

ENGG. MATHEMATICS-II(Th. 03)

Date of Commencement of classes: 14.03.2022

Date of Closing of classes: 11.06.2022

LIST OF WEEK/ MONTH WISE AVAILABLE DAYS/ PERIODS

Sl. No.	Month	Week-wise no. of academic days available					Total no. of academic days
		Week- 1	Week- 2	Week- 3	Week- 4	Week- 5	
1	March	--	--	4	6	3	13
2	April	2	5	4	4	6	21
3	May	5	4	4	5	2	20
4	June	3	6	--	--	--	09
Total		10	15	12	15	11	63

NO. OF AVAILABLE CLASSES PER WEEK/ MONTH

Sl. No.	Month	Week-wise no. of academic periods available					Total no. of academic periods
		Week- 1	Week- 2	Week- 3	Week- 4	Week- 5	
1	March	--	--	5	7	3	15
2	April	2	6	5	5	7	25
3	May	6	5	5	6	2	24
4	June	3	7	--	--	--	10
Total		11	18	15	18	12	74

CHAPTER-WISE DISTRIBUTION OF PERIODS

SL NO	Name of the Chapter	PERIODS AS PER SYLLABUS	ACTUALLY REQUIRD	EXPECTED MARKS
1	Vector Algebra	15	14	20
2	Limits and Continuity	12	12	20
3	Derivatives	21	20	20
4	Integration	15	16	20
5	Differential Equation	12	07	20
TOTAL		75	69	100

Sign of Lect.

Sign of HOD.

Sign of AIC

Sign of Vice Principal

LESSON PLAN

Name of The Month	Week No	Class day	Art. no	Theory Topics
M A R C H	3 rd	1 st	a) b)	Chapter no-01(Vector Algebra) Introduction, Types of vectors(null vector, parallel vector, Collinear vectors in component form)
		2 nd	c)	Representation of Vector
		3 rd	d)	Magnitude and direction of vectors
		4 th	e)	Addition and subtraction of vectors
		5 th	f)	Position vector
	4 th	1 st	g)	Scalar/dot product of two vectors
		2 nd	h)	Geometrical meaning of dot product
		3 rd		problems
		4 th	i)	Angle between two vectors
		5 th	j)	Scalar and vector projection of two vectors
		6 th		Problems
		7 th	k)	Vector/cross product and geometrical meaning
	5 th	1 st		Area of triangle and parallelogram
		2 nd		Problems
		3 rd	a) b)	Chapter no.-02 (Limit and Continuity) Definition of function based on set theory. Types of function: (i) Constant function, (ii) Identity function
	1 st	1 st		(iii) Absolute value function, (iv) Greatest integer function
		2 nd	b)	(v) Trigonometric function (vi) Exponential function (vii) Logarithmic function

A	2 nd	1 st	c)	Introduction of limit of a function, LHL, RHL
		2 nd	d)	Existence of Limit
		3 rd	e)	Methods of evaluation of limit (formulae)
		4 th		Fundamental theorem on limits
		5 th		Proof of Theorems
		6 th		Cont.....
P	3 rd	1 st	e)	Definition of Continuity of a function at a point
R		2 nd		Cont.
		3 rd		Problem
		4 th	a)	Chapter no.-03 (Derivatives) Derivative of a function at a given point Geometrical and physical meaning of derivative, Diff. coefficient, Diff operator
I		5 th	b)	Algebra of derivative (Addition, Subtraction, product and quotient rule of derivative)
L	4 th	1 st		Problems
		2 nd	c)	Derivative of Standard functions from first principle
		3 rd		Cont.
		4 th	d)	Derivative of composite functions-(chain rule)
		5 th		Problems
	5 th	1 st	e)	Methods of differentiation of (i) parametric functions
2 nd		Problems		
3 rd		(ii) Diff of implicit functions,		
4 th		Problems		
5 th		(iii) Diff of parametric functions		
6 th		Problems		

		7 th		(iv) Diff of a function w.r.t. another Function
M A Y	1 st	1 st		Cont..
		2 nd	f)	Application of Derivative (i) Successive diff up to 2nd order
		3 rd		Cont.
		4 th		(ii) Partial diff of a fun. of two variables up to 2nd order
		5 th		Cont.
		6 th	g)	Problems based on above
	2 nd	1 st	a)	Chapter no.-04 (Integral Calculus) Definition of integration as inverse of differentiation
		2 nd	b)	Integral of standard functions
		3 rd		Problems
		4 th	c)	Methods of integration (i) Integration by substitution
		5 th		Problems
	3 rd	1 st		(ii) Integration by parts
		2 nd		Problems
		3 rd	d)	Integration of different forms and its proof
		4 th		Cont.
		5 th		Problems
	4 th	1 st	e)	Definite integrals, properties of definite integral
		2 nd		Cont..
		3 rd		Problem
		4 th	f)	Application of Integration- (i) Area enclosed by a curve and X-axis.
		5 th		(ii) Area of a circle with center at origin

		6 th		Problems
	5 th	1 st	a)	Chapter no.-05(Differential Equation) Order and Degree of a differential equation
		2 nd		Problems
J U N E	1 st	1 st	b)	(i) Solution of 1st order and 1st degree equation by the method of separation of variables.
		2 nd		Problems
		3 rd		(ii) Solution of linear diff equation
	2 nd	1 st		Cont...
		2 nd		Problems
		3 rd		Revision-1
		4 th		Revision-2
		5 th		Revision-3
		6 th		Previous year questions and answer discussion
		7 th		Previous year questions and answer discussion

Coverage of Chapters up to the internal assessment (2nd Week of May 2022): 1, 2 & 3.

Learning Resources:

Sl. No.	Name of the Book	Author Name	Publisher
01	Elements of mathematics Vol-I &II		Odisha state board
02	Mathematics Part-I & part – II,		NCERT