

Lesson Plan Format
18 weeks (From January 2018 to April 2018)

Name of Assistant /Associate Professor :..... Parmila..... Dahiya.....
 Class and Section :..... B.A./B.Sc. IVth Sem.....
 Subject : Special..... Functions..... and..... Integral transforms

Week 1(January 1-6)	
Chapter 1	
01/01/2018	Introduction and Convergence of Power Series & EX-1.1
02/01/2018	operations on Power Series and EX-1.2
03/01/2018	Introduction of Analytic Function and O.D Eqs.
04/01/2018	Singular points of D.F and related Examples and EX-1.3
05/01/2018	Existence of Power Series's Sol. and Examples
06/01/2017	To find Sol. of Power Series in EX-1.4
Week 2(January 8-13)	
Chapter	
08/01/2018	Introduction to Frobenius method
09/01/2018	Examples and EX-1.5 related to Frobenius method
10/01/2018	Discuss the case when roots of an indicial eq are equal
11/01/2018	EX-1.6 and: Sol. of power series and diff. eq. about zero
12/01/2018	Discussion on the topic - when roots of indicial eq are unequal
13/01/2018	Related examples of roots are unequal and differ by integer.
Week 3(January 15-20)	
Chapter	
15/01/2018	Bessel's eq. of order 1 and EX-1.7
16/01/2018	To do practice of questions on diff. eq. about $x=0$
17/01/2018	EX-1.8
18/01/2018	Problem class and revision of Power Series
19/01/2018	Test
19/01/2018	—
20/01/2018	Introduction of Bessel's eq's and Bessel's Functions
Week 4(January 22-27)	
Chapter	
22/01/2018	Vasant Panchmi
23/01/2018	Find Sol of Bessel's eq's and functions
24/01/2018	Sir Chhotu Ram Jayanti
25/01/2018	Examples of Bessel's eq. and EX-2.1
26/01/2018	Republic day

27/01/2018	Introduction of generating function for $J_n(x)$
Week 5 (January 29- Feb 3)	
Chapter	
29/01/2018	Representation of $J_n(x)$ in Integral form
30/01/2018	EX - 2.2
31/01/2018	Introduction of eqs Reducible to Bessel's eqs.
01/02/2018	Examples and EX - 2.3
02/02/2018	Orthogonality Relation of Bessel's Function
03/02/2018	Revision cum test on Bessel's eqs.
Week 6 (Feb 5-10)	
Chapter	
05/02/2018	Introduction of Legendre's eq., Rodrigue's Formula
06/02/2018	Generating Function for $P_n(x)$
07/02/2018	Examples and EX - 3.1
08/02/2018	Recurrence Relations, orthogonality of Legendre polynomial
09/02/2018	EX - 3.2
10/02/2018	Maharshi Dayanand Saraswati Jayanti
Week 7 (Feb 12-17)	
Chapter	
12/02/2017	Laplace Integral Representation of Legendre's Poly and EX - 3.3
13/02/2017	Mahashivratri
14/02/2017	Test of CH - 3
15/02/2017	Introduction of Hermite's eqs, poly and Rodrigue's formula
16/02/2017	EX - 4.1
17/02/2017	Test
Week 8 (Feb 19-24)	
Chapter	
19/02/2018	Introduction of Laplace Transformations
20/02/2018	EX - 5.1
21/02/2018	First shifting property, change of scale and EX - 5.2
22/02/2018	Piece-wise continuity and Fun. of Exponential order
23/02/2018	EX - 5.3
24/02/2018	Laplace trans. of n^{th} order derivative of $f(t)$
Week 9 (Feb 26-March 03)	
Chapter	
26/02/2018	Laplace trans. of periodic Function & EX - 5.4
27/02/2018	EX - 5.5 and EX - 5.6
28/02/2018	-
01/03/2018	-

02/03/2018	-
03/03/2018	-
Week 10(March 5-10)	
Chapter	
05/03/2018	Test of Laplace transformations
06/03/2018	Introduction of inverse Laplace transformation and EX-6.1
07/03/2018	Different methods to find I.L.T and EX-6.2
08/03/2018	Convolution Theorem and EX-6.3
09/03/2018	Test
10/03/2018	Introduction of Sol. of Diff. eq. by L.T
Week 11(March 12-17)	
Chapter	
12/03/2018	EX-8.1
13/03/2018	Examples and EX-8.2
14/03/2018	EX-8.3
15/03/2018	Test
16/03/2018	Introduction of Fourier Series
17/03/2018	Examples based on Fourier transformations
Week 12(March 19-24)	
Chapter	
19/03/2018	EX-9.1
20/03/2018	Examples based on Fourier sine and cosine transformation
21/03/2018	EX-9.2
22/03/2018	Examples based on Inverse Transformations
23/03/2018	Shahceedi Dinsas
24/03/2018	EX-9.3
Week 13(March 26-31)	
Chapter	
26/03/2018	Convolution Theorem and Defination
27/03/2018	Relation b/w Fourier and Laplace transformation
28/03/2018	Parseval's Identity for Fourier transform
29/03/2018	Mahavir Jayanti
30/03/2018	EX-9.4
31/03/2018	Introduction of finite sine and cosine transform
Week 14(April 02-07)	
Chapter	
02/04/2018	Examples based on previous class and EX-9.5
03/04/2018	Assignment on Fourier Transform
04/04/2018	Test

