

TIKA RAM GIRLS COLLEGE SONEPAT

Lesson Plan Format

NAME OF ASSISTANT/ASSOCIATE PROFESSOR

PooJA

CLASS AND SECTION

B.A / B.Sc. 2nd Sem

SUBJECT

Number theory and Trigonometry

WEEK 1	DESCRIPTION
1.01.24	Introduction : H.C.F.
2.01.24	" : L.C.M
3.01.24	
4.01.24	Primes fundamental theorem
5.01.24	"
6.01.24	"
WEEK 2	
8.01.24	"
9.01.24	Linear congruences
10.01.24	"
11.01.24	"
12.01.24	"
13.01.24	Problems :
WEEK 3	
15.01.24	Arithmetic linear Diophantine equations
16.01.24	"
18.01.24	Problems solve.
19.01.24	"
20.01.24	"
WEEK 4	
22.01.24	Introduction of Fermat's theorem
23.01.24	"
24.01.24	converse "
25.01.24	Wilson's theorem
27.01.24	Chinese Remainder theorem
WEEK 5	
29.01.24	Introduction of complete Residue System
30.01.24	Euler's function
31.01.24	"
01.02.24	
02.02.24	Residue (\pmod{n})
03.02.24	(\pmod{m})

WEEK 6		DESCRIPTION
05.02.24		Euler's generalization of Fermat's th.
06.02.24		"
07.02.24		Chinese Remainder Theorem
08.02.24		"
09.02.24		Quadratic Residues
10.02.24		"
WEEK 7		
12.02.24		Legendre Symbols
13.02.24		"
15.02.24		Lemma of Gauss
16.02.24		Gauss Reciprocity Law
17.02.24		"
WEEK 8		
19.02.24		Greatest integer function $[n]$
20.02.24		"
21.02.24		number of divisors
22.02.24		Sum " " of natural numbers
23.02.24		"
24.02.24		Mobius function and Mobius inversion
WEEK 9		
26.02.24		Introduction of DE MOIVRE'S theorem
27.02.24		"
28.02.24		"
29.02.24		"
01.03.24		Roots of a " complex number
02.03.24		"
WEEK 10		
04.03.24		Solution of Equations
05.03.24		"
06.03.24		"
07.03.24		expansion of $\cos n\theta$ and $\sin n\theta$
09.03.24		" positive integer
WEEK 11		
11.03.24		"
12.03.24		Properties of exponential function
13.03.24		"
14.03.24		Circular fun of complex variables
15.03.24		"
16.03.24		De Moivre's Theorem
WEEK 12		
18.03.24		Introduction of Hyperbolic function
19.03.24		"
20.03.24		"
21.03.24		"
22.03.24		"

WEEK 13	
DESCRIPTION	
	----- HOLI BREAK -----
WEEK 14	
01.04.24	Introduction of Logarithm of a complex General Principal value
02.04.24	
03.04.24	"
04.04.24	"
05.04.24	General exponential Function
06.04.24	
WEEK 15	
08.04.24	Introduction of inverse circular General value and principal value. Relations b/w inverse function
09.04.24	
10.04.24	
12.04.24	
13.04.24	"
WEEK 16	
15.04.24	inverse hyperbolic Function
16.04.24	
18.04.24	"
19.04.24	Gregory's Series $-x/4$ to $x/4$
20.04.24	
WEEK 17	
22.04.24	Introduction of Summation of Series combined of angles which in A.P
23.04.24	
24.04.24	"
25.04.24	"
26.04.24	"
27.04.24	"

Lesson Plan Format

NAME OF ASSISTANT/ASSOCIATE PROFESSOR Mrs. Gata
 CLASS AND SECTION B.A/B.Sc Sem II
 SUBJECT Ordinary Diffⁿ Equations

WEEK 1	DESCRIPTION
1.01.24	Introduction: Geometrical meaning of a Diff ⁿ Eq ⁿ
2.01.24	Exact diff ⁿ Equations
3.01.24	"
4.01.24	"
5.01.24	"
6.01.24	"
WEEK 2	
8.01.24	Integrating factors
9.01.24	"
10.01.24	"
11.01.24	First order higher degree Equations
12.01.24	"
13.01.24	"
WEEK 3	
15.01.24	Solvable for x, y, p .
16.01.24	Lagrange's equations
18.01.24	"
19.01.24	"
20.01.24	"
WEEK 4	
22.01.24	Clairaut's Equations
23.01.24	"
24.01.24	"
25.01.24	"
27.01.24	Singular solutions.
WEEK 5	
29.01.24	Orthogonal Trajectories in Cartesian Coordinates
30.01.24	"
31.01.24	"
01.02.24	"
02.02.24	polar co-ordinates
03.02.24	"

WEEK 6	DESCRIPTION
05.02.24	Self orthogonal family of curves.
06.02.24	"
07.02.24	"
08.02.24	"
09.02.24	Linear diff ⁿ equations with const. coeff.
10.02.24	"
WEEK 7	
12.02.24	"
13.02.24	Homogenous linear ordinary diff ⁿ Equation.
15.02.24	"
16.02.24	"
17.02.24	"
WEEK 8	
19.02.24	Equations reducible to Homogenous
20.02.24	"
21.02.24	"
22.02.24	"
23.02.24	"
24.02.24	"
WEEK 9	
26.02.24	Linear diff ⁿ Equation of second order.
27.02.24	"
28.02.24	"
29.02.24	"
01.03.24	Reduction to normal form.
02.03.24	"
WEEK 10	
04.03.24	"
05.03.24	Transformation of the equation by changing the dependent
06.03.24	"
07.03.24	"
09.03.24	"
WEEK 11	
11.03.24	Solutions by operators of nonhomogenous linear diff ⁿ eq ⁿ .
12.03.24	"
13.03.24	"
14.03.24	"
15.03.24	"
16.03.24	Reduction of order of a diff ⁿ Equation.
WEEK 12	
18.03.24	Method of variations of parameters.
19.03.24	"
20.03.24	"
21.03.24	"
22.03.24	"

WEEK 13		DESCRIPTION
		----- HOLI BREAK -----
WEEK 14		
01.04.24		Ordinary Simultaneous diff ⁿ equations
02.04.24		"
03.04.24		"
04.04.24		Solution of Simultaneous diff equations involving operators
05.04.24		"
06.04.24		"
WEEK 15		
08.04.24		Simultaneous equation of the form $\frac{dx}{P} = \frac{dy}{Q} = \frac{dz}{R}$
09.04.24		"
10.04.24		"
12.04.24		"
13.04.24		Total Diff ⁿ Equations.
WEEK 16		
15.04.24		Conditions for $Pdx + Qdy + Rdz = 0$ to be exact.
16.04.24		"
18.04.24		"
19.04.24		"
20.04.24		General method of solving $Pdx + Qdy + Rdz = 0$
WEEK 17		
22.04.24		Method of auxiliary equations
23.04.24		"
24.04.24		"
25.04.24		"
26.04.24		Revision
27.04.24		"

TIKA RAM GIRLS COLLEGE SONEPAT

Lesson Plan Format

NAME OF ASSISTANT/ASSOCIATE PROFESSOR

Dh. Sonia.

CLASS AND SECTION

B.A/B.Sc - 1st (2nd Sem)

SUBJECT

Mathematics

Paper - Vector Calculus

WEEK 1	DESCRIPTION
1.01.24	Introduction to Scalar Product of three vectors. vector product of three vectors —do— —do—
2.01.24	
3.01.24	
4.01.24	
5.01.24	Product of four vectors. Introduction to Reciprocal Vectors.
6.01.24	
WEEK 2	
8.01.24	—do—
9.01.24	Introduction to vector differentiation. —do— —do—
10.01.24	
11.01.24	
12.01.24	Scalar valued Point functions. —do—
13.01.24	
WEEK 3	
15.01.24	vector valued Point functions. —do— derivatives along a curve. —do— —do—
16.01.24	
18.01.24	
19.01.24	
20.01.24	—do—
WEEK 4	
22.01.24	directional derivatives. —do—
23.01.24	
24.01.24	Introduction to gradient of scalar point fun. —do— Geometrical interpretation of grad ϕ .
5.01.24	
7.01.24	
WEEK 5	
9.01.24	Character of gradient of a fun as a point fun. —do—
10.01.24	
11.01.24	Divergence of a vector point function. —do— —do— —do—
12.01.24	
13.01.24	
14.01.24	

WEEK 6	DESCRIPTION
05.02.24	Curl of a vector point function.
06.02.24	<u>do</u>
07.02.24	Characters of $\text{div } \vec{f}$ and $\text{curl } \vec{f}$ as point functions.
08.02.24	<u>do</u>
09.02.24	gradient, divergence and curl of sums & products.
10.02.24	<u>do</u>
WEEK 7	
12.02.24	Identities related to curl & div. of sums & products of vectors.
13.02.24	<u>do</u>
15.02.24	<u>do</u>
16.02.24	Orthogonal Curvilinear Co-ordinates.
17.02.24	<u>do</u>
WEEK 8	
19.02.24	Conds of orthogonality.
20.02.24	Fundamental triad of mutually orthogonal unit vectors.
21.02.24	<u>do</u>
22.02.24	<u>do</u>
23.02.24	Gradient, divergence, curl and Laplacian operators.
24.02.24	<u>do</u>
WEEK 9	
26.02.24	<u>do</u>
27.02.24	Cylindrical Coordinates.
28.02.24	<u>do</u>
29.02.24	Spherical Coordinates.
01.03.24	<u>do</u>
02.03.24	<u>do</u>
WEEK 10	
04.03.24	<u>do</u>
05.03.24	<u>do</u>
06.03.24	Vector Integration and its application.
07.03.24	<u>do</u>
09.03.24	<u>do</u>
WEEK 11	
11.03.24	Introduction to line integral and its application.
12.03.24	<u>do</u>
13.03.24	<u>do</u>
14.03.24	<u>do</u>
15.03.24	<u>do</u>
16.03.24	Introduction to surface integral.
WEEK 12	
18.03.24	Application of surface integral.
19.03.24	<u>do</u>
20.03.24	<u>do</u>
21.03.24	<u>do</u>
22.03.24	<u>do</u>

WEEK 13	DESCRIPTION
	----- HOLI BREAK -----
WEEK 14	
01.04.24	Introduction to Volume Integral.
02.04.24	Application of Volume Integral.
03.04.24	do
04.04.24	do
05.04.24	do
06.04.24	Statement & Proof of Gauss thm.
WEEK 15	
08.04.24	Application of Gauss theorem.
09.04.24	do
10.04.24	Statement & Proof of Green theorem
12.04.24	Application of Green thm.
13.04.24	do
WEEK 16	
15.04.24	Statement and Proof of Stokes theorem.
16.04.24	Application of Stokes theorem.
18.04.24	do
19.04.24	do
20.04.24	do
WEEK 17	
22.04.24	Revision.
23.04.24	do
24.04.24	do
25.04.24	Test
26.04.24	do
27.04.24	Revision.

NAME OF ASSISTANT/ASSOCIATE PROFESSOR

Dr. Suman Kumari

CLASS AND SECTION

B.A/B.Sc - II (4th Sem)

SUBJECT

Mathematics
Paper - Sequences and Series.

WEEK 1	DESCRIPTION
1.01.24	Introduction to sequences and series.
2.01.24	
3.01.24	Real. sequence and convergence.
4.01.24	Introduction to limit and thm on limits of sequence.
5.01.24	— do —
6.01.24	— do —
WEEK 2	defn of bounded and monotonic sequence.
8.01.24	— do —
9.01.24	Cauchy's sequence and general Principle of convergence.
10.01.24	
11.01.24	Introduction to subsequences.
12.01.24	
13.01.24	Subsequential limits.
WEEK 3	— do —
15.01.24	— do —
16.01.24	— do —
18.01.24	Introduction to infinite series.
19.01.24	
20.01.24	Convergence of infinite series.
WEEK 4	— do —
22.01.24	divergence of infinite series.
23.01.24	
24.01.24	Comparison Test of +ve. terms infinite series.
25.01.24	
27.01.24	— do —
WEEK 5	— do —
29.01.24	Cauchy's general Principle of convergence of series.
30.01.24	
31.01.24	Convergence and divergence of geometric series.
01.02.24	
02.02.24	Hyper Harmonic series. or P-series
03.02.24	

WEEK 6	DESCRIPTION
05.02.24	Boundedness of set of real numbers.
06.02.24	l.u.b and g.l.b. of a set neighbourhood.
07.02.24	Introduction to interior, isolated and limit pts.
08.02.24	do
09.02.24	Introduction to open and closed sets and interior of set.
10.02.24	do

WEEK 7	DESCRIPTION
12.02.24	Closure of a set of real nos and their properties.
13.02.24	do
15.02.24	Bolzano-Weierstrass theorem of open covers.
16.02.24	do
17.02.24	Introduction to compact sets.

WEEK 8	DESCRIPTION
19.02.24	Heine-Borel theorem.
20.02.24	do
21.02.24	Introduction to Infinite series.
22.02.24	D. Alembert's Ratio Test.
23.02.24	Application of D. Alembert's Ratio Test.
24.02.24	do

WEEK 9	DESCRIPTION
26.02.24	Rabbe's Test and its application.
27.02.24	do
28.02.24	logarithmic Test and its application.
29.02.24	do
01.03.24	do
02.03.24	De Morgan and Bertrand's Test and its application.

WEEK 10	DESCRIPTION
04.03.24	do
05.03.24	do
06.03.24	Gauss Test and its application.
07.03.24	do
09.03.24	do

WEEK 11	DESCRIPTION
11.03.24	Cauchy's Integral Test and its application.
12.03.24	do
13.03.24	Cauchy's Condensation Test and its application.
14.03.24	do
15.03.24	do
16.03.24	do

WEEK 12	DESCRIPTION
18.03.24	Introduction to Alternating series.
19.03.24	Leibnitz's Test and its application.
20.03.24	Absolute and Conditional Convergence.
21.03.24	do
22.03.24	Introduction to Arbitrary series.

WEEK	DESCRIPTION
WEEK 13	
	----- HOLI BREAK -----
WEEK 14	
01.04.24	Abel's Lemma and Abel's Test.
02.04.24	do
03.04.24	Dirichlet's Test and its application.
04.04.24	do
05.04.24	Insertion and Removal of Parenthesis.
06.04.24	Re-arrangement of Terms in a Series.
WEEK 15	
08.04.24	Dirichlet's theorem.
09.04.24	do
10.04.24	Riemann's Re-arrangement theorem.
12.04.24	do
13.04.24	do
WEEK 16	
15.04.24	Pringsheim's theorem, Statement.
16.04.24	Multiplication of Series and Cauchy's Product of Series.
18.04.24	do
19.04.24	Convergence of Infinite Product.
20.04.24	do
WEEK 17	
22.04.24	Absolute convergence of Infinite Products.
23.04.24	do
24.04.24	Revision
25.04.24	do
26.04.24	do
27.04.24	do

Jan - 2024

TIKA RAM GIRLS COLLEGE SONEPAT

Lesson Plan Format

NAME OF ASSISTANT/ASSOCIATE PROFESSOR

Ms Geeta

CLASS AND SECTION

BA/BS II (Semester - IV)

SUBJECT

Mathematics (Special Functions and Integral transform)

WEEK 1	DESCRIPTION
1.01.24	Introduction to Integral Transform
2.01.24	Def. of Laplace transform
3.01.24	How to find Laplace transform of fn
4.01.24	" " " " " "
5.01.24	Existence of Laplace Transform
6.01.24	Linearity of the Laplace transform
WEEK 2	
8.01.24	Shifting Theorems for L.T.
9.01.24	how to find LT of fn by applying shifting property.
10.01.24	do
11.01.24	Laplace transform of derivative
12.01.24	do
13.01.24	do
WEEK 3	
15.01.24	Laplace transform of Integrals
16.01.24	do
18.01.24	Differentiation of LT
19.01.24	do
20.01.24	do
WEEK 4	
22.01.24	Integration of LT
23.01.24	do
24.01.24	Convolution theorem
25.01.24	do
27.01.24	Find LT by convolution theo.
WEEK 5	
29.01.24	Inverse Laplace transforms
30.01.24	do
31.01.24	do
01.02.24	Inverse Laplace transforms of derivatives
02.02.24	do
03.02.24	Inverse LT of Integrals

DATE	DESCRIPTION
WEEK 6	
05.02.24	
06.02.24	Sol. of ordinary DE using Laplace transform
07.02.24	- do -
08.02.24	- do -
09.02.24	Def. Fourier transforms
10.02.24	Linearity property of FT
WEEK 7	
12.02.24	Shifting property of FT
13.02.24	Modulation of FT
15.02.24	Convolution theorem of FT
16.02.24	- do -
17.02.24	Parseval's identity for FT
WEEK 8	
19.02.24	
20.02.24	How to find Sol. of DE by FT.
21.02.24	- do -
22.02.24	- do -
23.02.24	Taking Problems on FT.
24.02.24	- do -
WEEK 9	
26.02.24	Power Series solution of DE
27.02.24	- do -
28.02.24	Def. of Beta and Gamma fn.
29.02.24	Bessel equations and its solution
01.03.24	- do -
02.03.24	- do -
WEEK 10	
04.03.24	Bessel functions and their properties
05.03.24	- do -
06.03.24	- do -
07.03.24	Recurrence relations and generating fn.
09.03.24	- do -
WEEK 11	
11.03.24	Orthogonality of Bessel fn.
12.03.24	- do -
13.03.24	Def. of Legendre and Hermite DE
14.03.24	Solution of Legendre DE
15.03.24	- do -
16.03.24	Properties of Legendre fn.
WEEK 12	
18.03.24	Rodrigue's formula for Legendre fn.
19.03.24	Orthogonality of Legendre fn.
20.03.24	Recurrence relations and generating fn.
21.03.24	- do -
22.03.24	- do -

WEEK 13		DESCRIPTION
		--- HOLI BREAK ---
WEEK 14		
01.04.24		Sol. of Hermite DE
02.04.24		" - do -
03.04.24		Hermite fns. and their properties
04.04.24		do -
05.04.24		Recurrence relations and generating fn. of Hermite
06.04.24		" - do -
WEEK 15		
08.04.24		Rodrigue formula for Hermite polynomial
09.04.24		do -
10.04.24		orthogonality of Hermite polynomial
12.04.24		do -
13.04.24		Taking problems on Hermite fns.
WEEK 16		
15.04.24		Taking problems on Hermite fn.
16.04.24		Revision of Legendre fn.
18.04.24		do -
19.04.24		Taking problems on Legendre fn.
20.04.24		do -
WEEK 17		
22.04.24		Test on Legendre's Equations.
23.04.24		Revision of Laplace Transform
24.04.24		do -
25.04.24		do -
26.04.24		Revision of Fourier Transform
27.04.24		do -

Lesson Plan Format

NAME OF ASSISTANT/ASSOCIATE PROFESSOR

Mimansa

CLASS AND SECTION

BA/BSc IInd Yr. 4

SUBJECT

Programming in C and Num:

WEEK 1	DESCRIPTION
1.01.24	Programmer's Model of a Computer
2.01.24	"
3.01.24	"
4.01.24	Revision of above topic
5.01.24	"
6.01.24	"
WEEK 2	
8.01.24	Algorithms
9.01.24	"
10.01.24	"
11.01.24	Some Que. on above topic
12.01.24	"
13.01.24	"
WEEK 3	
15.01.24	Flow Charts
16.01.24	"
18.01.24	"
19.01.24	Data Types
20.01.24	"
WEEK 4	
22.01.24	Operators & Expressions
23.01.24	"
24.01.24	"
25.01.24	Input / Output function
27.01.24	"
WEEK 5	
29.01.24	Decision control structure
30.01.24	"
31.01.24	"
01.02.24	Decision statements
02.02.24	"
03.02.24	"

07.02.24	"
08.02.24	"
09.02.24	Some Que. on above topic
10.02.24	"
WEEK 7	
12.02.24	Implementation of Loops
13.02.24	"
15.02.24	"
16.02.24	Switch statement
17.02.24	"
WEEK 8	
19.02.24	Case control structure
20.02.24	"
21.02.24	"
22.02.24	Functions, Processors & Arrays
23.02.24	"
24.02.24	"
WEEK 9	
26.02.24	String: Character Data Types
27.02.24	"
28.02.24	"
29.02.24	Standard string handling functions
01.03.24	"
02.03.24	Arithmetic operations on Characters
WEEK 10	
04.03.24	"
05.03.24	Structures: Def. using structures
06.03.24	"
07.03.24	Use of Str. in Arrays
09.03.24	"
WEEK 11	
11.03.24	Pointers: Its Data Type
12.03.24	"
13.03.24	Pointers & Array
14.03.24	"
15.03.24	Pointers and Functions
16.03.24	"
WEEK 12	
18.03.24	Sol ⁿ of Alg. & Trans. Eq ⁿ
19.03.24	Regular false method
20.03.24	Bisection method
21.03.24	Secant method
22.03.24	Newton Raphson method

WEEK 13

DESCRIPTION

----- HOLI BREAK -----

WEEK 14

01.04.24

Simultaneous Lns. Alg. Eqⁿ

02.04.24

"

03.04.24

"

04.04.24

Gauss Elimination method

05.04.24

"

06.04.24

"

WEEK 15

08.04.24

Gauss Jordan method

09.04.24

"

10.04.24

Triangularization method

12.04.24

"

13.04.24

"

WEEK 16

15.04.24

Cramer's method

16.04.24

"

18.04.24

"

19.04.24

cholesky decomposition method

20.04.24

"

WEEK 17

22.04.24

Iterative method

23.04.24

"

24.04.24

Jacobi's method

25.04.24

"

26.04.24

Gauss-Seidel's method

27.04.24

Relaxation method

TIKA RAM GIRLS COLLEGE SONEPAT

Lesson Plan Format

NAME OF ASSISTANT/ASSOCIATE PROFESSOR Dr. Santosh Rathi
 CLASS AND SECTION B.A./B.Sc. IV Sem.
 SUBJECT Real & Complex Analysis

WEEK	DESCRIPTION
WEEK 1	
1.01.24	Introduction: Jacobians
2.01.24	"
3.01.24	"
4.01.24	Beta and Gamma functions
5.01.24	"
6.01.24	"
WEEK 2	
8.01.24	Double and Triple Integrals
9.01.24	"
10.01.24	"
11.01.24	"
12.01.24	problems
13.01.24	"
WEEK 3	
15.01.24	Dirichlet's Integrals.
16.01.24	"
18.01.24	"
19.01.24	"
20.01.24	"
WEEK 4	
22.01.24	Change of order of integration in double integrals -
23.01.24	"
24.01.24	"
25.01.24	"
27.01.24	"
WEEK 5	
29.01.24	Fourier's Series: Fourier expansion of piecewise monotonic functions
30.01.24	"
31.01.24	"
01.02.24	"
02.02.24	"
03.02.24	"

WEEK 6	DESCRIPTION
05.02.24	properties of fourier coefficients " " " " " " " "
06.02.24	
07.02.24	
08.02.24	
09.02.24	
10.02.24	Dirichlet's conditions " "
WEEK 7	
12.02.24	Parseval's Identity for fourier series " " " " " " " "
13.02.24	
15.02.24	
16.02.24	
17.02.24	
WEEK 8	
19.02.24	Fourier series for even & odd functions " " " " " " " "
20.02.24	
21.02.24	
22.02.24	
23.02.24	
24.02.24	Half range series change of intervals
WEEK 9	
26.02.24	Extended complex plane. " " " " " " " "
27.02.24	
28.02.24	
29.02.24	
01.03.24	
02.03.24	Stereographic projection of complex no's.
WEEK 10	
04.03.24	continuity and diff ⁿ of complex functions " " " " " " " "
05.03.24	
06.03.24	
07.03.24	
09.03.24	
WEEK 11	
11.03.24	Analytic functions " " " " " " " "
12.03.24	
13.03.24	
14.03.24	
15.03.24	
16.03.24	C-R eqn's " "
WEEK 12	
18.03.24	Harmonic functions " " " " " " " "
19.03.24	
20.03.24	
21.03.24	
22.03.24	

WEEK 13	
	DESCRIPTION
	----- HOLI BREAK -----
WEEK 14	
01.04.24	Mappings by elementary functions : Translation
02.04.24	"
03.04.24	"
04.04.24	Rotation
05.04.24	"
06.04.24	"
WEEK 15	
08.04.24	Magnification and Inversion
09.04.24	"
10.04.24	"
12.04.24	"
13.04.24	"
WEEK 16	
15.04.24	Conformal Mappings
16.04.24	"
18.04.24	"
19.04.24	"
20.04.24	Mobius Transformations
WEEK 17	
22.04.24	Fixed pts
23.04.24	"
24.04.24	"
25.04.24	Cross ratio
26.04.24	Inverse pts and critical mappings
27.04.24	"

TIKA RAM GIRLS COLLEGE SONEPAT

Lesson Plan Format

NAME OF ASSISTANT/ASSOCIATE PROFESSOR Mrs. Geeta
 CLASS AND SECTION BA/B.Sc. IIIrd Yr. VIth Sem.
 SUBJECT Linear Algebra

WEEK 1	DESCRIPTION
1.01.24	Vector Spaces
2.01.24	"
3.01.24	Subspaces
4.01.24	"
5.01.24	Sum & Direct Sum of Subspaces
6.01.24	"
WEEK 2	
8.01.24	Linear Span
9.01.24	"
10.01.24	Linearly Ind. subsets of Vector space
11.01.24	"
12.01.24	Linearly Dep. subsets of Vector space
13.01.24	"
WEEK 3	
15.01.24	Finitely generated Vector space
16.01.24	"
18.01.24	Existence of n for basis of fin. Gen'd. Vector space
19.01.24	"
20.01.24	finite dimensional vector space
WEEK 4	
22.01.24	Invariance of No. of elements of Basis set
23.01.24	"
24.01.24	Dimensions
25.01.24	"
27.01.24	Quotient space & its dimension
WEEK 5	
29.01.24	Homomorphism of Vector space
30.01.24	"
31.01.24	Isomorphism of Vector space
01.02.24	"
02.02.24	Linear Transf. on Vector space
03.02.24	"

WEEK 6	DESCRIPTION
05.02.24	Vector space of all Lns. Transformations
06.02.24	"
07.02.24	"
08.02.24	Dual Spaces
09.02.24	"
10.02.24	Bidual spaces
WEEK 7	
12.02.24	Annihilator of subspaces of F.D.V. space
13.02.24	"
15.02.24	"
16.02.24	Null space
17.02.24	"
WEEK 8	
19.02.24	Range Space of Linear Transformation
20.02.24	"
21.02.24	Rank & Nullity theorem
22.02.24	"
23.02.24	Revision
24.02.24	Discussion of Que.
WEEK 9	
26.02.24	Algebra of Lns. Transformation
27.02.24	"
28.02.24	Minimal Poly. of Lns. Transf.
29.02.24	"
01.03.24	Some Que. on above topic
02.03.24	"
WEEK 10	
04.03.24	Singular Lns. Transformation
05.03.24	"
06.03.24	Non-Singular Lns. Transformation
07.03.24	"
09.03.24	Some Que.
WEEK 11	
11.03.24	Matrix of Lns. Transformation
12.03.24	"
13.03.24	Change of Basis
14.03.24	"
15.03.24	Eigen Values of Lns. Transf.
16.03.24	"
WEEK 12	
18.03.24	Eigen Vectors of L.T.
19.03.24	"
20.03.24	Revision
21.03.24	"
22.03.24	Discussion

WEEK 13

DESCRIPTION

----- HOLI BREAK -----

WEEK 14

01.04.24

Inner Product Spaces

02.04.24

03.04.24

Cauchy-Schwarz Inequality

04.04.24

05.04.24

Orthogonal Vectors

06.04.24

WEEK 15

08.04.24

The Orthogonal Complements

09.04.24

Orthogonal Sets of Basis

10.04.24

12.04.24

13.04.24

WEEK 16

15.04.24

Bessel's Inequality for finite Dim. V.S.

16.04.24

Gram-Schmidt Orthogonalization process

18.04.24

19.04.24

20.04.24

Some Que.

WEEK 17

22.04.24

Adjoint of Lin. Transf. & its Properties

23.04.24

Unitary Linear Transformation

24.04.24

25.04.24

26.04.24

27.04.24

Revision

TIKA RAM GIRLS COLLEGE SONEPAT

Lesson Plan Format

NAME OF ASSISTANT/ASSOCIATE PROFESSOR

Dr. Sonia

CLASS AND SECTION

B.A./ B.Sc III (6th Sem) (Sem)

SUBJECT

Dynamics

WEEK 1	DESCRIPTION
1.01.24	Introduction: Velocity and accel. along radial along transverse.
2.01.24	
3.01.24	
4.01.24	
5.01.24	
6.01.24	
WEEK 2	
8.01.24	problems on velocity & accel.
9.01.24	
10.01.24	
11.01.24	
12.01.24	
13.01.24	
WEEK 3	
15.01.24	Tangential and normal directions
16.01.24	
18.01.24	
19.01.24	
20.01.24	problems related to tangential & Normal directions
WEEK 4	
22.01.24	Simple Harmonic Motion
23.01.24	
24.01.24	
25.01.24	
27.01.24	
WEEK 5	
29.01.24	Elastic strings
30.01.24	
31.01.24	Introduction: mass momentum
01.02.24	
02.02.24	
03.02.24	

WEEK 6	DESCRIPTION
05.02.24	Force
06.02.24	"
07.02.24	Newton's laws of motion
08.02.24	"
09.02.24	"
10.02.24	"
WEEK 7	
12.02.24	Work problems
13.02.24	"
15.02.24	Power
16.02.24	"
17.02.24	Energy
WEEK 8	
19.02.24	Definitions of conservative
20.02.24	conservative forces
21.02.24	"
22.02.24	"
23.02.24	Impulsive forces
24.02.24	"
WEEK 9	
26.02.24	Motion on smooth and rough planes
27.02.24	"
28.02.24	"
29.02.24	"
01.03.24	Projectile motion of a particle in a plane
02.03.24	"
WEEK 10	
04.03.24	"
05.03.24	"
06.03.24	"
07.03.24	Revision
09.03.24	"
WEEK 11	
11.03.24	Vector angular velocity
12.03.24	"
13.03.24	"
14.03.24	"
15.03.24	"
16.03.24	"
WEEK 12	
18.03.24	Revision
19.03.24	"
20.03.24	—
21.03.24	Test
22.03.24	Discussion

WEEK 13	DESCRIPTION
	----- HOLI BREAK-----
WEEK 14	
01.04.24	Introduction General motion of a rigid body
02.04.24	"
03.04.24	Central orbits
04.04.24	"
05.04.24	"
06.04.24	"
WEEK 15	
08.04.24	Kepler's Laws of Motion
09.04.24	"
10.04.24	"
12.04.24	"
13.04.24	"
WEEK 16	
15.04.24	Motion of a particle in 3-Dimensional
16.04.24	"
18.04.24	"
19.04.24	"
20.04.24	Accelerations in terms of diff. co-ordinates systems
WEEK 17	
22.04.24	"
23.04.24	"
24.04.24	"
25.04.24	Revision test
26.04.24	Discussion
27.04.24	