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

LESSON PLAN

Program Name	Computer Engineering
Subject Name	Mathematics-I
Subject Code	BS101
Semester	1st
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	Pr	Total
1.	Mathematics-I	3	2	40	-	40	60	-	60
Reference Books		(iii) B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, New Delhi, 40th Edition,2007							
		(iv) 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 Trigonometry to appreciate the importance of the geometric study as well as for the calculation and the mathematical analysis.
CO – 2	To understand the ability to find the effects of changing conditions on a system.
CO – 3	The students are able to learn the Complex numbers enter into studies of physical phenomena in ways that most people cannot imagine.
CO – 4	The partial fraction decomposition lies in the fact that it provides an algorithm for computing the anti derivative of a rational function.

Teaching Plan

	Name of Topic	Proposed Date	Actual Date	Remarks
UNIT-1	Introduction of Trigonometry	01/08/2024		
	Doubt Clearing Session	02/08/2024		
	Concept of angles.	03/08/2024		
Trigonometry	Measurement of angles in degrees, grades and radians and their conversions	05/08/2024 07/08/2024		
	Doubt Clearing Session	08/08/2024		
	T-Ratios of Allied angles (without proof),	09/08/2024 12/08/2024		
	Doubt Clearing Session	14/08/2024		

	Sum, difference formulae and their applications (without proof).	16/08/2024 17/08/2024		
	Product formulae (Transformation of product to sum, difference and vice versa).	19/08/2024 21/08/2024		
	Doubt Clearing Session	22/08/2024		
	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2).	23/08/2024 24/08/2024		
	Doubt Clearing Session	28/08/2024		
UNIT-II **Differential Calculus**	Definition of function; Concept of limits. Four standard limits.	29/08/2024		
	Doubt Clearing Session	30/08/2024		
	Differentiation by definition.	31/08/2024		
	Doubt Clearing Session	02/09/2024		
	Differentiation of sum, product and quotient of functions.	04/09/2024 05/09/2024		
	Doubt Clearing Session	06/09/2024		
	Differentiation of function of a function.	07/09/2024 09/09/2024		
	Class Test-1 (As per HPTSB schedule)	11/09/2024		
	Doubt Clearing Session	12/09/2024		
	Differentiation of trigonometric and inverse trigonometric functions, Logarithmic differentiation	13/09/2024 16/09/2024 18/09/2024 19/09/2024		
	Doubt Clearing Session	20/09/2024		
UNIT-III	Definition, real and imaginary parts of a Complex number	21/09/2024 23/09/2024 25/09/2024		
	Doubt Clearing Session	26/09/2024		
	Polar and Cartesian, representation of a complex number and its conversion from one form to other	27/09/2024 28/09/2024 30/09/2024		
	Doubt Clearing Session	03/10/2024		
	Conjugate of a complex number.	04/10/2024		
	Doubt Clearing Session	05/10/2024		
	Modulus and amplitude of a complex number.	07/10/2024		

Algebra	Modulus and amplitude of a complex number.	09/10/2024 10/102024		
	Doubt Clearing Session	11/10/2024		
	Class Test-2 (As per HPTSB schedule)	14/10/2024		
	Addition, Subtraction, Multiplication and Division of a complex number.	16/10/2024 18/10/2024 19/10/2024		
	Doubt Clearing Session	21/10/2024		
	De-movier's theorem, its application.	23/10/2024		
	Definition of polynomial fraction proper & improper fractions and definition of partial fractions.	24/10/2024 25/102024		
	Doubt Clearing Session	26/10/2024		
	To resolve proper fraction into partial fraction with denominator containing non-repeated linear factors	01/11/2024 02/11/2024 04/11/2024		
	Repeated linear factors	06/11/2024		
	Doubt Clearing Session	07/11/2024		
	Value of P(n,r) and C(n,r) .	08/11/2024		
	House Test	11/11/2024 to 13/11/2024		
	Doubt Clearing Session	14/11/2024		
	Binomial theorem (without proof) for positive integral index (expansion and general form).	16/11/2024 18/11/2024 20/11/2024 21/11/2024		
	Doubt Clearing Session	22/11/2024		
	Binomial theorem for any index (expansion without proof)	23/11/2024 25/11/2024 27/11/2024		
	First and second binomial approximation with applications to engineering problems.	28/11/2024 29/11/2024 30/11/2024 02/12/2024		

Assignments

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1	09/09/2024		
A-2	Unit-2	04/10/2024		
A-3	Unit-3	22/11/2024		

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

2/8/24

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