Progressive Education Society's

Modern College of Arts, Science and Commerce,

Shivajinagar, Pune 5

(An Autonomous College Affiliated to Savitribai Phule Pune University)

Framework of Syllabus

For

For B.Sc. (Mathematics)

(2019-20 Course)

(with effect from 2019-20)

Semester 1 (First Year)- B.Sc. Regular

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-1	19ScMatU101	Algebra	3	2	40	60	100
CCT-2	19ScMatU102	Differential Calculus	3	2	40	60	100
CCP-1	19ScMatU103	Mathematics Practical – I	4	2	40	60	100
Total			10	6	120	180	300

Semester 2 (First Year)- B.Sc. Regular

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-3	19ScMatU201	Analytical Geometry	3	2	40	60	100
CCT-4	19ScMatU202	Integral Calculus	3	2	40	60	100
CCP-2	19ScMatU203	Mathematics Practical – II	4	2	40	60	100
Total			10	6	120	180	300

Semester 3 (Second Year)- B.Sc. Regular

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-5	19ScMatU301	Calculus of Several Variables	4	2.5	40	60	100
Elective – I (Any one of following two)							
CCT-6	19ScMatU302A	Discrete Mathematics	4	2.5	40	60	100
	19ScMatU302B	Numerical Methods and Its Applications					
CCP-3	19ScMatU303	Mathematics Practical – III	4	2	40	60	100
Total			12	7	120	180	300

Semester 4 (Second Year)- B.Sc. Regular

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-7	19ScMatU401	Linear Algebra	4	2.5	40	60	100
Elective – II (Any one of following two)							
CCT-8	19ScMatU402A	Vector Calculus	4	2.5	40	60	100
	19ScMatU402B	Ordinary Differential Equations					
CCP-4	19ScMatU403	Mathematics Practical - IV	4	2	40	60	100
Total			12	7	120	180	300

Semester 5 (Third Year)- B.Sc. Regular

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-9	19ScMatU501	Metric Spaces	4	2.5	40	60	100
CCT-10	19ScMatU502	Real Analysis	4	2.5	40	60	100
CCT-11	19ScMatU503	Problem Solving course based on CCT-9 and CCT-10	4	2	40	60	100
CCT-12	19ScMatU504	Group Theory	4	2.5	40	60	100
CCT-13	19ScMatU505	Partial Differential Equations	4	2.5	40	60	100
CCT-14	19ScMatU506	Problem Solving course based on CCT-12 and CCT-13	4	2	40	60	100
Elective – III (Any one of following two)							
DSET-1	19ScMatU507	Operations Research	4	2.5	40	60	100
	19ScMatU508	Number Theory					
Elective – IV (Any one of following two)							
DSET-2	19ScMatU509	Laplace Transforms and Fourier Series	4	2.5	40	60	100
	19ScMatU510	Computational Geometry					
CCP-5	19ScMatU511	Mathematics Practical – VII	4	2	40	60	100
Total			**36**	**21**	**360**	**540**	**900**

Semester 6 (Third Year)- B.Sc. Regular

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-15	19ScMatU601	Complex Analysis	4	2.5	40	60	100
CCT-16	19ScMatU602	Mathematical Analysis	4	2.5	40	60	100
CCT-17	19ScMatU603	Problem Solving course based on CCT-15 and CCT-16	4	2	40	60	100
CCT-18	19ScMatU604	Ring Theory	4	2.5	40	60	100
CCT-19	19ScMatU605	Measure Theory	4	2.5	40	60	100
CCT-20	19ScMatU606	Problem Solving course based on CCT-18 and CCT-19	4	2	40	60	100
Elective – V (Any one of following two)							
DSET-3	19ScMatU607	Combinatorics	4	2.5	40	60	100
	19ScMatU608	Dynamical Systems					
Elective – VI (Any one of following two)							
DSET-4	19ScMatU609	Financial Mathematics	4	2.5	40	60	100
	19ScMatU610	C Programming Language					
CCP-6	19ScMatU611	Mathematics Practical – X	4	2	40	60	100
Total			**36**	**21**	**360**	**540**	**900**