SYLLABUS

MATHEMATICS – I(B)   FIRST YEAR

S.No.	TOPIC
	Prerequisites - Introduction
0.1	Prerequisites
1	**Locus**
	Introduction
1.1	Definition of Locus- IIIustrations
1.2	Equation of Locus-Problems connected to it
2	**Transformation of Axes**
	Introduction
2.1	Transformation of axes-Rules,derivations and illustratiorts
2.2	Rotation of axes-Derivations-Illustrations
3	**The Straight Line - Introduction**
3.1	Revision of fundamental results
3.2	Straight line- Normal form-Illustrations
3.3	Straight line-Symmetric form
3.4	Straight line-Reduction into various forms
3.5	Intersection of two straight lines
3.6	Family of straight lines-Concurrent lines
3.7	Condition for Concurrent lines
3.8	Angle between two lines
3.9	Length of the perpendicular from a point to a line
3.10	Distance between two parallel lines
3.11	Concurrent lines- Properties related to a –triangle
4	**Pair of Straight Lines - Introduction**
4.1	Equations of a pair of lines passing through the origin Angle between a pair of lines
4.2	Condition for perpendicular and coincident lines, bisectors of angles
4.3	Pair of bisectors of angles
4.4	Pair- of lines – Second degree general equation
4.5	Conditions for parallel lines- Distance between them, Point of intersection of pair of lines
4.6	Homogenising a second degree equation with a first degree equation in x and y
5	**Three Dimensional Coordinates - Introduction**
5.1	Coordinates
5.2	Section formula
5.3	Solved Problems
6	**Direction Cosines and Direction Ratios - Introduction**
6.1	Direction cosines
	Direction ratios
7	**The Plane - Introduction**
7.1	Cartesian equation of a plane- Simple illustrations
8	**Limits and Continuity - Introduction**