

4. MASTER OF SCIENCE IN MATHEMATICS. (M.SC. IN MATHEMATICS.)

Structure and Brief Syllabi of M.Sc. in Mathematics.

Objective: - Analytical and quantitative skills in general are sought by a wide range of employers. A sound knowledge of mathematics is important in most other areas of science, economics, medicine and engineering. Mathematics is also a cornerstone for decision making and various quantitative activities in commerce, industry, education and defence. From direct and daily experience, most companies and organisations have realised that success depends critically on the level of analytical, quantitative and statistical skills of their workforce and they therefore seek employees with a sound mathematical training.

Mathematics will continue to be an important part of the school curriculum, so mathematics subject studied at university will provide the prospective teacher with a mature understanding of school mathematics and the wider place of the subject in human activities.

Eligibility Criteria for Admission: – Graduate in Mathematics

Scheme of Examination-M.Sc. in Mathematics is of two years duration divided into Part-I and Part-II, each Part consisting of eight papers. Each paper carries 100 marks, divided into term end theoretical written examination and home assignment in a ratio of 80:20. Failure in one paper will mean failure in that Part of the examination. Hence, students must strive to pass in all the papers. It is necessary to pass Part-I of the examination before a student can be promoted to Part-II. In order to pass each part of the examination, it is, now, compulsory for every student, to secure atleast 33% of marks in each paper. To determine 33% of marks in each paper, the marks obtained by the candidate, both in the term end theoretical written examination and the home assignment, will be clubbed and counted together and percentage determined accordingly. However, if a candidate has failed to appear or secured zero mark in term end theoretical examination or home assignment, in any paper, he/she will be deemed to have failed in that paper and the part. The abstract of the syllabus of M.Sc. in Mathematics course is as below

Paper	Title of the paper	Distribution of Marks between Theory and Assignment		Minimum Marks required to pass the examination (written exam.+ Assignment)
		Written exam	Assignment	
PART-I				
1.	Advanced Abstract Algebra	80	20	33
2	Real Analysis	80	20	33
3	Measure Theory	80	20	33
4	Topology	80	20	33
5	Linear Algebra, Lattice Theory, and Boolean Algebra	80	20	33
6	Complex Analysis	80	20	33
7	Theory of Differential Equations	80	20	33
8	Set theory, Graph theory, Number theory, Differential Geometry	80	20	33
Total		640	160	264
PART-II				
9	Numerical Analysis	80	20	33
10	Functional Analysis	80	20	33
11	Partial Differential Equations	80	20	33
12	Analytical Dynamics	80	20	33
13	Fluid Mechanics	80	20	33
14	Operations Research	80	20	33
15	Tensor Algebra. Integral Transforms, Linear integral equations, Operational Research Modelling	80	20	33
16	Programming in C (with ANST' Features)	80	20	33
Total		640	160	264