NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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NPTEL Video Course - Basic Courses (Semester 1 and 2) - Mathematics III
Subject Co-ordinator - Prof. P.N. Agrawal, Dr. Tanuja Srivastava
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Solution of ODE of First Order and First Degree
Lecture 2 - Linear Differential Equations of the First Order
Lecture 3 - Approximate Solution of An Initial Value
Lecture 4 - Series Solution of Homogeneous Linear I
Lecture 5 - Series Solution of Homogeneous Linear II
Lecture 6 - Bessel Functions and Their Properties
Lecture 7 - Bessel Functions And Their Properties (Continued..)
Lecture 8 - Laplace Transformation
Lecture 9 - Laplace Transformation (Continued..)
Lecture 10 - Applications Of Laplace Transformation
Lecture 11 - Applications Of Laplace Transformation (Continued..)
Lecture 12 - One Dimensional Wave Equation
Lecture 13 - One Dimensional Heat Equation
Lecture 14 - Introduction to Differential Equation
Lecture 15 - First Order Differential Equations and Their Geometric Interpretation
Lecture 16 - Differential Equations of First Order Higher Degree
Lecture 17 - Linear Differential Equation of Second Order-Part - 1
Lecture 18 - Linear Differential equation of Second Order-Part - 2
Lecture 19 - Euler-Cauchy Theorem
Lecture 20 - Higher Order Linear Differential Equations
Lecture 21 - Higher Order Non homogeneous Linear Equations
Lecture 22 - Boundary Value Problems
Lecture 23 - Strum Liouville boundary Value Problem
Lecture 24 - Fourier Series-Part - 1
Lecture 25 - Fourier Series-Part - 2
Lecture 26 - Convergence of the Fourier Series
Lecture 27 - Fourier Integrals
Lecture 28 - Fourier Transforms
Lecture 29 - Partial Differential Equation
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Lecture 30 - First Order Partial Differential Equation
Lecture 31 - Second Order Partial Differential Equations - I
Lecture 32 - Second Order Partial Differential Equations - II
Lecture 33 - Solution of One Dimensional Wave Equation
Lecture 34 - Solution of HomogeneousNon Homogeneous Equations
Lecture 35 - Fourier Integral Transform Method for Heat Equation
Lecture 36 - Three Dimensional Laplace Equation
Lecture 37 - Solution of Drichlet Problem
Lecture 38 - Numerical Method for Laplace Poisson equation
Lecture 39 - ADI Method for Laplace and Poisson Equation