BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK
MATHEMATICS AND SCIENCE DEPARTMENT ACADEMIC PLAN

SEMESTER/BRANCH-1ST SEM (All branches)

SUBJECT:- ENGINEERING MATH-I (2020-21 WINTER)

Section - I

FACULTY NAME:- Mrs Mamata Nayak, Mrs Chapala Sahoo

Semester From Dt.09.11.2020 to Dt. 31.3.21

No of week:15

Week No.	Dates	No.of Periods available	Topics to be Covered	Date of teaching	Shortfall if any	Reasons	Date of make up of shortfall	Initial of Faculty
1			Unit-1 Matrices & Determinants a) Types of matrices b) Algebra of matrices c) Determinant	9/11/20 10/11/20 11/11/20 12/11/20 13/11/20				M.h.csal M.h.csal M.h.csal M.h.csal M.h.csal
2			Unit-1 Matrices & Determinants a) properties of determinants b) Inverse of matrix (second and third order)	16/11/20 17/11/20 18/11/20 19/11/20 20/11/20 21/11/20				M.h.csal M.h.csal M.h.csal M.h.csal M.h.csal M.h.csal
3			Unit-1 Matrices & Determinants a) Cramer's Rule (only two variable) Solution of simultaneous equations by matrix inverse method (only two variable)	23/11/20 24/11/20 25/11/20 26/11/20 27/11/20				M.h.csal M.h.csal M.h.csal M.h.csal M.h.csal csal
4			UNIT-2 TRIGONOMETRY a) Trigonometrical ratios b) Compound angles, multiple and sub-multiple angles (only formulae) c) Define inverse circular functions and its properties (no derivation	10/12/20 09/12/20 30/12/20 16/12/20 17/12/20				csal M.h. csal M.h. csal M.h. csal M.h. csal M.h.

5			UNIT-2 TRIGONOMETRY b) Compound angles, multiple and sub-multiple angles (only formula	7/12/20 8/12/20 9/12/20 10/12/20 11/12/20				CSal M.M CSal M.M CSal M.M CSal M.M CSal M.M
6			UNIT-2 TRIGONOMETRY c) Define inverse circular functions and its properties (no derivation	14/12/20 15/12/20 16/12/20 17/12/20 18/12/20 19/12/20				CSal M.M CSal M.M CSal M.M CSal M.M CSal M.M CSal M.M
7			UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): a) Introduction of geometry in two dimension b) Define slope of a line and angle between two lines, conditions of perpendicularity and parallelism of two lines	21/12/20 22/12/20 23/12/20 26/12/20				M.M CSal M.M CSal M.M CSal M.M CSal
8			UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): c) Different forms of straight lines (only formulae a. slope intercept form b. One point form c. Two point forms d. Intercept form e. Perpendicular form d) Derive equation of straight line a. Passing through a point and parallel to a line b. passing through a point and perpendicular to a line	28/12/20 29/12/20 30/12/20 31/12/20				M.M CSal M.M CSal M.M CSal M.M CSal

9			UNIT-3 **Co-Ordinate Geometry in two-dimensions (straight line):** e) Equation of the line passing through the intersection of two lines f) Determine the perpendicular distance from a point to a line	2/01/21 2/01/21				M.M Chak M.M Chak
10			**Unit-4** **Circle:** Equation of circle. (i) centre and radius form (ii) general equation of a cirlce (iii) end points of diameter form	4/01/21 5/01/21 6/01/21 7/01/21 8/01/21 9/01/21				M.M Chak M.M Chak M.M Chak M.M Chak M.M Chak Chak
11			**Unit-5** **5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS** (i) Distance formulae, section formulae, direction ratio, direction cosine (ii) Angle between two lines (condition of parallelism and perpendicularity	11/01/21 12/01/21 13/01/21 15/01/21 16/01/21				M.M Chak M.M Chak M.M Chak M.M Chak M.M Chak
12			Unit-5 **5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS** a)Equation of a plane General form Angle between two planes	18/01/21 19/01/21 20/01/21 21/01/21 22/01/21				M.M Chak M.M Chak M.M Chak M.M Chak M.M Chak

13			Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS) b) perpendicular distance of a point from a plane equation of a plane passing through a poin: parallel to a plane perpendicular to a plane	25/01/21 27/01/21 28/01/21 29/01/21 30/01/21					Chal M.M Chal M.M Chal M.M Chal M.M Chal M.M
14			Unit-6 SPHERE Equation of a sphere i) center radius form ii) general form iii) two end points of a diameter form (only formulae and problems)	1/02/21 2/02/21 3/02/21 4/02/21 5/02/21					Chal M.M Chal M.M Chal M.M Chal M.M Chal M.M
15			Problem practice	6/02/21 8/02/21 9/02/21 10/02/21 11/02/21 12/02/21					Chal M.M Chal M.M Chal M.M Chal M.M Chal M.M Chal M.M

16 17/02/21 to 31/02/21 → Revision

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

MATHEMATICS AND SCIENCE DEPARTMENT ACADEMIC PLAN

SEMESTER/BRANCH-1ST SEM (All branches) ELECTRICAL (SEC- D)

SUBJECT:- ENGINEERING MATH-I (2020-21 WINTER)

FACULTY NAME:- Smt. MAMATA NAYAK
SUNANDA MOHAPATRA

Semester From Dt.09.11.2020 to Dt. 31. 3. 21

No of week:15

Week No.	Dates	No of Periods available	Topics to be Covered	Date of teaching	Shortfall if any	Reasons	Date of make up of shortfall	Initial of faculty
1	9/11/20 10/11/20 12/11/20 13/11/20		Unit-1 Matrices & Determinants a) Types of matrices b) Algebra of matrices c) Determinant	9/11/20 10/11/20 12/11/20 13/11/20	NILL	-	NILL	M.M SM M.M SM M.M SM M.M SM
2	16/11/20 17/11/20 18/11/20 19/11/20 20/11/20 21/11/20		Unit-1 Matrices & Determinants a) properties of determinants b) Inverse of matrix (second and third order)	16/11/20 17/11/20 18/11/20 19/11/20 20/11/20 21/11/20	NILL	-	NILL	M.M M.M SM M.M SM M.M SM M.M SM M.M SM
3	23/11/20 24/11/20 25/11/20 26/11/20 27/11/20 28/11/20		Unit-1 Matrices & Determinants a) Cramer's Rule (only two variable) Solution of simultaneous equations by matrix inverse method (only two variable)	23/11/20 24/11/20 25/11/20 26/11/20 27/11/20 28/11/20	NILL	—	NILL	M.M SM M.M SM M.M SM M.M SM M.M SM M.M SM
4	1/12/20 2/12/20 3/12/20 4/12/20 5/12/20		UNIT-2 TRIGONOMETRY a) Trigonometrical ratios b) Compound angles, multiple and sub-multiple angles (only formulae) c) Define inverse circular functions and its properties (no derivation)	1/12/20 2/12/20 3/12/20	NILL	-	NILL	M.M SM M.M SM M.M SM M.M SM M.M SM SM

5	7/12/20 8/12/20 9/12/20 10/12/20 11/12/20		UNIT-2 TRIGONOMETRY b) Compound angles, multiple and sub-multiple angles (only formula	7/12/20 8/12/20 9/12/20 10/12/20 11/12/20	-	-	-	M.M SM M.M SM M.M SM M.M SM M.M SM
6	12/12/20 14/12/20 15/12/20 16/12/20 17/12/20 18/12/20 19/12/20		UNIT-2 TRIGONOMETRY c) Define inverse circular functions and its properties (no derivation	12/12/20 14/12/20 15/12/20 16/12/20 17/12/20 18/12/20 19/12/20	-	-	-	M.M SM M.M SM M.M SM M.M SM M.M SM
7	21/12/20 22/12/20 23/12/20 26/12/20		UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): a) Introduction of geometry in two dimension b) Define slope of a line and angle between two lines, conditions of perpendicularity and parallelism of two lines	21/12/20 22/12/20 23/12/20 26/12/20	-	-	-	M.M SM M.M SM M.M SM M.M SM
8	28/12/20 29/12/20 30/12/20 31/12/20		UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): c) Different forms of straight lines (only formulae a. slope intercept form b. One point form c. Two point forms d. Intercept form e. Perpendicular form d) Derive equation of straight line a. Passing through a point and parallel to a line b. passing through a point and perpendicular to a line	28/12/20 29/12/20 30/12/20 31/12/20	-	-	-	M.M SM M.M SM M.M SM M.M SM

9	1/01/21 2/01/21		UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): e) Equation of the line passing through the intersection of two lines f) Determine the perpendicular distance from a point to a line	1/01/21 2/01/21	–	–	–	1/01 2/01
10	4/01/21 5/01/21 6/01/21 7/01/21 8/01/21 9/01/21		Unit-4 Circle: Equation of circle. (i) centre and radius form (ii) general equation of a cirlce (iii) end points of diameter form	4/01/21 5/01/21 6/01/21 7/01/21 8/01/21 9/01/21	–	–	–	4/1 5/01 6/01
11	11/01 12/01 13/01 15/01 16/01		Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS (i) Distance formulae, section formulae, direction ratio, direction cosine (ii) Angle between two lines (condition of parallelism and perpendicularity	11/01/21 12/01/21 13/01/21 15/01/21	–	–	–	11/1 12/1 13/1
12	18/01 19/01 20/01 21/01 22/01		Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS a)Equation of a plane General form Angle between two planes	18/01/21 19/01/21 20/01/21 21/01/21	–	–	–	18/1 19/1 21/1

13	25/01/21 27/01/21 28/01/21 29/01/21 30/01/21		Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS) b) perpendicular distance of a point from a plane equation of a plane passing through a point parallel to a plane perpendicu ar to a plane	25/01/21 27/01/21 28/01/21 29/01/21 30/01/21	–	–	–	Sm/25/1 Sm/27/1 Sm/28/1 M.N M.M
14	1/02/21 2/02/21 3/02/21 4/02/21 5/02/21 6/02/21		Unit-6 SPHERE Equation of a sphere i) center radius form ii) general form iii) two end points of a diameter form (only formulae and problems)	1/2/21 2/2/21 3/2/21 4/2/21 5/2/21 6/2/21	–	–	–	Sm/1/2 Sm/2/2 Sm/3/2 M.N M.N M.N
15	8/02/21 9/02/21 10/02/21 11/02/21 12/02/21 13/02/21		Problem practice	8/2/21 9/2/21 10/2/21 11/2/21 12/2/21 13/2/21	–	–	–	Sm/8/2 Sm/9/2 Sm/10/2 M.N M.N M.N

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-(2020-21- SUMMER)

Lesson Plan

Mamata Nayak Sec-D

SEMESTER/BRANCH:- 2nd SEM (All Branches)

SUBJECT:- ENGINEERING MATHEMATICS-II

FACULTY NAME:-

Semester From:- Date.28.04.2021 to 19.08.2021

No of week:- 17

No of classes available per week : 5 (Excluding 1 tutorial class)

Total period available:85 periods;Class duration:55 minutes

Teaching Method:Online Meeting App,Presentation, Lecture note .PDF

Learning Method: Daily Assignment ,Unit test,Moc test

Lession plan:

WEEk No.	Dates	No. of Periods available	Topics to be Covered	Topic actually taken	Date of teaching	Short Fall if any	Reasons	Date of make up of short fall	Initial of Faculty
1			**Unit 1-vector (15p)**						
	28.4.21		a) Introduction						
			b) Types of vectors (null vector, parallel vector , col-linear vectors)	(1) Representation of vector	29/4/21	Nil	Nil	Nil	M.M
	29.4.21		c) Representation of vector (in component form)						
			d) Magnitude and direction of vectors	(2) Magnitude and direction of vectors	30/4/21	Nil	Nil	Nil	M.M
			e) Addition and subtraction of vectors		1/5/21	Nil	Nil	Nil	M.M
	30.4.21 01.5.21		f) Position vector	(3) Addition and subtraction of vector.					

			Problems based on above						
2	3.5.21 4.5.21 5.5.21 6.5.21 7.5.21 8.5.21		**Unit 1-vector (15p)** g) Scalar product of two vectors h) Geometrical meaning of dot product i) Angle between two vectors j) Scalar and vector projection of two vectors **Problems based on above**	(1) Scalar product of two vectors (2) Geometrical meaning of dot product (3) Angle betn two vectors (4) Scalar and vector projection of two vectors	3/5/21 6/5/21 7/5/21 8/5/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.Nh M.Nh M.Nh M.Nh
3	10.5.21 11.5.21 12.5.21 13.5.21 15.5.21		**Unit 1-vector(15p)** k) Vector product and geometrical meaning l)Application (Area of triangle and parallelogram) **Problems based on above**	(1) vector product and geometrical meaning (2) Application (3) Problems	10/5/21 13/5/21 15/5/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.Nh M.Nh M.Nh
4	17.5.21 18.5.21 19.5.21 20.5.21 21.5.21 22.5.21		**Unit-2-LIMITS AND CONTINUITY (12p)** a) Definition of function based on set theory b) Types of functions: i) Constant function ii) Identity function iii) Absolute value function iv)The Greatest integer function v) Trigonometric function vi) Exponential function .vii) Logarithmic function c) Introduction of limit d) Existence of limit e) Methods of evaluation of limit **problems based on it**	(1) Definition of function (2) Introduction of limit (3) Existence of limit (4) Methods of evaluation of limit	17/5/21 20/5/21 21/5/21 22/5/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.Nh M.Nh M.Nh M.Nh

5	24.5.21 25.5.21 26.5.21 27.5.21 28.5.21 29.5.21		**UNIT-2-LIMITS AND CONTINUITY(12p)** f)Some standard form of limit g) Definition of continuity of a function at a point a **problems based on it**	(1) Some standard form of limit (2) Definition of continuity (3) problems (4) Problems	24|5|21 27|5|21 28|5|21 29|5|21	Nil Nil Nil	Nil Cyclone Nil Nil	Nil 13/6/21 Nil Nil	M.Nh M.Nh M.Nh M.Nh
6	31.5.21 1.6.21 2.6.21 3.6.21 4.6.21 5.6.21		**UNIT-3 DERIVATIVES (24p)** a) Derivative of a function at a point b) Algebra of derivative c) Derivative of standard functions **problems based on it**	(1) Derivative of a function (2) Algebra of derivative (3) Derivative of standard functions (4) Problems	31|5|21 3|5|21 4|5|21 5|5|21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.Yak M.Yak M.Yak M.Yak
7	7.6.21 8.6.21 9.6.21 11.6.21 12.6.21		**UNIT-3-DERIVATIVES (24p)** d) Derivative of composite function (Chain Rule) e) Methods of differentiation i) Parametric function **Problems based on it**	(1) Derivative of composite function (2) Methods of differentiation (3) Parametric function	7|6|21 11/6/21 12|6|21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	m.n m.n m.n
8	16.6.21 17.6.21 18.6.21 19.6.21		**UNIT-3-DERIVATIVES (24p)** Method of differentiation (continue) ii) Implicit function iii) Logarithmic function iv) a function with respect to another function **problems based on it**	(1) Implicit function (2) Logarithmic function (3) A function with respect to another function	17|6|21 18|6|21 19|6|21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	m.n m.n m.n
9	21.6.21 22.6.21 23.6.21 24.6.21 25.6.21		**UNIT-3-DERIVATIVES (24p)** f) Applications of Derivative i) Successive Differentiation (up to second order) ii) Partial Differentiation (function of two variables up to second order)	(1) Applications of Derivative (2) parcelled differentiation (3) problems	21|6|21 24|6|21 25|6|21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	m.n m.n m.n

	26.6.21		**problems based on it**	(1) Problems	26/6/21	Nil	Nil	Nil	M.M
10	28.6.21 29.6.21 30.6.21 1.7.21 2.7.21 3.7.21		**UNIT-4 INTEGRATION (21p)** a) Definition of integration as inverse of differentiation b) Integrals of standard functions c) Methods of integration i) Integration by substitution ii) Integration by parts **problems based on it**	(1) Definition of Integration (2) Methods of Integration (3) Integration by Substitution (4) Integration by parts	28/6/21 1/7/21 2/7/21 3/7/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
11	5.7.21 6.7.21 7.7.21 8.7.21 9.7.21 10.7.21		**Unit 4 INTEGRATION(21p)** d) Integration of some standard forms **problems based on it**	(1) Integration of Some Standard forms (2) Problems (3) Problem (4) do	5/7/21 8/7/21 9/7/21 10/7/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
12	13.7.21 14.7.21 15.7.21 16.7.21 17.7.21		**Unit 4 INTEGRATION (12p)** e) Definite integral, properties of definite integrals **problems based on it**	(1) Definite Integral (2) Problem (3) do	15/7/21 16/7/21 17/7/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
13	19.7.21 20.7.21 22.7.21 23.7.21 24.7.21		**Unit 4 INTEGRATION(12p)** Application of integration i) Area enclosed by a curve and X – axis ii) Area of a circle with centre at origin **problems based on it**	(1) Application of Integration (2) Area enclosed by a curve and x-axis (3) Area of circle (4) Problem	19/7/21 22/7/21 23/7/21 24/7/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M

14	26.7.21 27.7.21 28.7.21 29.7.21 30.7.21 31.7.21		**Unit 5 DIFFERENTIAL EQUATION (12p)** a) Order and degree of a differential equation b) Solution of differential equation i) 1st order and 1st degree equation by the method of separation of variables **problems based on it**	(1) order and degree of differential eqn (2) soln of differential equation (3) separation of variables (4) Problems	26/7/21 29/7/21 30/7/21 31/7/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.N M.N M.N M.N
15	2.8.21 3.8.21 4.8.21 5.8.21 6.8.21 7.8.21		**Unit 5 DIFFERENTIAL EQUATION (12p)** ii) Linear differential equation general form and its solution **problems based on it**	(1) linear differential eqn (2) its solution	2/8/21 5/8/21	Nil Nil	Nil Nil	Nil Nil	M.N M.N
16	9.8.21 10.8.21 11.8.21 12.8.21 13.8.21 14.8.21		Revision	Revision MCQ discussion	9/8/21 10/8/21 11/8/21 12/8/21 13/8/21 14/8/21	Nil Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil Nil	M.N M.N M.N M.N M.N M.N
17	16.8.21 17.8.21 18.8.21 19.8.21		Exam related problem practice	MCQ discussion	16/8/21 17/8/21 18/8/21 19/8/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.N M.N M.N M.N

MY BOOK REFERENCE:ENG. MATHEMATICS,KP, MATH BOOK BY NCERT,ELEMENTS OF MATHEMATICS.
Study Website:
Online Class link:Google Meet

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-(2020-21- SUMMER)

Lesson Plan

Name- Mamata Nayak, Sec- G

SEMESTER/BRANCH:- 2nd SEM (All Branches)

SUBJECT:- ENGINEERING MATHEMATICS-II

	30.4.21 01.5.21		f) Position vector **Problems based on above**						
2	3.5.21 4.5.21 5.5.21 6.5.21 7.5.21 8.5.21		**Unit 1-vector (15p)** g) Scalar product of two vectors h) Geometrical meaning of dot product i) Angle between two vectors j) Scalar and vector projection of two vectors **Problems based on above**	(1) Angle between two vectors (2) Scalar and vector projection of two vectors	5/5/21 6/5/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
3	10.5.21 11.5.21 12.5.21 13.5.21 15.5.21		**Unit 1-vector(15p)** k) Vector product and geometrical meaning l)Application (Area of triangle and parallelogram) **Problems based on above**	(1) vector product and (2) geometrical meaning	12/5/21 13/5/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
4	17.5.21 18.5.21 19.5.21 20.5.21		**Unit-2-LIMITS AND CONTINUITY (12p)** a) Definition of function based on set theory b) Types of functions: i) Constant function ii) Identity function iii) Absolute value function iv)The Greatest integer function v) Trigonometric function vi) Exponential function .vii) Logarithmic function c) Introduction of limit d) Existence of limit	(1) Function and types of function (2) Introduction of limit	19/5/21 20/5/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M

FACULTY NAME:-

Semester From:- Date.28.04.2021 to 19.08.2021

No of week:- 17

No of classes available per week : 5 (Excluding 1 tutorial class)

Total period available:85 periods

Class duration:55 minutes

Teaching Method:Online Meeting App,Presentation, Lecture note .PDF

Learning Method: Daily Assignment ,Unit test,Moc test

Lession plan

WEEk No.	Dates	No. of Periods available	Topics to be Covered	Topic actually taken	Date of teaching	Short Fall if any	Reasons	Date of make up of short fall	Initial of Faculty
1	28.4.21		**Unit 1-vector (15p)** a) Introduction b) Types of vectors (null vector, parallel vector , col-linear vectors)	(1) Introduction of vector	28/4/21	Nil	Nil	Nil	M.Nd
	29.4.21		c) Representation of vector (in component form) d) Magnitude and direction of vectors e) Addition and subtraction of vectors	(1) Representation of vector	29/4/21	Nil	Nil	Nil	M.M

	21.5.21		e) Methods of evaluation of limit **problems based on it**							
5	22.5.21 24.5.21 25.5.21 26.5.21 27.5.21 28.5.21		**UNIT-2-LIMITS AND CONTINUITY(12p)** f)Some standard form of limit g) Definition of continuity of a function at a point a **problems based on it**	① Some standard form of limit ② continuity of a function at a point	26/5/21 27/5/21			13/6/21	M.M M.M	
6	29.5.21 31.5.21 1.6.21 2.6.21 3.6.21 4.6.21 5.6.21		**UNIT-3 DERIVATIVES (24p)** a) Derivative of a function at a point b) Algebra of derivative c) Derivative of standard functions **problems based on it**	① Derivative of standard functions	2/6/21 3/6/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M	
7	7.6.21 8.6.21 9.6.21 11.6.21 12.6.21		**UNIT-3-DERIVATIVES (24p)** d) Derivative of composite function (Chain Rule) e) Methods of differentiation i) Parametric function **Problems based on it**	① Methods of differentiation	9/6/21	Nil	Nil	Nil	M.M	
8	16.6.21		**UNIT-3-DERIVATIVES (24p)** Method of differentiation (continue) ii) Implicit function	① Method of differentiation	16/6/21	Nil	Nil	Nil	M.M	

	17.6.21 18.6.21 19.6.21		iii) Logarithmic function iv) a function with respect to another function **problems based on it**	① Logarithmic function	17/6/21	Nil	Nil	Nil	M.M
9	21.6.21 22.6.21 23.6.21 24.6.21 25.6.21 26.6.21		**UNIT-3-DERIVATIVES (24p)** f) Applications of Derivative i) Successive Differentiation (up to second order) ii) Partial Differentiation (function of two variables up to second order) **problems based on it**	① Successive differentiation ② Partial Differentiation	23/6/21 24/6/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
10	28.6.21 29.6.21 30.6.21 1.7.21 2.7.21 3.7.21		**UNIT-4 INTEGRATION (21p)** a) Definition of integration as inverse of differentiation b) Integrals of standard functions c) Methods of integration i) Integration by substitution ii) Integration by parts **problems based on it**	① Methods of Integration ② Integration by parts	30/6/21 1/7/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
11	5.7.21 6.7.21 7.7.21 8.7.21 9.7.21 10.7.21		**Unit 4 INTEGRATION(21p)** d) Integration of some standard forms **problems based on it**	① Exercise problem of Integrations	7/7/21 8/7/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M

12	13.7.21 14.7.21 15.7.21 16.7.21 17.7.21		**Unit 4 INTEGRATION (12p)** e) Definite integral, properties of definite integrals **problems based on it**	(1) Definite integral (2) properties of definite integrals	14/7/21 15/7/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
13	19.7.21 20.7.21 22.7.21 23.7.21 24.7.21		**Unit 4 INTEGRATION(12p)** Application of integration i) Area enclosed by a curve and X – axis ii) Area of a circle with centre at origin **problems based on it**	(1) Application of Integration	22/7/21	Nil	Nil	Nil	M.M
14	26.7.21 27.7.21 28.7.21 29.7.21 30.7.21 31.7.21		**Unit 5 DIFFERENTIAL EQUATION (12p)** a) Order and degree of a differential equation b) Solution of differential equation i) 1st order and 1st degree equation by the method of separation of variables **problems based on it**	(1) order and degree of differential eqn	28/7/21 29/7/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
15	2.8.21 3.8.21 4.8.21 5.8.21 6.8.21 7.8.21		**Unit 5 DIFFERENTIAL EQUATION (12p)** ii) Linear differential equation general form and its solution **problems based on it**	(1) Linear differential equations. (2) Problems based on linear differential eqn.	4/8/21 5/8/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
16	9.8.21 10.8.21 11.8.21 12.8.21 13.8.21		Revision	Revision MCQ discussion	9.8.21 10.8.21 11.8.21 12.8.21 13.8.21	Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil	M.M M.M M.M M.M M.M

	14.8.21		MCQ discussing	MCQ discussing	14.8.21	Nil	Nil	Nil	M.R
17	16.8.21 17.8.21 18.8.21 19.8.21		Exam related problem practice	MCQ discussing	16.8.21 17.8.21 18.8.21 19.8.21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.R M.R M.R M.R

MY BOOK REFERENCE:ENG. MATH,KP, NCERT,ELEMENTS OF MATHEMATICS
Study Website:
Online Class link:Google Meet

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-(2020-21- SUMMER)

Lesson Plan

Mamata Nayak Sec-A

SEMESTER/BRANCH:- 2nd SEM (All Branches)

SUBJECT:- ENGINEERING MATHEMATICS-II

FACULTY NAME:-

Semester From:- Date.28.04.2021 to 19.08.2021

No of week:- 17

No of classes available per week : 5 (Excluding 1 tutorial class)

Total period available:85 periods;Class duration:55 minutes

Teaching Method:Online Meeting App,Presentation, Lecture note .PDF

Learning Method: Daily Assignment ,Unit test,Moc test

Lession plan:

WEEk No.	Dates	No. of Periods available	Topics to be Covered	Topic actually taken	Date of teaching	Short Fall if any	Reasons	Date of make up of short fall	Initial of Faculty
1	28.4.21 29.4.21 30.4.21 01.5.21		**Unit 1-vector (15p)** a) Introduction b) Types of vectors (null vector, parallel vector , col-linear vectors) c) Representation of vector (in component form) d) Magnitude and direction of vectors e) Addition and subtraction of vectors f) Position vector	(1) Introduction	28/4/21	Nil	Nil	Nil	M.Ah

			Problems based on above						
2	3.5.21 4.5.21 5.5.21 6.5.21 7.5.21 8.5.21		**Unit 1-vector (15p)** g) Scalar product of two vectors h) Geometrical meaning of dot product i) Angle between two vectors j) Scalar and vector projection of two vectors **Problems based on above**	(1) Scalar product of two vectors (2) Angle betn two vectors (3) Scalar and vector Projection of two vectors	3/5/21 4/5/21 5/5/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.Nh M.M M.M
3	10.5.21 11.5.21 12.5.21 13.5.21 15.5.21		**Unit 1-vector(15p)** k) Vector product and geometrical meaning l)Application (Area of triangle and parallelogram) **Problems based on above**	(1) vector product (2) problem (3) do	10/5/21 11/5/21 12/5/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.Nh M.M M.M
4	17.5.21 18.5.21 19.5.21 20.5.21 21.5.21 22.5.21		**Unit-2-LIMITS AND CONTINUITY (12p)** a) Definition of function based on set theory b) Types of functions: i) Constant function ii) Identity function iii) Absolute value function iv)The Greatest integer function v) Trigonometric function vi) Exponential function .vii) Logarithmic function c) Introduction of limit d) Existence of limit e) Methods of evaluation of limit **problems based on it**	(1) Definition of function (2) Types of function (3) Identity function, Absolute value function Greatest Integer function	17/5/21 18/5/21 19/5/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.Nh M.M M.M

5	24.5.21 25.5.21 26.5.21 27.5.21 28.5.21 29.5.21		**UNIT-2-LIMITS AND CONTINUITY(12p)** f)Some standard form of limit g) Definition of continuity of a function at a point a **problems based on it**	(1) Some standard form of limit (2) Definition of continuity of function (3) Problem	24/5/21 25/5/21 26/5/21	Nil	Nil Cyclone Cyclone	Nil 14/6/21 8/8/21	M.N. M.N. M.N.
6	31.5.21 1.6.21 2.6.21 3.6.21 4.6.21 5.6.21		**UNIT-3 DERIVATIVES (24p)** a) Derivative of a function at a point b) Algebra of derivative c) Derivative of standard functions **problems based on it**	(1) Derivative of function (2) Algebra of derivative (3) Problem	31/5/21 1/6/21 2/6/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.N. M.N. M.N.
7	7.6.21 8.6.21 9.6.21 11.6.21 12.6.21		**UNIT-3-DERIVATIVES (24p)** d) Derivative of composite function (Chain Rule) e) Methods of differentiation i) Parametric function **Problems based on it**	(1) Derivative of composite function (2) Methods of differentiation (3) Parametric function	7/6/21 8/6/21 9/6/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.N. M.N. M.N.
8	16.6.21 17.6.21 18.6.21 19.6.21		**UNIT-3-DERIVATIVES (24p)** Method of differentiation (continue) ii) Implicit function iii) Logarithmic function iv) a function with respect to another function **problems based on it**	(1) Method of differentiation	16/6/21	Nil	Nil	Nil	M.N.
9	21.6.21 22.6.21 23.6.21 24.6.21 25.6.21		**UNIT-3-DERIVATIVES (24p)** f) Applications of Derivative i) Successive Differentiation (up to second order) ii) Partial Differentiation (function of two variables up to second order)	(1) Application of Derivative (2) Successive differentiation (3) Partial differentiation	21/6/21 22/6/21 23/6/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.N. M.N. M.N.

	26.6.21		**problems based on it**						
10	28.6.21 29.6.21 30.6.21 1.7.21 2.7.21 3.7.21		**UNIT-4 INTEGRATION (21p)** a) Definition of integration as inverse of differentiation b) Integrals of standard functions c) Methods of integration i) Integration by substitution ii) Integration by parts **problems based on it**	(1) Definition of integration (2) Integrals of standard functions (3) Methods of integration	28/6/21 29/6/21 30/6/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
11	5.7.21 6.7.21 7.7.21 8.7.21 9.7.21 10.7.21		**Unit 4 INTEGRATION(21p)** d) Integration of some standard forms **problems based on it**	(1) Integration of some standard forms (2) Problem (3) do	5/7/21 6/7/21 7/7/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
12	13.7.21 14.7.21 15.7.21 16.7.21 17.7.21		**Unit 4 INTEGRATION (12p)** e) Definite integral, properties of definite integrals **problems based on it**	(1) Definite Integral (2) problem	13/7/21 14/7/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
13	19.7.21 20.7.21 22.7.21 23.7.21 24.7.21		**Unit 4 INTEGRATION(12p)** Application of integration i) Area enclosed by a curve and X – axis ii) Area of a circle with centre at origin **problems based on it**	(1) Application of integration (2) Problem	19/7/21 20/7/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M

14	26.7.21 27.7.21 28.7.21 29.7.21 30.7.21 31.7.21		**Unit 5 DIFFERENTIAL EQUATION (12p)** a) Order and degree of a differential equation b) Solution of differential equation i) 1st order and 1st degree equation by the method of separation of variables **problems based on it**	(1) order and degree of a differential equation (2) Solution of differential equation (3) Problem	26/7/21 27/7/21 28/7/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
15	2.8.21 3.8.21 4.8.21 5.8.21 6.8.21 7.8.21		**Unit 5 DIFFERENTIAL EQUATION (12p)** ii) Linear differential equation general form and its solution **problems based on it**	(1) linear differential equation (2) Problem (3) do	2/8/21 3/8/21 4/8/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
16	9.8.21 10.8.21 11.8.21 12.8.21 13.8.21 14.8.21		Revision	Revision MCQ discussion	9.8.21 10.8.21 11.8.21 12.8.21 13.8.21 14.8.21	Nil Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil Nil	M.M M.M M.M M.M M.M M.M
17	16.8.21 17.8.21 18.8.21 19.8.21		Exam related problem practice	MCQ discussion	16/8/21 17/8/21 18/8/21 19/8/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M

MY BOOK REFERENCE:ENG. MATHEMATICS,KP, MATH BOOK BY NCERT,ELEMENTS OF MATHEMATICS.
Study Website:
Online Class link:Google Meet

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-(2020-21- SUMMER)

Lesson Plan Sec-B

Mamata Nayak

SEMESTER/BRANCH:- 2nd SEM (All Branches)

SUBJECT:- ENGINEERING MATHEMATICS-II

FACULTY NAME:-

Semester From:- Date.28.04.2021 to 19.08.2021

No of week:- 17

No of classes available per week : 5 (Excluding 1 tutorial class)

Total period available:85 periods;Class duration:55 minutes

Teaching Method:Online Meeting App,Presentation, Lecture note .PDF

Learning Method: Daily Assignment ,Unit test,Moc test

Lession plan:

WEEk No.	Dates	No. of Periods available	Topics to be Covered	Topic actually taken	Date of teaching	Short Fall if any	Reasons	Date of make up of short fall	Initial of Faculty
1			**Unit 1-vector (15p)**						
	28.4.21		a) Introduction						
			b) Types of vectors (null vector, parallel vector , col-linear vectors)	(1) Types of vectors	29/4/21	Nil	Nil	Nil	M.M
	29.4.21		c) Representation of vector (in component form)						
			d) Magnitude and direction of vectors						
			e) Addition and subtraction of vectors	(2) Addition and subtraction of vectors	30/4/21	Nil	Nil	Nil	M.M
	30.4.21		f) Position vector	(3) Position vector	1/5/21	Nil	Nil	Nil	M.M
	01.5.21								

			Problems based on above						
2	3.5.21 4.5.21 5.5.21 6.5.21 7.5.21 8.5.21		**Unit 1-vector (15p)** g) Scalar product of two vectors h) Geometrical meaning of dot product i) Angle between two vectors j) Scalar and vector projection of two vectors **Problems based on above**	(1) Angle between two vectors (2) Scalar and vector projection of two vector (3) Problems	6/5/21 7/5/21 8/5/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
3	10.5.21 11.5.21 12.5.21 13.5.21 15.5.21		**Unit 1-vector(15p)** k) Vector product and geometrical meaning l)Application (Area of triangle and parallelogram) **Problems based on above**	(1) Application (2) Problems	13/5/21 15/5/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
4	17.5.21 18.5.21 19.5.21 20.5.21 21.5.21 22.5.21		**Unit-2-LIMITS AND CONTINUITY (12p)** a) Definition of function based on set theory b) Types of functions: i) Constant function ii) Identity function iii) Absolute value function iv)The Greatest integer function v) Trigonometric function vi) Exponential function .vii) Logarithmic function c) Introduction of limit d) Existence of limit e) Methods of evaluation of limit **problems based on it**	(1) Types of function (2) Introduction of limit (3) Existence of limit	20/5/21 21/5/21 22/5/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M

5	24.5.21 25.5.21 26.5.21 27.5.21 28.5.21 29.5.21		**UNIT-2-LIMITS AND CONTINUITY(12p)** f)Some standard form of limit g) Definition of continuity of a function at a point a **problems based on it**	(1) Some Standard form of limit (2) Definition of limit (3) Problems	27/5/21 28/5/21 29/5/21	Nil Nil	Cyclone Nil Nil	9/8/21 Nil Nil	M.M M.M M.M
6	31.5.21 1.6.21 2.6.21 3.6.21 4.6.21 5.6.21		**UNIT-3 DERIVATIVES (24p)** a) Derivative of a function at a point b) Algebra of derivative c) Derivative of standard functions **problems based on it**	(1) Algebra of derivative (2) Derivative of standard functions (3) Problems	3/6/21 4/6/21 5/6/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
7	7.6.21 8.6.21 9.6.21 11.6.21 12.6.21		**UNIT-3-DERIVATIVES (24p)** d) Derivative of composite function (Chain Rule) e) Methods of differentiation i) Parametric function **Problems based on it**	(1) Methods of differentiation (2) parametric function	11/6/21 12/6/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M
8	16.6.21 17.6.21 18.6.21 19.6.21		**UNIT-3-DERIVATIVES (24p)** Method of differentiation (continue) ii) Implicit function iii) Logarithmic function iv) a function with respect to another function **problems based on it**	(1) Implicit function (2) Logarithmic function (3) A function with respect to another function	17/6/21 18/6/21 19/6/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
9	21.6.21 22.6.21 23.6.21 24.6.21 25.6.21		**UNIT-3-DERIVATIVES (24p)** f) Applications of Derivative i) Successive Differentiation (up to second order) ii) Partial Differentiation (function of two variables up to second order)	(1) Partial differentiation (2) Problems	24/6/21 25/6/21	Nil Nil	Nil Nil	Nil Nil	M.M M.M

	26.6.21		**problems based on it**	(1) Problems	26/6/21	Nil	Nil	Nil	M.M
10			**UNIT-4 INTEGRATION (21p)**						
	28.6.21		a) Definition of integration as inverse of differentiation						
	29.6.21		b) Integrals of standard functions						
	30.6.21		c) Methods of integration						
	1.7.21		i) Integration by substitution	(1) Methods of integration	1/7/21	Nil	Nil	Nil	M.M
	2.7.21		ii) Integration by parts	(2) Integration by substitution	2/7/21	Nil	Nil	Nil	M.M
	3.7.21		**problems based on it**	(3) Integration by parts	3/7/21	Nil	Nil	Nil	M.M
11	5.7.21 6.7.21 7.7.21 8.7.21 9.7.21 10.7.21		**Unit 4 INTEGRATION(21p)** d) Integration of some standard forms **problems based on it**	(1) Integration of some standard forms (2) problem (3) do	8/7/21 9/7/21 10/7/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
12	13.7.21 14.7.21 15.7.21 16.7.21 17.7.21		**Unit 4 INTEGRATION (12p)** e) Definite integral, properties of definite integrals **problems based on it**	(1) Definite integral (2) problem (3) do	15/7/21 16/7/21 17/7/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
13	19.7.21 20.7.21 22.7.21 23.7.21 24.7.21		**Unit 4 INTEGRATION(12p)** Application of integration i) Area enclosed by a curve and X – axis ii) Area of a circle with centre at origin **problems based on it**	(1) Application of integration (2) problem (3) do	22/7/21 23/7/21 24/7/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M

14	26.7.21 27.7.21 28.7.21 29.7.21 30.7.21 31.7.21		**Unit 5 DIFFERENTIAL EQUATION (12p)** a) Order and degree of a differential equation b) Solution of differential equation i) 1st order and 1st degree equation by the method of separation of variables **problems based on it**	(1) Solution of differential equation (2) Sol of 1st order and 1st degree de by separation methods (3) Problem	29/7/21 30/7/21 31/7/21	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.Nb M.Nb M.Nb
15	2.8.21 3.8.21 4.8.21 5.8.21 6.8.21 7.8.21		**Unit 5 DIFFERENTIAL EQUATION (12p)** ii) Linear differential equation general form and its solution **problems based on it**	(1) Sol of linear differential equation	5/8/21	Nil	Nil	Nil	M.Nb
16	9.8.21 10.8.21 11.8.21 12.8.21 13.8.21 14.8.21		Revision	Revision MCQ discussion	9/8/21 10/8/21 11/8/21 12/8/21 13/8/21 14/8/21	Nil Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil Nil	M.Nb M.Nb M.Nb M.Nb M.Nb M.Nb
17	16.8.21 17.8.21 18.8.21 19.8.21		Exam related problem practice	MCQ discussion	16/8/21 17/8/21 18/8/21 19/8/21	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.Nb M.Nb M.Nb M.Nb

MY BOOK REFERENCE:ENG. MATHEMATICS,KP, MATH BOOK BY NCERT,ELEMENTS OF MATHEMATICS.
Study Website:
Online Class link:Google Meet

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACKMATHEMATICS AND SCIENCE DEPARTMENT ACADEMIC PLAN

SEMESTER-3rd SEM

SUBJECT:- ENGINEERING MATH-III

BRANCH:- Electrical (B)

ACADEMIC YEAR/SESSION:- 2020-21

FACULTY NAME:- Mamata Nurah

SEMESTER FROM :-DT.02/09/2020 TO DT.20/02/2021

NO OF WEEK:-

Week No.	Dates	No.of Periods available	Topics to be Covered	Date of teaching	Shortfall if any	Reasons	Date of make up of shortfall	Initial of Faculty
1	2.9.20 3.9.20 4.9.20 5.9.20		**1. Complex Numbers (06)** 1.1 Real and Imaginary numbers. 1.2 Complex numbers, conjugate complex numbers, Modulus and Amplitude of a complex number. 1.3 Geometrical Representation of Complex Numbers. 1.4 Properties of Complex Numbers. Solve problem on 1.1-1.4	2.9.20 3.9.20 4.9.20 5.9.20	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
2	9.9.20 10.9.20 11.9.20 12.9.20		**1. Complex Numbers (06)** 1.5 Determination of three cube roots of unity and their properties. 1.6 De Moivre's theorem 1.7 Solve problems on 1·1 - 1·6	9.9.20 10.9.20 11.9.20 12.9.20	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
3	16.9.20 18.9.20 19.9.20		**2.Matrices (4)** 2.1 Deifine rank of a matrix 2.2 Perform elementary row transformations to determine the rank of a matrix . 2.3 State Rouche's theorem for consistency of a system of linear equations in 'n' unknowns 2.4 Solve equations in three unknowns testing consistency. 2.5 Solve problems on 2. 1 - 2. 4	16.9.20 18.9.20 19.9.20	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
4	23.9.20 24.9.20		**3. Linear Differential Equations (10)** 3.1. Define homogeneous and non – homogeneous Differential Equations with constant coefficients with examples. 3.2. Find general solution of linear equations in terms of C.F. and P.I. 3.3. Derive rules for finding C.F. And P.I. in terms of operator D, excluding $\frac{1}{f(D)}x^n$.	23.9.20 24.9.20	Nil Nil	Nil Nil	Nil Nil	M.M M.M

	25.9.20 26.9.20		Solve problems on 3.1- 3.3	25.9.20 26.9.20	Nil Nil	Nil Nil	Nil Nil	M.M M.M
5	30.9.20 1.10.20 3.10.20		**3. Linear Differential Equations (10)** 3.4. Deifine partial differential equation (P.D.E) . 3.5 Form partial differential equations by eliminating arbitrary constants and arbitrary functions. 3. 6 solve partial differential equations of the form P. p + Q . q = R Solve problems on 3.3- 3.6	30.9.20 1.10.20 3.10.20	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
6	7.10.20 8.10.20 9.10.20 10.10.20		**4. Laplace Transforms (12)** 4.1 Define Gamma function and $\Gamma(n+1) = n!$ and find $\Gamma(1/2) = \sqrt{\pi}$. 4.2 Define Laplace transform of a function f(t) and inverse Laplace transform . 4.3 Derive L.T. of standard functions and explain existence conditions of L.T. 4.4 Solve problem on 4.1-4.3	7.10.20 8.10.20 9.10.20 10.10.20	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
7	14.10.20 15.10.20 16.10.20 17.10.20		**4. Laplace Transforms (12)** 4.5 Explain linear, shifting property of L.T. 4.6 Formulate L.T. of derivatives, integrals, multiplication by t^n and division by t. solve problem on 4.5 - 4.6	14.10.20 15.10.20 16.10.20 17.10.20	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
8	21.10.20		**4. Laplace Transforms (12)** 4.7 Derive formulae of inverse L.T. and explain method of partial fractions solve problem on 4.1- 4.7	21.10.20	Nil	Nil	Nil	M.M

9	31·10·20		**5. Fourier Series (12)** 1.1 Define periodic functions . 1.2 State Dirichlet's condition for the Fourier expansion of a function and it's convergence . 1.3 Express periodic function f(x) satisfying dirichlet's conditions as a Fourier series. 1.4 Solve problems on 1.1 – 1.3	31·10·20	Nil	Nil	Nil	M.M
10	4·11·20 5·11·20 6·11·20 7·11·20		**5. Fourier Series (12)** 1.5 State Euler's formulae 1.6 Define Even and Odd functions and find Fourier Series in ($0 \leq x \leq 2\pi$ *and* $-\pi \leq x \leq \pi$). 1.7 Solve problems on 1.5 – 1.6	4·11·20 5·11·20 6·11·20 7·11·20	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
11	11·11·20 12·11·20 13·11·20		**5.Fourier Series (12)** 1.7 Obtain F.S of continuous functions and functions having points of discontinuity in ($0 \leq x \leq 2\pi$ *and* $-\pi \leq x \leq \pi$). 1.8 Solve problems on 1.1 – 1.7	11·11·20 12·11·20 13·11·20	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
12	18·11·20 19·11·20 20·11·20 21·11·20		**6. Numerical Methods(04)** 6.1 Appraise limitation of analytical methods of solution of algebraic equations . 6.2 Derive iterative formula for finding the solutions of algebraic Equations by (a) Bisection method (b) Newton- Raphson method 6.3 solve problems on 6.1-6.2 .					M.M M.M M.M M.M
13	25·11·20 26·11·20 27·11·20 28·11·20		**7. Finite difference and interpolation (12)** 7.1 Explain finite difference and form table of forward and backward difference . 7.2 Define shift Operator (E) and establish relation between E & difference operator (Δ) . 7.3 Solve problems on 7.1- 7.2					M.M M.M M.M M.M
14	2·12·20 3·12·20 4·12·20 5·12·20		**7. Finite difference and interpolation (12)** 7.4 Derive Newton's forward and backward interpolation formula for equal intervals . 7.5 state Lagrange's interpretation formula for unequal intervals 7.6 Solve problems on 7.3- 7.4					M.M M.M M.M M.M

15	9.12.20 10.12.20 11.12.20 12.12.20		**7. Finite difference and interpolation (12)** 7.7 Explain numerical integration and state 7.5.1 Newton's Cote's formula 7.5.2 Trapezoidal rule 7.5.3 Simpson's 1/3rd rule 7.8 Solve problems on 7.1- 7.7	9.12.20 10.12.20 11.12.20 12.12.20	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
16 35 periods	16.12.20 to 20/2/21		Problem practise & Doubt clear	16.12.20 to 20.02.21				M.M

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACKMATHEMATICS AND SCIENCE DEPARTMENT ACADEMIC PLAN

SEMESTER-3rd SEM

SUBJECT:- ENGINEERING MATH-III

BRANCH:- ETC

ACADEMIC YEAR/SESSION:-

FACULTY NAME:- Mamata Nurch

SEMESTER FROM :-DT.02/09/2020 TO DT.20/02/2021

NO OF WEEK:-

			Solve problems on 3.1- 3.3					
5	28/9/20 29/9/20 30/9/20		**3. Linear Differential Equations (10)** 3.4. Deifine partial differential equation (P.D.E) . 3.5 Form partial differential equations by eliminating arbitrary constants and arbitrary functions. 3. 6 solve partial differential equations of the form P. p + Q . q = R Solve problems on 3.3- 3.6	28/9/20 29/9/20 30/9/20	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil	M.M M.M M.M
6	1/10/20		**4. Laplace Transforms (12)** 4.1 Define Gamma function and $\Gamma(n+1) = n!$ and find $\Gamma(1/2) = \sqrt{\pi}$. 4.2 Define Laplace transform of a function f(t) and inverse Laplace transform . 4.3 Derive L.T. of standard functions and explain existence conditions of L.T. 4.4 Solve problem on 4.1-4.3	1/10/20	Nil	Nil	Nil	M.M
7	5/10/20 6/10/20 7/10/20 8/10/20		**4. Laplace Transforms (12)** 4.5 Explain linear, shifting property of L.T. 4.6 Formulate L.T. of derivatives, integrals, multiplication by t^n and division by t. solve problem on 4.5 - 4.6	5/10/20 6/10/20 7/10/20 8/10/20	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M
8	12/10/20 13/10/20 14/10/20 15/10/20		**4. Laplace Transforms (12)** 4.7 Derive formulae of inverse L.T. and explain method of partial fractions solve problem on 4.1- 4.7	12/10/20 13/10/20 14/10/20 15/10/20	Nil Nil Nil Nil	Nil Nil Nil Nil	Nil Nil Nil Nil	M.M M.M M.M M.M

15	7/12/20 9/12/20 14/12/20 15/12/20 16/12/20		**7. Finite difference and interpolation (12)** 7.7 Explain numerical integration and state 7.5.1 Newton's Cote's formula 7.5.2 Trapezoidal rule 7.5.3 Simpson's 1/3rd rule 7.8 Solve problems on 7.1- 7.7	7/12/20 9/12/20 14/12/20 15/12/20 16/12/20	Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil	Nil Nil Nil Nil Nil	M.M M.M M.M M.M M.M
16 32 periods	23/12/20 25/12/20 26/12/20 29/12/20 30/12/20 to 18/1/21		Problem practise & Doubt clear	23/12/20 to 18/1/21	Nil	Nil	Nil	M.M