

Lesson Plan for Engineering Mathematics-II

Discipline	Semester:-2 nd sem All branches	Name of the Teaching Faculty:-							
Subject:-	No of days/per week	Semaster from 26/10/2022 to 20/02/2022							
Mathematics	class allotted	Semester from 26/10/2022 to 20/02/2023							
Inderternatios		INO OF WEEKS:- 15							
Week	Class Day	Theory Topics							
1st	1 st	INTRODUCTION TO VECTOR AND TYPES OF VECTOR							
	2 nd	REPRESENTATION OF A VECTOR, MAGNITUDE AND							
		DIRECTION OF A VECTOR, OPERATIONS ON VECTOR AND							
		POSITION VECTOR.							
	3 rd	RESOUTION OF VECTOR IN 2D AND 3D. OPERATIONS ON							
		VECTORS IN COMPONENT FORM.							
	4 th	UNIT VECTOR IN THE DIRECTION OF VECTOR. PROBLEMS							
		ON DISCUSSED TOPICS.							
	5 th	ANGLE BETWEEN THE VECTORS. DOT PRODUCT OR							
		SCALAR PRODUCT OF TWO VECTORS. GEOMETRICAL							
		MEANING OF DOT PRODUCT.PROPERTIES OF DOT							
		PRODUCT.ANGLE BETWEEN TWO NON ZERO VECTORS							
2 nd	1 st	REVISION OF DISCUSSED TOPIC , PRACTICE OF PROBLEMS.							
	2 nd	PROBLEMS ON DOT PRODUCT.							
	3 rd	VECTOR PRODUCT OR CROSS PRODUCT, GEOMETRICAL							
		MEANING OF CROSS PRODUCT. APPLICATION OF CROSS							
	1	PRODUCT.							
	4 th	PROBLEMS ON CROSS PRODUCT.							
	5 th	CONDITION OF COPLANARITY AND MISCELLANEOUS							
	5	PROBLEMS ON VECTOR.							
3rd	1 st	PROBLEMS ON VECTOR AND DOUBT CLEARING.							
	2 nd	DOUBT CLEARING AND ASSIGNMENT CHECKING.							
contraction and and and	3rd	INTRODUCTION TO RELATION AND FUNCTION. TYPE OF							
	-	FUNCTION,							
	$4^{\rm th}$	CLASSIFICATION OF FUNCTION AND INTRODUCTION TO							

		LIMIT. DEFINATION OF LIMIT AND EXISTENCY OF LIMITS.
	5 th	ALGEBRA OF LIMIT AND FORMULAS ON LIMIT.
	5	EVALUATION OF ALGEBRAIC LIMITS USING SUBSTITUION,
		FACTORISATION, RATIONALISATION METHOD.
4 th	1 st	EVALUATION OF INFINITE LIMITS.
	2 nd	EVALUATION OF LIMITS USING FORMULAS.
	3 rd	PRACTICING PROBLEMS AND ASSSIGNMENT CHECKING
	4 th	EVALUATION OF LIMITS USING FORMULAS AND
	5 th	E VALUATION OF LIMITS BY LHL AND RHL METHOD.
5 th	1 st	DEFINE CONTINUITY OF A FUNCTION AT A POINT.
		TESTING CONTINUITY OF A FUNCTION AT A POINT.
	2 ^{na}	PROBLEM ON TESTING CONTINITY OF A FUNCTION AT A POINT
	3 rd	PROBLEM OF TESTING PROBLEM ON TESTING
	5	CONTINITY OF A FUNCTION AT A POINT
	4 th	REVISION OF LIMIT & CONTINUITY TOPIC WITH DOUBT CLEARING.
	5 th	DERIVATIVE OF A FUNCTION AT A POINT AND ALGEBRA OF DERIVATIVES.
6 th	1 st	DERIVATIVE OF SOME STANDARD FUNCTIONS . CHAIN RULE.
	2 nd	DISCUSSION PROBLEM ON CHAIN RULE.
	3 rd	DISCUSSION PROBLEMS ON CHAIN RULE
	4 th	DERIVATIVE OF FUNCTIONS IN PARAMETRIC FORM AND PROBLEM ON IT.
	5 th	DOUBT CLEARING AND ASSIGNMENT CHECKING
7 th	1 st	PROBLEM ON DERIVATIVE OF PARAMETRIC FUNCTIONS
	2 nd	DERIVATIVE OF IMPLICIT FUNCTIONS
	3 rd	DERIVATIVE OF IMPLICIT FUNCTIONS. DERIVATIVE OF FUNCTIONS BY USING LOGARITHM
	4^{th}	DICUSSION OF PROBLEMS ON IMPLICIT AND
	5 th	PRACTING PROBLEMS AND DOUBT CLEARING
8 th	1 st	DERIVATIVE OF A FUNCTION W.R.T TO ANOTHER FUNCTION
	2 nd	PROBLEM DICUSSION ON DERIVATIVE OF A FUNCTION W.R.T TO ANOTHER FUNCTION
	3 rd	SUCCESSIVE DIFFERENTIATION UPTO 2 ND ORDER AND PROBLEM ON IT
	4^{th}	PROBLEM ON SUCCESSIVE DIFFERENTITATION

				13					12 th					11'''	+				10 th	•				9 th	
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MEANING OF SOLUTION OF DIFFERENTIAL EQUATION .	DIFFERENTIAL EQUATION, ORDER AND DEGREE OF A	REVISION OF INTEGRATION CHAPTER WITH PROBLEM	DEFINITE INTEGRAL	DETERMINATION OF AREA UNDER A CURVE AND X AXIS USING DEFINITE INTEGRAL	PROBLEMS ON DEFINITE INTEGRAL	PRACTICING PROBLEMS ON DEFINITE INTEGRAL AND DOUBT CLEARING	PROBLEMS ON DEFINITE INTEGRAL USING PROPERTIES	PROBLEMS ON DEFINITE INTEGRAL USING PROPERTIES	FUNDAMENTAL THEOREM OF CALCULUS. PROPERTIED OF DEFINITE INTEGRAL	DEFINITE INTEGRAL. PROBLEMS ON DEFINITE INTEGRAL	PROBLEMS ON BY PARTS AND EVALUATION OF $\sqrt{a^2 - x^2}$, $\sqrt{a^2 + x^2}$ USING BY PARTS	REVISION OF INTEGRATION AND DOUBT CLEARING	INTEGRATION OF FUNCTIONS USING BY PARTS	INTEGRATION BY PARTS RULE EXPLANATION WITH EXAMPLES	PRACTICING PROBLEMS ON INTEGRATION	INTEGRATION OF FUNCTIONS $\int \frac{dx}{x^2 + a^2}$, $\int \frac{dx}{\sqrt{x^2 - a^2}}$ USING SUBSTITUTION METHOD	PROBLEM ON INTEGRATING TRIGONOMETRIC FUNCTIONS.	DOUBT CLEARING AND TEST ON INTERGRATION	PROBLEMS ON SUBSTITUTION METHOD	INTEGRATION OF FUNCTIONS USING DIRECT FORMULAS. SUBSTITUION METHOD.	INTEGRATION OF FUNCTION AS REVERSE PROCESS OF DIFFERENTIATION. INTEGRATION FORMULAS OF SOME STANDARD FUNCTIONS.	PRACTICING PROBLEMS ON PARTIAL DIFFERENTIATION	EULER'S FORMULA AND PROBLEM ON IT	DOUBT CLEARING AND ASSIGNMENT CHECKING	INTRODUCTION TO PARTIAL DERIVATIVES OF FUNCTIONS OF TWO VARIABLE UPTO 2 ND ORDER.

				15 th	
Sm	4 th	3 rd	2 nd	1 st	
PROBLEM ON VARIABLE SEPARABLE METHOD AND PROBLEM SOLVING ON LINEAR DIFF EQUATION	PROBLEM SOLVING ON LINEAR DIFF EQUATION	PROBLEM SOLVING ON LINEAR DIFF EQUATION	SOLUTION OF LINEAR DIFF. EQUATION	PROBLEM ON VARIABLE SEPARABLE METHOD.	FINDING SOLUTION OF DIFF. EQUATION OF 1 ^{5T} ORDER AND 1 ST DEGREE USING VARIABLE SEPARABLE METHOD.

Jajadendu Keshari Chand Local mathematics