

Lesson Plan

Name of the Assistant/ **Mr. Ajay Kumar**

Class and Section:..... **Math (Hons) 4th Sem.**

Subject:..... **Mathematics (Hydro statics)**

Week		Topics
1	Day 1	General Introduction about Hydrostatics
	Day 2	Pressure equation
	Day 3	Some Problems on pressure equation
	Day 4	Condition of equilibrium
	Day 5	Numerical Problem based on condition of equilibrium
	Day 6	Introduce about st. line in space
		Sunday
2	Day 7	Lines of forces
	Day 8	Problem based on lines of forces
	Day 9	Homogeneous and Hetrogeneous fluids
	Day 10	Numerical problems based on Homogeneous fluid
	Day 11	Problem on Hetrogeneous fluids
	Day 12	Elastic Fluids
		Sunday
3	Day 13	Surface of equal pressure
	Day 14	Numerical based on surface of equal pressure
	Day 15	Define the equation of Homogeneous fluid
	Day 16	Problem based on elastic fluids
	Day 17	Introduce about the fluid at rest position
	Day 18	Fluid at rest under the action of gravity
		Sunday
4		<u>VasantPanchami</u>
	Day 19	Application of fluids
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	General Problem based on fluid at rest under gravity
		<u>Republic Day</u>
	Day 21	Rotational fluid
		Sunday
5	Day 22	Effect of rotational fluids
	Day 23	Numerical Problem based on rotational fluids
	Day 24	Summeruces this section and clear all doubts.

1-Feb	Day 25	Class Test of Unit first
	Day 26	Introduction about the fluid pressure
	Day 27	Study of fluid pressure orphan surface
		Sunday
2	Day 28	Properties of fluid pressure on plane surface
	Day 29	Centre of pressure
	Day 30	Derivation of centre of pressure
	Day 31	Numerical problem based on centre of pressure
	Day 32	Resultant pressure
		<u>MaharshiDayanandSaraswatiJayanti</u>
		Sunday
3	Day 33	Resultant pressure on the curved surface
		<u>MahaShivratri</u>
	Day 34	Numerical problems based on it
	Day 35	Equilibrium
	Day 36	Condition of equilibrium
	Day 37	Equilibrium of floating base
		Sunday
4	Day 38	Problem based on floating bodies
	Day 39	Definition on buoyancy
	Day 40	Curves of buoyancy
	Day 41	Describe the curve in case of floating bodies
	Day 42	Numerical based on it
	Day 43	Surface of buoyancy
		Sunday
5	Day 44	Determine the surface of buoyancy
	Day 45	Numerical problem based on it
	Day 46	Revised the section 2nd

1-Jan		<u>Guru Ravidas Birthday</u>
		<u>Holi</u>
	Day 47	Discuss about the stability
		Sunday
2	Day 48	Condition of stabilities
	Day 49	Stability of equilibrium
	Day 50	Stability of equilibrium of floating bodies
	Day 51	Numerical problem based on it
	Day 52	Numerical based on different type of bodies
	Day 53	Meta centre
		Sunday
3	Day 54	Role of meta centre in stability of bodies
	Day 55	How to determine the metacentre
	Day 56	Numerical problem based on it
	Day 57	condition of meta centre for stability
	Day 58	Discuss about work done
	Day 59	Work done in producing a displacement
		Sunday
4	Day 60	Numeical problem based on it
	Day 61	Vessels containing liquid
	Day 62	Floating condition of vessel containing liquid
	Day 63	meta centre of these types of bodies
		<u>ShaheediDiwas of Bhagat Singh, Rajguru & Sukhdev</u>
	Day 64	Discuss the stability of bodies containing liquid
		<u>Sunday/ Ram Navami</u>
5	Day 65	Numerical problem solved on this topic
	Day 66	Different types of bodies like cone
	Day 67	Cylinder containing the liquid floating in fluids
		<u>MahavirJayanti</u>
	Day 68	Revised the section 3rd
	Day 69	Take a unit test in class

1-Apr		Sunday
	Day 70	Discuss about the gas state of fluids sits propeties
	Day 71	Discuss the Gas laws
	Day 72	Applciation of gas laws
	Day 73	Problem based on gas law
	Day 74	Mixture of gases & its properties
	Day 75	Determine the pressure of mixture of gas
		Sunday
2	Day 76	Numerical problem bsd on mixture of gas
	Day 77	Internal energy
	Day 78	Internal energy of mixture of gases
	Day 79	Problem based on Internal energy
	Day 80	Adiabatic expansion
		Dr AmbedkarJayanti / Vaisakhi
		Sunday
3	Day 81	Solve the problem based on adiabatic experssion
	Day 82	Properties of compressing a gas
		ParashuramaJayanti
	Day 83	Work done in compressing a gas
	Day 84	Problem based on compressing gas
	Day 85	Discuss Isothermal space
		Sunday
4	Day 86	Isothermal atmosphere
	Day 87	Problem based on Isothermal atmosphere
	Day 88	Connective equilibrium
	Day 89	Numerical problem solved
	Day 90	Revised the section 4th
	Day 91	Take a class test of this section

Lesson Plan

Name of the Assistant/ Mr. Arun Kumar

Class and Section:.....

Subject:..... Sequence & series

Week		Topics
1	Day 1	Introduction to real no., Rational & irrational no.
	Day 2	Badness of the real no.
	Day 3	Existence at power series solution
	Day 4	Least upper bound of a set
	Day 5	Greatest lower bound of a set
	Day 6	Neighbourhood of a set
		Sunday
2	Day 7	Isolated pt. of a set
	Day 8	Limit pot of a set
	Day 9	Open sets
	Day 10	Closed Sets
	Day 11	Interior of a set
	Day 12	Closure of a set in real no.
		Sunday
3	Day 13	Properties of the closure of a set
	Day 14	BWT for sets proof
	Day 15	open sets
	Day 16	Heine lorel thm.
	Day 17	Problem of chapter I
	Day 18	Generating function for
		Sunday
4		<u>VasantPanchami</u>
	Day 19	Written test of chapter I
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	Distribution of answer sheet & discussion of test I
		<u>Republic Day</u>
	Day 21	Introduction to sequence
		Sunday
5	Day 22	Real sequence example on it
	Day 23	Add above sequence rdd below seq & bdd seq
	Day 24	Convergen of seq seq & example

1-Feb	Day 25	Convergeneg of seq continuous
	Day 26	Example of cpt seq
	Day 27	Eq
		Sunday
2	Day 28	Divergent seq & example
	Day 29	Osultatory seq &
	Day 30	Oscilate finitely & oscilatk infinitely seq
	Day 31	Some theoremm on cg of seq
	Day 32	Some theoremm on cg of seq
		<u>MaharshiDayanandSaraswatiJayanti</u>
		Sunday
3	Day 33	Algebra cgt. Seq
		<u>MahaShivratri</u>
	Day 34	Theorem on limits of seq
	Day 35	Theorem on limits of seq
	Day 36	Monotonic seq of examples
	Day 37	Them. Cgt intonic seq
		Sunday
4	Day 38	Contor intersection thm
	Day 39	Introduction Cauchy's seq
	Day 40	Example in Cauchy's seq
	Day 41	Cauchy's General principle of cgs.
	Day 42	limit boot in seq
	Day 43	Problem on seq
		Sunday
5	Day 44	Introduction to inifinite series
	Day 45	Infinite series
	Day 46	Comparison tests of +ve infintie series

1-Jan		<u>Guru Ravidas Birthday</u>
		<u>Holi</u>
	Day 47	Comparison tst of +ve terms infinite series
		Sunday
2	Day 48	Cauchy's general principle of of series
	Day 49	Cgs. Of dgs. Of geometric series.
	Day 50	Hyper Harmonic series or series
	Day 51	Problem on infinite series
	Day 52	Written test of seq & infinite series
	Day 53	Distribution of answer sheets.
		Sunday
3	Day 54	Infinite series ratio test
	Day 55	Raabe's test
	Day 56	Logathemic test
	Day 57	De margin & bert test
	Day 58	Cauchy nth root test
	Day 59	Gauss test
		Sunday
4	Day 60	Cauchy's integral test
	Day 61	Cauchy andensation test
	Day 62	Problems on above tests
	Day 63	Problems on above tests
		<u>ShaheediDiwas of Bhagat Singh, Rajguru & Sukhdev</u>
	Day 64	Test on basic of above tests
		<u>Sunday/ Ram Navami</u>
5	Day 65	Distribution of answer sheets.
	Day 66	Doubt on infinite series
	Day 67	Doubt on infinite series
		<u>MahavirJayanti</u>
	Day 68	Alternating series
	Day 69	Test

1-Apr		Sunday
	Day 70	Problem on Test
	Day 71	Absdute & additional cgs of series
	Day 72	Problem on
	Day 73	Arbitrary series
	Day 74	Abel's Lemma
	Day 75	Aber's Test
		Sunday
2	Day 76	Test
	Day 77	Insential remonal of parathese
	Day 78	Re-arrangement if term in a series
	Day 79	Dirivhelter thm/
	Day 80	Riemann re arrangement thm.
		Dr AmbedkarJayanti / Vaisakhi
		Sunday
3	Day 81	Theorm statement
	Day 82	Problem on re arrangemetn of series
		ParashuramaJayanti
	Day 83	Multi of series
	Day 84	Cauchy product of series
	Day 85	Cgs. And absolute cgs. Of infinite series
		Sunday
4	Day 86	Problem on this chapter
	Day 87	Test of chapter
	Day 88	Distribution of answer sheet
	Day 89	Syllabus complete
	Day 90	Doubt classes
	Day 91	Doubt classes

Lesson Plan

Name of the Assistant/ Jyoti Yadav

Class and Section:..... **B.Sc. 2nd sem. Hons Mathematics**

Subject:..... Regression Analysis and Probability

Week		Topics
1	Day 1	Introduction of linear Regression
	Day 2	Concept of linear Regression
	Day 3	Remarks of linear regression
	Day 4	Regression coefficients and its properties
	Day 5	Standard error of estimate observed from regression line
	Day 6	Correlation coefficient between observed and estimated value
		Sunday
2	Day 7	Angle b/w two lines of regression
	Day 8	Remarks of angle b/w two lines of regression
	Day 9	Standard error of estimate variable
	Day 10	Correlation coefficient b/w observed and estimated values
	Day 11	Example on two lines of regression
	Day 12	Example on correlation coefficient S
		Sunday
3	Day 13	Complete Revision of all above topics
	Day 14	Introduction to curvilinear regression
	Day 15	Fitting of power curve to a set of n points
	Day 16	Fitting of exponential curves
	Day 17	Example on fitting of curves
	Day 18	Fitting of second degree parabola
		Sunday
4		<u>VasantPanchami</u>
	Day 19	Discussion of complete Unit 1
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	Unit Test of Unit I
		<u>Republic Day</u>
	Day 21	Introduction to probability
		Sunday
5	Day 22	Basic Terminology of Probability
	Day 23	Random Experiment, trial, sample point
	Day 24	Sample space, operation of events

1-Feb	Day 25	Exhaustive, equally likely and Independent events
	Day 26	Definition of probability and limitation of classical definition
	Day 27	Empirical probability and limitation of empirical probability
		Sunday
2	Day 28	Three example on probability
	Day 29	Example on probability
	Day 30	More example o probability
	Day 31	Some more problem on probability
	Day 32	Axiomatic approach to probability
		<u>MaharshiDayanandSaraswatiJayanti</u>
		Sunday
3	Day 33	Theorem on probability
		<u>MahaShivratri</u>
	Day 34	Addition theorem of probability and its extension
	Day 35	Multiplication laws of probability
	Day 36	Boole's Inequality
	Day 37	Examples an Boole's Inequality
		Sunday
4	Day 38	Example on probability
	Day 39	More problems on the result of probability theorem
	Day 40	Conditional probability and its problem
	Day 41	Independent events and theroerm
	Day 42	Pairwise independent and mutually Independent events
	Day 43	Example on addition and & multiplication theorem
		Sunday
5	Day 44	Discussion on Unit II complete
	Day 45	Extended axiom of addition
	Day 46	Axiom of countinuity & its theroem

1-Jan		<u>Guru Ravidas Birthday</u>
		<u>Holi</u>
	Day 47	Baye's theorem complete with proof
		Sunday
2	Day 48	Baye's theorem application
	Day 49	Problem on Baye's theorem
	Day 50	More examples on Baye's theorem
	Day 51	Introduction to random variable and probability function
	Day 52	Distribution function and its properties
	Day 53	Discrete random variable complete topic
		Sunday
3	Day 54	Discrete distribution function & its problems
	Day 55	Continuous random variable
	Day 56	Various measures for continuous probability distribution
	Day 57	Continuous distribution function and its properties
	Day 58	Two dimensional random variable
	Day 59	Probability mass and density function
		Sunday
4	Day 60	Two dimensional distribution function
	Day 61	Stochastic Independent and its theorem
	Day 62	Complete discussion of unit III
	Day 63	Unit Test of Unit III
		<u>Shaheedi Diwas of Bhagat Singh, Rajguru & Sukhdev</u>
	Day 64	Introduction to concept of bivariate RV
		<u>Sunday/ Ram Navami</u>
5	Day 65	Joint distribution and its Arbicle
	Day 66	Marginal and conditional distribution
	Day 67	Introduction to mathematical expectation
		<u>Mahavir Jayanti</u>
	Day 68	Expected value of function of a random variable
	Day 69	1st property of expectation and its generalization

1-Apr		Sunday
	Day 70	Property 2 of Mathematical expectation
	Day 71	Properties 3 and 4 of mathematical expectation
	Day 72	Properties of mathematical expectation from 5 to 10
	Day 73	Problem of Variance
	Day 74	Variance and variance of 2C of random variable
	Day 75	Problem on mathematical expectation
		Sunday
2	Day 76	More example on mathematical expectation
	Day 77	Definition of properties of moments
	Day 78	measure of location complete topic
	Day 79	Definition and properties of dispersion
	Day 80	Definition & properties of skewness
		Dr Ambedkar Jayanti / Vaisakhi
		Sunday
3	Day 81	Complete topic of Kurtosis
	Day 82	Discussion of Unit IV complete
		Parashurama Jayanti
	Day 83	Sessional of Unit IV complete
	Day 84	Sessional of Unit II
	Day 85	Discussion and Revision of Unit I
		Sunday
4	Day 86	Revision and Problem of Unit II
	Day 87	Revision & problem of Unit III
	Day 88	Discussion of Unit IV complete
	Day 89	Sessional of complete syllabus
	Day 90	Discussion of the test problem
	Day 91	Complete revision of whole syllabus

Lesson Plan

Name of the Assistant/ **Mr. Manjeet**

Class and Section:..... **B.SC. 2nd Year 4th Sem**

Subject:..... **Mathematics (Special function & integral transform)**

Week		Topics
1	Day 1	Converges at power series
	Day 2	Ordinary and singular points of ditt. Equation
	Day 3	Existance at power series solution
	Day 4	Frobenius method
	Day 5	Solution of ditt. Equation about $x = 0$ is regular singular point
	Day 6	problems related to regular singular point
		Sunday
2	Day 7	Another solution of ditt equation at $x = 0$
	Day 8	Related problems of above equations
	Day 9	Solutions of power series
	Day 10	Frobenius method problems
	Day 11	Power series methods related problems
	Day 12	Extra problems related to power series method
		Sunday
3	Day 13	Basics of Bessels equation
	Day 14	Beta & Gamma functions properties
	Day 15	Solution at Bessels equations
	Day 16	Recurrence relation for Bessels functios
	Day 17	Problems of solution of Bessels equations
	Day 18	Generating function for
		Sunday
4		<u>VasantPanchami</u>
	Day 19	Jcobis series problems
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	Solution of reducible Bessels equation
		<u>Republic Day</u>
	Day 21	Reduction of two standard equations
		Sunday
5	Day 22	Solution of related problems of standard equations
	Day 23	Orthogonality relation of Bessels equation
	Day 24	Problems related to above equation

1-Feb	Day 25	Solution of Legendre's equation
	Day 26	Rodrigues formula & derivation of Legendre's polynomial
	Day 27	Generating function & related problems
		Sunday
2	Day 28	Recurrence relations
	Day 29	Problems related to recurrence relations
	Day 30	Problem of generating function
	Day 31	Derivation of Legendre's polynomials
	Day 32	Orthogonality at Legendre's polynomials
		<u>Maharshi Dayanand Saraswati Jayanti</u>
		Sunday
3	Day 33	Related problem of above topics
		<u>MahaShivratri</u>
	Day 34	Laplace integral for $P_n(x)$
	Day 35	Related problem of Laplace integral
	Day 36	Solution of Hermite's equation
	Day 37	Hermite's polynomial
		Sunday
4	Day 38	Generating function for Hermite's polynomial
	Day 39	Rodrigues's Formula for $H_n(x)$
	Day 40	Derivation of Hermite polynomial
	Day 41	Recurrence relations of Hermite's polynomial
	Day 42	Related problem of Hermite's polynomial
	Day 43	Orthogonal property of Hermite's polynomial
		Sunday
5	Day 44	Laplace Transform of some functions
	Day 45	Linear property of Laplace transform & shifting property
	Day 46	Change of Scale property'

1-Jan		<u>Guru Ravidas Birthday</u>
		<u>Holi</u>
	Day 47	Problem of laplace tranforms
		Sunday
2	Day 48	Unit step function & second shifting theorem
	Day 49	Laplace transform of derivatives
	Day 50	Laplace transform of Periodic function
	Day 51	Laplace transform of Integrals
	Day 52	Laplace transform of Bessels functions
	Day 53	Problem related to Bessels functions
		Sunday
3	Day 54	Inverse Laplace transform of some functions
	Day 55	Other methods of inverse transforms
	Day 56	Problem related to inverse transforms
	Day 57	Convolution theorem
	Day 58	Related problem of convolution theorem
	Day 59	Application of laplace transform to I.E.
		Sunday
4	Day 60	Solution of laplace transform
	Day 61	Solution of L.D.E. by transform method
	Day 62	Solution of O.D.E. by transform method
	Day 63	Solution of simultaneous equation by transform method
		<u>ShaheediDiwas of Bhagat Singh, Rajguru & Sukhdev</u>
	Day 64	Problem related to above topics
		<u>Sunday/ Ram Navami</u>
5	Day 65	Doubt classes for above topics
	Day 66	Basics of Fourier transforms
	Day 67	Basics of fourier sine & cosines transforms
		<u>MahavirJayanti</u>
	Day 68	Properties of fourier transform
	Day 69	Change of Scale property'

1-Apr		Sunday
	Day 70	Change of scale property shifting property
	Day 71	Modulation property
	Day 72	Some problems based on fourier transform
	Day 73	Some problems based on fourier sine transform
	Day 74	Problem related to fourire cosine transform
	Day 75	Exercise based on fourier transforms
		Sunday
2	Day 76	Doubt lectures of above topics
	Day 77	Problem based on inverse transforms
	Day 78	Other problems based on inverse transforms
	Day 79	Convolution theorem for fourier transform
	Day 80	Fourier transform of the derivative
		Dr AmbedkarJayanti / Vaisakhi
		Sunday
3	Day 81	Fourier transform of nth derivative
	Day 82	Related problem of nth derivatives
		ParashuramaJayanti
	Day 83	Problem related to fourier sine transform of derivatives
	Day 84	Problems related to fourier cosine transform of derivatives
	Day 85	relation between fourier & laplace transform
		Sunday
4	Day 86	Parseval's identity for fourier transform
	Day 87	Parsenals identity for fourier sone & cosine transforms
	Day 88	Problems related to parsevals identity
	Day 89	Finite fourier sine & cosine transforms
	Day 90	Solution of Ditt. Equation by fourier transform
	Day 91	Method of solution of one dimensional heat & wave equation'

Lesson Plan

Name of the Assistant/ Mr. Arvind

Class and Section:.....

Subject:..... Ordinary Differential equation

Week		Topics
1		Introduction about ODE
	Day 1	Geometrical meaning of a differential equation
	Day 2	Practical application of ODE
	Day 3	Some example of ODE
	Day 4	Introduction of exact differential equation
	Day 5	Example on exact differential equation
	Day 6	Sunday
2	Day 7	Definition of Integrating factor
	Day 8	Example of Intregrating factor
	Day 9	First order higher degree equation
	Day 10	Lagrange's equation soluable for x, y, z
	Day 11	Clair out's equation
	Day 12	Example of clairaut's equation
		Sunday
3	Day 13	Equation reducible to chlairauts form
	Day 14	Singular solution
	Day 15	Problem of whole chapter
	Day 16	Introduction about orthogonal frajectory
	Day 17	Orthogonal trajectory inCartesian co-ordinate
	Day 18	Ortogonal trajectory in Polar form
		Sunday
4		<u>VasantPanchami</u>
	Day 19	Self orthogonal family of curves
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	Examples on orthopgonal trajectory
		<u>Republic Day</u>
	Day 21	Linear differential equation with const. coefficient
		Sunday
5	Day 22	Test of chapter first
	Day 23	Discussion of Test
	Day 24	Example on Linear differential equation

1-Feb	Day 25	Homogeneous linear ordinary differential equation
	Day 26	Equation reducible to homogenous linear ODE
	Day 27	Problem of last topics
		Sunday
2	Day 28	Test of last chapter
	Day 29	Discussion of Test problems
	Day 30	Distribution of answer sheets
	Day 31	Introduction of linear differential equation
	Day 32	Linear differential equation of second order
		<u>MaharshiDayanandSaraswatiJayanti</u>
		Sunday
3	Day 33	Example of linear differential equation of second order
		<u>MahaShivratri</u>
	Day 34	Introduction about normal form
	Day 35	Example of reduction of normal form
	Day 36	Transformation of the equation by changing dependent variable
	Day 37	Transformation of the equation by changing independent variable
		Sunday
4	Day 38	Problem discussion of last exercise
	Day 39	Problem discussion of last exercise
	Day 40	Solution by operator of non-homogenous LDE
	Day 41	Example on about topic
	Day 42	Test of above Topic
	Day 43	Test discussion
		Sunday
5	Day 44	Sheet distribution of test
	Day 45	Practical application of some problem
	Day 46	Example & some practical application

1-Jan		<u>Guru Ravidas Birthday</u>
		<u>Holi</u>
	Day 47	Introduction of reduction of ODE
		Sunday
2	Day 48	Example on reductio of ODE
	Day 49	Exercise problem on reduction of ODE
	Day 50	Some review about methods of variation of parameter
	Day 51	Example on VOPM
	Day 52	Example on VOPM
	Day 53	Exercise problems about VOPM
		Sunday
3	Day 54	Methods of undetermind co-efficient
	Day 55	Example of method of undetermines co-efficient
	Day 56	Example of method of undeterming co-efficient
	Day 57	Exercise problem on method of undeterming co-efficient
	Day 58	Introduction about next chapter
	Day 59	Ordinary simultaneous differential equation
		Sunday
4	Day 60	Test of last chapter
	Day 61	Discussion of class Test
	Day 62	Sheet distribution of last test
	Day 63	Example of ordinary simultaneous DE
		<u>ShaheediDiwas of Bhagat Singh, Rajguru & Sukhdev</u>
	Day 64	Exercise of ordinary simultaneous DE
		<u>Sunday/ Ram Navami</u>
5	Day 65	Solution of simultaneous DE
	Day 66	Solution of simultaneous DE
	Day 67	Simultaneous equation of form
		<u>MahavirJayanti</u>
	Day 68	Example of simultaneous DE
	Day 69	Exercise problem on simultaneous DE

1-Apr		Sunday
	Day 70	Overview of total differential equation
	Day 71	Example of total differential equation
	Day 72	Example of total differential equation
	Day 73	Exercise problem on total differential equation
	Day 74	Exercise problems on total differential equation
	Day 75	Condition for $Pdx + Qdy + Rdz$ to be exact
		Sunday
2	Day 76	Example on exact differential equation
	Day 77	Example on exact differential equation
	Day 78	Exercise problem on exact DE
	Day 79	Problem session of last chapter
	Day 80	Problem session of last chapter
		Dr AmbedkarJayanti / Vaisakhi
		Sunday
3	Day 81	Test of last chapter
	Day 82	Test discussion
		ParashuramaJayanti
	Day 83	General method of solving $Pdx + Qdy + Rdz = 0$
	Day 84	Some example on above topic
	Day 85	Exercise concern above topic questions
		Sunday
4	Day 86	Revision of unit 1
	Day 87	Revision of unit II & problem of I
	Day 88	Revision of Unit II and problem
	Day 89	Revision of Unit III & problem of II
	Day 90	Revision of Unit IV & problem III
	Day 91	Revision with problem solving session

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

Class and Section:.....

Subject:.....

Week	
1	Day 1
	Day 2
	Day 3
	Day 4
	Day 5
	Day 6
2	Day 7
	Day 8
	Day 9
	Day 10
	Day 11
	Day 12
3	Day 13
	Day 14
	Day 15
	Day 16
	Day 17
	Day 18
4	
	Day 19
	Day 20
	Day 21
5	Day 22
	Day 23
	Day 24

1-Feb	Day 25
	Day 26
	Day 27
2	Day 28
	Day 29
	Day 30
	Day 31
	Day 32
3	Day 33
	Day 34
	Day 35
	Day 36
	Day 37
4	Day 38
	Day 39
	Day 40
	Day 41
	Day 42
	Day 43
5	Day 44
	Day 45
	Day 46

1-Mar	
	Day 47
2	Day 48
	Day 49
	Day 50
	Day 51
	Day 52
	Day 53
3	Day 54
	Day 55
	Day 56
	Day 57
	Day 58
	Day 59
4	Day 60
	Day 61
	Day 62
	Day 63
	Day 64
5	Day 65
	Day 66
	Day 67
	Day 68
	Day 69

1-Apr	
	Day 70
	Day 71
	Day 72
	Day 73
	Day 74
	Day 75
2	Day 76
	Day 77
	Day 78
	Day 79
	Day 80
3	Day 81
	Day 82
	Day 83
	Day 84
	Day 85
4	Day 86
	Day 87
	Day 88
	Day 89
	Day 90
	Day 91

Lesson Plan

Mr. Sandeep Kumar

B.Sc 2nd Semester

Number Theory and Trigonometry

Topics
Introduction to Numbers
Introduction to Number theory and Trigonometry
Divisibility of Integers
Greatest Common Divisors
Greatest Common Divisors
Revision of Previous topics
Sunday
Introduction to L.C.M. (least common multiple)
L.C.M (least common multiple)
Introduction to Primes & their importance in Number Theory
Fundamental Theorem of Arithmetic
Application of Fundamental Theorem of Arithmetic
Introduction to Linear Congruences
Sunday
Linear Congruences
Fermat's Theorem
Wilson Theorem
Converse of Wilson Theorem
Importance of Wilson Theorem
Importance of Fermat's theorem
Sunday
<u>VasantPanchami</u>
Revision of Previous topics
<u>Sir Chhotu Ram Jayanti</u>
Doubt class & Revision
<u>Republic Day</u>
Doubt class & Revision
Sunday
Introduction to Linear Diophantine Equations
Linear Diophantine Equations in two variables.
Linear Diophantine Equations in two variables.

Introduction to Module Operations
Complete Residue system
Reduced Residue System
Sunday
Introduction to Euler's ϕ -function
Importance of ϕ function in Number theory
Euler's Generalisation of Fermat's Theorem
Chinese Remainder Theorem
Importance of Chinese Remainder Theorem & its application
<u>MaharshiDayanandSaraswatiJayanti</u>
Sunday
Application of Chinese Remainder Theorem
<u>MahaShivratri</u>
Introduction to Quadratic Residues
Quadratic Residues continued
Introduction to Legendre Symbols
Importance of Legendre symbols
Sunday
Lemma of Gauss
Revision of Doubt Class
Gauss Reciprocity Law
Applications of Gauss Reciprocity Law
Greatest Integer Function (x)
Revision & Doubt class
Sunday
The function $d(n)$ -No. of divisors of a natural number n
The function $\sigma(n)$ -Sums of the divisor of a natural number n
Properties of $d(n)$ & $\sigma(n)$

<u>Guru Ravidas Birthday</u>
<u>Holi</u>
Revision & Doubt class
Sunday
Introduction to Moebius function
Properties of Moebius function
Moebius Inversion formula
Importance & applications of Moebius Inversion formula
Revision & Doubt class
Revision & Doubt class
Sunday
Introduction to De Moivre's theorem
Proof of De Moivre's theorem
Applications of De Moivre's theorem
Application of DE Moivre's theorem
Revision & Doubt class
Revision & Doubt class
Sunday
Introduction to expansion of trigonometric functions
Expansion of trigonometric functions
Expansion of trigonometric functions
Expansion of trigonometric functions
<u>ShaheediDiwas of Bhagat Singh, Rajguru & Sukhdev</u>
Revision & Doubt class
<u>Sunday/ Ram Navami</u>
Introduction to Circular function
Circular Functions
Properties of Circular Functions
<u>MahavirJayanti</u>
Introduction to Hyperbolic functions
Hyperbolic functions

Sunday
Properties of Hyperbolic functions\
Revision & Doubt class
Introduction to Inverse Circular functions
Properties of Inverse Circular functions
Introduction to Inverse Hyperbolic functions
Properties of Inverse Hyperbolic functions
Sunday
Logarithm of a complex quantity
Logarithm of a complex quantity
Introduction to Gregory's series
Gregory's series
Importance of Gregory's series
Dr AmbedkarJayanti / Vaisakhi
Sunday
Revision & Doubt class
Revision & Doubt class
ParashuramaJayanti
Summation of trigonometry series
Summation of trigonometry series
Summation of trigonometry series
Sunday
Revision & Doubt Class of Section-I
Revision & Doubt Class of Section-II
Revision & Doubt Class of Section-III
Revision & Doubt Class of Section-IV
Revision & Doubt Class of whole syllabus
Revision & Doubt Cloass of whole syllabus

Lesson Plan

Name of the Assistant/ Associate Professor

Class and Section:.....

Subject:..... Operation research technique

Week		Topics
1	Day 1	Introduction of Or. Origin, definition and scope of O.R
	Day 2	Introduction of Linear programming problem (LPP)
	Day 3	Introduction of LPP (Maximization type)
	Day 4	More problems on maximization type
	Day 5	Formulation of LPP (minimization type)
	Day 6	More problems on minimization type
		Sunday
2	Day 7	Solution of LPP by graphical method
	Day 8	Problems on graphical method
	Day 9	Solution of LPP by simplex method
	Day 10	Problem on simple method
	Day 11	Some more problem on simplex method
	Day 12	Introduction to Big - M method
		Sunday
3	Day 13	Problem on Big-M method
	Day 14	Introduction to two phase method
	Day 15	Problems on Big-M method
	Day 16	Introduction to degeneracy in LPP
	Day 17	Problem on degeracy in LPP
	Day 18	Introduction to duality in linear programming
		Sunday
4		<u>VasantPanchami</u>
	Day 19	Problem on Primal-dual realtionship
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	First doubt class on Unit 1
		<u>Republic Day</u>
	Day 21	Second doubt class on Unit 2
		Sunday
5	Day 22	Class Test of Unit 1
	Day 23	Introduction to transportation problem of basic concepts
	Day 24	Method for finding basic feasible solution

1-Feb	Day 25	Problem on finding initial basic feasible solution
	Day 26	More problem on finding initial basic feasible solution
	Day 27	Optimum solution by stepping stone method
		Sunday
2	Day 28	Problem on stepping stone method
	Day 29	Optimum solution by modified distribution method (MODI)
	Day 30	Problem on MODI method
	Day 31	Problem on unbalanced transportation problem
	Day 32	Degeneracy in transportation problem
		<u>MaharshiDayanandSaraswatiJayanti</u>
		Sunday
3	Day 33	Problem on degeneracy
		<u>MahaShivratri</u>
	Day 34	Transshipment problem and its example
	Day 35	Doubt class on transportation problem
	Day 36	Introduction to assignment problem and its definitions
	Day 37	Hungarian method and its problem
		Sunday
4	Day 38	More problem on Hungarian method
	Day 39	Unbalanced assignment problem and its example
	Day 40	Case of maximization & its examples
	Day 41	Travelling salesman problem and its example
	Day 42	Crew assignment problem and its example
	Day 43	Doubt class on assignment problem
		Sunday
5	Day 44	Class Test of Unit 2
	Day 45	Introduction to queuing theory
	Day 46	Basic components of queuing system

1-Jan		<u>Guru Ravidas Birthday</u>
		<u>Holi</u>
	Day 47	Concept of stochastic process
		Sunday
2	Day 48	Concept of poisson process
	Day 49	Concept of birth death process
	Day 50	Steady state solution of Markovian quining models
	Day 51	Quening model M/M/1
	Day 52	Example on M/M/1 model
	Day 53	More example on above model
		Sunday
3	Day 54	Quening model M/M/C
	Day 55	Example on M/M/C model
	Day 56	More illustrations on above model
	Day 57	Quening model M/M/1/K
	Day 58	Example on M/M/1/K model
	Day 59	More illustration on above model
		Sunday
4	Day 60	Quening model M/M/C/K
	Day 61	Example on M/M/C/K
	Day 62	More illustration on above model
	Day 63	Doubt class on quening models
		<u>ShaheediDiwas of Bhagat Singh, Rajguru & Sukhdev</u>
	Day 64	Class Test of Unit 3
		<u>Sunday/ Ram Navami</u>
5	Day 65	Introduction of basic concept of inventory control models
	Day 66	Concept of Econioms order Quantity model
	Day 67	EOQ model with uniform demand
		<u>MahavirJayanti</u>
	Day 68	Illustration on above model
	Day 69	EOQ model when shortage are allowed

1-Apr		Sunday
	Day 70	Illustrations on above model
	Day 71	EOQ model with uniform replenishment
	Day 72	Illustration on above model
	Day 73	Inventroy control model with price breaks
	Day 74	Illustrations on above model
	Day 75	Doubt class
		Sunday
2	Day 76	Introduction to game theory and its basic definitions
	Day 77	Game with saddle points and its illustrations
	Day 78	Rule of dominence and its examples
	Day 79	More illustration on rule of domenance
	Day 80	Algebraic method for mixed strategy game
		Dr AmbedkarJayanti / Vaisakhi
		Sunday
3	Day 81	Illustrations on algebric method
	Day 82	Graphical method for mixed strategy game
		ParashuramaJayanti
	Day 83	Illustration on above method
	Day 84	Linear programming method for mixed strategy game
	Day 85	Illustration on linear programming method
		Sunday
4	Day 86	Doubt class on game theory
	Day 87	Class Test of Unit 4
	Day 88	Revision of Unit 1
	Day 89	Revision of Unit 2
	Day 90	Revision of Unit 3
	Day 91	Revision of Unit 4

Lesson Plan

Name of the Assistant/ **Mr. Pradeep**

Class and Section:.....

Subject:..... Elementary Topology

Week		Topics
1	Day 1	Introduction to syllabus
	Day 2	Some basic useful defini and statements
	Day 3	Definition and exampes of topological space
	Day 4	Definition of nbd, interioe point, and interioe set
	Day 5	Example of above definition
	Day 6	Adherent point limit point closure of set with example
		Sunday
2	Day 7	Properties of closure operator
	Day 8	Bounding point and Boundary of a set with theorem
	Day 9	Derive subset with example and theory
	Day 10	Some basic properties of interor and exterioe operator
	Day 11	Doubt class
	Day 12	Boundary operator and its theorems
		Sunday
3	Day 13	Definition and example of base and subbase
	Day 14	Theorem of baes and subbase
	Day 15	Nbd system of a points
	Day 16	Theorem and properties of Nbd of point
	Day 17	Induced topology with example
	Day 18	Kuratowske closure axiom
		Sunday
4		<u>VasantPanchami</u>
	Day 19	Theorem related to kuratauski closure operator
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	Topology in term of nbd system
		<u>Republic Day</u>
	Day 21	Comparison of topologies on a set
		Sunday
5	Day 22	Intersection of topologies with example
	Day 23	Union of topologies with example and theorem
	Day 24	Test of Unit 1

1-Feb	Day 25	Definition of continuous functions with example
	Day 26	Theorem based on continuous function
	Day 27	Some basic character of continuous function
		Sunday
2	Day 28	Definition of open and closed function with example
	Day 29	Character and theorem of open and closed function
	Day 30	Definition of Homeomorphism with example
	Day 31	Theorem related to continuous function which are h
	Day 32	Definition of connected sets with example
		<u>MaharshiDayanandSaraswatiJayanti</u>
		Sunday
3	Day 33	Test of section II
		<u>MahaShivratri</u>
	Day 34	Theorem on connected sets and its character
	Day 35	Theorem continuous function on connected set
	Day 36	Connected subsets and their properties
	Day 37	Properties of continuous function with connected domain
		Sunday
4	Day 38	Definition of components with example
	Day 39	Some properties of components
	Day 40	Definition of Locally connected spaces with example
	Day 41	Theorem and properties of locally connected spaces
	Day 42	Revision of section 2nd
	Day 43	Definition of compact spaces with example
		Sunday
5	Day 44	Statement of FIP with examples
	Day 45	Compactness in terms of FIP
	Day 46	Theorem and basic properties of compactness

1-Jan		<u>Guru Ravidas Birthday</u>
		<u>Holi</u>
	Day 47	Theorem of continuity and compact sets
		Sunday
2	Day 48	Closedness of compact subset
	Day 49	Theorem related to closedness of compact subset
	Day 50	Definition of Hausdorff IS with examples
	Day 51	Continuous map from compact sets to Hausdorff
	Day 52	Theorem related to these type of continuous function
	Day 53	Definition of sequentially compact sets.
		Sunday
3	Day 54	Theorem related to seq. compact sets
	Day 55	Definition of countably compact sets with example
	Day 56	Theorem related to countably compact set
	Day 57	Basic relation of compact and seq. Compact
	Day 58	Relation bet. Seq. compact and countably compact
	Day 59	Relation bet countably compact and compact
		Sunday
4	Day 60	Definition of locally compactness with example
	Day 61	Theorem related to locally compactness
	Day 62	Basic properties of locally compact set
	Day 63	Cantor point compactification
		<u>Shaheedidiwas of Bhagat Singh, Rajguru & Sukhdev</u>
	Day 64	Revision and doubt of section III
		<u>Sunday/ Ram Navami</u>
5	Day 65	Test of section IV
	Day 66	Definition of first and second countable with example
	Day 67	Separable spaces with example
		<u>MahavirJayanti</u>
	Day 68	Relation bet 1st, 2nd countable and separable
	Day 69	Basic properties of 1st,2nd countable set

1-Apr		Sunday
	Day 70	Properties of seprable spaces
	Day 71	Hereditary properties
	Day 72	Topological properties
	Day 73	Coubtability of collection of disjoint open set in seprable paces insecond cour
	Day 74	Coubtability of collection of disjoint open set in seprable paces insecond cour
	Day 75	Lindelaf theorem
		Sunday
2	Day 76	Definition with example of T0, T1, T2 Haysdorff
	Day 77	Relation bet T0, T1 and T2 Hausdorff
	Day 78	Separection axiams
	Day 79	Theorem of T0, T1, T2 Hausdorff spaces
	Day 80	Characterizations of these spaces
		Dr AmbedkarJayanti / Vaisakhi
		Sunday
3	Day 81	Basic properties of these spaces
	Day 82	Revision of Section IV
		ParashuramaJayanti
	Day 83	Test of section IV
	Day 84	Revision and doubt classes
	Day 85	Revision and doubt classes
		Sunday
4	Day 86	
	Day 87	
	Day 88	
	Day 89	
	Day 90	
	Day 91	

Lesson Plan

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

Class and Section:.....

Subject:.....		Vector Calculus
Week		Topics
1	Day 1	Introduction about Scalars and Vectors
	Day 2	Types of Vectors
	Day 3	Addition of Vectors and properties of addition.
	Day 4	Multiplication of a vector by a scalar and properties
	Day 5	D.C's and D.R's of a vector in terms of components
	Day 6	Scalar (or dot) product of two vectors.
		Sunday
2	Day 7	Properties of Scalar product and angle between two vectors
	Day 8	Vector (or cross) product of two vectors.
	Day 9	Properties of Vector product.
	Day 10	Vector and Scalar treple product
	Day 11	Determinant form of the scalar treple Product
	Day 12	Properties of scalar treple Product
	Sunday	
3	Day 13	Properties of scalar triple product
	Day 14	Geometrically representation of scalar treple product.
	Day 15	Some theorems on Vector product
	Day 16	Volume of a tetrahedron
	Day 17	Examples on Multiple products of vectors
	Day 18	More examples on Multiple products of vectors.
		Sunday
4		<u>VasantPanchami</u>
	Day 19	Exercise problem on Multiple products of vectors
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	Extension Formula for Vector treple products
		<u>Republic Day</u>
	Day 21	Examples on Vector treple product
	Sunday	
5	Day 22	More examples on Vector treple product
	Day 23	Exercise problem on Vector treple product
	Day 24	Scalar Product of four vectors

1-Feb	Day 25	Vector product of four vector
	Day 26	Examples on Scalar product of four vector
	Day 27	Examples on vector product of four vector
		Sunday
2	Day 28	Reciprocal system of vectors
	Day 29	Properties of reciprocal system of vectors
	Day 30	Introduction to differentiation of vectors
	Day 31	Limit and continuity of vector function
	Day 32	Theorem on Continuity
		MaharshiDayanandSaraswatiJayanti
		Sunday
3	Day 33	Successive differteation and properties
		MahaShivratri
	Day 34	Some important theorem on Differentiation of vectors
	Day 35	Some examples on differentiation of vectors
	Day 36	Curve in space and tangent at a point t
	Day 37	Velocity and Acceleration
		Sunday
4	Day 38	Examples on Velocity and acceleration
	Day 39	Partial derivative of vectors and examples
	Day 40	Gradient of scalar field and properties
	Day 41	Examples on gradient of of scalar field
	Day 42	More examples on gradient
	Day 43	Geometrically enterpretation of gradient
		Sunday
5	Day 44	Equation of tangent plane and normal plane
	Day 45	Problems of tangent plane, normal plane, Direction derivative
	Day 46	Divergence of a vector function and properties

1-Mar		Guru Ravidas Birthday
		Holi
	Day 47	Questino on divergence
		Sunday
2	Day 48	Curl of a vecotr point function
	Day 49	Properties of curl
	Day 50	Relation between gradient, div., curl
	Day 51	Laplacian operator
	Day 52	Problems on laplacian operator
	Day 53	Introduction to Curvilinear co-ordinates
		Sunday
3	Day 54	Orthogonal Curvelinear and condition
	Day 55	
	Day 56	Arc length, volume element and area element
	Day 57	Grad, aliv, and curl in terms of curvilinear
	Day 58	cuylindrical co-ordinate system and properties
	Day 59	Spherical co-ordinate system and properties
		Sunday
4	Day 60	Examples on curvelinear system
	Day 61	Test of above topics
	Day 62	Introduction to vector Integration
	Day 63	Indifinite integral
		ShaheediDiwas of Bhagat Singh, Rajguru & Sukhdev
	Day 64	Definite integral and Some standard result for integration.
		Sunday/ Ram Navami
5	Day 65	Line integral and problems related it
	Day 66	Work done by a force and problems related it
	Day 67	Surface integral and problems related it
		MahavirJayanti
	Day 68	Volume integration and problems related it
	Day 69	Gauss Divergence theorem

1-Apr		Sunday
	Day 70	Divergence theorem in cartesian co-ordinate
	Day 71	Deduction from Gauss's divergence theorem
	Day 72	Examples on divergence theorem
	Day 73	More examples on Gauss divergence theorem.
	Day 74	Green's theorem
	Day 75	Stoke theorem in Cartesian form
		Sunday
2	Day 76	Example on stoke's theorem
	Day 77	More examples on stoke's theorems
	Day 78	Green's theorem in plane is spacial case of stoke theorem
	Day 79	Short answer type question on product of vecotrs
	Day 80	Short answer type question on Differentiation of vectors
		Dr AmbedkarJayanti / Vaisakhi
		Sunday
3	Day 81	Short answer type question on grad, div., curl
	Day 82	Short answer type question on curvilinear co-ordinate
		ParashuramaJayanti
	Day 83	Short answer type question on vector integration
	Day 84	Short answer type question on Gauss, Green, Stoke theorem
	Day 85	Revise Multiple products of vectors
		Sunday
4	Day 86	Revise differentiation of vector
	Day 87	Revise gradient divergence and curl
	Day 88	Revise curvilinear co-ordinates
	Day 89	Revise vector integration
	Day 90	Revise Gauss's, Green's, and stoke's theorem.
	Day 91	Revise previous year question papers.

Lesson Plan

Name of the Assistant/ Associate professor: Mr. Rakesh Kumar

Class and Section: M.Sc 2nd Sem

Subject: Topology

Week	Date	Topics
1	01-Jan-2018	Basic definition of sets and properties of sets, Examples
	02-Jan-2018	Definition of topology, examples of topology
	03-Jan-2018	Types of topology
	04-Jan-2018	Discrete, Indiscrete, Usual and Lower limit topology
	05-Jan-2018	Upper limit and Usual topology
	06-Jan-2018	Co-finite, co-countable and metric topology
	07-Jan-2018	Sunday
2	08-Jan-2018	Comparison of topologies
	09-Jan-2018	Test of types of topology
	10-Jan-2018	Intersection and union of topology
	11-Jan-2018	Definition of Limit point, Derived set and their examples
	12-Jan-2018	Definition of Interior point, Interior set and their examples
	13-Jan-2018	Kurtowski closure axioms
	14-Jan-2018	Sunday
3	15-Jan-2018	Properties of interior axioms
	16-Jan-2018	Properties of Exterior axioms
	17-Jan-2018	Properties of Derived sets
	18-Jan-2018	Definition of dense sets, Examples
	19-Jan-2018	Theorems related to dense sets.
	20-Jan-2018	Definition of neighbourhood of a point and examples
	21-Jan-2018	Sunday
4	22-Jan-2018	Vasant Panchami
	23-Jan-2018	Properties of neighbourhoods & definition of neighbourhoods, Examples
	24-Jan-2018	Sir Chhotu Ram Jayanti
	25-Jan-2018	Characterization of topology in terms of neighbourhood
	26-Jan-2018	Republic Day
	27-Jan-2018	Definition of open set and close set, Examples
	28-Jan-2018	Sunday
5	29-Jan-2018	Theorems related to open set and close set
	30-Jan-2018	Doubt class of first unit
	31-Jan-2018	Test of 1 st unit

Lesson Plan

Name of the Assistant/ Associate professor: Mr. Rakesh Kumar

Class and Section: M.Sc 2nd Sem

Subject: Topology

Week	Date	Topics
1	01-Feb-2018	Definition of sub-space topology, Examples
	02-Feb-2018	Definition of base and examples
	03-Feb-2018	Definition of sub base and examples
	04-Feb-2018	Sunday
2	05-Feb-2018	Theorem related to base
	06-Feb-2018	Theorem related to sub base
	07-Feb-2018	Theorem related to sub space topology
	08-Feb-2018	Basic properties of function related to sets
	09-Feb-2018	Definition of 1-1 function & onto function and their examples
	10-Feb-2018	Maharishi Dayanand Saraswati Jayanti
	11-Feb-2018	Sunday
3	12-Feb-2018	Definition of continuous function w.r.t topologies and examples
	13-Feb-2018	Mahasivratri
	14-Feb-2018	Definition of composite functions and examples
	15-Feb-2018	State and prove pasting lemma
	16-Feb-2018	Inverse image of an open set and close set under a continuous is an open set and close set respectively
	17-Feb-2018	Definition of homeomorphism mapping and examples
	18-Feb-2018	Sunday
4	19-Feb-2018	Definition of topological property and examples
	20-Feb-2018	Definition of connected sets and examples
	21-Feb-2018	Definition of separated sets and examples
	22-Feb-2018	Theorems related to connected sets and disconnected sets
	23-Feb-2018	Definition of components, locally connected space.
	24-Feb-2018	Theorems related to locally connected spaces and components
	25-Feb-2018	Sunday
5	26-Feb-2018	Theorems related homeomorphism mapping
	27-Feb-2018	Doubt class of Unit-II
	28-Feb-2018	Test of 2nd Unit

Lesson Plan

Name of the Assistant/ Associate professor: **Mr. Rakesh Kumar**

Class and Section: **M.Sc 2nd Sem**

Subject: **Topology**

Week	Date	Topics
1	01-March-2018	Guru Ravidas Birthday
	02-March-2018	Holi
	03-March-2018	Separation axioms: Definition of T_0 Space and examples
	04-March-2018	Sunday
2	05-March-2018	Topological and hereditary properties of T_0 space
	06-March-2018	Theorems related to T_0 Space
	07-March-2018	Separation axioms: Definition of T_1 Space and examples
	08-March-2018	Topological and hereditary properties of T_1 space
	09-March-2018	Theorems related to T_1 Space
	10-March-2018	Separation axioms: Definition of T_2 Space and examples
	11-March-2018	Sunday
3	12-March-2018	Topological and hereditary properties of T_2 space
	13-March-2018	Theorems related to T_2 Space
	14-March-2018	Definition of first countable space and examples
	15-March-2018	Topological and hereditary properties of first countable space
	16-March-2018	Theorems related to first countable space
	17-March-2018	Definition of second countable space and examples
	18-March-2018	Sunday
4	19-March-2018	Topological and hereditary properties of second countable space
	20-March-2018	Theorems related to second countable space
	21-March-2018	Countability of a collection of disjoint open sets
	22-March-2018	Definition of Lindelof space and examples
	23-March-2018	Shaheedi diwas of Bhagat Singh, Rajguru and Sukhdev
	24-March-2018	Lindelof theorem
	25-March-2018	Sunday/ Ramnavami
5	26-March-2018	Theorems related to first and second countable space
	27-March-2018	Some space which has topological property but don't have hereditary property
	28-March-2018	Some space which has hereditary property but don't have topological property
	29-March-2018	Mahavir Jayanti
	30-March-2018	Doubt class of Unit-III
	31-March-2018	Test of Unit-III

Lesson Plan

Name of the Assistant/ Associate professor: Mr. Rakesh Kumar

Class and Section: M.Sc 2nd Sem

Subject: Topology

Week	Date	Topics
1	01-April-2018	Sunday
	02-April-2018	Definition of compact space and examples
	03-April-2018	Image of compact space is compact under a continuous mapping
	04-April-2018	Finite intersection property and examples
	05-April-2018	Theorem of compact space related to finite intersection property
	06-April-2018	Every close subset of a compact space is compact
	07-April-2018	Theorems related to compact and T_2 space
	08-April-2018	Sunday
2	09-April-2018	Compactness is not a hereditary property but is a topological property
	10-April-2018	Open and close mapping related to compact closed and T_2 Space
	11-April-2018	Definition of sequentially compact space and examples
	12-April-2018	Theorem related to sequentially compact space
	13-April-2018	Definition of locally compact space and examples
	14-April-2018	Dr. Ambedkar Jayanti/Vaisakhi
	15-April-2018	Sunday
3	16-April-2018	Theorem related to locally compact space
	17-April-2018	Theorem related to compact and sequentially compact space
	18-April-2018	Parashurama Jayanti
	19-April-2018	Definition of one point compactification and statement of one point compactification theorem
	20-April-2018	Proof of one point compactification theorem
	21-April-2018	Theorem related to Bolozano weierstrass property
	22-April-2018	Sunday
4	23-April-2018	Doubt class of Unit-IV
	24-April-2018	Test of Unit-IV
	25-April-2018	Unit revision-1
	26-April-2018	Unit revision-1I
	27-April-2018	Unit revision-1II
	28-April-2018	Unit revision-1V

Lesson Plan

Name of the Assistant P		Lalit Kumar
Class and Section:.....		B.Sc 6th sem
Subject:.....		Linear lgebra
Week		Topics
1	Day 1	Introduction to Internal and External Composition, vector Space.
	Day 2	General property of vector spaces.
	Day 3	Subspaces, theorems on subspaces.
	Day 4	Necessary and Sufficient condition for Subspace.
	Day 5	Intersection and union of subspaces.
	Day 6	Examples on Vector space and subspaces etc.
		Sunday
2	Day 7	Theorem on Linear sum of subspaces
	Day 8	Direct sum of subspaces, disjoint subspaces and related Theorems.
	Day 9	Question based on above Related thm.
	Day 10	Question based on above Related thm.
	Day 11	Introduction to linear combination, L.I. and L.D. vectors
	Day 12	Basis, ordered basis, co-ordinate vectors of vector space,
		Sunday
3	Day 13	Existance theorem etc.
	Day 14	Related theorems
	Day 15	maximal and minimal generating set, and thms
	Day 16	Dimension of vector Space, extension thm,
	Day 17	Related quertion of exercise.
	Day 18	Related quertion of exercise.
		Sunday
4		<u>VasantPanchami</u>

	Day 19	Class test
		<u>Sir Chhotu Ram Jayanti</u>
	Day 20	Dimension thm and its cor. And related questions
		<u>Republic Day</u>
	Day 21	quotient space and dimension of quotient space.
		Sunday
5	Day 22	thm and questions on above definition. Section complete by this work.
	Day 23	introduction to linear transformations with property.
	Day 24	homomorphism and isomorphism on vector spaces.

1-Feb	Day 25	Problems on Vector space,
	Day 26	Thm on isomorphism, problems etc.
	Day 27	Problems on L.T.
		Sunday
2	Day 28	Class test.
	Day 29	Introductin to null space,range space of L.T.
	Day 30	Related question on above definition.
	Day 31	Fundamental thm on vector space homo., Sylvester's thm.
	Day 32	Problems taken. Section complete.
		<u>MaharshiDayanandSaraswatiJayanti</u>
		Sunday
3	Day 33	Sum of L.T.,composition of L.T., and based thm.
		<u>MahaShivratri</u>
	Day 34	Singular and non singular transformation, and related thm
	Day 35	Invertible LT and based thm.
	Day 36	related question on above definition.
	Day 37	Matrices of Linear transformation.
		Sunday
4	Day 38	Change of Basis matrix, related thm.
	Day 39	Eigen value and eigen vector of LT.,
	Day 40	Problems taken.
	Day 41	Related question.
	Day 42	Class test.
	Day 43	Vector space of all LT's.
		Sunday
5	Day 44	Dual pace, thm on dual space.
	Day 45	Bidual vector space and related questions.

Day 46	Annihilators of subspace and thms.
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1-Mar		<u>Guru Ravidas Birthday</u>
		<u>Holi</u>
	Day 47	questions on annihilators.
		Sunday
2	Day 48	Eigen value and eigen vector of LT., Eigen space, related thms
	Day 49	Questions on above thms.
	Day 50	Similar Matrices and based thms.
	Day 51	Diagnolizable matrix, based thm.
	Day 52	related question on above definition.
	Day 53	Minimal polynimial and based question.
		Sunday
3	Day 54	Class test.
	Day 55	Introduction to inner product space and based question.
	Day 56	Norm of vector space, Cauchy schwartz inequality.
	Day 57	Triangle inequality, and norm related thm.
	Day 58	Orthogonal vector space and orthogonal complement's relates thm.
	Day 59	Bessel's inequality,
		Sunday
4	Day 60	Gram-Schmidt orthogonolization process.
	Day 61	Orthonormal basis set related thm.
	Day 62	problems on above definition.
	Day 63	Adjoint operator and related thm,
		<u>ShaheediDiwas of Bhagat Singh, Rajguru & Sukhdev</u>
	Day 64	Related Thm.
		<u>Sunday/ Ram Navami</u>
5	Day 65	Related thm.
	Day 66	Related Thm.

Day 67	Problems on adjoint operator.
	<u>MahavirJayanti</u>
Day 68	Class Test
Day 69	Revision of section 1

1-Apr		Sunday
	Day 70	Revision of section 1
	Day 71	Revision of section 2
	Day 72	Revision of section 2
	Day 73	Revision of section 3
	Day 74	Revision of section 3
	Day 75	Revision of section 3
		Sunday
2	Day 76	Revision of section 4
	Day 77	Revision of section 4
	Day 78	Revision of section 4
	Day 79	Class test
	Day 80	Revision
		Dr AmbedkarJayanti / Vaisakhi
		Sunday
3	Day 81	Revision
	Day 82	Revision
		ParashuramaJayanti
	Day 83	Revision
	Day 84	Revision
	Day 85	Revision
		Sunday
4	Day 86	Revision
	Day 87	Revision
	Day 88	Revision
	Day 89	Revision
	Day 90	Class test

	Day 91	Class test
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