LESSON PLAN(2025-26(W))

Discipline PME/ MECH/ META/MIN ING	Semester-1st	Math. & Sc. Department., Govt. Polytechnic, Jajpur.	
		Name of the teaching faculty: Smt. Pragyan Priyadarsini, Lect. in Mathematics,	
Subject – Math-I	No. of days/per week-04	Semester from date:06.08.25 to 04.12.2025 No. of weeks: - 15 (excluding vacation & Holidays)	
Week	Class Day	Chapter	Theory
1st	1st -01	Algebra Complex numbers	Introduction of complex number, Geometrical Representation of complex numbers
	2nd -02		Conjugate, Modulus, amplitude, addition, subtraction, multiplication, division of complex numbers and their properties.
	3rd -03		conversion from Cartesian form to Polar form and vice versa
	4th -04		Square root, cube root and cube roots of unity of a complex number.
2nd	1st -05		De-Moivre's Theorem and its application
	2nd -06		Problem Discussion
	3rd -07		Class Test
	4th -08	Partial Fractions	Definition of Polynomial fraction, Proper & Improper fraction, Conversion from Improper to proper fraction
3rd	1st -09		To resolve proper fraction into partial fraction with denominator containing non-repeated linear factors, illustrative examples.
	2nd -10		To resolve proper fraction into partial fraction with denominator containing repeated linear factors, illustrative examples.
	3rd -11		To resolve proper fraction into partial fraction with denominator containing irreducible non repeated quadratic factors, illustrative examples.
	4th -12		Class Test
4th	1st -13	Permutations ,Combinations & Binomial Theorem	General introduction, introduction to the Topic.
	2nd -14		Fundamental Principle of Counting, Illustrative Examples.
	3rd -15		Principles of multiplication, Addition, Illustrative examples.
	4th -16		Permutations when all the objects are distinct.
5th	1st -17		Factorial Notation, illustrative examples.
	2nd -18		Permutations under various cases.
	3rd -19		Combinations of 'n' different objects.

Week	Period	Subject	Topic
	4th -20		Problem discussion with doubt clearing, Exercise problem discussion
6th	1st -21		. Binomial Theorem for positive integral index.
	2nd -22		Binomial Theorem for any index.
	3rd -23		Problems on approximation by the Binomial Theorem.
	4th -24		Problem discussion(Application on real life/Industrial)
7th	1st -25		Class Test.
	2nd -26		Concept of angles, Measurement of angle in degree, grades, radian
	3rd -27		Conversion of degree, grade, radian
	4th -28		Continue, illustrative examples.
8th	1st -29		Introduction to Trigonometry & T-ratios.
	2nd -30		Continue
	3rd -31		Even function, odd function, periodic function
	4th -32		Sum, difference formula of trigonometry and their applications
9th	1st -33	Trigonometry	Product formula
	2nd -34		Transformation of product to sum, difference and vice versa
	3rd -35		Problem discussion
	4th -36		Problem discussion
10th	1st -37		Trigonometric ratios of multiple angles i.e. 2A, 3A
	2nd -38		Trigonometric ratios of sub-multiple angles i.e .A/2 Continue
	3rd -39		Illustrative examples
	4th -40		Graphs of Trigonometric Functions, Exponential & Logarithm functions.
11th	1st -41		Continue
	2nd -42		Problem discussion Exercise problem discussion
	3rd -43		continue
	4th -44		Class Test
12th	1st -45		Definition of function, different types of functions , illustrative examples
	2nd -46	Differential Calculus	continue
	3rd -47		Introduction to Limit. Limit of a function
	4th -48		Evaluation of L.H.L.& R.H.L., Exitance of Limit

13th	1st -49		Methods of Evaluation of Limit (direct substitution, factorization, rationalization,)
	2nd -50		. Evaluation using standard limit formulas
	3rd -51		Problem Discussion
	4th -52		Problem Discussion
14th	1st -53		Introduction to differentiation, ab-intio method
	2nd -54		Algebra of differentiation, Derivative of composite functions, illustrative examples
	3rd -55		Derivatives of explicit/implicit function
	4th -56		Derivatives of trigonometry, inverse trigonometry, logarithm, exponential functions.
15th	1st -57		Class test
	2nd -58	probable questions answer discussion &VST	Problem Practice & Doubt Clearing
	3rd -59		Problem Practice & Doubt Clearing
	4th -60		Problem Practice & Doubt Clearing

Prepared By   30|07|2025

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