

SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc – Information Technology (Integrated)
Semester: II
Syllabus with Effect from: June-2012

Paper Code: PS02FIIT02	Total Credit: 2
Title Of Paper: Mathematics - II	

Unit	Description in detail	Weightage (%)
I	Set theory Set operations, Algebra of sets: Finite sets, power sets, Mathematical induction, Symmetric differences, Functions: Composition functions, one to one, onto and invertible function. Recursively defined functions, Polynomial functions	25%
II	Algebraic System Binary operations, Semigroups, Groups, Homomorphism, Rings, Integral domains, Fields.	25%
III	Combinatorial Analysis Counting principle, binomial coefficients, permutations and combinations.	25%
IV	Data Analysis Measures of dispersions: range; quartile deviation; mean deviations, standard deviations; measure of skewness; Correlation, Regression : method of least square.	25%

Basic Text & Reference Books:-

- S.Lipschutz and Marc Lars Lipson : Discrete Mathematics, Schaum's series (International edition, 1992).
- Vinay Kumar: Discrete Mathematics (BPB Publication, First edition-2002)
- S. C. Gupta, Fundamentals of Statistics, Himalaya Publishing House, 2004

