

RAJAKISHORE CHANDRA ACADEMY OF TECHNOLOGY(RKCAT) NILGIRI,BALASORE			
<u>LESSONPLAN</u>			
SUBJECT:Th3.ENGINEERINGMATHEMATICS–I			

	<u>CHAPTERWISEDISTRIBUTIONOFPERIODS</u>		
Sl.No.	NameofthechapteraspertheSyllabus	No.of Periods asper the Syllabus	No. of periods actually needed
1	TRIGONOMETRY	21	21
2	DIFFERENTIAL CALCULUS	21	21
3	COMPLEX NUMBER	6	6
4	PARTIAL FRACTION AND PERMUTATION	12	12
	TOTAL	60	60

Discipline: CO MMONTO ALL	Semester: 1st	Name of the Teaching Faculty: MISS SUMITRA SAHU
Week	Class Day	Theory/Practical Topics
1ST	1st	TRIGONOMETRYa)Introduction of trigonometry
	2nd	b)concept of angles
	3rd	c)measurement of anglesin degrees,gradesand radians
	4th	c)measurement of anglesin degrees,gradesand radians
	5th	d)conversion of degree
2ND	1st	d)conversion of degree
	2nd	e)T-ratio of allied angles with outproof
	3rd	e)T-ratio of allied angles with outproof
	4th	F)sum ,difference formulae and their application
	5th	F)sum ,difference formulae and their application
3RD	1st	F)sum ,difference formulae and their application
	2nd	g)product formulae (transformation of product to sum ,difference)
	3rd	g)product formulae (transformation of product to sum ,difference)
	4th	g)product formulae (transformation of product to sum ,difference)
	5th	T-ratio of multiple angles

4TH	1 st	T-ratio of multiple angle
	2 nd	T-ratio of an sub multiples angles ($2a \sin A$)
	3 rd	T-ratio of an sub multiples angles ($2a \sin A$)
	4 th	Graph of different trigono metric function as per syllabus
	5 th	Graph of different trigono metric function as per syllabus
5TH	1 st	Graph of different trigono metric function as per syllabus
	2 nd	DERIVATIVES a) Derivative of a function at a point
	3 rd	DERIVATIVES a) Derivative of a function at a point
	4 th	b) Algebra of derivative
	5 th	c) Derivative of standard functions
6TH	1 st	c) Derivative of standard functions
	2 nd	d) Derivative of composite function (Chain Rule)
	3 rd	d) Derivative of composite function (Chain Rule)
	4 th	e) Methods of differentiation of
	5 th	i) Parametric function ii) Implicit function

7TH	1 st	i) Parametric function ii) Implicit function
	2 nd	iii) Logarithmic function iv) a function with respect to another function
	3 rd	iii) Logarithmic function iv) a function with respect to another function
	4 th	iii) Logarithmic function iv) a function with respect to another function
	5 th	f) Applications of Derivative
8TH	1 st	f) Applications of Derivative
	2 nd	i) Successive Differentiation (upto second order) ii) Partial Differentiation (function of two variables upto second order)
	3 rd	i) Successive Differentiation (upto second order) ii) Partial Differentiation (function of two variables upto second order)
	4 th	g) Problems based on above
	5 th	i) Successive Differentiation (upto second order) ii) Partial Differentiation (function of two variables upto second order)
9TH	1 st	i) Successive Differentiation (upto second order) ii) Partial Differentiation (function of two variables upto second order)
	2 nd	g) Problems based on above
	3 rd	Complex Numbers Real and Imaginary numbers
	4 th	1.2 Complex numbers, conjugate complex numbers, Modulus and Amplitude of a complex number
	5 th	Geometrical Representation of Complex Numbers. Properties of Complex Numbers
10TH	1 st	1.5 Determination of three cube roots of unity and their properties.
	2 nd	1.6 De Moivre's theorem
	3 rd	1.7 Solve problems on 1.1 - 1.6
	4 th	Partial fraction a) definition of partial fraction proper or improper fraction

	5 th	b)de definition of partial fraction
11TH	1 st	c) to resolve proper frsction into partial fraction with denominator containing non repeated liner fractor
	2 nd	c) to resolve proper frsction into partial fraction with denominator containing non repeated liner fractor
	3 rd	Repeated linear fractorand irreduciblenon repeating quadratic factor
	4 th	To resolve improper fraction into fraction into partial fraction
	5 th	Permutation and combination : value of Npr and Ncr
12TH	1 st	BIONOMIAL THEOREM:a0bionomial theorem for positive integral index
	2 nd	b)bionomial theorem for anny index
	3 rd	c)first and second bionomial approximation with application to engineering problems
	4 th	c)first and second bionomial approximation with application to engineering problems
	5 th	c)first and second bionomial approximation with application to engineering problems