



Lesson Plan for Mathematics-I(Th-3)

Discipline	Semester:- 1 st sem All branches	Name of the Teaching Faculty:- Jajatendu Keshari Chand
Subject:- Mathematics	No of days/per week class allotted	Semester from 16/08/2024 to 10/12/2024 No of weeks:- 15
Week	Class	Theory Topics
1st	1st	INTRODUCTION TO TRIGONOMETRY, MEASUREMENT OF ANGLES IN DEGREES, GRADES AND RADIANS AND THEIR CONVERSIONS.
	2nd	DETERMINE T-RATIOS OF ALLIED ANGLES AND SOLVING PROBLEMS BASED ON IT.
	3rd	STATE SUM AND DIFFERENCE FORMULA. APPLY THESE FORMULA TO SOLVE PROBLEMS.
	4th	STATE PRODUCT FORMULA AND TRNSFORMATION TO SUM, DIFFERENCE FORMULA. APPLY THEM TO SOLVE PROBLEMS.
2nd	1st	APPLICATION OF PRODUCT FORMULA TO SOLVE PROBLEMS.
	2nd	DISCUSSION OF PROBLEMS ON THE TOPICS DISCUSSED EARLIER AND DOUBT CLEARING.
	3rd	STATE FORMULAS OF MULTIPLE OF ANGLES, SUB MULTIPLE OF ANGLES. APPLY THESE FORMULAS TO SOLVE PROBLEMS.
	4th	SOLVE PROBLEMS ON MUTIPLE AND SUBMULTIPLE OF ANGELS.
3rd	1st	SOLVE PROBLEMS OF TRIGNOMETRY.
	2nd	SOLVE PROBLEMS OF TRIGNOMETRY.
	3rd	SOLVE PROBLEMS OF TRIGNOMETRY.
	4th	PLOT GRAPHS OF TRIGONOMETRIC FUNCTIONS.
4th	1st	REVISION AND EXPLANATION OF REAL LIFE APPLICATION OF TRIGNOMETRY.
	2nd	ASSIGNMENT CHECKING AND DOUBT CLEARING.

	3 rd	CLASS TEST ON TRIGONOMETRY.
	4 th	DEFINE FUNCTION. TYPES OF FUNCTION. DOMAIN AND RANGE OF A FUNCTION.
5 th	1 st	INTRODUCTION OF SOME SPECIAL FUNCTION CONSTANT, IDENTITY, MODULUS, GREATEST INTERGER FUNCTION, EXPONENTIAL, LOGARITHM, SIGNUM. INTRODUCTION OF DIFFERENT TYPE OF INTERVALS (OPEN, CLOSE
	2 nd	INTRODUCTION OF LIMIT. EXISTENCE OF LIMITS.
	3 rd	ALGBRA OF LIMITS AND EVALUATION OF LIMITS OF SOME ALGEBRAIC FUNCTIONS
	4 th	EVALUATION OF LIMITS OF SOME ALGEBRAIC FUNCTIONS
6 th	1 st	STATE FORMULAS ON LIMITS. PROBLEMS ON IT.
	2 nd	APPLY FORMULAS OF LIMIT TO SOLVE DIFFERENT PROBLEMS.
	3 rd	APPLY FORMULAS OF LIMIT TO SOLVE DIFFERENT PROBLEMS.
	4 th	SOLVING PROBLEMS OF LIMIT BY TAKING L.H.L. AND R.H.L..
7 th	1 st	SOLVING PROBLEMS OF LIMIT BY TAKING L.H.L. AND R.H.L..
	2 nd	REVISION OF LIMIT , DOUBT CLEARING AND EXPLANATION OF REAL LIFE APPLICATION OF LIMIT.
	3 rd	CLASS TEST ON LIMIT.
	4 th	DEFINE DERIVATIVE. APPLY DEFINITION OF DERIVATIVE TO FIND DERIVATIVE OF SOME STANDARD FUNCTIONS.
8 th	1 st	STATE FORMULAS OF DERIVATIVES AND SUM, PRODUCT AND DIVISION RULE OF DERIVATIVE. SIMPLE PROBLEMS ON THESE RULES.
	2 nd	STATE CHAIN RULE FOR DIFFERENTIING COMPOSITE FUNCTIONS. PROBLEMS ON CHAIN RULE.
	3 rd	SOLVE PROBLEMS ON CHAIN RULE.
	4 th	DIFFERENTIATION OF TRIGNOMETRIC AND INVERSE TRIGNOMETRIC FUNCTION. USE OF SUBSTITUTION METHOS TO SOLVE PROBLEMS.
9 th	1 st	SOLVE PROBLEMS OF INVERSE TRIGNOMETRIC FUNCTIONS USING SUBSTITUTION METHOD.
	2 nd	SOLVE PROBLEMS OF INVERSE TRIGNOMETRIC FUNCTIONS USING SUBSTITUTION METHOD.
	3 rd	USE LOGARITHM TO DIFFENTIATE SOME FUNCTIONS.
	4 th	USE LOGARITHM TO DIFFENTIATE SOME FUNCTIONS.
10 th	1 st	SOLVE MISCELLANEOUS PROBLEMS ON DERIVATIVE.

11 th	2 nd	SOLVE MISCELLANEOUS PROBLEMS ON DERIVATIVE. DOUBT CLEARING.
	3 rd	ASSIGNMENT CHECKING AND DOUBT CLEARING.
	4 th	CLASS TEST ON DERIVATIVE.
	1 st	DEFINE IMAGINARY NUMBER, COMPLEX NUMBER, CONJUGATE, MODULUS & AMPLITUDE OF A COMPLEX NUMBER. REPRESENT COMPLEX NUMBER IN CARTESIAN AND POLAR FORM.
12 th	2 nd	CONVERT CARTESIAN FORM OF COMPLEX NUMBER TO POLAR FORM.
	3 rd	STATE ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION OF COMPLEX NUMBER.
	4 th	FIND SQUARE ROOT OF A COMPLEX NUMBER.
	1 st	SOLVE PROBLEMS ON COMPLEX NUMBER.
13 th	2 nd	STATE DE'MOIVRE'S THEOREM. APPLY IT TO SOLVE PROBLEMS OF COMPLEX NUMBER.
	3 rd	SOLVE PROBLEMS OF COMPLEX NUMBER BY DE MOIVRE'S THEOREM.
	4 th	ASSIGNMENT CHECKING AND DOUBT CLEARING.
	1 st	DEFINE PROPER AND IMPROPER FRACTIONS OF POLYNOMIALS. DEFINE PARTIAL FRACTIONS. RESOLVE PROPER FRACTION IN PARTIAL FRACTIONS (DENOMINATION CONTAINING LINEAR NON REPEATED FACTORS)
14 th	2 nd	RESOLVE PROPER FRACTION IN PARTIAL FRACTIONS (DENOMINATION CONTAINING LINEAR REPEATED FACTORS & NON REPEATED IRREDUCIBLE QUADRATIC FACTORS).
	3 rd	RESOLVE IMPROPER FRACTION INTO PARTIAL FRACTIONS. DOUBT CLEARING AND ASSIGNMENT CHECKING AND DISCUSS REAL LIFE APPLICATION OF COMPLEX NUMBER AND PARTIAL FRACTION.
	4 th	CLASS TEST ON COMPLEX NUMBER AND PARTIAL FRACTION.
	1 st	STATE FUNDAMENTAL PRINCIPLE OF COUNTING. STATE FACTORIAL NOTATION. DEFINE PERMUTATION WITH EXAMPLES.
15 th	2 nd	EXPLAIN COMBINATION. DISCUSS EXAMPLES ON PERMUTATION AND COMBINATION.
	3 rd	STATE BINOMIAL THEOREM. APPLY IT TO FIND EXPANSION OF EXPRESSIONS CONTAINING NTH POWER. APPLY IT TO FIND NTH TERM IN AN EXPANSION.
	4 th	DISCUSSION OF PROBLEMS ON ABOVE. DOUBT CLEARING.

15 th	1 st	ASSIGNMENT CHECKING AND PROBLEM DISCUSSION ON PERMUTATION, COMBINATION AND BINOMIAL THEOREM.
	2 nd	EXPLAIN BINOMIAL THEOREM TO FIND 1 ST AND 2 ND BINOMIAL APPROXIMATION WITH APPLICATION TO ENGINEERING PROBLEMS.
	3 rd	CLASS TEST ON PERMUTATION, COMBINATION AND BINOMIAL THEOREM.
	4 th	REVISION OF WHOLE TOPIC AND PROBABLE QUESTION DISCUSSION.

Tajatendra Keshari Chandel

SIGNATURE OF THE FACULTY