

Lesson Plan for (2019-20)

**MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans
Session – 2019-20**

**Department: Mathematics Class: M Sc I Sem 1,
Subject : MATH 604S Complex Analysis I Name of the Teacher: Dr Neela Pawar**

S. No	Dates (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
	25 nd July,	31 August ,	Complex Plane, Topology on complex plane, Analytic Functions	Doubt Session, Examination pattern discussed, Test Conducted
	1 st September	10 th October	Power Series, Exponential and Trigonometric functions, Complex Integration	Doubt session, Assignments provided Mid Term Test
	18 th October	29 th November	Cauchy's theorem, Cauchy's Integral formula. Morera's Theorem. General Form of Cauchy's theorem	Doubt session, Assignments, Question papers discussed. Revision of a few topics.

Subject: MATH 601S Real Analysis Name of the Teacher: Dr Taranjot

	25 nd July,	31 August ,	Countable and Uncountable sets, Metric Spaces, Compact sets, Perfect sets, Connected sets, Convergent and Cauchy sequences,	Syllabus intimation, Examination Pattern, marking scheme discussed, Doubt sessions
	1 st September	10 th October	Upper and lower limits of sequences, Convergence of series, Continuous functions, Continuity-compactness and connectedness, Monotonic functions, Riemann-Stieljes Integral- Definition, Existence and Properties.	Assignments, tests, Mid Term Examination
	18 th October	29 th November	Integration of real valued function, Rectifiable curves, Sequences and series of functions- Uniform convergence, Stone-Weierstrass theorem	Doubt session, Assignments, Question papers discussed. Revision of a few topics.

Subject : MATH 602S Algebra Name of the Teacher: Ms Sugandha

	25 nd July,	31 August ,	Groups, Homomorphism of groups, Permutation group and conjugate elements, Direct product of groups, Sylow theorems.	Doubt Session, Examination pattern discussed, Test Conducted
	1 st September	10 th October	Finite simple groups, Solvable groups, Fundamental theorem for finite abelian groups.	Doubt session, Assignments provided Mid Term Test held
	18 th October	29 th November	Ring, Ring Homomorphism, Some special Rings.	Doubt session, Assignments, Question papers discussed. Revision of a few topics.

Subject: MATH 603S Differential equations Name of the Teacher: Ms Chitra

	25 nd July,	31 August ,	Existence and uniqueness of solution of first order equation, Lipschitz Condition, Sturm Liouville Boundary value problem, Heat Equation, wave equation, Simultaneous Differential equation of first order and first degree in three variables	Doubt Session, Examination pattern discussed, Test Conducted
	1 st September	10 th October	Orthogonal trajectories, Pfaffian Differential Equations, Partial Differential equation of first order, Cauchy method, Charpit's method	Doubt session, Assignments provided Mid Term Test held
	18 th October	29 th November	Special type of first order equations, Partial differential equation of second and higher order, particular integral of non-homogeneous equations,	Doubt session, Assignments, Question papers discussed. Revision of a few topics

Subject: MATH 605S Number Theory Name of the Teacher: Dr Leetika

	25 nd July	31 August	Divisibility, Greatest common divisor, Euclidean Algorithm, The Fundamental Theorem of arithmetic, congruences, Special divisibility tests, Chinese remainder theorem, Fermat's little theorem, Wilson's theorem, residue classes and reduced residue classes, Euler's theorem, Arithmetic functions		Doubt Session, Examination pattern discussed, Test Conducted
	1 st September	10 th October	Mobius inversion Formula, the greatest integer function, perfect numbers, Mersenne primes and Fermat numbers. Primitive roots and indices, Quadratic residues,		Doubt session, Assignments provided Mid Term Test held
	18 th October	29 th November	Quadratic reciprocity law, Jacobi symbol, Binary quadratic forms and their reduction, sums of two and four squares, positive definite binary quadratic forms, Diophantine equations		Doubt session, Assignments, Question papers discussed. Revision of a few topics

Departmental Meeting was held after the completion of every month to review the syllabus distribution

***Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc.
Other Methods adopted by the teacher – Please write the specific teaching method