 PM
	Questions Practice	Monday, December 7, 2026	3:00 PM - 4:00 PM
	ODE(Basics), Bernoulli's equation,	Tuesday, December 8, 2026	3:00 PM - 4:00 PM
Differential Equations	exact differential equations, integrating factor, Orthogonal trajectories,	Wednesday, December 9, 2026	3:00 PM - 4:00 PM
	Homogeneous differential equations-separable solutions	Thursday, December 10, 2026	3:00 PM - 4:00 PM
	Linear differential equations of second and higher order with constant coefficients	Friday, December 11, 2026	3:00 PM - 4:00 PM
	method of variation of parameters, Cauchy-Euler equation	Monday, December 14, 2026	3:00 PM - 4:00 PM
	Questions Practice	Tuesday, December 15, 2026	3:00 PM - 4:00 PM
Integral Calculus:	Basics: definite integrals and their properties, Fundamental theorem of integral calculus, Double and triple integrals & change of order of integration	Wednesday, December 16, 2026	3:00 PM - 4:00 PM
	Abelian groups, non-abelian groups	Thursday, December 17, 2026	3:00 PM - 4:00 PM
	Calculating volumes using triple integrals and applications.	Friday, December 18, 2026	3:00 PM - 4:00 PM
	Questions Practice	Monday, December 21, 2026	3:00 PM - 4:00 PM
Vector Calculus:	Basics: Scalar and vector fields, gradient, divergence, curl and Laplacian, Scalar line integrals and vector line integrals	Tuesday, December 22, 2026	3:00 PM - 4:00 PM
	scalar surface integrals and vector surface integrals, Green's, Stokes and Gauss theorems and their applications.	Wednesday, December 23, 2026	3:00 PM - 4:00 PM
	Questions Practice	Thursday, December 24, 2026	3:00 PM - 4:00 PM
Complex analysis	Functions of a complex Variable, Differentiability and analyticity, Cauchy Riemann Equations, harmonic functions	Monday, December 28, 2026	3:00 PM - 4:00 PM
	Power series as an analytic function, properties of line integrals & Goursat Theorem	Tuesday, December 29, 2026	3:00 PM - 4:00 PM
	Cauchy theorem, consequence of simply connectivity, index of a closed curves, Cauchy's integral formula	Wednesday, December 30, 2026	3:00 PM - 4:00 PM
	Morera's theorem, Liouville's theorem, Fundamental theorem of Algebra,	Thursday, December 31, 2026	3:00 PM - 4:00 PM
	Questions Practice	Monday, January 4, 2027	3:00 PM - 4:00 PM
	Basics: Convex sets, extreme points, convex hull, hyper plane & polyhedral Sets, convex function and concave functions	Tuesday, January 5, 2027	3:00 PM - 4:00 PM
Linear Programming	Concept of basis, basic feasible solutions, Formulation of Linear Programming Problem (LPP)	Wednesday, January 6, 2027	3:00 PM - 4:00 PM
	Graphical Method of LPP & Simplex method	Thursday, January 7, 2027	3:00 PM - 4:00 PM
	Questions Practice	Friday, January 8, 2027	3:00 PM - 4:00 PM