

BS (4 Years) Mathematics (COMBINATION-I)

Scheme of Studies

Course Title	Course Code	Course Hours
SEMESTER-I		
Islamiat/Ethics	ISE-111	2
English-I (Language in Use)	ENG-111	3
Computer (Introduction and Applications)	COMP-111	3
Mathematics A-I [Calculus (I)]	MATH-101	4
Mathematics B-I [Vectors & Mechanics (I)]	MATH-102	4
Physics-I	PHY-111	3
Physics Lab-I	PHY-112	1
Semester's Total Credits		20
SEMESTER-II		
Pakistan Studies	PST-111	2
English-II (Academic Reading and Writing)	ENG-112	3
Physics-II	PHY-113	3
Physics Lab-II	PHY-114	1
Mathematics A-II [Plane Curves & Analytic Geometry]	MATH-103	4
Mathematics B-II [Mechanics (II)]	MATH-104	4
Discrete Mathematics	MATH-105	2
Semester's Total Credits		19
SEMESTER-III		
English-III (Communication Skills)	ENG-211	3
Physics-III	PHY-211	3
Physics Lab-III	PHY-212	1
Mathematics A-III [Linear Algebra]	MATH-201	4
Mathematics B-III [Calculus (II)]	MATH-202	4
Graph Theory	MATH-205	2
Semester's Total Credits		17
SEMESTER-IV		
English-IV (English for Practical Aims)	ENG-212	3
Physics-IV	PHY-213	3
Physics Lab-IV	PHY-214	1
Mathematics A-IV [Ordinary Differential Equations]	MATH-203	4
Mathematics B-IV [Metric Spaces & Group Theory]	MATH-204	4
Introduction to Sociology	SOC-211	3
Elementary Number Theory	MATH-206	2
Semester's Total Credits		20
SEMESTER-V		
Real Analysis –I	MATH-301	3
Group Theory-I	MATH -302	3
Complex Analysis-I	MATH -303	3
Vector and Tensor Analysis	MATH -304	3
Topology	MATH -305	3
Differential Geometry	MATH -306	3
Semester's Total Credits		18
SEMESTER-VI		
Real Analysis –II	MATH-307	3
Rings and Vector Spaces	MATH -308	3

Complex Analysis – II	MATH -309	3
Mechanics	MATH -310	3
Functional Analysis-I	MATH-311	3
Ordinary Differential Equations	MATH-312	3
Semester's Total Credits		18
SEMESTER-VII		
Set Theory	MATH-401	3
Partial Differential Equations	MATH-402	3
Numerical Analysis-I	MATH-403	3
Any two of the following		
Mathematical Statistics-I	MATH-404	3
Fortran Programming	MATH-405	3
Group Theory-II	MATH-406	3
Ring Theory	MATH-407	3
Number Theory-I	MATH-408	3
Quantum Mechanics-I	MATH-409	3
Analytical Dynamics	MATH-410	3
Electromagnetic Theory-I	MATH-411	3
Operations Research-I	MATH-412	3
Theory of Approximation and Splines-I	MATH-413	3
Functional Analysis- II	MATH-414	3
Fluid Mechanics-I	MATH-415	3
Semester's Total Credits		15
SEMESTER-VIII		
Measure Theory and Lebesgue Integration	MATH-416	3
Methods of Mathematical Physics	MATH-417	3
Numerical Analysis-II	MATH-418	3
Any two of the following		
Mathematical Statistics-II	MATH-419	3
Computer Applications	MATH-421	3
Group Theory-III	MATH-422	3
Theory of Modules	MATH-423	3
Number Theory-II	MATH-424	3
Quantum Mechanics-II	MATH-425	3
Special theory of Relativity	MATH-426	3
Electromagnetic Theory-II	MATH-427	3
Operations Research-II	MATH-428	3
Theory of Approximation and Splines-II	MATH-429	3
Functional Analysis-III	MATH-430	3
Fluid Mechanics-II	MATH-431	3
Semester's Total Credits		15