CE/BOS/MATH 201/0210

K L UNIVERSITY

MATHEMATICS – 3 (MATH C 201)

SYLLABUS

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3	0	0	3

UNIT – 1   Fourier Series and Transforms
Fourier series, Even and odd functions, half range series, Parsevalls formula, Fourier Integrals, Fourier sine and cosine Integrals, Fourier transform, Fourier sine and cosine transforms

UNIT – 2   Complex Analysis
Complex Numbers, Complex Plane, Continuity and Derivative, C.R Equations, Analytic Equations, Harmonic function, Orthogonal system, Line integrals in Complex plane, Cauchy Integral Formula

UNIT – 3   Derivatives of Analytic Function
Laurent Series, Singularities and Zeros, Residue Theorem Evalution of Real Integrals

UNIT – 4   Partial Differential Equations
Formation, Solution of P.D.E., Equation solvable by direct Integration method, Linear and Non Linear Equations of first order, Char pits method, Homogeneous and Non homogeneous linear equations with 1st order

UNIT – 5   Probability Densities
Continuous Random variable, Normal Distribution, Normal approximation to Binomial Distribution, Beta and Gamma Distributions

TEXT BOOKS:
1. Higher Engineering Mathematics by B.S. Grewal, Khanna Publishers, 2006, 5th Edition
2. Advanced Engineering Mathematics by Kreyszig, John Wiley & Sons, 9th Edition

REFERENCE BOOK:
1. Engineering Mathematics by B.V. Ramana, Tata MacGraw Hill Publishers