

## Lesson Plan Odd Semester (Session 2018-19)

Name of Assistant/Associate Professor pooja

M.s.c.mathmethices (P)

Subject topology

July 13, 2018 to July 14, 2018 (Week 1)			
13/07/18		14/07/18	
July 16, 2018 to July 21, 2018(Week 2)			
16/07/18		17/07/18	
18/07/18		19/07/18	
20/07/18	topological spaces	21/07/18	continue...
July 23, 2018 to July 28, 2018(Week 3)			
23/07/18	types and examples of theorem	24/07/18	more theorems
25/07/18	Neighbourhoods	26/07/18	continue...
27/07/18	Neighbourhood system	28/07/18	continue...
July 30, 2018 to August 04, 2018(Week 4)			
30/07/18	properties	31/07/18	Shahid Udham Singh Shahidi Diwas
01/08/18	problems	02/08/18	Interior point
03/08/18	continue...	04/08/18	more theorems
August 06, 2018 to August 11, 2018(Week 5)			
06/08/18	definition of a closed set	07/08/18	continue...
08/08/18	limit point,derived set	09/08/18	continue...
10/08/18	Adherent point,closure set	11/08/18	properties of closure set
August 13, 2018 to August 18, 2018(Week 6)			
13/08/18	Dense sets. A characterization of dense sets	14/08/18	base for neighbourhood system
15/08/18	Independence Day	16/08/18	problems
17/08/18	relative and subspace of topological space	18/08/18	theorems
August 20, 2018 to august 25, 2018(Week 7)			
20/08/18	kuratowski closure operator	21/08/18	continue...
22/08/18	Id-UI-Juha	23/08/18	continue...
24/08/18	separable space	25/08/18	lindelof theorem
August 27, 2018 to September 01, 2018(Week 8)			
27/08/18	complete lattic	28/08/18	continue...
29/08/18	problems	30/08/18	continuous function
31/08/18	homeomorphism ,embedding	01/09/18	continue...
September 03, 2018 to September 08, 2018(Week 9)			
03/09/18	Janamashatmi	04/09/18	tychonoff product topology
05/09/18	continue...	06/09/18	projection map
07/09/18	continue...	08/09/18	continue...

September 10, 2018 to September 15, 2018(Week 10)			
10/09/18	continue...	11/09/18	continuity of a function
12/09/18	continue...	13/09/18	To,T1,T2 ,T3 space
14/09/18	continue...	15/09/18	continue...
September 17, 2018 to September 22, 2018(Week 11)			
17/09/18	continue...	18/09/18	problems
19/09/18	regular and quotient topological space	20/09/18	continue...
21/09/18	continue...	22/09/18	continue...
September 24, 2018 to September 29,2018(Week 12)			
24/09/18	hausdorffness of quotient space	25/09/18	continue...
26/09/18	continue...	27/09/18	continue...
28/09/18	continue...	29/09/18	continue...
October 01, 2018 to October 06,2018(Week 13)			
01/10/18	continue...	02/10/18	Gandhi Jayanti
03/10/18	Problem	04/10/18	test
05/10/18	completely regular	06/10/18	continue...
October 08, 2018 to October 13,2018(Week 14)			
08/10/18	embedding lemma,embedding theorem	09/10/18	continue...
10/10/18	Maharaja Aggarsain Jayanti	11/10/18	normal and T4 space
12/10/18	urysohn's lemma	13/10/18	continue...
October 15, 2018 to October 20,2018(Week 15)			
15/10/18	Tietze's extension lemma	16/10/18	continue...
17/10/18	definition and examples of filters	18/10/18	Dushehra
19/10/18	continue...	20/10/18	ultra filter principle,convergence of filter
October 22, 2018 to October 27,2018(Week 16)			
22/10/18	continue...	23/10/18	continue...
24/10/18	Mahrishi Valmiki Jayanti	25/10/18	problems
26/10/18	compactness and its properties	27/10/18	continue....
October 29, 2018 to November 03,2018(Week 17)			
29/10/18	continue...	30/10/18	continue...
31/10/18	regular and normality of hausdroff space	01/11/18	Haryana Day
02/11/18	compactness and filter convergence	03/11/18	continue...
Vacations from 4 nov. to 11 nov.			
12/11/18	tychonoff product theorem	13/11/18	continue...
14/11/18	stone-cech compactification	15/11/18	Conditional test
16/11/18	continue...	17/11/18	problems

## Lesson Plan Odd Semester (Session 2018-19)

Name of Assistant/Associate Professor

GITIKA DUREJA

Class M.Sc previous

Subject complex analysis

July 13, 2018 to July 14, 2018 (Week 1)			
13/07/18		14/07/18	
July 16, 2018 to July 21, 2018(Week 2)			
16/07/18		17/07/18	
18/07/18		19/07/18	
20/07/18	Power series, radius of convergence,exp	21/07/18	sum,product,diff of sum function of power series
July 23, 2018 to July 28, 2018(Week 3)			
23/07/18	continue...	24/07/18	continue...
25/07/18	continue...	26/07/18	properties of a diff function with derivative zero
27/07/18	continue...	28/07/18	continue...
July 30, 2018 to August 04, 2018(Week 4)			
30/07/18	expz and its properties	31/07/18	Shahid Udham Singh Shahidi Diwas
01/08/18	continue...	02/08/18	continue...
03/08/18	power of a complex number& its branches	04/08/18	continue...
August 06, 2018 to August 11, 2018(Week 5)			
06/08/18	continue...	07/08/18	def. related to contour,region,domain
08/08/18	complex integration	09/08/18	Cauchy-Goursat theorem
10/08/18	Cauchy thm for simply & multiply connected domain	11/08/18	doubts
complex integration			
13/08/18	test	14/08/18	Index or winding number of a closed curve
15/08/18	Independence Day	16/08/18	continue...
17/08/18	cauchy integral formula	18/08/18	Extension of Cauchy integral formula
August 20, 2018 to august 25, 2018(Week 7)			
20/08/18	continue...	21/08/18	higher order derivative of Cauchy integral formula
22/08/18	Id-UI-Juha	23/08/18	Gauss mean value theorem
24/08/18	numericals on related theorms	25/08/18	continue...
August 27, 2018 to September 01, 2018(Week 8)			
27/08/18	continue...	28/08/18	morera's theorm
29/08/18	cauchy inequality	30/08/18	zeros of an entire function,rad.of convergence
31/08/18	numericals on related topic	01/09/18	continue...
September 03, 2018 to September 08, 2018(Week 9)			
03/09/18	Janamashatmi	04/09/18	Liouville's theorem
05/09/18	Fundamental theorem of algebra	06/09/18	Taylor's theorem
07/09/18	continue...	08/09/18	doubts...

**September 10, 2018 to September 15, 2018(Week 10)**

10/09/18	test	11/09/18	max. and min. modulus principle
12/09/18	continue...	13/09/18	Schwarz Lemma
14/09/18	continue...	15/09/18	singularity,classification,poles and zeros
<b>September 17, 2018 to September 22, 2018(Week 11)</b>			
17/09/18	numericals on related topic	18/09/18	continue...
19/09/18	continue...	20/09/18	continue...
21/09/18	laurent series	22/09/18	continue...
<b>September 24, 2018 to September 29,2018(Week 12)</b>			
24/09/18	Cassorati weierstrass theorm	25/09/18	The argument principle
26/09/18	rouche's theorm (exp)	27/09/18	rouche's theorm
28/09/18	continue...	29/09/18	CONDITIONAL...
<b>October 01, 2018 to October 06,2018(Week 13)</b>			
01/10/18	inverse function theorm	02/10/18	Gandhi Jayanti
03/10/18	continue...	04/10/18	test
05/10/18	residue...	06/10/18	continue...
<b>October 08, 2018 to October 13,2018(Week 14)</b>			
08/10/18	continue...	09/10/18	continue...
10/10/18	Maharaja Aggarsain Jayanti	11/10/18	continue...
12/10/18	continue...	13/10/18	continue...
<b>October 15, 2018 to October 20,2018(Week 15)</b>			
15/10/18	continue...	16/10/18	continue...
17/10/18	continue...	18/10/18	Dushehra
19/10/18	numericals	20/10/18	Bilinear transformation, their properties
<b>October 22, 2018 to October 27,2018(Week 16)</b>			
22/10/18	continue...	23/10/18	cross ratio & its preservation under B.T
24/10/18	Mahrishi Valmiki Jayanti	25/10/18	continue...
26/10/18	continue...	27/10/18	continue...
<b>October 29, 2018 to November 03,2018(Week 17)</b>			
29/10/18	fixed point bilinear transformation	30/10/18	continue...
31/10/18	CONDITIONAL...	01/11/18	Haryana Day
02/11/18	Normal form of B.T and conformal mapping	03/11/18	continue...
<b>vacations 4 nov. to 11 nov. (week 18)</b>			
12/11/18	continue...	13/11/18	conformal mapping
14/11/18	continue...	15/11/18	critical points
16/11/18	continue...	17/11/18	continue...

## Lesson Plan Odd Semester (Session 2018-19)

Name of Assistant/Associate Professor

Mr. Anoop

Class M.Sc. Mathematics

Subject Differential Equations-I

July 16, 2018 to July 21, 2018(Week 1)			
20/07/18	Preliminaries	21/07/18	$\epsilon$ -approximate Solution
July 23, 2018 to July 28, 2018(Week 2)			
23/07/18	Equicontinuous set of Functions	24/07/18	Ascoli-Arzela theorem
25/07/18	Continue...	26/07/18	Cauchy-Peano existence theorem
27/07/18	Differential inequalities and Uniqueness	28/07/18	Continue...
July 30, 2018 to August 04, 2018(Week 3)			
30/07/18	Gronwall's Inequality	31/07/18	Shahid Udham Singh Shahidi Diwas
01/08/18	Continue...	02/08/18	Continue...
03/08/18	Successive approximations	04/08/18	Continue...
August 06, 2018 to August 11, 2018(Week 4)			
06/08/18	Continue...	07/08/18	Continue...
08/08/18	Picard-Lindelöf theorem	09/08/18	Continuation of Solution
10/08/18	Continue...	11/08/18	Maximal interval of existence
August 13, 2018 to August 18, 2018(Week 5)			
13/08/18	Extension theorem	14/08/18	Continue...
15/08/18	Independence Day	16/08/18	Kneses's theorem
17/08/18	Continue...	18/08/18	Continue...
August 20, 2018 to August 25, 2018(Week 6)			
20/08/18	Revision	21/08/18	Test
22/08/18	Id-Ul-Juha	23/08/18	Linear Differential Systems
24/08/18		25/08/18	Fundamental Matrix
August 27, 2018 to September 01, 2018(Week 7)			
27/08/18	Ajoint Systems	28/08/18	Continue...
29/08/18	Reduction to Smaller Homo. Systems	30/08/18	Continue...
31/08/18	Non Homogeneous Systems	01/09/18	Continue...
September 03, 2018 to September 08, 2018(Week 8)			
03/09/18	Janamashatmi	04/09/18	Variations of Coefficients
05/09/18	Continue...	06/09/18	Linear Systems with Constant Coefficients
07/09/18	Talent Search Competition	08/09/18	Talent Search Competition
September 10, 2018 to September 15, 2018(Week 9)			
10/09/18	Continue...	11/09/18	Linear Systems With Periodic Coefficients
12/09/18	Continue...	13/09/18	Floquet theory
14/09/18	Continue...	15/09/18	Continue...
September 17, 2018 to September 22, 2018(Week 10)			
17/09/18	Continue...	18/09/18	Revision

19/09/18	Test	20/09/18	L.D.E. of order n
21/09/18	Linear combinations	22/09/18	Linear dependence and independence
<b>September 24, 2018 to September 29,2018(Week 11)</b>			
24/09/18	Wronskian theory	25/09/18	Conditions for L.I. and L.D. of sol. Of HLDE
26/09/18	Continue...	27/09/18	Abel's Identity
28/09/18	Fundamental set	29/09/18	Reduction of Order
<b>October 01, 2018 to October 06,2018(Week 12)</b>			
01/10/18	Continue...	02/10/18	Gandhi Jayanti
03/10/18	Variations of parameters	04/10/18	Adjoint Equations
05/10/18	Conditional Test	06/10/18	Lagrange's Identity
<b>October 08, 2018 to October 13,2018(Week 13)</b>			
08/10/18	Continue...	09/10/18	Green's Formula
10/10/18	Maharaja Aggarsain Jayanti	11/10/18	Test
12/10/18	L.E. with constant coefficients	13/10/18	Continue...
<b>October 15, 2018 to October 20,2018(Week 14)</b>			
15/10/18	Maximal and Minimal Solutions	16/10/18	Continue...
17/10/18	Differential Inquilities	18/10/18	Dushehra
19/10/18	Continue...	20/10/18	Wintner's Theorem
<b>October 22, 2018 to October 27,2018(Week 15)</b>			
22/10/18	Wintner's Theorem	23/10/18	Kamke's theorem
24/10/18	Mahrishi Valmiki Jayanti	25/10/18	Continue...
26/10/18	Nagumo's Theorem	27/10/18	Continue...
<b>October 29, 2018 to November 03,2018(Week 16)</b>			
29/10/18	Osgood Theorem	30/10/18	System of Differential Equations
31/10/18	Dependence of Soln. on Initial conditions	01/11/18	Haryana Day
02/11/18	Annual Athletic Meet	03/11/18	Annual Athletic Meet

**October 29, 2018 to November 03,2018(Week 16)**

2/11/2018

## Lesson Plan Odd Semester (Session 2018-19)

Name of Assistant/Associate Professor

Manju Kundu

Class M.Sc Mathematics (sem. 1st)

Subject Advanced Abstract Algebra I

July 13, 2018 to July 14, 2018 (Week 1)			
13/07/18		14/07/18	
July 16, 2018 to July 21, 2018(Week 2)			
16/07/18		17/07/18	
18/07/18		19/07/18	
20/07/18	Automorphism of groups	21/07/18	theorems
July 23, 2018 to July 28, 2018(Week 3)			
23/07/18	some more theorem	24/07/18	theorems
25/07/18	examples	26/07/18	problem discussion
27/07/18	Inner automorphisms of a group G.	28/07/18	theorems
July 30, 2018 to August 04, 2018(Week 4)			
30/07/18	some more theorem	31/07/18	Shahid Udham Singh Shahidi Diwas
01/08/18	examples	02/08/18	problem discussion
03/08/18	Normalizer of subset of a group	04/08/18	theorems
August 06, 2018 to August 11, 2018(Week 5)			
06/08/18	examples	07/08/18	centralizer of subset of a group
08/08/18	theorems	09/08/18	examples
10/08/18	problem discussion	11/08/18	Conjugate elements and conjugacy classes.
August 13, 2018 to August 18, 2018(Week 6)			
13/08/18	theorems	14/08/18	some more theorem
15/08/18	Independence Day	16/08/18	examples
17/08/18	problem discussion	18/08/18	Class equation of a finite group
August 20, 2018 to august 25, 2018(Week 7)			
20/08/18	theorems	21/08/18	some more theorem
22/08/18	Id-UI-Juha	23/08/18	problem discussion
24/08/18	Derived group	25/08/18	Zassenhau's Lemma
August 27, 2018 to September 01, 2018(Week 8)			
27/08/18	Normal and Composition series	28/08/18	theorems
29/08/18	some more theorem	30/08/18	Scheier's refinement theorem
31/08/18	Jordan Holder theorem	01/09/18	Composition series of groups
September 03, 2018 to September 08, 2018(Week 9)			
03/09/18	Janamashatmi	04/09/18	theorems
05/09/18	some more theorem	06/09/18	Cauchy theorem for finite groups
07/09/18	Sylow p-subgroups	08/09/18	Sylow's Ist

September 10, 2018 to September 15, 2018(Week 10)			
10/09/18	Sylow's 2nd theorem	11/09/18	Sylow's 2nd theorem
12/09/18	Characteristic of a ring with unity	13/09/18	Prime fields $\mathbb{Z}/p\mathbb{Z}$ and $\mathbb{Q}$ .
14/09/18	Field extensions	15/09/18	Algebraic and transcendental elements
September 17, 2018 to September 22, 2018(Week 11)			
17/09/18	Simple field extensions	18/09/18	polynomial of an algebraic element.
19/09/18	theorems	20/09/18	Conjugate elements
21/09/18	Algebraic extensions	22/09/18	Algebraic extensions
September 24, 2018 to September 29,2018(Week 12)			
24/09/18	finitely generated algebraic extensions	25/09/18	Algebraic closure
26/09/18	Splitting fields	27/09/18	finite fields and Normal extensions
28/09/18	conditional test I	29/09/18	problem discussion
October 01, 2018 to October 06,2018(Week 13)			
01/10/18	some more theorems	02/10/18	Gandhi Jayanti
03/10/18	examples	04/10/18	theorems
05/10/18	Separable elements	06/10/18	separable polynomials and separable extensions
October 08, 2018 to October 13,2018(Week 14)			
08/10/18	primitive element	09/10/18	some more theorems
10/10/18	Maharaja Aggarsain Jayanti	11/10/18	Perfect fields
12/10/18	Galois extensions	13/10/18	some more theorems
October 15, 2018 to October 20,2018(Week 15)			
15/10/18	Dedekind lemma	16/10/18	Frobenius automorphism
17/10/18	Klein's 4-group	18/10/18	Dushehra
19/10/18	Diheadral group	20/10/18	Galois groups of polynomials
October 22, 2018 to October 27,2018(Week 16)			
22/10/18	some more theorems	23/10/18	Fundamental theorem of Algebra
24/10/18	Mahrishi Valmiki Jayanti	25/10/18	Solvable groups
26/10/18	Derived series of a group G	27/10/18	Problem discussion
October 29, 2018 to November 03,2018(Week 17)			
29/10/18	conditional test II	30/10/18	Simplicity of the Alternating group $A_n$
31/10/18	Non-solvability of the symmetric group $S_n$	01/11/18	Haryana Day
02/11/18	Roots of unity Cyclotomic polynomials	03/11/18	Galois radical extensions
VACATIONS FROM 4 NOV. 2018 TO 11 NOV. 2018			
12/11/18	Theorems	13/11/18	some more theorem
14/11/18	examples	15/11/18	some more examples
16/11/18	theorems	17/11/18	test















## Lesson Plan Odd Semester (Session 2018-19)

Name of Assistant/Associate Professor

Mr.Amit

Class M.Sc. Mathematics

Subject Real Analysis -I

July 16, 2018 to July 21, 2018(Week 2)			
20/07/18	Riemann Stieltjes Integral	21/07/18	Continue...
July 23, 2018 to July 28, 2018(Week 3)			
23/07/18	Continue...	24/07/18	Continue...
25/07/18	Continue...	26/07/18	Properties of The Integral
27/07/18	Continue...	28/07/18	Continue...
July 30, 2018 to August 04, 2018(Week 4)			
30/07/18	Integration and Differentiation	31/07/18	Shahid Udham Singh Shahidi Diwas
01/08/18	Continue...	02/08/18	Continue...
03/08/18	Fundamental Theorem of Calculus	04/08/18	Continue...
August 06, 2018 to August 11, 2018(Week 5)			
06/08/18	Integration By Parts	07/08/18	Continue...
08/08/18	Integration of Vector Valued Functions	09/08/18	Continue...
10/08/18	Continue...	11/08/18	Rectifiable Curves
August 13, 2018 to August 18, 2018(Week 6)			
13/08/18	Continue...	14/08/18	Revision
15/08/18	Independence Day	16/08/18	Test
17/08/18	Pointwise And Uniform Convergence	18/08/18	Continue...
August 20, 2018 to August 25, 2018(Week 7)			
20/08/18	Cauchy's Criterion for Uniform Convergence	21/08/18	Weirstrass M-Test
22/08/18	Id-UI-Juha	23/08/18	Continue...
24/08/18	Abel's Test and Dirichlet's Test	25/08/18	Abel's Test and Dirichlet's Test
August 27, 2018 to September 01, 2018(Week 8)			
27/08/18	Uniform Convergence and Continuity	28/08/18	U.C. and Riemann Stieltjes Integration
29/08/18	Continue...	30/08/18	U.C. and Differentiation
31/08/18	Continue...	01/09/18	Existence of Real Valued Nowhere Diff. Fn.
September 03, 2018 to September 08, 2018(Week 9)			
03/09/18	Janamashatmi	04/09/18	Test
05/09/18	Equicontinuous Family of Functions	06/09/18	Continue...
07/09/18	Talent Search Competition	08/09/18	Talent Search Competition

September 10, 2018 to September 15, 2018(Week 10)			
10/09/18	Weierstrass Approximation Theorem	11/09/18	Continue...
12/09/18	Continue...	13/09/18	Continue...
14/09/18	Revision	15/09/18	Test
September 17, 2018 to September 22, 2018(Week 11)			
17/09/18	Functions Of Several Variables	18/09/18	Linear Transformations
19/09/18	Continue...	20/09/18	Derivative in an Open Subset of $R^n$
21/09/18	Continue...	22/09/18	Chain Rule
September 24, 2018 to September 29, 2018(Week 12)			
24/09/18	Partial Derivatives	25/09/18	Directional Derivatives
26/09/18	Contraction Principle	27/09/18	Inverse Function Theorem
28/09/18	Continue...	29/09/18	Implicit Function Theorem
October 01, 2018 to October 06, 2018(Week 13)			
01/10/18	Conditional Test	02/10/18	Gandhi Jayanti
03/10/18	Jacobians	04/10/18	Extremum Problem With Constraints
05/10/18	Lagrange's Multiplier Method	06/10/18	Continue...
October 08, 2018 to October 13, 2018(Week 14)			
08/10/18	Continue...	09/10/18	Derivatives of Higher Order
10/10/18	Maharaja Aggarsain Jayanti	11/10/18	Mean Value Theorem
12/10/18	Continue...	13/10/18	Interchange of Order of Differentiation
October 15, 2018 to October 20, 2018(Week 15)			
15/10/18	Continue...	16/10/18	Differentiation of Integrals
17/10/18	Continue...	18/10/18	Dushehra
19/10/18	Power Series	20/10/18	Uniqueness Theorem for Power Series
October 22, 2018 to October 27, 2018(Week 16)			
22/10/18	Continue...	23/10/18	Abel's And Tauber's Theorem
24/10/18	Mahrishi Valmiki Jayanti	25/10/18	Continue...
26/10/18	Taylor's Theorem	27/10/18	Exponential and Logarithm Functions
October 29, 2018 to November 03, 2018(Week 17)			
29/10/18	Fourier Series	30/10/18	Conditional Test
31/10/18	Gamma Function	01/11/18	Haryana Day
02/11/18	Annual Athletic Meet	03/11/18	Annual Athletic Meet