

MAHAMAYA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCE,

NUAPADA

LESSON PLAN

Discipline: CIVIL ENGG.	Semester:2 nd	Name of faculty: ASHOK KUMAR SAHU
Subject: MATH II	No of days/ per week class allotted:05	Semester from date:14/03/2022 TO 10/06/2022 No of week:
WEEK	CLASS DAY	Topic
3 RD MARCH	1 ST	1.1 introduction to Vecor algebra, scalar and vector
	2 ND	1.2 types of vecton - null ,parallel,collinear vecton
	3 RD	1.3 representation of vector,magnitude and direction of vectors
	4 TH	1.4 position vector, algebra of vector
4 TH MARCH	1 ST	1.5 triangle and parallelogram law of two vector addition
	2 ND	1.5 examples on addition and subtraction of vector
	3 RD	1.6 scalar product of two vectors
	4 TH	1.6 geometrical meaning of dot product
	5 TH	1.9 angle between two vectors
5 TH MARCH	1 ST	1.9 examples
	2 ND	1.10 scalar and vector projection of two vector
	3 RD	1.11 vector product and geometrical meaning
	4 TH	1.11 problem solve
2 ND APRIL	1 ST	2.1 limit and continuity, definition of function
	2 ND	2.2types of function- constant function, absolute value function
	3 RD	2.2 greatest integer function, trigonometric, exponential ,logarithmic function
	4 TH	2.3 introduction to limit
	5 TH	2.3 existence of limit
3 RD APRIL	1 ST	2.4 methods of evaluation of limit-direct substitution ,factorization method
	2 ND	2.4 rationalisation method, standard result
	3 RD	2.4 problem solving
	4 TH	2.4 continue
4 TH APRIL	1 ST	2.5 continuity of function at a point
	2 ND	2.5 problems
	3 RD	3.1 derivatives- introduction
	4 TH	3.2 derivative of trigonometric function

	5 TH	3.2 problems
5 TH APRIL	1 ST	3.2 derivative of exponential and logarithmic function
	2 ND	3.2 problems
	3 RD	3.3 derivative of composite function – chain rule
	4 TH	3.3 problems
	5 TH	3.4 derivative of inverse trigonometric function
1 ST MAY	1 ST	3.4 problems
	2 ND	3.5 derivative of parametric and implicity function
	3 RD	3.5 problems
	4 TH	3.6 logarithmic derivative
	5 TH	3.6 problems
2 ND MAY	1 ST	3.7 derivative of a function with respect to another function
	2 ND	3.7 problems
	3 RD	3.8 application of derivative- maximum and minimum value of function
	4 TH	3.9 successive derivative of second order
	5 TH	3.10 partial derivative of function in two variable up to second order
3 RD MAY	1 ST	3.10 problems
	2 ND	4 integration - definition
	3 RD	4.1 integral of standard function
	4 TH	4.2 method of integration- by standard formula
	5 TH	4.2 integration by substitution
4 TH MAY	1 ST	4.2 integration by trigonometric identity and substitution
	2 ND	4.2 problems
	3 RD	4.3 integration by parts
	4 TH	4.3 problems
	5 TH	4.4 integration of rational function
5 TH MAY	1 ST	4.4 problems
1 ST JUN	1 ST	4.5 definite integral
	2 ND	4.5 properties of definite integral
	3 RD	4.6 application of integration- area bounded by the curve
	4 TH	4.6 problems
2 ND JUN	1 ST	5 differential equation-order and degree of a differential equation
	2 ND	5.2 solution of differential equation
	3 RD	5.2 solution of differential equation of first order and first degree
	4 TH	5.2 problems
	5 TH	5.3 homogeneous differential equation
3 RD JUN	1 ST	5.4 exact equation- integrating factor
	2 ND	5.5 linear differential equation
	3 RD	5.5 problems

