APPLIED MATHEMATICS-II (15BS1104)

Module - I (10 Hours)

Laplace transformation and its use in getting solution to differential equations, Convolution, Integral

Equations.

Module - II (12 Hours)

Fourier series, Fourier expansion of functions of any period, Even and odd functions, Half range

Expansion , Fourier transform and Fourier Integral, Gamma, Beta functions, error function

Module - III (10 Hours)

Vector differential calculus: vector and scalar functions and fields, Derivatives, Curves, tangents and arc

Length, gradient, divergence, curl

Module - IV (13 Hours)

Vector integral calculus: Line Integrals, Green Theorem, Surface integrals, Gauss theorem and Stokes

Theorem

Text Book

1. Advanced Engineering Mathematics by E. Kreyszig, John Willey & Sons Inc. 10th Edition Chapters 6, 9, 10,11

Reference Books:

1. Higher Engineering Mathematics by B. V. Ramana , Mc Graw Hill Education
2. Engineering Mathematics by .Pal and s. Bhunia, Oxford Publication
3. Advance Engineering Mathematics by P.V. O'Neil, CENGAGE