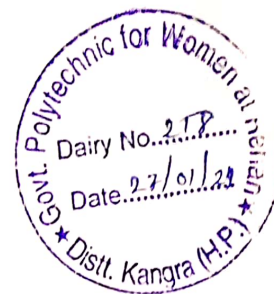


Department of Applied Sciences & Humanities
Govt. Polytechnic for Women Rehan
Distt. – Kangra (H.P.) - 176022



LESSON PLAN

Program Name	Civil Engineering
Subject Name	Applied Mathematics-II
Subject Code	BS102
Semester	2 nd
Subject Teacher Name	Sandeep Kumar

Evaluation Scheme

Sr. No.	Subject Name	Study scheme (Hrs/Week)		Marks in Evaluation Scheme					
				Internal Assessment			External Assessment		
				Th	DCS	Th	Pr	Total	Th
1.	Applied Mathematics-II	4	1	40	-	40	60	-	60
Reference Books		(i) B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, New Delhi, 40th Edition, 2007 (ii) S.S. Sabharwal, Sunita Jain, Eagle Parkashan, Applied Mathematics, Vol. I & II, Jalandhar.							

Course Outcomes (COs)

CO – 1	To understand the students are expected to acquire necessary background in Determinants and Matrices so as to appreciate the importance of the Determinants are the factors that scale different parameterizations so that they all produce same overall integrals, i.e. they are capable of encoding the inherent geometry of the original shape.
CO – 2	To understand cumulative effect of the original quantity or equation is the Integration.
CO – 3	The students are able to learn the coordinate geometry provides a connection between algebra and geometry through graphs of lines and curves.
CO – 4	Tell the difference between a resultant and a concurrent force to model simple physical problems in the form of a differential equation, analyze and interpret the solutions.

Teaching Plan

	Name of Topic	Proposed Date	Actual Date	Remarks
UNIT-I Determinants and Matrices	Introduction of Determinants	29/01/2024		
	Elementary properties of determinants up to 3rd order	31/01/2024		
		01/02/2024		
	Doubt Clearing Session	02/02/2024		
	Consistency of equations	03/02/2024		
	Cramer's rule	05/02/2024		
07/02/2024				
08/02/2024				
09/02/2024				
		12/02/2024		

ES

	Algebra of matrices	14/02/2024		
	Inverse of a matrix	15/02/2024 16/02/2024		
	Doubt Clearing Session	17/02/2024		
	Matrix inverse method to solve a system of linear equations in 3 variables.	19/02/2024 21/02/2024 22/02/2024		
UNIT-II	Integration as inverse operation of differentiation	23/02/2024 26/02/2024 28/02/2024		
	Simple integration by substitution	29/02/2024 01/03/2024		
	Doubt Clearing Session	02/03/2024		
	Simple integration by parts	04/03/2024 06/03/2024 07/03/2024		
	Simple integration by partial fractions	11/03/2024 13/03/2024 14/03/2024		
	Use of formulae for solving problems where m and n are positive integers	15/03/2024		
	Doubt Clearing Session	16/03/2024		
	Class Test-1 (As per HPTSB schedule)	18/03/2024		
	Applications of integration for Simple problem on evaluation of area bounded by a curve and axes	20/03/2024 21/03/2024 22/03/2024		
	Doubt Clearing Session	23/03/2024		
	Calculation of Volume of a solid formed by revolution of an area about axes.	27/03/2024 28/03/2024		
	Doubt Clearing Session	30/03/2024		
	Equation of straight line in various standard forms (without proof)	01/04/2024 03/04/2024		
UNIT-III	Inter section of two straight lines	04/04/2024		
	Angle between two lines	05/04/2024		
	Doubt Clearing Session	06/04/2024		
	Parallel and perpendicular lines	08/04/2024		
	Perpendicular distance formula.	10/04/2024		

Co-Ordinate Geometry	General equation of a circle and its characteristics.	12/04/2024		
	Class Test-2 (As per HPTSB schedule)	18/04/2024		
	To find the equation of a circle when Centre and radius are given.	19/04/2024		
	Doubt Clearing Session	20/04/2024		
	To find the equation of a circle when three points lying on it.	22/04/2024 24/04/2024 25/04/2024		
	To find the equation of a circle when Coordinates of end points of a diameter are given.	26/04/2024		
	Doubt Clearing Session	27/04/2024		
	Definition of conics (Parabola, Ellipse, Hyperbola) their standard equations without proof. Problems on conics when their foci, directrices or vertices are given.	29/04/2024 01/05/2024 02/05/2024 03/05/2024		
	Doubt Clearing Session	04/05/2024		
UNIT- IV Differential Equations	Solution of first order and first degree differential equation by variable separable method (simple problems).	06/05/2024 08/05/2024 09/05/2024 13/05/2024		
	House Test	14/05/2024 To 16/05/2024		
	Solution of first order and first degree differential equation by variable separable method (simple problems).	17/05/2024		
	Doubt Clearing Session	18/05/2024		
	Solution of first order and first degree differential equation by variable separable method	20/05/2024 22/05/2024 23/05/2024 24/05/2024		
	Doubt Clearing Session	25/05/2024		

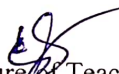
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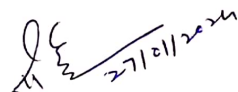
Assignments

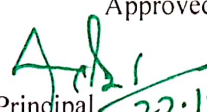
Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1	04/03/2024		
A-2	Unit-2	05/04/2024		
A-3	Unit-3	03/05/2024		

House Test/Class Test

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	Unit-1	As per HPTSB Academic Schedule		
Class Test -2	Unit-2			
House Test - 1	Unit-1, Unit-2 and Unit-3			


(Signature of Teacher)


(Signature of HOD)

Approved

Principal 27.1.24
Govt. Polytechnic for Women
Rehan Distt. Kangra (H.P.)