

**SARDAR PATEL UNIVERSITY**  
**Programme & Subject: M.Sc (Mathematics)**  
**Semester: IV**  
**Syllabus with Effect from: November-2013**

Course Type	Course Code	Name Of Course	Theory/practical	Credit	Contact Hrs/Week	Exam Duration in hrs	Component of Marks		
							Internal	External	Total
							Total/Passing	Total/Passing	Total/Passing
Core Course (Any Three)	PS04CMTH01	Complex Analysis - II	Theory	4	05	03	30	70	100
	PS04CMTH02	Mathematical Methods - II	Theory	4	05	03	30	70	100
	PS04CMTH04	Comprehensive Viva		1				50/20	50/20
Elective Course (Any Three)	PS04EMTH01	Problems and Exercises in Mathematics - III	Theory	4	05	03	30	70	100
	PS04EMTH02	Operator Theory	Theory	4	05	03	30	70	100
	PS04EMTH03	Differential Manifold - II	Theory	4	05	03	30	70	100
	PS04EMTH04	Harmonic Analysis - II	Theory	4	05	03	30	70	100
	PS04EMTH05	Geometric Functional Analysis	Theory	4	05	03	30	70	100
	PS04EMTH06	Geometric Topology: Homology, Degree Theory and Knots	Theory	4	05	03	30	70	100
	PS04EMTH07	Theory of Partial Differential Equations	Theory	4	05	03	30	70	100
	PS04EMTH08	Topological Groups	Theory	4	05	03	30	70	100
	PS04EMTH09	Distributions and Sobolev spaces	Theory	4	05	03	30	70	100
	PS04EMTH10	Ergodic Theory	Theory	4	05	03	30	70	100
	PS04EMTH11	Spectral Theory of Dynamical System	Theory	4	05	03	30	70	100
	PS04EMTH12	Compact Operators and Applications	Theory	4	05	03	30	70	100
	PS04EMTH13	Financial Mathematics - II	Theory	4	05	03	30	70	100
	PS04EMTH14	Stochastic Analysis	Theory	4	05	03	30	70	100
	PS04EMTH15	Relativity - II	Theory	4	05	03	30	70	100
PS04EMTH16	Fluid Dynamics - II	Theory	4	05	03	30	70	100	
PS04EMTH17	Statistical Mechanics - II	Theory	4	05	03	30	70	100	



PS04EMTH18	Quantum Mechanics - II	Theory	4	05	03	30	70	100
PS04EMTH19	Electromagnetic Theory - II	Theory	4	05	03	30	70	100
PS04EMTH20	Orbital Mechanics	Theory	4	05	03	30	70	100
PS04EMTH21	Mathematics Education - II	Theory	4	05	03	30	70	100
PS04EMTH22	Mathematical Probability Theory	Theory	4	05	03	30	70	100
PS04EMTH23	Advanced C++ Programming	Theory Practical	4	02L+4P	02+03	30	70	100
PS04EMTH24	Research Seminars - II	Theory	4	05	03	30	70	100
PS04EMTH25 and PS04EMTH26	Mathematics Dissertation	Project Work	4	05	03	30	70	100
PS04EMTH27	Banach Algebras	Theory	4	05	03	30	70	100
PS04EMTH28	C Programming and Mathematical Algorithms - II	Theory Practical	4	02L+4P	02+03	30	70	100
PS04EMTH29	Graph Theory - II	Theory	4	05	03	30	70	100
PS04EMTH30	Operations Research	Theory	4	05	03	30	70	100
PS04EMTH31	Algebra - II	Theory	4	05	03	30	70	100

