SARDAR PATEL UNIVERSITY
Programme & Subject: B.Sc (Mathematics)
Semester: III
Syllabus with Effect from: June-2012

Paper Code: US03EMTH02	Total Credit: 2
Title Of Paper: Mathematical Methods - I	

Unit	Description in detail	Weighting (%)
I	Differential Equations of First Order ; Methods of solution of Equations of the First Order and First Degree Differential Equations : Variable Separable, Homogeneous equations, Linear equations.	
II	Application of Differential Equations of First Order : Physical Applications , Simple Electric Circuit , Newton's Law Of Cooling .	
III	Application of Differential Equations of First Order: Heat Flow ,Rate of Decay of Radio-Active Materials , Chemical Reactions and Solutions.	
IV	Application of Linear Differential Equations of First Order : Sim-ple harmonic motion , Oscillations , Simple Pendulum ,Oscllatory electricalcircuits , Defection of Beams .	

Basic Text & Reference Books:-

- B.S.Grewal,Higher Engineering Mathematics,Khanna Publishers,Delhi.
- E.Kreyszing ,Advanced Engineering Mathematics,Fifth edition,New Age International (p) Ltd.,New Delhi,1997.
- K.R.Kachot,Higher Engineering Mathematics.