

Lesson Plan

Name of the Assistant/ Associate Professor..... Rajni

Class and Section:..... B.A. (Ed Sem) 4th (Special Functions and Integral

Subject:..... Mathematics..... Transforms

Week	Date	Topics
1	1-Jan-18	
	2-Jan-18	
	3-Jan-18	
	4-Jan-18	
	5-Jan-18	
	6-Jan-18	
	7-Jan-18	Sunday
2	8-Jan-18	Power Series, Convergence of Power Series
	9-Jan-18	Operation on Power Series
	10-Jan-18	Analytic function
	11-Jan-18	Ordinary and Singular points of Differential Equations
	12-Jan-18	Existence of Power series solution
	13-Jan-18	Some important results
	14-Jan-18	Sunday
3	15-Jan-18	Frobenius method
	16-Jan-18	Frobenius method
	17-Jan-18	Some important methods
	18-Jan-18	When the roots of an indicial equation are equal
	19-Jan-18	When the roots of indicial equations are unequal.
	20-Jan-18	Continued..
	21-Jan-18	Sunday
4	22-Jan-18	Vasant Panchami
	23-Jan-18	Beta Function, Gamma function
	24-Jan-18	Sir Chhotu Ram Jayanti
	25-Jan-18	Bessel's Equation
	26-Jan-18	Republic Day
	27-Jan-18	Bessel's Function.
	28-Jan-18	Sunday
	5	29-Jan-18
30-Jan-18		Recurrence Relations for Bessel's functions
31-Jan-18		Generating Function For $J_n(x)$

Winter vacation. 2018

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Week	Date	Topics
	1-Feb-18	Representation of $J_n(x)$ in Integral
	2-Feb-18	Equations Reducible To Bessel's Equations
	3-Feb-18	Orthogonality Relation of Bessel's Function.
	4-Feb-18	Sunday
6	5-Feb-18	Legendre's Equation.
	6-Feb-18	Legendre's Polynomial and Rodrigue's Formula.
	7-Feb-18	Derivation of Legendre's function of first kind
	8-Feb-18	Generating function for $P_n(x)$
	9-Feb-18	Recurrence Relations
	10-Feb-18	Maharshi Dayanand Saraswati Jayanti
	11-Feb-18	Sunday
7	12-Feb-18	Orthogonality of Legendre Polynomial
	13-Feb-18	Maha Shivratri
	14-Feb-18	Laplace Integral Representation of Legendre's Polynomial
	15-Feb-18	Hermite's Equation & Solution of Hermite's Equation
	16-Feb-18	Hermite's Polynomial.
	17-Feb-18	Generating Functions for Hermite's Polynomials
	18-Feb-18	Sunday
8	19-Feb-18	Some important theorems
	20-Feb-18	Evaluation of values of $H_n(0)$ and $H_{n+1}(0)$
	21-Feb-18	Derivation of Hermite Polynomials from Rodrigue's formula.
	22-Feb-18	Recurrence Relations
	23-Feb-18	Orthogonal Property of Hermite's Polynomial
	24-Feb-18	Some important results
	25-Feb-18	Sunday
9	26-Feb-18	Laplace Transformation
	27-Feb-18	Linear property of Laplace transformation
	28-Feb-18	First shifting Property

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Week	Date	Topics
	1-Mar-18	Guru Ravidas Birthday
	2-Mar-18	Holi
	3-Mar-18	Some standard result
	4-Mar-18	Sunday
10	5-Mar-18	Function of Exponential Order
	6-Mar-18	Second shifting Theorem
	7-Mar-18	Laplace Transforms of Derivatives
	8-Mar-18	Laplace Transform of a Periodic Function.
	9-Mar-18	Laplace Transform of integrals
	10-Mar-18	Some important theorems
	11-Mar-18	Sunday
11	12-Mar-18	Laplace Transforms of some important functions
	13-Mar-18	Continued...
	14-Mar-18	Inverse Laplace Transforms
	15-Mar-18	Shifting Property
	16-Mar-18	Convolution Theorem
	17-Mar-18	Some other Theorems
	18-Mar-18	Sunday
12	19-Mar-18	Use of Laplace Transforms in integral Equations
	20-Mar-18	Continued...
	21-Mar-18	Solution of Ordinary differential Equations
	22-Mar-18	Solution of Simultaneous linear Equations.
	23-Mar-18	Continued...
	24-Mar-18	Fourier Transforms.
	25-Mar-18	Sunday/ Ram Navami
13	26-Mar-18	Properties of Fourier Transforms
	27-Mar-18	Modulation Property
	28-Mar-18	Some other properties
	29-Mar-18	Mahavir Jayanti
	30-Mar-18	Some other properties
	31-Mar-18	Some properties based on use of Inverse Transform

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Week	Date	Topics
14		Sunday
	1-Apr-18	
	2-Apr-18	General Rule of integration by Parts
	3-Apr-18	Convolution Theorem for Fourier Transform
	4-Apr-18	Fourier Transform of the Derivative
	5-Apr-18	Relation b/w Fourier and Laplace Transform
	6-Apr-18	Parserval's Identity for Fourier transform
	7-Apr-18	Some other theorems
15	8-Apr-18	Sunday
	9-Apr-18	The finite Sine and Cosine Transform of $f(x)$
	10-Apr-18	Solution of Differential equations by Fourier Transform
	11-Apr-18	Continued.
	12-Apr-18	Find $L\{f(t)\}$ and $L\{f(x)\}$
	13-Apr-18	Some other properties
	14-Apr-18	Dr Ambedkar Jayanti / Vaisakhi
	15-Apr-18	Sunday
16	16-Apr-18	Infinite Fourier Cosine Transform
	17-Apr-18	Change of Scale Property
	18-Apr-18	Parashurama Jayanti
	19-Apr-18	Shifting Property and related result.
	20-Apr-18	Properties based on the use of Inverse Transform
	21-Apr-18	Parserval's identities for Fourier sine and Cosine Transform
	22-Apr-18	Sunday
	17	23-Apr-18
24-Apr-18		wave and Laplace equations
25-Apr-18		Important Theorems
26-Apr-18		Change of Scale property for Fourier transform
27-Apr-18		Modulation Property for " "
		Some other properties on Laplace Fourier Transform