

PNS.SCHOOL OF ENGINEERING AND TECHNOLOGY,NISHAMANI VIHAR,MARSHAGHAI, KENDRAPARA		
LESSON PLAN:		
DEPARTMENT:BASIC SCIENCE AND HUMANITIES		
DISCIPLINE:ME,EL,CI,CS &ETC	SEMESTER:1ST.	NAME OF THE TEACHING FACULTY:MR.SUNAKAR SINGH.
WEEK	NO.OF DAYS PER WEEK:04,CLASS ALLOTTED:60 DAY	SEMESTER FROM DATE:06/08/25-04/12/25,NO OF WEEKS:12
1st.	1st.	TRIGONOMETRY:Concept of angle,type of angle,system of measurement of angle in degrees,grades and radian
	2nd.	problems -1,Quadrant,T-ratios, reciprocal,identity and division relation,ASTC rule
	3rd.	T ratios of Allied Angles,T-ratios of some special angles
	4th.	problems-2,sum and difference formulae
2nd.	1st.	problems-3
	2nd.	Transformation of product to sum and vice-versa,T -ratios of multiple angles,T-ratios of sub multiple angles (cont.)
	3rd.	T-ratios of sub multiple angles,Maximum and minimum value of $a\sin x + b\cos x$
	4th.	problems-4
3rd.	1st.	problems-5
	2nd.	problems -6
	3rd.	Graphs of $\sin x, \cos x, \tan x, e^x$, problems-7
	4th.	FUNCTION AND LIMIT:Relation and function,Domain,range and co-domain of function , problems-8
4th.	1st.	special functions with their graphs,domains and ranges,interval
	2nd.	concept of limit,Four standard limit
	3rd.	Methods of evaluation of limits, problems-9
	4th.	problems-10
5th.	1st.	problems-11
	2nd.	problems-12
	3rd.	problems -13
	4th.	DERIVATIVES:Definition and notations, Derivatives of $\sin x, \cos x, \tan x, e^x, \log x$ to the base a (problems-14)
6th.	1st.	Algebra of derivative,Standard derivative formulae
	2nd.	problems-15
	3rd.	Derivatives of a function of function (Chain rule),problems-16
	4th.	problems-17

7th.	1st.	Derivatives using logarithm, derivatives of implicit function, derivative using trigonometric substitution, problems-18
	2nd.	problems-19
	3rd.	COMPLEX NUMBER: Introduction about different numbers set, imaginary numbers, problems-20, Complex number (CN), Imaginary and real parts of CN,
	4th.	geometrical representation of CN, conjugate, modulus, equality and amplitude of CN (polar form)
8th.	1st.	Addition, subtraction, multiplication and division of CN, Properties of Algebraic operation of CN, problems-21
	2nd.	problems -22
	3rd.	De-moivre's theorem and its application, problems-23
	4th.	PARTIAL FRACTIONS: Definition of polynomial fraction, proper and improper fractions, Forms of partial fraction
9th.	1st.	partial fractions of proper fractions with denominator containing non repeated linear factors, repeated linear factors and irreducible non repeated quadratic factors-problems -24
	2nd.	partial fractions of improper fraction-problems-25
	3rd.	PERMUTATIONS AND COMBINATIONS: Fundamental principles of counting, Factorial, problems-26
	4th.	permutation and combination, value of $P(n,r)$, $C(n,r)$, permutations under various cases
10th.	1st.	problems-27
	2nd.	problems -28
	3rd.	problems-29
	4th.	BINOMIAL THEOREM: Binomial, Binomial theorem for +ve integral index, general and middle terms
11th.	1st.	Binomial theorem for any index, 1st. and 2nd. binomial approximation
	2nd.	problems-30
	3rd.	problems-31
	4th.	problem -32
12th.	1st.	Revision
	2nd.	Revision
	3rd.	Revision

signature of Lecture

signature of H.O.D

Sunakar Singh.

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