FMCC702 MEASURE THEORY(3-1-0)

Module – I : (16 Hours)

Priliminary idea anbout set theory,functions and mappings,sequence and series metric space,topological space, cardinal numbers and cantor like sets.

Measure on the real line:

Lebesgue outer measure,measurableset,regularity,measurablefunctions,Borel and Lebesgue measurability.

Module –II : (12 Hours)

Integrations of functions of Real variables:

Integrations of non negativefunctions,The general integral,Integration of series, Lebesgue and Riemann integrals.

Module –III : (12 Hours)

Differentions:

The four derivatives, Continuous non differentiable functions.Functions of bounded variations,Lebesgue'sdifferentiontheorem,Differention and Integration,TheLebesgue set

Text Book :

Measure theory and integration by G. De. Barra. [New Age International (P) ltd]

Chapter 1,chapter 2(2.1 to 2.5),chapter 3,chapter 4.

Refference books:

(1) Real Analysis by H L Royden (Prentice Hall)
(2) Methods of Real Analysis by R Goldberg (Oxford IBM Publications)
(3) Lebesgue Measure and Integrations by P K Jain and V P Gupta (Wiley Eastern Limited)