

Branch:

### Govt. Polytechnic Hamirpur

#### Department of APPLIED Sciences&Humanities

Lesson Plan (Theory)

Semester:

Second

Subject: Applied Mathematics-II Feacher: Kirandeep Bala

IT

Session:

27th January 2024- 25May2024

ed Less	on Plan:						
d:27/01/2	and the second second		l				
The Second Research Advanced to	4 to 25/05/2	24	Total Lectures Planned: 72				
Week	No. of Lecture s	Chapter/ Unit Descriptio n	Dotail of Court	Reference			
5th Jan.	2		Introduction to Mathematics-II				
104							
Feb.	2	Algebra	Elementary properties of determinants upto 3rd order	D. D. O. D.			
2nd Feb.	4	Aligebia	Consistency of equations & Crammer's rule.	R1,R2 & R3			
3rd Feb.	5		Algebra of matrices, Inverse of a matrix, Matrix inverse method to solve a system of linear equations in 3 variables				
4th feb.	5	Integral	Simple Integration by substitution method,				
5th Feb.	3		by parts, by partial fractions				
1st Mar.	2		(for linear factors only).				
2nd Mar.	3		Use of formulas: $\int_0^{\frac{\pi}{2}} \sin^n x  dx \qquad \int_0^{\frac{\pi}{2}} \cos^n x  dx \qquad \int_0^{\frac{\pi}{2}} \sin^n x \cos^m x  dx$	R1 R2 & R3			
3rd Mar.	5	calculus	Class Test -I	1.1,1.2 & 1.3			
4thMar	5		on evaluation of area bounded by a curve				
5th Mar.	3		Calculation of Volume of a solid formed by revolution of an area about axes.	-			
1st April	5		forms (without proof), inter section of two				
2nd April	3		angle between two lines, Perpendicular				
	5th Jan.  1st Feb. 2nd Feb. 3rd Feb. 4th feb. 5th Feb. 1st Mar. 2nd Mar. 3rd Mar. 4thMar 5th Mar. 1st April 2nd	S       5th Jan.     2       1st Feb.     2       2nd Feb.     4       3rd Feb.     5       4th feb.     5       5th Feb.     3       1st Mar.     2       2nd Mar.     3       3rd Mar.     5       4th Mar     5       5th Mar.     3       1st April     5       2nd     3	WeekLecture sDescription5th Jan.21st Feb.22nd Feb.43rd Feb.54th feb.55th Feb.31st Mar.22nd Mar.33rd Mar.54thMar55th Mar.31st April52nd 2nd 2nd 33	Description    Sth   2	Description   Description   Detail of Contents   Resources		

3	3rd April	3	Ordinate Geometry	General equation of a circle and its characteristics, To find the equation of a circle, given: Centre and radius, Class Test -II	R1,R2 & R3
	4th April	5		Three points lying on it , Coordinates of end points of diameter.	
	5th April	1		Definition of conics (Parabola, Ellipse, Hyperbola) their standard Equations without proof.	
	1st May	4		Problems on conics when their foci, directrices and vertices are given.	
4	2nd May	3		Solution of first order and first degree, differential equation by variable	
7	3rd	5	Equations	separable method (simple problems).	R1,R2 & R3
	4th May	4		Revision of Whole syllabus.	

- R1 Eagle Prakashan by Satish Kumar Sharma
- R2 Dr. RD Sharma Applied mathematics
- R3 B.S. Grewal Higher Engineering Mathematics

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Signature of Teacher



## Govt. Polytechnic Hamirpur

# Department of APPLIED Sciences&Humanities

## Lesson Plan (Theory)

Branch : Mechanical

Semester:

Second

Subject : Applied Mathematics-II Teacher: Kirandeep Bala

Session:

27th January 2024- 25May2024

Propos	ed Less	on Plan:				
Perio	od:27/01/24	to 25/05/2	24	Total Lectures Planned: 77		
S. No.	Week	No. of Lecture s	Chapter/ Unit Descriptio n	Detail of Contents	Reference Resources	
	5th Jan.	3		Introduction to Mathematics-II Introduction to determinants		
1	1st Feb.	2	Algebra	Elementary properties of determinants upto 3rd order	R1,R2 & R3	
1	2nd Feb.	5	Algebia	Consistency of equations & Crammer's rule.		
	3rd Feb.	4		Algebra of matrices, Inverse of a matrix, Matrix inverse method to solve a system of linear equations in 3 variables.		
	4th feb.	4		Simple Integration by substitution method,	R1,R2 & R3	
	5th Feb.	3	1	by parts, by partial fractions		
	1st Mar.	2	Integral calculus	(for linear factors only).		
2	2nd Mar.	4		Use of formulas: $\int_0^{\frac{\pi}{2}} \sin^n x  dx  \int_0^{\frac{\pi}{2}} \cos^n x  dx  \int_0^{\frac{\pi}{2}} \sin^n x \cos^n x  dx$		
	3rd Mar.	5		Class Test -I		
	4thMar	5		Applications of integration: Simple problem on evaluation of area bounded by a curve and axes.		
	5th Mar.	3		Calculation of Volume of a solid formed by revolution of an area about axes.		
	1st April	5		Equations of straight line in various standard forms (without proof), inter section of two straight lines,		
	2nd April	4		angle between two lines, Perpendicular distance formula.		
3	3rd April	4	Co- Ordinate	General equation of a circle and its characteristics, To find the equation of a circle, given: Centre and radius, Class Test -II	R1,R2 & R3	

3	3rd April	3	Co- Ordinate	General equation of a circle and its characteristics, To find the equation of a circle, given: Centre and radius,	R1,R2 & R3	\$
	4th April	5	Geometry	Three points lying on it , Coordinates of end points of diameter.		
	5th April	1		Definition of conics (Parabola, Ellipse, Hyperbola) their standard Equations without proof.		
	1st May	4		Problems on conics when their foci, directrices and vertices are given.		
4	2nd May	3		Solution of first order and first degree,	D4 D0 8 D0	
	3rd	5		separable method (simple problems).	R1,R2 & R3	
	4th May	4		Revision of Whole syllabus.		

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## Govt. Polytechnic Hamirpur

# Department of APPLIED Sciences&Humanities

## Lesson Plan (Theory)

Branch:

Civi) Comp. Engg.

Subject: Applied Mathematics-II

Teacher: Kirandeep Bala

Semester: Second

Session:

27th January 2024- 25May2024

		d Lesson					
			No. of	Chapter/	Total Lectures Planned: 75	1	
5.	No.	Week	Lecture s	Unit Description	Detail of Contents	Reference Resources	Rema
		5th Jan.	3		Introduction to Mathematics-II		
		1st	2		Introduction to determinants  Elementary properties of determinants upto	1	
•	1	Feb. 2nd Feb.	5	Algebra	3rd order Consistency of equations & Crammer's rule.	R1,R2 & R3	
		3rd Feb.	4		Algebra of matrices, Inverse of a matrix, Matrix inverse method to solve a system of linear equations in 3 variables.		
		4th feb.	4		Simple Integration by substitution method,		
		5th Feb.	4	Integral	by parts, by partial fractions		
		1st Mar.	1		(for linear factors only).		
2		2nd Mar.	4		Use of formulas: $\int_0^{\frac{\pi}{2}} \sin^n x  dx  \int_0^{\frac{\pi}{2}} \cos^n x  dx  \int_0^{\frac{\pi}{2}} \sin^n x \cos^m x  dx$		
		3rd Mar.	5	calculus	Class Test -I		
	_	thMar.	4		Applications of integration: Simple problem on evaluation of area bounded by a curve and axes.		
4200		5th Mar.	4		Calculation of Volume of a solid formed by revolution of an area about axes.		-
3		1st April	5	11	Equations of straight line in various standard forms (without proof), inter section of two straight lines,		
		2nd April	4	a	angle between two lines, Perpendicular distance formula.		-
		3rd April	3	Co-Ordinate	General equation of a circle and its characteristics, To find the equation of a circle, given: Centre and radius,	R1,R2 & R3	
		4th April	5	Ī	Three points lying on it , Coordinates of end points of diameter.	, = 3.1.3	

	5th April	2		Definition of conics (Parabola, Ellipse, Hyperbola) their standard Equations without proof.		
	1st May	3		Problems on conics when their foci, directrices and vertices are given.		
4	2nd May	4	Differential	Solution of first order and first degree, differential equation by variable	R1,R2 & R3	
	3rd	5	Equations	separable method (simple problems).		
	4th May	4		Revision of Whole syllabus.		

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Lesson Plan (Theory)

Branch : Comb Chag.

Subject : Applied Mathematics-II Teacher: Kirandeep Bala

Proposed Lesson Plan:

Semester:

Second

Session:

27th January 2024- 25May2024

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Per	iod:27/01/2	4 to 25/05/	24	Total Lectures Planned: 7	2	
S. No.	Week	No. of Lecture s	Chapter/ Unit Descriptio n	D 4 11 4 5	Reference Resources	
	5th Jan.	2		Introduction to Mathematics-II Introduction to determinants		
1	1st Feb.	2	Algobra	Elementary properties of determinants upto 3rd order		
	2nd Feb.	4	Algebra	Consistency of equations & Crammer's rule.	R1,R2 & R3	
	3rd Feb.	5		Algebra of matrices, Inverse of a matrix, Matrix inverse method to solve a system of linear equations in 3 variables.		
	4th feb.	5	Integral calculus	Simple Integration by substitution method,		
	5th Feb.	3		by parts, by partial fractions		
	1st Mar.	2		(for linear factors only).		
2	2nd Mar.	3		Use of formulas: $\int_0^{\frac{\pi}{2}} \sin^n x  dx \qquad \int_0^{\frac{\pi}{2}} \cos^n x  dx \qquad \int_0^{\frac{\pi}{2}} \sin^n x \cos^m x  dx$	R1,R2 & R3	
	3rd Mar.	5		Class Test -I	11,112 0 113	
	4thMar	5	19	Applications of integration: Simple problem on evaluation of area bounded by a curve and axes.		
	5th Mar.	3	r	Calculation of Volume of a solid formed by evolution of an area about axes.		
	1st April	5	1	equations of straight line in various standard forms (without proof), inter section of two straight lines,		
	2nd April	3	a	angle between two lines, Perpendicular listance formula.	-	$\neg$

3	3rd April	3	Co- Ordinate	General equation of a circle and its characteristics, To find the equation of a circle, given: Centre and radius,	R1,R2 & R3	
	4th April	5		Three points lying on it , Coordinates of end points of diameter.		
	5th April	1		Definition of conics (Parabola, Ellipse, Hyperbola) their standard Equations without proof.		
	1st May	4	1 1	Problems on conics when their foci, directrices and vertices are given.		
	2nd May	3	-	Solution of first order and first degree, differential equation by variable	R1,R2 & R3	
4	3rd	5	Equations	separable method (simple problems).		
	4th May	4		Revision of Whole syllabus.		

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