

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- CIVIL ENGINEERING

SEMESTER: 2ND SECTION:- C

NAME OF THE FACULTY : (1) BISMITA PANI
(LECT. IN ENGLISH)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT : COMMUNICATIVE ENGLISH (TH-1A)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	LITERATURE APPRECIATION	20	March	
	INTRODUCTION TO LITERATURE APPRECIATION	1		Dt. 20/03/2023
	SKIMMING-THE GIST AND SCANNING FOR NECESSARY INFORMATION OF AN UNSEEN PASSAGE	1		Dt. 21/03/2023
	CLOSE READING FOR INFERENCE AND EVALUATION, TRACING OUT THE MAIN IDEA AND ITS SUPPORTING POINTS	1		Dt. 23/03/2023
1	GUESSING THE MEANING OF UNFAMILIAR WORDS, NOTE-MAKING, SUMMARIZING, SUPPLYING A SUITABLE TITLE	1		Dt. 24/03/2023
	PRACTICE	1		Dt. 27/03/2023
	PRACTICE	1		Dt. 27/03/2023
	PRACTICE	1		Dt. 28/03/2023
	PRACTICE	1		Dt. 28/03/2023
	STANDING UP FOR YOURSELF READING AND EXPLANATION	1		Dt. 31/03/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	STANDING UP FOR YOURSELF READING AND EXPLANATION	1	April	Dt. 03/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt. 04/04/2023
	INGHCAPE ROCK READING AND EXPLANATION	1		Dt. 04/04/2023
	INGHCAPE ROCK READING AND EXPLANATION	1		Dt. 06/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt. 10/04/2023
	THE MAGIC OF TEAMWORK READING AND EXPLANATION	1		Dt. 11/04/2023
	THE MAGIC OF TEAMWORK READING AND EXPLANATION	1		Dt. 13/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt. 17/04/2023
	TO MY TRUE FRIEND READING AND EXPLANATION	1		Dt. 18/04/2023
	TO MY TRUE FRIEND READING AND EXPLANATION	1		Dt. 20/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt. 20/04/2023
2	VOCABULARY	5		
	SYNONYMS AND ANTONYMS	2		Dt. 21/04/2023, Dt. 24/04/2023
	SAME WORD USED IN DIFFERENT SITUATIONS AND IN DIFFERENT MEANING	2		Dt. 25/04/2023, Dt. 27/04/2023
	SINGLE WORD SUBSTITUTE	1		Dt. 28/04/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	APPLICATION OF ENGLISH GRAMMAR	8	May	
	COUNTABLE NOUN AND UNCOUNTABLE NOUN TENSES	1		Dt. 01/05/2023
	ARTICLES AND DETERMINERS	1		Dt. 02/05/2023
	MODAL VERBS	1		Dt. 04/05/2023
	TENSES	1		Dt. 08/05/2023
	TENSES	1		Dt. 08/05/2023
	TENSES	1		Dt. 09/05/2023
	VOICE CHANGE	1		Dt. 11/05/2023
	SUBJECT-VERB AGREEMENT	1		Dt. 12/05/2023
4	FORMAL WRITING SKILLS	15		
	NOTICE AND AGENDA	1		Dt. 15/05/2023
	PARAGRAPH WRITING	1		Dt. 16/05/2023
	FEATURES OF PARAGRAPH WRITING	1		Dt. 18/05/2023
	DEVELOPING IDEAS INTO PARAGRAPHS	1		Dt. 22/05/2023
	PRACTICE	1		Dt. 22/05/2023
	REPORT WRITING PARALLEL	1		Dt. 23/05/2023
	WRITING PERSONAL LETTER	1		Dt. 25/05/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	LETTER TO PRINCIPAL	1		Dt- 26/05/2023
	LETTER TO LIBRARIAN	1		Dt- 26/05/2023
	LETTER TO HOD			.
	LETTER TO HOSTEL SUPERINTENDENT	1		Dt- 29/05/2023
	LAYOUT OF A BUSINESS LETTER	1		Dt- 29/05/2023
	LETTER OF ENQUIRY	1		Dt- 30/05/2023
	LETTER OF ORDER	1		Dt- 30/05/2023
	LETTER OF COMPLAINT	1	June	Dt- 01/06/2023
	CANCELLATION OF AN ORDER	1		Dt- 01/06/2023
	JOB APPLICATION	1		Dt- 02/06/2023
	C.V/ RESUME			
	ELEMENTS OF COMMUNICATION	12		
	MEANING AND TYPES OF COMMUNICATION	1		Dt- 05/06/2023
	COMMUNICATION MODEL	1		Dt- 05/06/2023
5	PROCESS OF COMMUNICATION AND FACTORS RESPONSIBLE FOR IT	1		Dt- 05/06/2023
	MEANING AND TYPES OF PROFESSIONAL COMMUNICATION DIFFERENT AREAS OF NONVERBAL COMMUNICATION	2		Dt- 06/06/2023, Dt-08/06/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	FORMAL COMMUNICATION AND ITS TYPE	1		Dt-09/06/2023
	UPWARD COMMUNICATION, DOWNWARD COMMUNICATION AND PARALLEL COMMUNICATION KINESICS	2		Dt-12/06/2023, Dt 13/06/2023
	INFORMAL COMMUNICATION AND ITS TYPE	1		Dt-16/06/2023
	NON-VERBAL COMMUNICATION	1		Dt-19/06/2023
	KINESICS OR BODYLANGUAGE & PROXEMICS OR SPATIAL LANGUAGE	1		Dt-22/06/2023
	LANGUAGE OF SIGNS AND SYMBOLS	1		Dt-23/06/2023

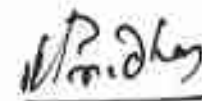
Bismita Pani



SIGNATURE OF THE CONCERNED FACULTY



SIGNATURE OF THE H.O.D.



PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- CIVIL ENGINEERING

SEMESTER: 2ND SECTION:- C

NAME OF THE FACULTY : (1) TAPAN KUMAR SAHU
(2) NIRUPAMA BEHERA (LECT. IN CHEMISTRY)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT : ENGINEERING CHEMISTRY (TH-2B)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	A.PHYSICAL CHEMISTRY	22	MARCH 2023	
1	Atomic structure	4		
	Introduction	1		Dt. 20.3.2023
	Rutherford's atomic model (limitations), Atomic mass, mass number, isotopes, isobar	1		Dt. 21.3.2023
	Isotones, Bohr's atomic model, Bohr Bury scheme,	1		Dt. 22.3.2023
	Aufbau's principle, Hund's rule, Electronic configuration	1		Dt. 23.3.2023
2	Chemical Bonding	2		
	Chemical Bonding- Definition, types of bonding	1		Dt. 27.3.2023
	Ionic bonding, examples	1		Dt. 28.3.2023
	Covalent bonding, Examples			Dt. 28.3.2023
	Coordinate bonding, examples			Dt. 29.3.2023
3	Acid Base Theory	6		
	Acid base theory-Arrhenius concept of acid & base	1	APRIL 2023	Dt. 3.4.2023
	Bronsted lowry & Lewis concept of acid & base	1		Dt. 3.4.2023
	Neutralization of acid & base, salts- definition & types.	1		Dt. 4.4.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Definition of Atomic weight, molecular weight, equivalent weight,	1		Dt. 5.4.2023
	Determination of equivalent weight of Acid, Base	1		Dt. 6.4.2023
	Determination of equivalent weight of salt	1		Dt. 6.4.2023
	Solutions	3		
4	Modes of expression of the concentrations (Molarity , Normality) with Simple Problems:	1		Dt. 10.4.2023
	Molality with Simple Problems.	1		Dt. 11.4.2023
	pH of solution (definition with simple numerical)	1		Dt. 12.4.2023
	Importance of pH in industry (sugar, textile, paper industries only)			Dt. 12.4.2023
	Electrochemistry	4		
5	Definition and types (Strong & weak) of Electrolytes with example.	1		Dt. 13.4.2023
	Electrolysis (Principle & process) with example of NaCl (fused and aqueous solution).	1		Dt. 17.4.2023
	Faraday's 1st and 2nd law of Electrolysis (Statement, mathematical expression and Simple numerical)	1		Dt. 18.4.2023
	Industrial application of Electrolysis- Electroplating (Zinc only).	1		Dt. 19.4.2023
	Corrosion	3		
6	Definition of Corrosion, Types of Corrosion- Atmospheric Corrosion,	1		Dt. 20.4.2023
	only, Protection from Corrosion by (i) Alloying and (ii) Galvanization.	2		Dt. 20.4.2023, Dt. 24.4.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	B. INORGANIC CHEMISTRY	8		
	Metallurgy	5		
	Definition of Mineral, ores, gangue with example. Distinction between Ores And Minerals.	1		Dt. 25.4.2023
7	General methods of extraction of metals, i) Ore Dressing ii) Concentration (Gravity separation, magnetic separation, Froth floatation & leaching) iii) Oxidation (Calcinations, Roasting) iv) Reduction (Smelting, Definition & examples of flux, slag) v) Refining of the metal (Electrorefining, & Distillation only)	2		Dt. 26.4.2023 Dt. 27.4.2023
	Alloys	3		
	Definition of alloy. Types of alloys (Ferro, Non Ferro & Amalgam) with example.	1	MAY 2023	Dt. 1.5.2023
8	Composition and uses of Brass, Bronze, Alnico, Duralumin	1		Dt. 2.5.2023
	Doubt clear	1		Dt. 2.5.2023
	C. ORGANIC CHEMISTRY	10		
	Hydrocarbons	1		
	Saturated and Unsaturated Hydrocarbons (Definition with example)			Dt. 3.5.2023
9	Aliphatic and Aromatic Hydrocarbons (Huckie's rule only), Difference between Aliphatic and aromatic hydrocarbons.	3		Dt. 4.5.2023 Dt. 8.5.2023
	IUPAC system of nomenclature of Alkane.	1		Dt. 9.5.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	IUPAC system of nomenclature of Alkene,	1		Dt. 10.5.2023
	IUPAC system of nomenclature of Alkyne,	1		Dt. 10.5.2023
	IUPAC system of nomenclature of alkyl halide and alcohol	1		Dt. 11.5.2023
	Uses of some common aromatic compounds (Benzene, Toluene, BHC, Phenol, Naphthalene, Anthracene and Benzoic acid) in daily life.	2		Dt. 15.5.2023, Dt. 16.5.2023
	D. INDUSTRIAL CHEMISTRY	20		
	Water Treatment	3		
	Sources of water; Soft water, Hard water, hardness, types of Hardness (temporary or carbonate and permanent or non-carbonate),	1		Dt. 17.5.2023
10	Removal of hardness by lime soda method (hot lime & cold lime—Principle, process & advantages), Advantages of Hot lime over cold lime process.	1		Dt. 18.5.2023
	Organic ion exchange method (principle, process, and regeneration of exhausted resins)	1		Dt. 22.5.2023
	Lubricants	4		
	Definition of lubricant, Types (solid, liquid and semisolid with examples only)	1		Dt. 23.5.2023
11	specific uses of lubricants (Graphite, Oils, Grease), Purpose of lubrication	1		Dt. 24.5.2023
	specific uses of lubricants (Graphite, Oils, Grease), Purpose of lubrication	1		Dt. 25.5.2023
	Doubt clear	1		Dt. 25.5.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
12	Fuel	4		
	Definition and classification of fuel, Definition of calorific value of fuel, Choice of good fuel.	1		Dt. 29.5.2023
	Liquid: Diesel, Petrol, and Kerosene --- Composition and uses.	1		Dt. 30.5.2023
	Gaseous: Producer gas and Water gas (Composition and uses).	1		Dt. 31.5.2023
	Elementary idea about LPG, CNG and coal gas (Composition and uses only).	1	JUNE 2023	Dt. 1.6.2023
13	Polymer	5		
	Definition of Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization	1		Dt. 5.6.2023
	Difference between Thermosetting and Thermoplastic, Composition and uses of Polythene	1		Dt. 6.6.2023
	Poly-Vinyl Chloride and Bakelite.	1		Dt. 7.6.2023
	Definition of Elastomer (Rubber), Natural Rubber (it's draw backs)	1		Dt. 8.6.2023
	Vulcanisation of Rubber, Advantages of Vulcanised rubber over raw rubber.	1		Dt. 11.6.2023
14	Chemicals in Agriculture	4		
	Pesticides: Insecticides.	1		Dt. 13.6.2023
	herbicides, fungicides- Examples and uses.	1		Dt. 14.6.2023
	Bio Fertilizers: Definition, examples and uses.	1		Dt. 21.6.2023
	Doubt clear	1		Dt. 22.6.2023

Tapam K. Sahu Nirupama Behera
SIGNATURE OF THE CONCERNED FACULTY


SIGNATURE OF THE H.O.D.


PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, INDIA

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- CIVIL ENGINEERING SEMESTER: 2ND SECTION:- C

NAME OF THE FACULTY : (1) KSHIRA MOHAN BEHERA,
(2) SAROJ KUMAR SAHOO (LECT. IN MATH.),

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING MATHEMATICS-II (TH-3)

CLASS ALLOTTED /WEEK : 05 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	VECTOR ALGEBRA	12	MARCH	
	a) Introduction: definition of scalar , vector with examples	1		Dt. 20.03.2023
	b) Types of vectors: null vector, parallel vector, collinear vectors with examples			
	c) Representation of a vector			
	d) Magnitude and direction of vectors with examples	1		Dt. 21.03.2023
	e) Addition and subtraction of vectors with examples	1		Dt. 22.03.2023
	Properties of vector addition and position vector	1		Dt. 23.03.2023
	Problems on magnitude and position vector	1		Dt. 24.03.2023
	f) scalar product of two vectors with examples			
	g) Geometrical meaning of dot product	1		Dt. 25.03.2023
	Problems on dot product	1		Dt. 27.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	i) Angle between two vectors with example	1		Dt. 28.03.2023
	j) Scalar and vector projection of two vectors with examples	1		Dt. 29.03.2023
	Problems on Scalar and vector projection of two vectors	1		Dt. 31.03.2023
	k) Vector product and geometrical meaning.	1	APRIL 2023	Dt. 3.04.2023
	Problems on vector product	1		Dt. 4.04.2023
	LIMITS AND CONTINUITY	12		
	a) Definition of a function			Dt. 5.04.2023
	b) Types of functions			Dt. 6.04.2023
	i) Constant function,			
	ii) Identity function	1		
	iii) Absolute value function			
	iv) The greatest integer function with examples			
2	v) Trigonometric function with example			
	vi) Exponential function	1		Dt. 8.04.2023
	vii) Logarithmic function With examples			
	c) Introduction of limit: definition , example			
	d) Existence of limit with example	1		Dt. 10.04.2023
	e) Methods of evaluation of limit	1		Dt. 11.04.2023
	Methods of evaluation of limit continues with some examples	1		Dt. 12.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	problems on existence of limit and evaluation of limit	1		Dt. 13.04.2023
	Problem Solving and Tutorials	1		Dt. 15.04.2023
	Problem Solving and Tutorials	1		Dt. 17.04.2023
	Problem Solving and Tutorials	1		Dt. 18.04.2023
	f) Definition of continuity of a function at a point, Existence of continuity with example	1		Dt. 19.04.2023
	Problem Solving and Tutorials	1		Dt. 20.04.2023
	Problems on limit and continuity	1		Dt. 21.04.2023
	DERIVATIVES	20		
	a) Derivative of a function at a point	1		Dt. 22.04.2023
	b) Algebra of derivative	1		Dt. 22.04.2023
	c) Derivative of standard functions: $x^n, a^x, \log x, e^x$	1		Dt. 24.04.2023
	Derivative of standard functions continues: $\sin x, \cos x, \tan x$	1		Dt. 25.04.2023
3	Derivative of standard functions continues: $\cot x, \sec x, \csc x, \sin^{-1} x$	1		Dt. 26.04.2023
	Derivative of standard functions continues: $\cos^{-1} x, \tan^{-1} x, \cot^{-1} x$	1		Dt. 27.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem solving on trigonometric functions	1		Dt. 28.04.2023
	Derivative of standard functions continues: $\sec^{-1} x, \csc^{-1} x,$ d) Derivatives of composite function	1		Dt. 29.04.2023
	Derivatives of composite function(Chain rule) continues with examples	1	MAY 2023	Dt. 1.05.2023
	Derivatives of composite function(Chain rule) continues with examples	1		Dt. 2.05.2023
	e) Methods of differentiation of i) Parametric function with examples	1		Dt. 3.05.2023
	Methods of differentiation of ii) Implicit function with examples	1		Dt. 4.05.2023
	Solving problems on derivatives of parametric function and implicit function	1		Dt. 6.05.2023
	Methods of differentiation of iii) Logarithmic function with example	1		Dt. 8.05.2023
	Methods of differentiation of iv) A function wrt another function with example	1		Dt. 9.05.2023
	f) Applications of derivatives: i) Successive differentiation (up to second order) Some problems on successive differentiation	1		Dt. 10.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Solving problems on successive differentiation	1		Dt. 11.05.2023
	ii) Partial differentiation (function of two variables up to second order)	1		Dt. 12.05.2023
	Problems on derivative of logarithmic function and successive differentiation.	1		Dt. 13.05.2023
	Partial differentiation continues.	1		Dt. 15.05.2023
	Some more problems on partial differentiation	1		Dt. 16.05.2023
	INTEGRATION	24		
4	a) Definition of integration as inverse of differentiation	2		Dt. 17.05.2023, Dt. 18.05.2023
	b) Integral of standard functions			
	c) Methods of integration:	2		Dt. 20.05.2023, Dt. 22.05.2023
	i) Integration by substitution with examples			
	Problems on integration by substitution	1		Dt. 23.05.2023
	ii) Integration by parts with examples	1		Dt. 23.05.2023
	Problems on integration by parts	1		Dt. 24.05.2023
	d) Integration of the following forms	2		Dt. 24.05.2023, Dt. 25.05.2023
Problem Solving and Tutorials	1		Dt. 26.05.2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1		Dt. 26.05.2023
	e) Definite integral, properties of definite integrals	4		Dt. 27.05.2023, Dt. 29.05.2023 Dt. 30.05.2023, Dt. 31.05.2023
	Problem Solving and Tutorials	1	JUNE 2023	Dt. 1.06.2023
	Problem Solving and Tutorials	1		Dt. 1.06.2023
	Problem Solving and Tutorials	1		Dt. 2.06.2023
	Problem Solving and Tutorials	1		Dt. 2.06.2023
	Solving problems on properties of definite integration	1		Dt. 3.06.2023
	f) Application of Integration	2		Dt. 5.06.2023, Dt. 6.06.2023
	i) Area enclosed by a curve and X – axis	1		Dt. 7.06.2023
	ii) Area of a circle with centre at origin	1		Dt. 8.06.2023
	DIFFERENTIAL EQUATION	12		
5	Definition, ODE, PDE, a) Order and degree of a differential equation	1		Dt. 9.06.2023
	Determining Order and degree of a differential equation with examples	1		Dt. 10.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	b) Solution of differential equation Definition i) By method of separation of variable with examples	1		Dt. 12.06.2023
	method of separation of variable continues with problem solving	1		Dt. 13.06.2023
	Some more problems on separation of variables	1		Dt. 16.06.2023
	Problems on determination of degree and order of a differential equation	1		Dt. 17.06.2023
	ii) Linear equation example	1		Dt. 19.06.2023
	Solving linear equation	1		Dt. 21.06.2023
	Problems on linear differential equation	1		Dt. 21.06.2023
	Some more Problems on linear differential equation	1		Dt. 22.06.2023
	Revision of differential equation	1		Dt. 23.06.2023
	Revision of differential equation	1		Dt. 24.06.2023

SIGNATURE OF THE CONCERNED FACULTY

Saraj Kumar Raha

SIGNATURE OF THE H.O.D.

P. D. M.
PRINCIPAL
P. E. E. T. CHENNIDURAI
Engineering & Technology
CHENNIDURAI

P.C.I.E.T., CHHENDIPADA

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- CIVIL ENGINEERING SEMESTER: 2ND SECTION:- C		NAME OF THE FACULTY : ER. DEWAN KUMAR SAHU (LECT. IN MECH. ENGG.)		
SEMESTER FROM : 20.03.2023 to 27.06.2023		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)		
CLASS ALLOTTED /WEEK : 04 PERIODS				
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	FUNDAMENTALS OF ENGINEERING MECHANICS	14	MARCH 2023	
	Definitions of Mechanics, Statics, Dynamics, Rigid Bodies,	1		Dt. 20.03.2023
	Force System. Definition, Classification of force system according to plane & line of action.	1		Dt. 21.03.2023
	Characteristics of Force & effect of Force. Principles of Transmissibility & Principles of Superposition. Action & Reaction Forces & concept of Free Body Diagram.	1		Dt. 23.03.2023
1	Resolution of a Force. Definition, Method of Resolution, Types of Component forces, Perpendicular components & non-perpendicular components.	1		Dt. 24.03.2023
	Composition of Forces. Definition, Resultant Force, Method of composition of forces.	1		Dt. 27.03.2023
	Analytical Method such as Law of Parallelogram of forces & method of resolution.	1		Dt. 28.03.2023
	Graphical Method. Introduction, Space diagram, Vector diagram, Polygon law of forces.	1		Dt. 31.03.2023
	Resultant of concurrent, non-concurrent & parallel force system by Analytical & Graphical Method.	1	APRIL 2023	Dt. 3.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Moment of Force, Definition, Geometrical meaning of moment of a force, measurement of moment of a force & its S.I units.	1		Dt. 4.04.2023
	Classification of moments according to direction of rotation, sign convention,	1		Dt. 6.04.2023
	Law of moments, Varignon's Theorem	1		Dt. 6.04.2023
	Couple – Definition, S.I. units, measurement of couple	1		Dt. 10.04.2023
	properties of couple, simple problems on Force systems	1		Dt. 10.04.2023
	Revision- CH-1	1		Dt. 11.04.2023
	EQUILIBRIUM	8		
	Introduction to Equilibrium, Definition, condition of equilibrium	2		Dt. 13.04.2023, Dt. 17.04.2023
2	Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	3		Dt. 18.04.2023, Dt. 20.04.2023 Dt. 21.04.2023
	Lami's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 24.04.2023, Dt. 25.04.2023 Dt. 27.04.2023
	FRICTION	10		
	Definition of friction & Frictional forces	1		Dt. 28.04.2023
3	Define Limiting frictional force & Coefficient of Friction.	1	MAY 2023	Dt. 1.05.2023
	Define Angle of Friction & Repose & Laws of Friction.	1		Dt. 1.05.2023
	Advantages & Disadvantages of Friction.	1		Dt. 2.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Friction problem	1		Dt. 2.05.2023
	Equilibrium of bodies on level plane – Force applied on horizontal plane	1		Dt. 4.05.2023
	Equilibrium of bodies on level plane – Force applied on inclined plane	1		Dt. 4.05.2023
	Ladder, Wedge Friction	1		Dt. 8.05.2023
	Problems solved on Ladder friction	1		Dt. 8.05.2023
	Problems solved on wedge friction	1		Dt. 9.05.2023
	CENTROID & MOMENT OF INERTIA	14		
	Introduction to centroid and M.I. Lamia's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 11.05.2023, Dt. 12.05.2023 Dt. 15.05.2023
	centroid of geometrical figures such as squares, rectangles, triangles, circles, semicircles & quarter circles	2		Dt. 16.05.2023, Dt. 18.05.2023
	centroid of composite figures, problems on centroid	2		Dt. 18.05.2023, Dt. 22.05.2023
4	Moment of inertia – Definition, Parallel axis & Perpendicular axis Theorems	2		Dt. 22.05.2023, Dt. 23.05.2023
	M.I. of plane lamina & different engineering sections.	2		Dt. 25.05.2023, Dt. 26.05.2023
	Problems on M.I	1		Dt. 29.05.2023
	Problems on M.I	1		Dt. 29.05.2023
	Revision- CH-4	1		Dt. 30.05.2023
	SIMPLE MACHINES	8		
5	Definition of simple machine, velocity ratio of simple and compound gear train	1	JUNE 2023	Dt. 1.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Explain simple & compound lifting machine	1		Dt. 2.06.2023
	Define M.A, V.R. & Efficiency and State the relation between them	1		Dt. 2.06.2023
	State Law of Machine, Reversibility of Machine, Self-Locking Machine,	1		Dt. 5.06.2023
	Study of simple machines – simple axle & wheel	1		Dt. 5.06.2023
	Discussion about double purchase crab winch Discussion of Worm & Worm Wheel	1		Dt. 6.06.2023
	Screw Jack	1		Dt. 8.06.2023
	Types of hoisting machine-like derricks etc. Their use and working principle	1		Dt. 9.06.2023
	DYNAMICS	6		
	Kinematics & Kinetics, Principles of Dynamics, Newton's Laws of Motion	1		Dt. 12.06.2023
	Motion of Particle acted upon by a constant force, Equations of motion	1		Dt. 13.06.2023
	De-Alembert's Principle, Work, Power, Energy & its Engineering Applications	1		Dt. 16.06.2023
	Kinetic & Potential energy & its application, Momentum & impulse, conservation of energy & linear momentum	1		Dt. 19.06.2023
	collision of elastic bodies, and Coefficient of Restitution	1		Dt. 22.06.2023
	Solving problems	1		Dt. 23.06.2023

plis
SIGNATURE OF THE CONCERNED FACULTY

[Signature]
SIGNATURE OF THE H.O.D.

[Signature]
PRINCIPAL
P. CHHENDIPADA
P. CHHENDIPADA
Institute of
Engineering & Technology
CHHENDIPADA, ANAPUR
MANGALURU

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGINEERING
SECTION:- EA

SEMESTER: 2ND

NAME OF THE FACULTY : (1) ASWINI KUMAR PRADHAN,
(2) ER.DIPTIMAYEE PRADHAN, (LECT.IN COMP. SC. & ENGG.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: COMPUTER APPLICATION (TH-1B)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	COMPUTER ORGANISATION	5	March	
	Introduction to Computer, Evolution of Computers	1		Dt /21/03/2023
	Generation of Computers, Classification of computer	1		Dt /22/03/2023
	Basic Organisation of Computer (Functional Block diagram)	1		Dt /23/03/2023
	Input Devices, CPU & Output Devices:	1		Dt /23/03/2023
	Computer Memory and Classification of Memory	1		Dt /25/03/2023
2	COMPUTER SOFTWARE	7		
	Software concept, System software, Application software	1		Dt /28/03/2023
	What is Operating System, Objectives and Functions of O.S	1		Dt /29/03/2023
	Types of Operating System: Batch Processing, Multiprogramming, Time Sharing OS	1	April	Dt /04/04/2023
	Features of DOS, Windows and UNIX	1		Dt /05/04/2023
	Programming Languages Compiler, interpreter	1		Dt /06/04/2023
	Computer Virus, Different Types of computer virus, Detection and prevention of Virus	1		Dt /08/04/2023
	Application of computers in different Domain	1		Dt /11/04/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	COMPUTER NETWORK AND INTERNET	8		
	Networking concept, Protocol	1		Dt - 11/04/2023
	Connecting Media, Data Transmission mode	1		Dt - 12/04/2023
	Network Topologies	1		Dt - 12/04/2023
	Types of Network	1		Dt - 13/04/2023
	Networking Devices (Hub, Repeater, Switch, Bridge, Router, Gateway & NIC)	1		Dt - 15/04/2023
	Internet Services (E-Mail, WWW, FTP, Chatting, Internet Conferencing)	1		Dt - 18/04/2023
	Electronic Newspaper & Online Shopping	1		Dt - 18/04/2023
	Different types of Internet connectivity and ISP	1		Dt - 19/04/2023
4	FILE MANAGEMENT AND DATA PROCESSING	5		
	Concept of File and Folder	1		Dt - 20/04/2023
	File Access and Storage methods: Sequential, Direct, ISAM	1		Dt - 20/04/2023
	Data Capture	1		Dt - 22/04/2023
	Data storage	1		Dt - 22/04/2023
	Data Processing and Retrieval	1		Dt - 25/04/2023
5	PROBLEM SOLVING METHODOLOGY	5		
	Algorithm, Pseudo code	1		Dt - 25/04/2023
	Flowchart Generation of Programming Languages	2		Dt - 26/04/2023, Dt - 27/04/2023
	Structured Programming Language	1		Dt - 29/04/2023
	Examples of Problem solving through Flowchart	1	May	Dt - 02/05/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	OVERVIEW OF C PROGRAMMING LANGUAGE	15		
	Introduction to C, History of C	1		Dt - 03/05/2023
	Constants, Variables	1		Dt - 03/05/2023
	Data types in C	1		Dt - 04/05/2023
	Input and Output operations.	1		Dt - 04/05/2023
	Operators, Different types of operator	2		Dt - 06/05/2023, Dt - 09/05/2023
	Expressions, Type conversion & Typecasting	2		Dt - 10/05/2023, Dt - 11/05/2023
	Decision Control and Looping Statements (If, If-else, If-else-if, Switch, While, Do-while, For, Break, Continue & Goto)	4		Dt - 13/05/2023, Dt - 16/05/2023 Dt - 17/05/2023, Dt - 18/05/2023
	Programming Assignments using the above features.	3		Dt - 20/05/2023, Dt - 23/05/2023 Dt - 24/05/2023
7	ADVANCED FEATURES OF C	15		
	Functions and Passing Parameters to the Function (Call by Value and Call by Reference)	3		Dt - 25/05/2023, Dt - 27/05/2023 Dt - 30/05/2023
	Scope of Variables and Storage Classes	2	June	Dt - 31/05/2023, Dt - 01/06/2023
	Recursion Function and Types of Recursion	2		Dt - 03/06/2023, Dt - 06/06/2023
	One Dimensional Array and Multidimensional Array	2		Dt - 07/06/2023, Dt - 08/06/2023
	String Operations and Pointers	2		Dt - 10/06/2023, Dt - 13/06/2023
	Pointer Expression and Pointer Arithmetic Programming	2		Dt - 17/06/2023, Dt - 21/06/2023
	Structure and Union	2		Dt - 22/06/2023, Dt - 24/06/2023

Optimanager P. Soudhan

SIGNATURE OF THE CONCERNED FACULTY

[Signature]
SIGNATURE OF THE H.O.D.

[Signature]
PRINCIPAL
Purnima Institute of
Engineering & Technology
CHHENDIPADA, ANGLU

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGINEERING
SECTION:- EA

SEMESTER: 2ND

NAME OF THE FACULTY : (1) LALATENDU SAHU
(LECT. IN PHYSICS)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING PHYSICS (TH-2A)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	UNIT 1 - UNITS AND DIMENSIONS	3	MARCH	
	Physical quantities, Units, types of units and system of units	1		Dt. 20.03.2023
	Dimension and dimensional formulae of physical quantities	1		Dt. 22.03.2023
	Principle of homogeneity and application of dimensional analysis; Checking the correctness of physical relations and Numerical.	1		Dt. 24.03.2023
2	UNIT 2 - SCALARS AND VECTORS	3		
	Concept of scalar and vector quantities with definition, types of vectors, Rules of vector addition: Statements of Triangle law of vector addition	1		Dt. 25.03.2023
	Parallelogram law of vector addition and simple numericals, Concept on Resolution of vectors with simple numerical on Horizontal and vertical components	1		Dt. 27.03.2023
	Vector multiplication: Dot product and Cross Product with simple numericals on dot and cross products	1		Dt. 29.03.2023
3	UNIT 3 - KINEMATICS	6		
	Concept of Rest and Motion with examples, Fundamental ideas on distance, displacement, speed, velocity, acceleration and force, equations of motion under gravity both for upward and downward motion	1		Dt. 31.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Circular motion: Conceptual idea on circular motion and terms related to circular motion such as angular displacement, angular velocity and angular acceleration.	2	APRIL 2023	Dt. 03.04.2023, Dt. 05.04.2023
	Derivations of Relation between- (i) Linear & angular velocity, (ii) Linear & Angular acceleration	1		Dt. 05.04.2023
	Projectile motion: Definition and examples, Expression for equation of Trajectory, Time of Flight, Maximum Height and Horizontal Range for a projectile fired at an angle, condition for maximum horizontal range with simple numericals	2		Dt. 08.04.2023, Dt. 10.04.2023
	UNIT 4 – WORK AND FRICTION	5		
	Definition of work, its formula and SI unit with simple numericals	1		Dt. 12.04.2023
	Concept of friction with definition and simple examples, Types of friction	1		Dt. 15.04.2023
4	Definition with concept on limiting friction, and laws of limiting friction (statement only)	1		Dt. 15.04.2023
	Theory on Coefficient of Friction and simple numericals	1		Dt. 17.04.2023
	Methods to reduce friction with practical examples	1		Dt. 19.04.2023
	UNIT 5 - GRAVITATION	5		
	Introduction, a detail explanation on Newton's Laws of Gravitation (1 st and 2 nd law)	1		Dt. 21.04.2023
5	A detail explanation on Newton's Laws of Gravitation (3 rd law) and Definition of Universal Gravitational Constant (G) with its unit and dimensions	2		Dt. 22.04.2023, Dt. 24.04.2023
	Definition and concept of acceleration due to gravity (g), Relation between 'g' and 'G' and definition of mass and weight	1		Dt. 24.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Explanation (No derivation) on variation of 'g' with altitude and depth, statements on Kepler's Laws of Planetary motion.	1		Dt. 26.04.2023
	UNIT 6 - OSCILLATIONS AND WAVES	6		
	Definition and examples on Simple Harmonic Motion (SHM), expressions for displacement, velocity and acceleration of a body or particle in SHM.	2		Dt. 28.04.2023, Dt. 29.04.2023
6	Wave Motion (Definition & Concept), Transverse and Longitudinal wave motion (Definition, examples and Comparison)	2	MAY 2023	Dt. 01.05.2023, Dt. 03.05.2023
	Wave parameters and Establish a relation between velocity, frequency and Time period, Ultrasonics- Definition, properties & Applications.	2		Dt. 6.05.2023, Dt. 8.05.2023
	UNIT 7 - HEAT AND THERMODYNAMICS	7		
	Heat & temperature-Definition and difference, Units of Heat (FPS, CGS, MKS & SI)	1		Dt. 10.05.2023
	Fundamental ideas on Specific heat, Change of State and Latent Heat with simple numericals.	1		Dt. 12.05.2023
7	Concept on Thermal expansion and Coefficient of linear (α), superficial (β) and cubical (γ) expansions of Solids, Relation between α , β and γ	2		Dt. 12.05.2023, Dt. 13.05.2023
	Definition and Relation between Work and Heat, Joule's Mechanical Equivalent of Heat, Statement and explanation on 1 st law of thermodynamics.	3		Dt. 13.05.2023, Dt. 15.05.2023, Dt. 17.05.2023
	UNIT 8 - OPTICS	4		
8	Concept of Reflection and laws of Reflection, Concept of Refraction and laws of Refraction and Refractive index (Definition, formula and Simple numericals)	2		Dt. 20.05.2023, Dt. 22.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Concept and Explanation of Total Internal Reflection and Critical angle	1		Dt. 24.05.2023
	Definition, Properties and Applications on Fiber Optics	1		Dt. 24.05.2023
	UNIT 9 – ELECTROSTATICS & MAGNETOSTATICS	7		
	Concept of Electric field and Electric field intensity, Statement and Explanation of Coulomb's law and definition of Unit charge, Absolute & Relative Permittivity (Definition, Relation & Unit).	1		Dt. 26.05.2023
	Definition of Unit charge, Absolute & Relative Permittivity (Definition, Relation & Unit).	1		Dt. 27.05.2023
9	Electric Field, Electric field intensity, Electric potential & Electric potential difference (Definition, formula & SI units), Concept of capacitor and capacitance.	1		Dt. 27.05.2023
	Series and parallel combination of capacitors: Formula for equivalent capacitance and simple numericals	1		Dt. 29.05.2023
	Fundamental idea on magnet, Coulomb's law in magnetism and definition of Unit pole	1		Dt. 29.05.2023
	Definition of magnetic field and Magnetic field Intensity (H) with its formula and SI unit,	1		Dt. 31.05.2023
	Magnetic lines of force-Definition and Properties. Magnetic flux(ϕ) and Magnetic flux density (B)	1		Dt. 31.05.2023
	UNIT 10 – CURRENT ELECTRICITY	6		
	Introduction to Electric Current	1	JUNE 2023	Dt. 2.06.2023
10	Ohm's law and its applications	1		Dt. 3.06.2023
	Series and parallel combination of resistors: Formula for equivalent resistance and	1		Dt. 5.06.2023
	Simple numericals on combination of resistors	1		Dt. 5.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Kirchhoff's laws: Statements & Explanation with diagram	1		Dt. 7.06.2023
	Kirchhoff's laws: Explanation and application to circuit with diagram			Dt. 7.06.2023
	Application of Kirchhoff's laws to Wheatstone bridge- Derivation of balance condition of Wheatstone bridge	1		Dt. 9.06.2023
	UNIT 11 – ELECTROMAGNETISM & ELECTROMAGNETIC INDUCTION	5		
11	Introduction, Force acting on a current carrying conductor placed in a uniform magnetic field, Fleming's left hand rule	1		Dt. 10.06.2023
	Statement on Faraday's Laws of Electromagnetic Induction & Lenz's law	2		Dt. 12.06.2023, Dt. 16.06.2023
	Fleming's Right Hand Rule, Comparison between Fleming's RHR & LHR	2		Dt. 17.06.2023, Dt. 19.06.2023
	UNIT 12 - MODERN PHYSICS			
12	Introduction to LASER and laser beam, characteristics of laser beam	1		Dt. 21.06.2023
	LASER principle: Population inversion & Optical Pumping	1		Dt. 23.06.2023
	Application of LASER beams			Dt. 23.06.2023
	Concept on Wireless Transmission- Ground waves	1		Dt. 24.06.2023
	Sky waves & Space Waves			Dt. 24.06.2023

Lalatenetu Sahu

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

Pradip

PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Puma Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGINEERING
SECTION:- EA

SEMESTER: 2ND

NAME OF THE FACULTY : (1) KSHIRA MOHAN BEHERA
(2) SAROJ KUMAR SAHOO (LECT. IN MATH.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING MATHEMATICS-II (TH-3)

CLASS ALLOTTED /WEEK : 05 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	VECTOR ALGEBRA	12	MARCH	
	a) Introduction: definition of scalar , vector with examples			
	b) Types of vectors: null vector, parallel vector, collinear vectors with examples	1		Dt- 20.03.2023
	c) Representation of a vector			
	d) Magnitude and direction of vectors with examples	1		Dt- 21.03.2023
	e) Addition and subtraction of vectors with examples	1		Dt- 22.03.2023
1	Properties of vector addition and position vector	1		Dt- 23.03.2023
	Problems on magnitude and position vector	1		Dt- 25.03.2023
	g) scalar product of two vectors with examples			
	h) Geometrical meaning of dot product	1		Dt- 25.03.2023
	Problems on dot product	1		Dt- 27.03.2023
	i) Angle between two vectors with example	1		Dt- 28.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	j) Scalar and vector projection of two vectors with examples	1		Dt - 29.03.2023
	Problems on Scalar and vector projection of two vectors	1		Dt - 31.03.2023
	k) Vector product and geometrical meaning	1	APRIL 2023	Dt - 03.04.2023
	Problems on vector product	1		Dt - 04.04.2023
	LIMITS AND CONTINUITY	12		
	a) Definition of a function b) Types of functions i) Constant function, ii) Identity function iii) Absolute value function iv) The greatest integer function with examples	1		Dt - 05.04.2023 Dt - 06.04.2023
2	v) Trigonometric function with example vi) Exponential function vii) Logarithmic function With examples	1		Dt - 08.04.2023
	c) Introduction of limit: definition, example d) Existence of limit with example	1		Dt - 10.04.2023
	e) Methods of evaluation of limit	1		Dt - 11.04.2023
	Methods of evaluation of limit continues with some examples	1		Dt - 12.04.2023
	problems on existence of limit and evaluation of limit	1		Dt - 13.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1		Dt - 15. 04. 2023
	Problem Solving and Tutorials	1		Dt - 17. 04. 2023
	Problem Solving and Tutorials	1		Dt - 18. 04. 2023
	f) Definition of continuity of a function at a point, Existence of continuity with example	1		Dt - 19. 04. 2023
	Problem Solving and Tutorials	1		Dt - 20. 04. 2023
	Problems on limit and continuity	1		Dt - 21. 04. 2023
	DERIVATIVES	20		
	a) Derivative of a function at a point	1		Dt - 22. 04. 2023
	b) Algebra of derivative	1		Dt - 22. 04. 2023
	c) Derivative of standard functions: $x^n, a^x, \log x, e^{-x} a$	1		Dt - 24. 04. 2023
	Derivative of standard functions continues: $\sin x, \cos x, \tan x$	1		Dt - 25. 04. 2023
3	Derivative of standard functions continues: $\cot x, \sec x, \csc x, \sin^{-1} x$	1		Dt - 26. 04. 2023
	Derivative of standard functions continues: $\cos^{-1} x, \tan^{-1} x, \cot^{-1} x$	1		Dt - 27. 04. 2023
	Problem solving on trigonometric functions	1		Dt - 28. 04. 2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Derivative of standard functions continues: $\sec^{-1} x, \csc^{-1} x$.	1		Dt - 29.04.2023
	d) Derivatives of composite function			
	Derivatives of composite function(Chain rule) continues with examples	1	MAY 2023	Dt - 01.05.2023
	Derivatives of composite function(Chain rule) continues with examples	1		Dt - 02.05.2023
	e) Methods of differentiation of			
	i) Parametric function with examples	1		Dt - 03.05.2023
	Methods of differentiation of			
	ii) Implicit function with examples	1		Dt - 04.05.2023
	Solving problems on derivatives of parametric function and implicit function	1		Dt - 04.05.2023
	Methods of differentiation of			
	iii) Logarithmic function with example	1		Dt - 06.05.2023
	Methods of differentiation of			
	iv) A function wrt another function with example	1		Dt - 08.05.2023, Dt - 09.05.2023
	f) Applications of derivatives:			
	i) Successive differentiation (up to second order) Some problems on successive differentiation	1		Dt - 10.05.2023
	Solving problems on successive differentiation	1		Dt - 11.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	ii) Partial differentiation (function of two variables up to second order)	1		Dt - 12.05.2023
	Problems on derivative of logarithmic function and successive differentiation.	1		Dt - 13.05.2023
	Partial differentiation continues	1		Dt - 15.05.2023
	Some more problems on partial differentiation	1		Dt - 16.05.2023
	INTEGRATION	24		
	a) Definition of integration as inverse of differentiation	2		Dt - 17.05.2023 Dt - 18.05.2023
	b) Integral of standard functions			
	c) Methods of integration: i) Integration by substitution with examples	2		Dt - 20.05.2023 Dt - 22.05.2023
	Problems on integration by substitution	1		Dt - 23.05.2023
	ii) Integration by parts with examples	1		Dt - 23.05.2023
	Problems on integration by parts	1		Dt - 24.05.2023
	d) Integration of the following forms	2		Dt - 24.05.2023, Dt - 25.05.2023
	Problem Solving and Tutorials	1		Dt - 26.05.2023
	Problem Solving and Tutorials	1		Dt - 26.05.2023
	e) Definite integral, properties of definite integrals	4		Dt - 27.05.2023, Dt - 29.05.2023 Dt - 30.05.2023, Dt - 31.05.2023
	Problem Solving and Tutorials	1	JUNE 2023	Dt - 01.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1		Dt - 01.06.2023
	Problem Solving and Tutorials	1		Dt - 02.06.2023
	Problem Solving and Tutorials	1		Dt - 02.06.2023
	Solving problems on properties of definite integration	1		Dt - 03.06.2023
	f) Application of integration	2		Dt - 05.06.2023, Dt - 06.06.2023
	i) Area enclosed by a curve and X-axis	1		Dt - 07.06.2023
	ii) Area of a circle with centre at origin	1		Dt - 08.06.2023
	DIFFERENTIAL EQUATION	12		
	Definition, ODE, PDE, a) Order and degree of a differential equation	1		Dt - 09.06.2023
	Determining Order and degree of a differential equation with examples	1		Dt - 10.06.2023
5	b) Solution of differential equation Definition i) By method of separation of variable with examples	1		Dt - 12.06.2023
	method of separation of variable continues with problem solving	1		Dt - 13.06.2023
	Some more problems on separation of variables	1		Dt - 16.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problems on determination of degree and order of a differential equation	1		Dt-17.06.2023
	ii) Linear equation example	1		Dt-19.06.2023
	Solving linear equation	1		Dt-21.06.2023
	Problems on linear differential equation	1		Dt-21.06.2023
	Some more Problems on linear differential equation	1		Dt-22.06.2023
	Revision of differential equation	1		Dt-23.06.2023
	Revision of differential equation	1		Dt-24.06.2023

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Puma Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST. - ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGINEERING		SEMESTER: 2ND	NAME OF THE FACULTY : ER. KEDARA KUMAR PRADHAN (LECT. IN MECH. ENGG.)	
SECTION:- EA		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)		
SEMESTER FROM : 20.03.2023 to 27.06.2023		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)		
CLASS ALLOTTED /WEEK : 04 PERIODS				
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	FUNDAMENTALS OF ENGINEERING MECHANICS	14	MARCH	
	Definitions of Mechanics, Statics, Dynamics, Rigid Bodies,	1		Dt. 21.03.2023
	Force System, Definition, Classification of force system according to plane & line of action.	1		Dt. 22.03.2023
	Characteristics of Force & effect of Force. Principles of Transmissibility & Principles of Superposition. Action & Reaction Forces & concept of Free Body Diagram.	1		Dt. 22.03.2023
1	Resolution of a Force. Definition, Method of Resolution, Types of Component forces, Perpendicular components & non-perpendicular components.	1		Dt. 23.03.2023
	Composition of Forces. Definition, Resultant Force, Method of composition of forces	1		Dt. 23.03.2023
	Analytical Method such as Law of Parallelogram of forces & method of resolution.	1		Dt. 24.03.2023
	Graphical Method. Introduction, Space diagram, Vector diagram, Polygon law of forces.	1		Dt. 24.03.2023
	Resultant of concurrent, non-concurrent & parallel force system by Analytical & Graphical Method.	1		Dt. 28.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Moment of Force, Definition, Geometrical meaning of moment of a force, measurement of moment of a force & its S.I units.	1		Dt. 29.03.2023
	Classification of moments according to direction of rotation, sign convention,	1		Dt. 29.03.2023
	Law of moments, Varignon's Theorem	1		Dt. 31.03.2023
	Couple - Definition, S.I. units, measurement of couple	1		Dt. 31.03.2023
	properties of couple, simple problems on Force systems	1	APRIL 2023	Dt. 4.04.2023
	Revision- CH-1	1		Dt. 4.04.2023
	EQUILIBRIUM	8		
	Introduction to Equilibrium, Definition, condition of equilibrium	2		Dt. 5.04.2023, Dt. 6.04.2023
2	Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	3		Dt. 6.04.2023, Dt. 11.04.2023 Dt. 12.04.2023
	Lami's Theorem - Statement, Application for solving various engineering problems.	3		Dt. 13.04.2023, Dt. 18.04.2023 Dt. 19.04.2023
	FRICTION	10		
	Definition of friction & Frictional forces	1		Dt. 20.04.2023
	Define Limiting frictional force & Coefficient of Friction.	1		Dt. 21.04.2023
3	Define Angle of Friction & Repose & Laws of Friction	1		Dt. 21.04.2023
	Advantages & Disadvantages of Friction.	1		Dt. 25.04.2023
	Friction problem	1		Dt. 26.04.2023
	Equilibrium of bodies on level plane - Force applied on horizontal plane	1		Dt. 26.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Equilibrium of bodies on level plane – Force applied on inclined plane	1		Dt. 27.04.2023
	Ladder, Wedge Friction	1		Dt. 27.04.2023
	Problems solved on Ladder friction	1		Dt. 28.04.2023
	Problems solved on wedge friction	1		Dt. 28.04.2023
	CENTROID & MOMENT OF INERTIA	14		
	Introduction to centroid and M.I, Lamia's Theorem – Statement, Application for solving various engineering problems.	3	MAY 2023	Dt. 2.05.2023, Dt. 3.05.2023 Dt. 4.05.2023
	centroid of geometrical figures such as squares, rectangles, triangles, circles, semicircles & quarter circles	2		Dt. 9.05.2023, Dt. 10.05.2023
	centroid of composite figures, problems on centroid	2		Dt. 11.05.2023, Dt. 12.05.2023
4	Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems	2		Dt. 16.05.2023, Dt. 17.05.2023
	M.I. of plane lamina & different engineering sections.	2		Dt. 18.05.2023, Dt. 23.05.2023
	Problems on M.I	1		Dt. 24.05.2023
	Problems on M.I	1		Dt. 25.05.2023
	Revision- CH-4	1		Dt. 25.05.2023
	SIMPLE MACHINES	8		
	Definition of simple machine, velocity ratio of simple and compound gear train	1		Dt. 26.05.2023
	Explain simple & compound lifting machine	1		Dt. 30.05.2023
5	Define M.A, V.R.& Efficiency and State the relation between them	1		Dt. 31.05.2023
	State Law of Machine, Reversibility of Machine, Self-Locking Machine.	1	JUNE 2023	Dt. 1.06.2023
	Study of simple machines – simple axle & wheel	1		Dt. 2.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Discussion about double purchase crab winch Discussion of Worm & Worm Wheel	1		Dt. 6.06.2023
	Screw Jack	1		Dt. 7.06.2023
	Types of hoisting machine-like derricks etc. Their use and working principle	1		Dt. 8.06.2023
	DYNAMICS	6		
	Kinematics & Kinetics, Principles of Dynamics, Newton's Laws of Motion	1		Dt. 9.06.2023
	Motion of Particle acted upon by a constant force. Equations of motion	1		Dt. 13.06.2023
6	De-Alembert's Principle, Work, Power, Energy & its Engineering Applications	1		Dt. 16.06.2023
	Kinetic & Potential energy & its application, Momentum & impulse, conservation of energy & linear momentum	1		Dt. 21.06.2023
	collision of elastic bodies, and Coefficient of Restitution	1		Dt. 22.06.2023
	Solving problems	1		Dt. 23.06.2023

Madhava Kumar Sahu

SIGNATURE OF THE CONCERNED FACULTY

[Signature]

SIGNATURE OF THE H.O.D.

[Signature]

PRINCIPAL
P.C.I.E.T., CHHENDIPADA

PRINCIPAL
*Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL*

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGINEERING
SECTION:- EB

SEMESTER: 2ND

NAME OF THE FACULTY : (1) ASWINI KUMAR PRADHAN,
(2) ER. DIPTIMAYEE PRADHAN,(LECT.IN COMP. SC. & ENGG.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: COMPUTER APPLICATION (TH-1B)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	COMPUTER ORGANISATION	5	March	
	Introduction to Computer, Evolution of Computers	1		Dt - 20/03/2023
	Generation of Computers, Classification of computer	1		Dt - 22/03/2023
	Basic Organisation of Computer (Functional Block diagram)	1		Dt - 23/03/2023
	Input Devices, CPU & Output Devices.	1		Dt - 23/03/2023
	Computer Memory and Classification of Memory	1		Dt - 24/03/2023
2	COMPUTER SOFTWARE	7		
	Software concept, System software, Application software	1		Dt - 24/03/2023
	What is Operating System, Objectives and Functions of O.S	1		Dt - 27/03/2023
	Types of Operating System: Batch Processing, Multiprogramming, Time Sharing OS	1		Dt - 29/03/2023
	Features of DOS, Windows and UNIX	1		Dt - 31/03/2023
	Programming Languages Compiler, interpreter	1	April	Dt - 03/04/2023
	Computer Virus, Different Types of computer virus, Detection and prevention of Virus	1		Dt - 05/04/2023
Application of computers in different Domain	1		Dt - 06/04/2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	COMPUTER NETWORK AND INTERNET	8		
	Networking concept, Protocol	1		Dt- 06/04/2023
	Connecting Media, Data Transmission mode	1		Dt- 10/04/2023
	Network Topologies	1		Dt- 10/04/2023
	Types of Network	1		Dt- 12/04/2023
	Networking Devices (Hub, Repeater, Switch, Bridge, Router, Gateway & NIC)	1		Dt- 13/04/2023
	Internet Services (E-Mail, WWW, FTP, Chatting, Internet Conferencing)	1		Dt- 17/04/2023
	Electronic Newspaper & Online Shopping	1		Dt- 17/04/2023
	Different types of Internet connectivity and ISP	1		Dt- 19/04/2023
4	FILE MANAGEMENT AND DATA PROCESSING	5		
	Concept of File and Folder	1		Dt- 19/04/2023
	File Access and Storage methods. Sequential, Direct, ISAM	1		Dt- 20/04/2023
	Data Capture	1		Dt- 20/04/2023
	Data storage	1		Dt- 21/04/2023
	Data Processing and Retrieval	1		Dt- 21/04/2023
5	PROBLEM SOLVING METHODOLOGY	5		
	Algorithm, Pseudo code	1		Dt- 24/04/2023
	Flowchart Generation of Programming Languages	2		Dt- 24/04/2023
	Structured Programming Language	1		Dt- 26/04/2023
	Examples of Problem solving through Flowchart	1		Dt- 27/04/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	OVERVIEW OF C PROGRAMMING LANGUAGE	15		
	Introduction to C, History of C	1		Dt - 28/04/2023
	Constants, Variables	1		Dt - 28/04/2023
	Data types in C	1	May	Dt - 01/05/2023
	Input and Output operations.	1		Dt - 03/05/2023
	Operators, Different types of operator	2		Dt - 04/05/2023, Dt - 08/05/2023
	Expressions, Type conversion & Typecasting	2		Dt - 10/05/2023, Dt - 11/05/2023
	Decision Control and Looping Statements (If, If-else, If-else-if, Switch, While, Do-while, For, Break, Continue & Goto)	4		Dt - 12/05/2023, Dt - 15/05/2023 Dt - 17/05/2023, Dt - 18/05/2023
	Programming Assignments using the above features	3		Dt - 22/05/2023, Dt - 24/05/2023 Dt - 25/05/2023
7	ADVANCED FEATURES OF C	15		
	Functions and Passing Parameters to the Function (Call by Value and Call by Reference)	3		Dt - 26/05/2023, Dt - 29/05/2023 Dt - 31/05/2023
	Scope of Variables and Storage Classes	2	June	Dt - 01/06/2023, Dt - 02/06/2023
	Recursion Function and Types of Recursion	2		Dt - 05/06/2023, Dt - 07/06/2023
	One Dimensional Array and Multidimensional Array	2		Dt - 08/06/2023, Dt - 09/06/2023
	String Operations and Pointers	2		Dt - 12/06/2023, Dt - 16/06/2023
	Pointer Expression and Pointer Arithmetic Programming	2		Dt - 19/06/2023, Dt - 21/06/2023
	Structure and Union	2		Dt - 22/06/2023, Dt - 23/06/2023

Deptomayee Pradhan
SIGNATURE OF THE CONCERNED FACULTY

M. Balas
SIGNATURE OF THE H.O.D.

Pradip
PRINCIPAL
Puma Institute of
Engineering & Technology
CHIRENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGINEERING
SECTION:- EB

SEMESTER: 2ND

NAME OF THE FACULTY : (1) DOLAGOBIND SAHOO
(2) LALATENDU SAHU (LECT. IN PHYSICS)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING PHYSICS (TH-2A)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	UNIT 1 - UNITS AND DIMENSIONS	3	MARCH	
	Physical quantities, Units, types of units and system of units	1		Dt. 20.03.2023
	Dimension and dimensional formulae of physical quantities	1		Dt. 21.03.2023
	Principle of homogeneity and application of dimensional analysis: Checking the correctness of physical relations and Numerical.	1		Dt. 22.03.2023
2	UNIT 2 - SCALARS AND VECTORS	3		
	Concept of scalar and vector quantities with definition, types of vectors, Rules of vector addition: Statements of Triangle law of vector addition	1		Dt. 23.03.2023
	Parallelogram law of vector addition and simple numericals, Concept on Resolution of vectors with simple numerical on Horizontal and vertical components	1		Dt. 27.03.2023
	Vector multiplication: Dot product and Cross Product with simple numericals on dot and cross products	1		Dt. 28.03.2023
3	UNIT 3 - KINEMATICS	6		
	Concept of Rest and Motion with examples, Fundamental ideas on distance, displacement, speed, velocity, acceleration and force, equations of motion under gravity both for upward and downward motion	1		Dt. 29.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Circular motion: Conceptual idea on circular motion and terms related to circular motion such as angular displacement, angular velocity and angular acceleration.	2	APRIL 2023	Dt. 03.04.2023, Dt. 04.04.2023
	Derivations of Relation between- (i) Linear & angular velocity, (ii) Linear & Angular acceleration	1		Dt. 05.04.2023
	Projectile motion: Definition and examples, Expression for equation of Trajectory, Time of Flight, Maximum Height and Horizontal Range for a projectile fired at an angle, condition for maximum horizontal range with simple numericals	2		Dt. 6.04.2023, Dt. 10.04.2023
	UNIT 4 – WORK AND FRICTION	5		
	Definition of work, its formula and SI unit with simple numericals	1		Dt. 11.04.2023
	Concept of friction with definition and simple examples, Types of friction	1		Dt. 12.04.2023
4	Definition with concept on limiting friction, and laws of limiting friction (statement only)	1		Dt. 12.04.2023
	Theory on Coefficient of Friction and simple numericals	1		Dt. 13.04.2023
	Methods to reduce friction with practical examples	1		Dt. 17.04.2023
	UNIT 5 - GRAVITATION	5		
	Introduction, a detail explanation on Newton's Laws of Gravitation (1 st and 2 nd law)	1		Dt. 18.04.2023
5	A detail explanation on Newton's Laws of Gravitation (3 rd law) and Definition of Universal Gravitational Constant (G) with its unit and dimensions	2		Dt. 19.04.2023, Dt. 20.04.2023
	Definition and concept of acceleration due to gravity (g), Relation between 'g' and 'G' and definition of mass and weight	1		Dt. 20.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Explanation (No derivation) on variation of 'g' with altitude and depth, statements on Kepler's Laws of Planetary motion.	1		Dt. 24.04.2023
	UNIT 6 - OSCILLATIONS AND WAVES	6		
	Definition and examples on Simple Harmonic Motion (SHM), expressions for displacement, velocity and acceleration of a body or particle in SHM	2		Dt. 25.04.2023, Dt. 26.04.2023
6	Wave Motion (Definition & Concept), Transverse and Longitudinal wave motion (Definition, examples and Comparison)	2	MAY 2023	Dt. 27.04.2023, Dt. 1.05.2023
	Wave parameters and Establish a relation between velocity, frequency and Time period, Ultrasonics- Definition, properties & Applications	2		Dt. 2.05.2023, Dt. 3.05.2023
	UNIT 7 - HEAT AND THERMODYNAMICS	7		
	Heat & temperature-Definition and difference, Units of Heat (FPS, CGS, MKS & SI)	1		Dt. 4.05.2023
	Fundamental ideas on Specific heat, Change of State and Latent Heat with simple numericals.	1		Dt. 4.05.2023
7	Concept on Thermal expansion and Coefficient of linear (α), superficial (β) and cubical (γ) expansions of Solids, Relation between α , β and γ .	2		Dt. 8.05.2023, Dt. 9.05.2023
	Definition and Relation between Work and Heat, Joule's Mechanical Equivalent of Heat, Statement and explanation on 1 st law of thermodynamics.	3		Dt. 9.05.2023, Dt. 10.05.2023, Dt. 11.05.2023
	UNIT 8 - OPTICS	4		
8	Concept of Reflection and laws of Reflection, Concept of Refraction and laws of Refraction and Refractive index (Definition, formula and Simple numericals)	2		Dt. 11.05.2023, Dt. 15.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Concept and Explanation of Total Internal Reflection and Critical angle	1		Dt. 16.05.2023
	Definition, Properties and Applications on Fiber Optics	1		Dt. 16.05.2023
	UNIT 9 – ELECTROSTATICS & MAGNETOSTATICS	7		
	Concept of Electric field and Electric field intensity, Statement and Explanation of Coulomb's law and definition of Unit charge, Absolute & Relative Permittivity (Definition, Relation & Unit),	1		Dt. 17.05.2023
	Definition of Unit charge, Absolute & Relative Permittivity (Definition, Relation & Unit),	1		Dt. 18.05.2023
9	Electric Field, Electric field intensity, Electric potential & Electric potential difference (Definition, formula & SI units), Concept of capacitor and capacitance,	1		Dt. 18.05.2023
	Series and parallel combination of capacitors: Formula for equivalent capacitance and simple numericals	1		Dt. 22.05.2023
	Fundamental idea on magnet, Coulomb's law in magnetism and definition of Unit pole	1		Dt. 23.05.2023
	Definition of magnetic field and Magnetic field Intensity (H) with its formula and SI unit,	1		Dt. 24.05.2023
	Magnetic lines of force-Definition and Properties, Magnetic flux(ϕ) and Magnetic flux density (B).	1		Dt. 24.05.2023
	UNIT 10 – CURRENT ELECTRICITY	6		
	Introduction to Electric Current	1		Dt. 25.05.2023
10	Ohm's law and its applications	1		Dt. 29.05.2023
	Series and parallel combination of resistors: Formula for equivalent resistance and	1		Dt. 30.05.2023
	Simple numericals on combination of resistors	1		Dt. 31.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Kirchhoff's laws: Statements & Explanation with diagram	1	JUNE 2023	Dt. 01.06.2023
	Kirchhoff's laws: Explanation and application to circuit with diagram			Dt. 01.06.2023
	Application of Kirchhoff's laws to Wheatstone bridge- Derivation of balance condition of Wheatstone bridge	1		Dt. 05.06.2023
	UNIT 11 – ELECTROMAGNETISM & ELECTROMAGNETIC INDUCTION	5		
11	Introduction, Force acting on a current carrying conductor placed in a uniform magnetic field, Fleming's left hand rule	1		Dt. 06.06.2023
	Statement on Faraday's Laws of Electromagnetic Induction & Lenz's law	2		Dt. 7.06.2023, Dt. 8.06.2023
	Fleming's Right Hand Rule, Comparison between Fleming's RHR & LHR	2		Dt. 12.06.2023, Dt. 13.06.2023
	UNIT 12 - MODERN PHYSICS			
12	Introduction to LASER and laser beam, characteristics of laser beam	1		Dt. 19.06.2023
	LASR principle: Population inversion & Optical Pumping	1		Dt. 21.06.2023
	Application of LASR beams			Dt. 21.06.2023
	Concept on Wireless Transmission- Ground waves	1		Dt. 22.06.2023
	Sky waves & Space Waves			Dt. 22.06.2023

Lalabendu Schw. Dolagebind School

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

P. Prakash

PRINCIPAL

P.C.I.E.T., CHHENDIPADA

PRINCIPAL

Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGINEERING
SECTION:- EB

SEMESTER: 2ND

NAME OF THE FACULTY : (1) KSHIRA MOHAN BEHERA
(2) SAROJ KUMAR SAHOO (LECT. IN MATH.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING MATHEMATICS-II (TH-3)

CLASS ALLOTTED /WEEK : 05 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	VECTOR ALGEBRA	12	MARCH	
1	a) Introduction: definition of scalar , vector with examples	1		Dt - 20.03.2023
	b) Types of vectors: null vector, parallel vector, collinear vectors with examples			
	c) Representation of a vector			
	d) Magnitude and direction of vectors with examples	1		Dt - 21.03.2023
	e) Addition and subtraction of vectors with examples	1		Dt - 22.03.2023
	Properties of vector addition and position vector	1		Dt - 23.03.2023
	Problems on magnitude and position vector	1		Dt - 24.03.2023
	g) scalar product of two vectors with examples			
	h) Geometrical meaning of dot product	1		Dt - 25.03.2023
	Problems on dot product	1		Dt - 27.03.2023
i) Angle between two vectors with example	1		Dt - 28.03.2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	j) Scalar and vector projection of two vectors with examples	1		Dt - 29.03.2023
	Problems on Scalar and vector projection of two vectors	1		Dt - 31.03.2023
	k) Vector product and geometrical meaning	1	APRIL 2023	Dt - 03.04.2023
	Problems on vector product	1		Dt - 04.04.2023
	LIMITS AND CONTINUITY	12		
2	a) Definition of a function b) Types of functions i) Constant function, ii) Identity function iii) Absolute value function iv) The greatest integer function with examples	1		Dt - 05.04.2023 Dt - 06.04.2023
	v) Trigonometric function with example vi) Exponential function vii) Logarithmic function With examples	1		Dt - 08.04.2023
	c) Introduction of limit: definition, example d) Existence of limit with example	1		Dt - 10.04.2023
	e) Methods of evaluation of limit	1		Dt - 11.04.2023
	Methods of evaluation of limit continues with some examples	1		Dt - 12.04.2023
	problems on existence of limit and evaluation of limit	1		Dt - 13.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1		Dt - 15.04.2023
	Problem Solving and Tutorials	1		Dt - 17.04.2023
	Problem Solving and Tutorials	1		Dt - 18.04.2023
	f) Definition of continuity of a function at a point, Existence of continuity with example	1		Dt - 19.04.2023
	Problem Solving and Tutorials	1		Dt - 20.04.2023
	Problems on limit and continuity	1		Dt - 21.04.2023
	DERIVATIVES	20		
	a) Derivative of a function at a point b) Algebra of derivative	1		Dt - 22.04.2023
	c) Derivative of standard functions: $x^n, a^x, \log x, e^x$	1		Dt - 24.04.2023
	Derivative of standard functions continues: $\sin x, \cos x, \tan x$	1		Dt - 25.04.2023
3	Derivative of standard functions continues: $\cot x, \sec x, \csc x, \sin^{-1} x$	1		Dt - 26.04.2023
	Derivative of standard functions continues: $\cos^{-1} x, \tan^{-1} x, \cot^{-1} x$	1		Dt - 27.04.2023
	Problem solving on trigonometric functions	1		Dt - 28.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Derivative of standard functions continues: $\sec^{-1} x$; $\csc^{-1} x$, d) Derivatives of composite function	1		DE - 29.04.2023
	Derivatives of composite function(Chain rule) continues with examples	1	MAY 2023	DE - 01.05.2023
	Derivatives of composite function(Chain rule) continues with examples	1		DE - 02.05.2023
	e) Methods of differentiation of i) Parametric function with examples	1		DE - 03.05.2023
	Methods of differentiation of ii) Implicit function with examples	1		DE - 04.05.2023
	Solving problems on derivatives of parametric function and implicit function	1		DE - 06.05.2023
	Methods of differentiation of iii) Logarithmic function with example	1		DE - 08.05.2023
	Methods of differentiation of iv) A function wrt another function with example	1		DE - 09.05.2023
	f) Applications of derivatives: i) Successive differentiation (up to second order) Some problems on successive differentiation	1		DE - 10.05.2023
	Solving problems on successive differentiation	1		DE - 11.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	ii) Partial differentiation (function of two variables up to second order)	1		Dt - 12.05.2023
	Problems on derivative of logarithmic function and successive differentiation.	1		Dt - 13.05.2023
	Partial differentiation continues	1		Dt - 15.05.2023
	Some more problems on partial differentiation	1		Dt - 16.05.2023
	INTEGRATION	24		
4	a) Definition of integration as inverse of differentiation	2		Dt - 17.05.2023
	b) Integral of standard functions		Dt - 18.05.2023	
	c) Methods of integration: i) Integration by substitution with examples	2		Dt - 20.05.2023
	Problems on integration by substitution		Dt - 22.05.2023	
	ii) Integration by parts with examples	1		Dt - 23.05.2023
	Problems on integration by parts		Dt - 24.05.2023	
	d) Integration of the following forms	2		Dt - 24.05.2023, Dt - 25.05.2023
	Problem Solving and Tutorials		Dt - 26.05.2023	
	Problem Solving and Tutorials	1		Dt - 26.05.2023
	e) Definite integral, properties of definite integrals	4		Dt - 27.05.2023, Dt - 29.05.2023
	Problem Solving and Tutorials		Dt - 30.05.2023, Dt - 31.05.2023	
		1		Dt - 31.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1	JUNE 2023	Dt- 01. 06. 2023
	Problem Solving and Tutorials	1		Dt- 02.06. 2023
	Problem Solving and Tutorials	1		Dt- 02.06. 2023
	Solving problems on properties of definite integration	1		Dt - 03.06. 2023
	f) Application of integration	2		Dt-05.06.2023 , Dt - 06.06. 2023
	i) Area enclosed by a curve and X – axis	1		Dt- 07.06. 2023
	ii) Area of a circle with centre at origin	1		Dt- 08. 06. 2023
	DIFFERENTIAL EQUATION	12		
	Definition, ODE, PDE, a) Order and degree of a differential equation	1		Dt- 09.06.2023
	Determining Order and degree of a differential equation with examples	1		Dt- 10. 06. 2023
5.	b) Solution of differential equation Definition i) By method of separation of variable with examples	1		Dt - 12. 06. 2023
	method of separation of variable continues with problem solving.	1		Dt - 13. 06. 2023
	Some more problems on separation of variables	1		Dt- 16.06. 2023

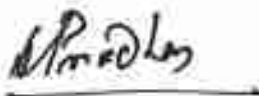
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problems on determination of degree and order of a differential equation	1		Dt - 17.06.2023
	ii) Linear equation example	1		Dt - 19.06.2023
	Solving linear equation	1		Dt - 21.06.2023
	Problems on linear differential equation	1		Dt - 21.06.2023
	Some more Problems on linear differential equation	1		Dt - 22.06.2023
	Revision of differential equation	1		Dt - 23.06.2023
	Revision of differential equation	1		Dt - 24.06.2023

SIGNATURE OF THE CONCERNED FACULTY


Sanjay Kumar Sahoo

SIGNATURE OF THE H.O.D.




PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST.-ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- ELECTRICAL ENGINEERING		SEMESTER: 2ND	NAME OF THE FACULTY : ER. BIKASH RANJAN SAHU.	
SECTION:- EB			(2) ER. KEDARA KUMAR PRADHAN (LECT. IN MECH. ENGG.)	
SEMESTER FROM : 20.03.2023 to 27.06.2023		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)		
CLASS ALLOTTED /WEEK : 04 PERIODS				
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	FUNDAMENTALS OF ENGINEERING MECHANICS	14	MARCH	
	Definitions of Mechanics, Statics, Dynamics, Rigid Bodies,	1		Dt. 20.03.2023
	Force System, Definition, Classification of force system according to plane & line of action.	1		Dt. 21.03.2023
	Characteristics of Force & effect of Force. Principles of Transmissibility & Principles of Superposition. Action & Reaction Forces & concept of Free Body Diagram.	1		Dt. 22.03.2023
1	Resolution of a Force, Definition, Method of Resolution, Types of Component forces; Perpendicular components & non-perpendicular components.	1		Dt. 24.03.2023
	Composition of Forces, Definition, Resultant Force, Method of composition of forces	1		Dt. 27.03.2023
	Analytical Method such as Law of Parallelogram of forces & method of resolution.	1		Dt. 27.03.2023
	Graphical Method. Introduction, Space diagram, Vector diagram, Polygon law of forces.	1		Dt. 28.03.2023
	Resultant of concurrent, non-concurrent & parallel force system by Analytical & Graphical Method.	1		Dt. 29.03.2023

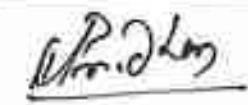
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Moment of Force. Definition, Geometrical meaning of moment of a force, measurement of moment of a force & its S.I units.	1		Dt. 31.03.2023
	Classification of moments according to direction of rotation, sign convention,	1	APRIL 2023	Dt. 3.04.2023
	Law of moments, Varignon's Theorem	1		Dt. 4.04.2023
	Couple - Definition, S.I. units, measurement of couple	1		Dt. 4.04.2023
	properties of couple, simple problems on Force systems	1		Dt. 5.04.2023
	Revision- CH-1	1		Dt. 5.04.2023
	EQUILIBRIUM	8		
2	Introduction to Equilibrium, Definition, condition of equilibrium	2		Dt. 10.04.2023, Dt. 11.04.2023
	Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	3		Dt. 12.04.2023, Dt. 17.04.2023 Dt. 18.04.2023
	Lami's Theorem - Statement, Application for solving various engineering problems.	3		Dt. 19.04.2023, Dt. 21.04.2023 Dt. 24.04.2023
	FRICTION	10		
3	Definition of friction & Frictional forces	1		Dt. 25.04.2023
	Define Limiting frictional force & Coefficient of Friction.	1		Dt. 26.04.2023
	Define Angle of Friction & Repose & Laws of Friction	1		Dt. 26.04.2023
	Advantages & Disadvantages of Friction.	1		Dt. 28.04.2023
	Friction problem	1		Dt. 28.04.2023
	Equilibrium of bodies on level plane - Force applied on horizontal plane	1	MAY 2023	Dt. 1.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Equilibrium of bodies on level plane – Force applied on inclined plane	1		Dt. 1.05.2023
	Ladder, Wedge Friction	1		Dt. 2.05.2023
	Problems solved on Ladder friction	1		Dt. 2.05.2023
	Problems solved on wedge friction	1		Dt. 2.05.2023
	CENTROID & MOMENT OF INERTIA	14		
	Introduction to centroid and M.I, Lamia's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 3.05.2023, Dt. 8.05.2023 Dt. 9.05.2023
	centroid of geometrical figures such as squares, rectangles, triangles, circles, semicircles & quarter circles	2		Dt. 10.05.2023, Dt. 12.05.2023
	centroid of composite figures, problems on centroid	2		Dt. 15.05.2023, Dt. 16.05.2023
4	Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems	2		Dt. 17.05.2023, Dt. 22.05.2023
	M.I. of plane lamina & different engineering sections.	2		Dt. 23.05.2023, Dt. 24.05.2023
	Problems on M.I	1		Dt. 26.05.2023
	Problems on M.I	1		Dt. 26.05.2023
	Revision- CH-4	1		Dt. 29.05.2023
	SIMPLE MACHINES	8		
	Definition of simple machine, velocity ratio of simple and compound gear train	1		Dt. 30.05.2023
	Explain simple & compound lifting machine	1		Dt. 31.05.2023
5	Define M.A, V.R.& Efficiency and State the relation between them	1		Dt. 31.05.2023
	State Law of Machine, Reversibility of Machine, Self-Locking Machine.	1	JUNE 2023	Dt. 2.06.2023
	Study of simple machines – simple axle & wheel	1		Dt. 5.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Discussion about double purchase crab winch Discussion of Worm & Worm Wheel	1		Dt. 6.06.2023
	Screw Jack	1		Dt. 7.06.2023
	Types of hoisting machine-like derricks etc. Their use and working principle	1		Dt. 9.06.2023
	DYNAMICS	6		
	Kinematics & Kinetics, Principles of Dynamics, Newton's Laws of Motion	1		Dt. 12.06.2023
	Motion of Particle acted upon by a constant force, Equations of motion	1		Dt. 13.06.2023
	D'Alembert's Principle, Work, Power, Energy & its Engineering Applications	1		Dt. 16.06.2023
6	Kinetic & Potential energy & its application, Momentum & impulse, conservation of energy & linear momentum	1		Dt. 19.06.2023
	collision of elastic bodies, and Coefficient of Restitution	1		Dt. 21.06.2023
	Solving problems	1		Dt. 23.06.2023

Bikash Ranjan Sahu Kejar Ku Pradhan
SIGNATURE OF THE CONCERNED FACULTY


SIGNATURE OF THE H.O.D.


PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING
SECTION:- MA

SEMESTER: 2ND

NAME OF THE FACULTY : (1) SUBHENDU KUMAR PANI
(2) BISMITA PANI (LECT. IN ENGLISH)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT : COMMUNICATIVE ENGLISH (TH-1A)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	LITERATURE APPRECIATION	20	March	
	INTRODUCTION TO LITERATURE APPRECIATION	1		Dt. 20/03/2023
	SKIMMING THE GIST AND SCANNING FOR NECESSARY INFORMATION OF AN UNSEEN PASSAGE	1		Dt. 21/03/2023
	CLOSE READING FOR INFERENCE AND EVALUATION, TRACING OUT THE MAIN IDEA AND ITS SUPPORTING POINTS	1		Dt. 21/03/2023
1	GUESSING THE MEANING OF UNFAMILIAR WORDS, NOTE-MAKING, SUMMARIZING, SUPPLYING A SUITABLE TITLE	1		Dt. 22/03/2023
	PRACTICE	1		Dt. 24/03/2023
	PRACTICE	1		Dt. 24/03/2023
	PRACTICE	1		Dt. 27/03/2023
	PRACTICE	1		Dt. 28/03/2023
	STANDING UP FOR YOURSELF READING AND EXPLANATION	1		Dt. 28/03/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	STANDING UP FOR YOURSELF READING AND EXPLANATION	1		Dt- 29/03/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt- 31/03/2023
	INCHCAPE ROCK READING AND EXPLANATION	1	April	Dt- 03/04/2023
	INCHCAPE ROCK READING AND EXPLANATION	1		Dt- 03/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt- 04/04/2023
	THE MAGIC OF TEAMWORK READING AND EXPLANATION	1		Dt- 05/04/2023
	THE MAGIC OF TEAMWORK READING AND EXPLANATION	1		Dt- 10/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt- 10/04/2023
	TO MY TRUE FRIEND READING AND EXPLANATION	1		Dt- 11/04/2023
	TO MY TRUE FRIEND READING AND EXPLANATION	1		Dt- 12/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt- 17/04/2023
	VOCABULARY	5		
	SYNONYMS AND ANTONYMS	2		Dt- 17/04/2023, Dt- 18/04/2023
2	SAME WORD USED IN DIFFERENT SITUATIONS AND IN DIFFERENT MEANING	2		Dt- 19/04/2023, Dt 21/04/2023
	SINGLE WORD SUBSTITUTE	1		Dt- 21/04/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	APPLICATION OF ENGLISH GRAMMAR	8		
	COUNTABLE NOUN AND UNCOUNTABLE NOUN TENSES	1		Dt: 24/04/2023
	ARTICLES AND DETERMINERS	1		Dt: 25/04/2023
	MODAL VERBS	1		Dt: 25/04/2023
	TENSES	1		Dt: 26/04/2023
	TENSES	1		Dt: 28/04/2023
	TENSES	1	May	Dt: 01/05/2023
	VOICE CHANGE	1		Dt: 01/05/2023
	SUBJECT-VERB AGREEMENT	1		Dt: 02/05/2023
4	FORMAL WRITING SKILLS	15		
	NOTICE AND AGENDA	1		Dt: 03/05/2023
	PARAGRAPH WRITING	1		Dt: 08/05/2023
	FEATURES OF PARAGRAPH WRITING	1		Dt: 09/05/2023
	DEVELOPING IDEAS INTO PARAGRAPHS	1		Dt: 10/05/2023
	PRACTICE	1		Dt: 12/05/2023
	REPORT WRITING PARALLEL	1		Dt: 15/05/2023
	WRITING PERSONAL LETTER	1		Dt: 16/05/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	LETTER TO PRINCIPAL	1		Dt. 17/05/2023
	LETTER TO LIBRARIAN	1		Dt. 22/05/2023
	LETTER TO HOD			
	LETTER TO HOSTEL SUPERINTENDENT	1		Dt. 23/05/2023
	LAYOUT OF A BUSINESS LETTER	1		Dt. 24/05/2023
	LETTER OF ENQUIRY	1		Dt. 26/05/2023
	LETTER OF ORDER	1		Dt. 29/05/2023
	LETTER OF COMPLAINT	1		Dt. 30/05/2023
	CANCELLATION OF AN ORDER	1		Dt. 31/05/2023
	JOB APPLICATION	1		Dt. 31/05/2023
	C.V/ RESUME			
	ELEMENTS OF COMMUNICATION	12	June	
	MEANING AND TYPES OF COMMUNICATION	1		Dt. 02/06/2023
	COMMUNICATION MODEL	1		Dt. 05/06/2023
5	PROCESS OF COMMUNICATION AND FACTORS RESPONSIBLE FOR IT	1		Dt. 06/06/2023
	MEANING AND TYPES OF PROFESSIONAL COMMUNICATION DIFFERENT AREAS OF NONVERBAL COMMUNICATION	2		Dt. 07/06/2023, Dt. 09/06/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	FORMAL COMMUNICATION AND ITS TYPE	1		Dt-12/06/2023
	UPWARD COMMUNICATION, DOWNWARD COMMUNICATION AND PARALLEL COMMUNICATION KINESICS	2		Dt-13/06/2023, Dt-16/06/2023
	INFORMAL COMMUNICATION AND ITS TYPE	1		Dt-19/06/2023
	NON-VERBAL COMMUNICATION	1		Dt-19/06/2023
	KINESICS OR BODYLANGUAGE & PROXEMICS OR SPATIAL LANGUAGE	1		Dt-21/06/2023
	LANGUAGE OF SIGNS AND SYMBOLS	1		Dt-23/06/2023

Bisnuta Pani

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

P. Chandra

PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Puma Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING
SECTION:- MA

SEMESTER: 2ND

NAME OF THE FACULTY : (1) TAPAN KUMAR SAHU
(2) NIRUPAMA BEHERA (LECT. IN CHEMISTRY)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT : ENGINEERING CHEMISTRY (TH-2B)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	A.PHYSICAL CHEMISTRY	22	MARCH 2023	
1	Atomic structure	4		
	Introduction	1		Dt. 20.3.2023
	Rutherford's atomic model (limitations), Atomic mass, mass number, isotopes, isobar	1		Dt. 21.3.2023
	Isotones, Bohr's atomic model; Bohr Bury scheme,	1		Dt. 22.3.2023
	Aufbau's principle, Hund's rule, Electronic configuration	1		Dt. 24.3.2023
2	Chemical Bonding	2		
	Chemical Bonding- Definition, types of bonding	1		Dt. 27.3.2023
	Ionic bonding, examples	1		Dt. 27.3.2023
	Covalent bonding , Examples			Dt. 28.3.2023
	Coordinate bonding, examples			Dt. 28.3.2023
3	Acid Base Theory	6		
	Acid base theory-Arrhenius concept of acid & base	1		Dt. 29.3.2023
	Bronsted lowry & Lewis concept of acid & base	1		Dt. 29.3.2023
	Neutralization of acid & base, salts- definition & types.	1		Dt. 31.3.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Definition of Atomic weight, molecular weight, equivalent weight,	1	APRIL 2023	Dt. 3.4.2023
	Determination of equivalent weight of Acid, Base	1		Dt. 4.4.2023
	Determination of equivalent weight of salt	1		Dt. 4.4.2023
	Solutions	3		
4	Modes of expression of the concentrations (Molarity , Normality) with Simple Problems	1		Dt. 5.4.2023
	Molality with Simple Problems	1		Dt. 10.4.2023
	pH of solution (definition with simple numerical)	1		Dt. 11.4.2023
	Importance of pH in industry (sugar, textile, paper industries only)			Dt. 11.4.2023
	Electrochemistry	4		
5	Definition and types (Strong & weak) of Electrolytes with example.	1		Dt. 12.4.2023
	Electrolysis (Principle & process) with example of NaCl (fused and aqueous solution).	1		Dt. 17.4.2023
	Faraday's 1st and 2nd law of Electrolysis (Statement, mathematical expression and Simple numerical)	1		Dt. 18.4.2023
	Industrial application of Electrolysis- Electroplating (Zinc only).	1		Dt. 19.4.2023
	Corrosion	3		
6	Definition of Corrosion, Types of Corrosion- Atmospheric Corrosion,	1		Dt. 21.4.2023
	only. Protection from Corrosion by (i) Alloying and (ii) Galvanization,	2		Dt. 21.4.2023 ; Dt. 24.4.2023

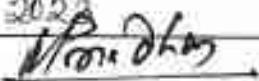
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	B. INORGANIC CHEMISTRY	8		
	Metallurgy	5		
	Definition of Mineral, ores, gangue with example. Distinction between Ores And Minerals.	1		Dt-25.04.2023
7	General methods of extraction of metals; i) Ore Dressing ii) Concentration (Gravity separation, magnetic separation, Froth floatation & leaching) iii) Oxidation (Calcinations, Roasting) iv) Reduction (Smelting, Definition & examples of flux, slag) v) Refining of the metal (Electrorefining, & Distillation only)	2		Dt-26.04.2023 Dt-28.04.2023
	Alloys	3	MAY 2023	
8	Definition of alloy. Types of alloys (Ferro, Non Ferro, & Amalgam) with example.	1		Dt-01.05.2023
	Composition and uses of Brass, Bronze, Alnico, Duralumin.	1		Dt-02.05.2023
	Doubt clear	1		Dt-02.05.2023
	C. ORGANIC CHEMISTRY	10		
	Hydrocarbons	1		Dt-03.05.2023
9	Saturated and Unsaturated Hydrocarbons (Definition with example) Aliphatic and Aromatic Hydrocarbons (Huckle's rule only). Difference between Aliphatic and aromatic hydrocarbons.	3		Dt-03.05.2023 Dt-08.05.2023 Dt-09.05.2023
	IUPAC system of nomenclature of Alkane.	1		Dt-10.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	IUPAC system of nomenclature of Alkene,	1		Dt. 10.05.2023
	IUPAC system of nomenclature of Alkyne,	1		Dt. 12.05.2023
	IUPAC system of nomenclature of alkyl halide and alcohol	1		Dt. 12.05.2023
	Uses of some common aromatic compounds (Benzene, Toluene, BHC, Phenol, Naphthalene, Anthracene and Benzoic acid) in daily life.	2		Dt. 15.05.2023 Dt. 16.05.2023
	D. INDUSTRIAL CHEMISTRY	20		
	Water Treatment	3		
10	Sources of water, Soft water, Hard water, hardness: types of Hardness (temporary or carbonate and permanent or non-carbonate),	1		Dt. 17.05.2023
	Removal of hardness by lime soda method (hot lime & cold lime—Principle, process & advantages) , Advantages of Hot lime over cold lime process.	1		Dt. 22.05.2023
	Organic Ion exchange method (principle, process, and regeneration of exhausted resins)	1		Dt. 23.05.2023
	Lubricants	4		
11	Definition of lubricant, Types (solid, liquid and semisolid with examples only)	1		Dt. 24.05.2023
	specific uses of lubricants (Graphite, Oils, Grease), Purpose of lubrication	1		Dt. 24.05.2023
	specific uses of lubricants (Graphite, Oils, Grease), Purpose of lubrication	1		Dt. 26.05.2023
	Doubt clear	1		Dt. 26.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
12	Fuel	4		
	Definition and classification of fuel, Definition of calorific value of fuel, Choice of good fuel.	1		Dt. 29.05.2023
	Liquid: Diesel, Petrol, and Kerosene --- Composition and uses.	1		Dt. 30.05.2023
	Gaseous: Producer gas and Water gas (Composition and uses).	1		Dt. 30.05.2023
	Elementary idea about LPG, CNG and coal gas (Composition and uses only).	1		Dt. 31.05.2023
13	Polymer	5		
	Definition of Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization	1	JUNE 2023	Dt. 02.06.2023
	Difference between Thermosetting and Thermoplastic, Composition and uses of Polythene	1		Dt. 05.06.2023 Dt. 06.06.2023
	Poly-Vinyl Chloride and Bakelite.	1		Dt. 07.06.2023
	Definition of Elastomer (Rubber). Natural Rubber (It's draw backs).	1		Dt. 09.06.2023
	Vulcanisation of Rubber. Advantages of Vulcanised rubber over raw rubber.	1		Dt. 12.06.2023 Revision - Dt. 13.06.2023
	Chemicals in Agriculture	4		
14	Pesticides: Insecticides	1		Dt. 16.06.2023
	herbicides, fungicides- Examples and uses.	1		Dt. 19.06.2023
	Bio Fertilizers: Definition, examples and uses.	1		Dt. 21.06.2023
	Doubt clear	1		Dt. 23.06.2023

Tapan Ku Sahu
SIGNATURE OF THE CONCERNED FACULTY


SIGNATURE OF THE H.O.D.


PRINCIPAL
Principal Institute of
Engineering & Technology
P.O. CHHENDIPADA
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING
SECTION:- MA

SEMESTER: 2ND

NAME OF THE FACULTY : (1) KSHIRA MOHAN BEHERA
(2) SAROJ KUMAR SAHOO (LECT. IN MATH.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING MATHEMATICS-II (TH-3)

CLASS ALLOTTED /WEEK : 05 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	VECTOR ALGEBRA	12	MARCH	
	a) Introduction: definition of scalar , vector with examples	1		Dt- 20.03.2023
	b) Types of vectors: null vector, parallel vector, collinear vectors with examples			
	c) Representation of a vector			
	d) Magnitude and direction of vectors with examples	1		Dt- 21.03.2023
	e) Addition and subtraction of vectors with examples	1		Dt- 22.03.2023
	Properties of vector addition and position vector	1		Dt- 23.03.2023
	Problems on magnitude and position vector	1		Dt- 24.03.2023
	g) scalar product of two vectors with examples			
	h) Geometrical meaning of dot product	1		Dt- 25.03.2023
	Problems on dot product.	1		Dt- 27.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	i) Angle between two vectors with example	1		Dt - 28.03.2023
	j) Scalar and vector projection of two vectors with examples	1		Dt - 29.03.2023
	Problems on Scalar and vector projection of two vectors	1		Dt - 31.03.2023
	k) Vector product and geometrical meaning	1	APRIL 2023	Dt - 03.04.2023
	Problems on vector product	1		Dt - 04.04.2023
	LIMITS AND CONTINUITY	12		
2	a) Definition of a function b) Types of functions i) Constant function, ii) Identity function iii) Absolute value function iv) The greatest integer function with examples	1		Dt - 05.04.2023 Dt - 06.04.2023
	v) Trigonometric function with example vi) Exponential function vii) Logarithmic function With examples	1		Dt - 08.04.2023
	c) Introduction of limit: definition, example d) Existence of limit with example	1		Dt - 10.04.2023
	e) Methods of evaluation of limit	1		Dt - 11.04.2023
	Methods of evaluation of limit continues with some examples	1		Dt - 12.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	problems on existence of limit and evaluation of limit	1		Dt- 13.04.2023
	Problem Solving and Tutorials	1		Dt- 15.04.2023
	Problem Solving and Tutorials	1		Dt- 17.04.2023
	Problem Solving and Tutorials	1		Dt- 18.04.2023
	f) Definition of continuity of a function at a point, Existence of continuity with example	1		Dt- 19.04.2023
	Problem Solving and Tutorials	1		Dt- 20.04.2023
	Problems on limit and continuity	1		Dt- 21.04.2023
	DERIVATIVES	20		
	a) Derivative of a function at a point b) Algebra of derivative	1		Dt- 22.04.2023
	c) Derivative of standard functions: $x^n, a^x, \log x, e^x a$	1		Dt- 24.04.2023
3	Derivative of standard functions continues: $\sin x, \cos x, \tan x$	1		Dt- 25.04.2023
	Derivative of standard functions continues: $\cot x, \sec x, \csc x, \sin^{-1} x$	1		Dt- 26.04.2023
	Derivative of standard functions continues: $\cos^{-1} x, \tan^{-1} x, \cot^{-1} x$	1		Dt- 27.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem solving on trigonometric functions	1		Dt - 25.04.2023
	Derivative of standard functions continues: $\sec^{-1} x, \csc^{-1} x,$ d) Derivatives of composite function	1		Dt - 29.04.2023
	Derivatives of composite function(Chain rule) continues with examples	1	MAY 2023	Dt - 01.05.2023
	Derivatives of composite function(Chain rule) continues with examples	1		Dt - 02.05.2023
	e) Methods of differentiation of i) Parametric function with examples	1		Dt - 03.05.2023
	Methods of differentiation of ii) Implicit function with examples	1		Dt - 04.05.2023
	Solving problems on derivatives of parametric function and implicit function	1		Dt - 06.05.2023
	Methods of differentiation of iii) Logarithmic function with example	1		Dt - 08.05.2023
	Methods of differentiation of iv) A function wrt another function with example	1		Dt - 09.05.2023
	f) Applications of derivatives: i) Successive differentiation (up to second order) Some problems on successive differentiation	1		Dt - 10.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Solving problems on successive differentiation	1		Dt - 11.05.2023
	ii) Partial differentiation (function of two variables up to second order)	1		Dt - 12.05.2023
	Problems on derivative of logarithmic function and successive differentiation.	1		Dt - 13.05.2023
	Partial differentiation continues.	1		Dt - 15.05.2023
	Some more problems on partial differentiation	1		Dt - 16.05.2023
	INTEGRATION	24		
4	a) Definition of integration as inverse of differentiation	2		Dt - 17.05.2023
	b) Integral of standard functions		Dt - 18.05.2023	
	c) Methods of integration:	2		Dt - 20.05.2023
	i) Integration by substitution with examples		Dt - 22.05.2023	
	Problems on integration by substitution	1		Dt - 23.05.2023
	ii) Integration by parts with examples	1		Dt - 23.05.2023
	Problems on integration by parts	1		Dt - 24.05.2023
	d) Integration of the following forms	2		Dt - 24.05.2023, Dt - 25.05.2023
Problem Solving and Tutorials	1		Dt - 26.05.2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1		Dt-26.05.2023
	e) Definite Integral, properties of definite integrals:	4		Dt-27.05.2023, Dt-29.05.2023 Dt-30.05.2023, Dt-31.05.2023
	Problem Solving and Tutorials	1	JUNE 2023	Dt - 1.06.2023
	Problem Solving and Tutorials	1		Dt- 01.06.2023
	Problem Solving and Tutorials	1		Dt - 02.06.2023
	Problem Solving and Tutorials	1		Dt - 02.06.2023
	Solving problems on properties of definite integration	1		Dt - 03.06.2023
	f) Application of integration	2		Dt - 05.06.2023, Dt- 06.06.2023
	i) Area enclosed by a curve and X – axis:	1		Dt-07.06.2023
	ii) Area of a circle with centre at origin	1		Dt - 08.06.2023
	DIFFERENTIAL EQUATION	12		
	Definition, ODE, PDE,			
5	a) Order and degree of a differential equation	1		Dt-09.06.2023
	Determining Order and degree of a differential equation with examples	1		Dt - 10.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	b) Solution of differential equation Definition i) By method of separation of variable with examples	1		Dt - 12.06.2023
	method of separation of variable continues with problem solving	1		Dt - 13.06.2023
	Some more problems on separation of variables	1		Dt - 16.06.2023
	Problems on determination of degree and order of a differential equation	1		Dt - 17.06.2023
	ii) Linear equation example	1		Dt - 19.06.2023
	Solving linear equation	1		Dt - 21.06.2023
	Problems on linear differential equation	1		Dt - 21.06.2023
	Some more Problems on linear differential equation	1		Dt - 22.06.2023
	Revision of differential equation	1		Dt - 23.06.2023
	Revision of differential equation	1		Dt - 24.06.2023

SIGNATURE OF THE CONCERNED FACULTY


Gargi Keenav Sahas

SIGNATURE OF THE H.O.D.




PRINCIPAL
Purna Chandra Institute of
P.C.M.E.T. Faridkot & Technology
CHANDIGARH

P.C.I.E.T., CHHENDIPADA, DIST. - ANGUL


THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING		SEMESTER: 2ND		NAME OF THE FACULTY : (1) ER. DEWAN KUMAR SAHU, (2) ER. ABINASH SAHOO (LECT. IN MECH. ENGG.)	
SECTION:- MA		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)			
SEMESTER FROM : 20.03.2023 to 27.06.2023					
CLASS ALLOTTED /WEEK : 04 PERIODS					
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE	
1	FUNDAMENTALS OF ENGINEERING MECHANICS	14	MARCH 2023		
	Definitions of Mechanics, Statics, Dynamics, Rigid Bodies,	1		Dt. 20.03.2023	
	Force System. Definition, Classification of force system according to plane & line of action.	1		Dt. 21.03.2023	
	Characteristics of Force & effect of Force. Principles of Transmissibility & Principles of Superposition. Action & Reaction Forces & concept of Free Body Diagram.	1		Dt. 22.03.2023	
	Resolution of a Force: Definition, Method of Resolution, Types of Component forces, Perpendicular components & non-perpendicular components.	1		Dt. 23.03.2023	
	Composition of Forces. Definition, Resultant Force, Method of composition of forces	1		Dt. 27.03.2023	
	Analytical Method such as Law of Parallelogram of forces & method of resolution.	1		Dt. 28.03.2023	
	Graphical Method. Introduction, Space diagram, Vector diagram, Polygon law of forces.	1		Dt. 29.03.2023	
	Resultant of concurrent, non-concurrent & parallel force system by Analytical & Graphical Method.	1	APRIL 2023	Dt. 3.04.2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Moment of Force, Definition, Geometrical meaning of moment of a force, measurement of moment of a force & its S.I units.	1		Dt. 4.04.2023
	Classification of moments according to direction of rotation, sign convention.	1		Dt. 5.04.2023
	Law of moments, Varignon's Theorem.	1		Dt. 6.04.2023
	Couple - Definition, S.I. units, measurement of couple	1		Dt. 10.04.2023
	properties of couple, simple problems on Force systems	1		Dt. 11.04.2023
	Revision- CH-1	1		Dt. 12.04.2023
	EQUILIBRIUM	8		
2	Introduction to Equilibrium, Definition, condition of equilibrium	2		Dt. 13.04.2023, Dt. 17.04.2023
	Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	3		Dt. 18.04.2023, Dt. 19.04.2023 Dt. 20.04.2023
	Lami's Theorem - Statement, Application for solving various engineering problems.	3		Dt. 24.04.2023, Dt. 25.04.2023 Dt. 26.04.2023
	FRICTION	10		
3	Definition of friction & Frictional forces	1		Dt. 27.04.2023
	Define Limiting frictional force & Coefficient of Friction.	1	MAY 2023	Dt. 1.05.2023
	Define Angle of Friction & Repose & Laws of Friction	1		Dt. 2.05.2023
	Advantages & Disadvantages of Friction.	1		Dt. 3.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Friction problem	1		Dt. 3.05.2023
	Equilibrium of bodies on level plane – Force applied on horizontal plane	1		Dt. 4.05.2023
	Equilibrium of bodies on level plane – Force applied on inclined plane	1		Dt. 8.05.2023
	Ladder, Wedge Friction	1		Dt. 8.05.2023
	Problems solved on Ladder friction	1		Dt. 9.05.2023
	Problems solved on wedge friction	1		Dt. 9.05.2023
	CENTROID & MOMENT OF INERTIA	14		
	Introduction to centroid and M.I, Lamia's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 10.05.2023, Dt. 11.05.2023 Dt. 15.05.2023
	centroid of geometrical figures such as squares, rectangles, triangles, circles, semicircles & quarter circles	2		Dt. 16.05.2023, Dt. 17.05.2023
	centroid of composite figures, problems on centroid	2		Dt. 18.05.2023, Dt. 22.05.2023
4	Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems	2		Dt. 23.05.2023, Dt. 24.05.2023
	M.I. of plane lamina & different engineering sections.	2		Dt. 24.05.2023, Dt. 25.05.2023
	Problems on M.I	1		Dt. 29.05.2023
	Problems on M.I	1		Dt. 29.05.2023
	Revision- CH-4	1		Dt. 30.05.2023
	SIMPLE MACHINES	8		
5	Definition of simple machine, velocity ratio of simple and compound gear train	1		Dt. 31.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Explain simple & compound lifting machine	1	JUNE	Dt. 1.06.2023
	Define M.A, V.R.& Efficiency and State the relation between them	1		Dt. 1.06.2023
	State Law of Machine, Reversibility of Machine, Self-Locking Machine.	1		Dt. 5.06.2023
	Study of simple machines – simple axle & wheel	1		Dt. 5.06.2023
	Discussion about double purchase crab winch Discussion of Worm & Worm Wheel	1		Dt. 6.06.2023
	Screw Jack	1		Dt. 7.06.2023
	Types of hoisting machine-like derricks etc. Their use and working principle	1		Dt. 7.06.2023
	DYNAMICS	6		
	Kinematics & Kinetics, Principles of Dynamics, Newton's Laws of Motion	1		Dt. 8.06.2023
	Motion of Particle acted upon by a constant force, Equations of motion	1		Dt. 12.06.2023
6	De-Alembert's Principle, Work, Power, Energy & its Engineering Applications.	1		Dt. 13.06.2023
	Kinetic & Potential energy & its application, Momentum & impulse, conservation of energy & linear momentum	1		Dt. 19.06.2023
	collision of elastic bodies, and Coefficient of Restitution	1		Dt. 21.06.2023
	Solving problems.	1		Dt. 22.06.2023


SIGNATURE OF THE CONCERNED FACULTY


SIGNATURE OF THE H.O.D.


PRINCIPAL
P. S. CHANDRAN
Principal, CHENNIPADA
Engineering & Technology
CHENNIPADA ANGI

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING
SECTION:- MB

SEMESTER: 2ND

NAME OF THE FACULTY : (1) SUBHENDU KUMAR PANI
(2) BISMITA PANI (LECT. IN ENGLISH)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT : COMMUNICATIVE ENGLISH (TH-1A)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	LITERATURE APPRECIATION	20	March	
	INTRODUCTION TO LITERATURE APPRECIATION	1		Dt-20/03/2023
	SKIMMING THE GIST AND SCANNING FOR NECESSARY INFORMATION OF AN UNSEEN PASSAGE	1		Dt-21/03/2023
	CLOSE READING FOR INFERENCE AND EVALUATION, TRACING OUT THE MAIN IDEA AND ITS SUPPORTING POINTS	1		Dt-22/03/2023
1	GUESSING THE MEANING OF UNFAMILIAR WORDS, NOTE-MAKING, SUMMARIZING, SUPPLYING A SUITABLE TITLE	1		Dt-23/03/2023
	PRACTICE	1		Dt-27/03/2023
	PRACTICE	1		Dt-27/03/2023
	PRACTICE	1		Dt-28/03/2023
	PRACTICE	1		Dt-28/03/2023
	STANDING UP FOR YOURSELF READING AND EXPLANATION	1		Dt-29/03/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	STANDING UP FOR YOURSELF READING AND EXPLANATION	1	April	Dt - 03/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt - 04/04/2023
	INCHCAPE ROCK READING AND EXPLANATION	1		Dt - 05/04/2023
	INCHCAPE ROCK READING AND EXPLANATION	1		Dt - 06/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt - 06/04/2023
	THE MAGIC OF TEAMWORK READING AND EXPLANATION	1		Dt - 10/04/2023
	THE MAGIC OF TEAMWORK READING AND EXPLANATION	1		Dt - 11/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt - 12/04/2023
	TO MY TRUE FRIEND READING AND EXPLANATION	1		Dt - 13/04/2023
	TO MY TRUE FRIEND READING AND EXPLANATION	1		Dt - 17/04/2023
	QUESTION AND ANSWER DISCUSSION	1		Dt - 18/04/2023
2	VOCABULARY	5		
	SYNONYMS AND ANTONYMS	2		Dt - 19/04/2023, Dt - 20/04/2023
	SAME WORD USED IN DIFFERENT SITUATIONS AND IN DIFFERENT MEANING	2		Dt - 24/04/2023, Dt - 25/04/2023
	SINGLE WORD SUBSTITUTE	1		Dt - 26/04/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	APPLICATION OF ENGLISH GRAMMAR	8		
	COUNTABLE NOUN AND UNCOUNTABLE NOUN TENSES	1		01-27/04/2023
	ARTICLES AND DETERMINERS	1	May	01-01/05/2023
	MODAL VERBS	1		01-02/05/2023
	TENSES	1		01-03/05/2023
	TENSES	1		01-04/05/2023
	TENSES	1		01-08/05/2023
	VOICE CHANGE	1		01-09/05/2023
	SUBJECT-VERB AGREEMENT	1		01-10/05/2023
4	FORMAL WRITING SKILLS	15		
	NOTICE AND AGENDA	1		01-11/05/2023
	PARAGRAPH WRITING	1		01-15/05/2023
	FEATURES OF PARAGRAPH WRITING	1		01-16/05/2023
	DEVELOPING IDEAS INTO PARAGRAPHS	1		01-17/05/2023
	PRACTICE	1		01-18/05/2023
	REPORT WRITING PARALLEL	1		01-22/05/2023
	WRITING PERSONAL LETTER	1		01-23/05/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	LETTER TO PRINCIPAL	1		Dt - 24/05/2023
	LETTER TO LIBRARIAN	1		Dt - 24/05/2023
	LETTER TO HOD			Dt - 25/05/2023
	LETTER TO HOSTEL SUPERINTENDENT	1		Dt - 25/05/2023
	LAYOUT OF A BUSINESS LETTER	1		Dt - 29/05/2023
	LETTER OF ENQUIRY	1		Dt - 30/05/2023
	LETTER OF ORDER	1		Dt - 30/05/2023
	LETTER OF COMPLAINT	1		Dt - 31/05/2023
	CANCELLATION OF AN ORDER	1		Dt - 31/05/2023
	JOB APPLICATION	1	June	Dt - 01/06/2023
	C.V/ RESUME			.
	ELEMENTS OF COMMUNICATION	12		
	MEANING AND TYPES OF COMMUNICATION	1		Dt - 05/06/2023
	COMMUNICATION MODEL	1		Dt - 05/06/2023
5	PROCESS OF COMMUNICATION AND FACTORS RESPONSIBLE FOR IT	1		Dt - 06/06/2023
	MEANING AND TYPES OF PROFESSIONAL COMMUNICATION DIFFERENT AREAS OF NONVERBAL COMMUNICATION	2		Dt - 07/06/2023, Dt - 08/06/2023

Sl. No.	CHAPTERS TO BE COVERED	NO. OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	FORMAL COMMUNICATION AND ITS TYPE	1		08/06/2023
	UPWARD COMMUNICATION, DOWNWARD COMMUNICATION AND PARALLEL COMMUNICATION KINESICS	2		12/06/2023, 13/06/2023
	INFORMAL COMMUNICATION AND ITS TYPE	1		19/06/2023
	NON-VERBAL COMMUNICATION	1		19/06/2023
	KINESICS OR BODYLANGUAGE & PROXEMICS OR SPATIAL LANGUAGE	1		21/06/2023
	LANGUAGE OF SIGNS AND SYMBOLS	1		22/06/2023

Bismita Pani
SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.

Pradha
PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Puma Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING
SECTION:- MB

SEMESTER: 2ND

NAME OF THE FACULTY : (1) TAPAN KUMAR SAHU
(2) NIRUPAMA BEHERA (LECT. IN CHEMISTRY)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT : ENGINEERING CHEMISTRY (TH-2B)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	A.PHYSICAL CHEMISTRY	22	MARCH 2023	
1	Atomic structure	4		
	Introduction	1		Dt. 20.03.2023
	Rutherford's atomic model (limitations), Atomic mass, mass number, isotopes, isobar	1		Dt. 21.03.2023
	Isotones, Bohr's atomic model, Bohr Bury scheme.	1		Dt. 23.03.2023
	Aufbau's principle, Hund's rule, Electronic configuration	1		Dt. 25.03.2023
2	Chemical Bonding	2		
	Chemical Bonding- Definition, types of bonding.	1		Dt. 27.03.2023
	Ionic bonding, examples	1		Dt. 28.03.2023
	Covalent bonding, Examples			Dt. 28.03.2023
	Coordinate bonding, examples		APRIL 2023	Dt. 03.04.2023
3	Acid Base Theory	6		
	Acid base theory-Arrhenius concept of acid & base	1		Dt. 04.04.2023
	Bronsted lowry & Lewis concept of acid & base	1		Dt. 04.04.2023
	Neutralization of acid & base, salts- definition & types.	1		Dt. 06.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Definition of Atomic weight, molecular weight, equivalent weight,	1		Dt. 08.04.2023
	Determination of equivalent weight of Acid, Base	1		Dt. 10.04.2023
	Determination of equivalent weight of salt	1		Dt. 10.04.2023
4	Solutions	3		
	Modes of expression of the concentrations (Molarity , Normality) with Simple Problems	1		Dt. 11.04.2023
	Molality with Simple Problems	1		Dt. 13.04.2023
	pH of solution (definition with simple numerical)	1		Dt. 15.04.2023
	Importance of pH in industry (sugar, textile, paper industries only)			Dt. 15.04.2023
5	Electrochemistry	4		
	Definition and types (Strong & weak) of Electrolytes with example	1		Dt. 17.04.2023
	Electrolysis (Principle & process) with example of NaCl (fused and aqueous solution).	1		Dt. 17.04.2023
	Faraday's 1st and 2nd law of Electrolysis (Statement, mathematical expression and Simple numerical)	1		Dt. 18.04.2023
	Industrial application of Electrolysis- Electroplating (Zinc only).	1		Dt. 20.04.2023
6	Corrosion	3		
	Definition of Corrosion, Types of Corrosion- Atmospheric Corrosion,	1		Dt. 22.04.2023
	only. Protection from Corrosion by (i) Alloying and (ii) Galvanization.	2		Dt. 22.04.2023 , Dt. 24.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	B. INORGANIC CHEMISTRY	8		
	Metallurgy	5		
	Definition of Mineral, ores, gangue with example. Distinction between Ores And Minerals.	1		Dt. 25.04.2023
7	General methods of extraction of metals, i) Ore Dressing ii) Concentration (Gravity separation; magnetic separation, Froth floatation & leaching) iii) Oxidation (Calcinations, Roasting) iv) Reduction (Smelting, Definition & examples of flux, slag) v) Refining of the metal (Electrorefining, & Distillation only)	2		Dt. 27.04.2023 Dt. 29.04.2023
	Alloys	3	MAY 2023	
	Definition of alloy. Types of alloys (Ferro, Non Ferro & Amalgam) with example.	1		Dt. 01.05.2023
8	Composition and uses of Brass, Bronze, Alnico, Duralumin	1		Dt. 02.05.2023
	Doubt clear	1		Dt. 02.05.2023
	C. ORGANIC CHEMISTRY	10		
	Hydrocarbons	1		
	Saturated and Unsaturated Hydrocarbons (Definition with example)			Dt. 04.05.2023
9	Aliphatic and Aromatic Hydrocarbons (Huckle's rule only). Difference between Aliphatic and aromatic hydrocarbons	3		Dt. 06.05.2023 Dt. 08.05.2023
	IUPAC system of nomenclature of Alkane,	1		Dt. 09.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	IUPAC system of nomenclature of Alkene,	1		Dt. 11.05.2023
	IUPAC system of nomenclature of Alkyne,	1		Dt. 13.05.2023
	IUPAC system of nomenclature of alkyl halide and alcohol	1		Dt. 15.05.2023
	Uses of some common aromatic compounds (Benzene, Toluene, BHC, Phenol, Naphthalene, Anthracene and Benzoic acid) in daily life.	2		Dt. 16.05.2023 Dt. 18.05.2023
10	D. INDUSTRIAL CHEMISTRY	20		
	Water Treatment	3		
	Sources of water, Soft water, Hard water, hardness, types of Hardness (temporary or carbonate and permanent or non-carbonate),	1		Dt. 20.05.2023
	Removal of hardness by lime soda method (hot lime & cold lime—Principle, process & advantages) , Advantages of Hot lime over cold lime process.	1		Dt. 22.05.2023
	Organic ion exchange method (principle, process, and regeneration of exhausted resins)	1		Dt. 23.05.2023
11	Lubricants	4		
	Definition of lubricant, Types (solid, liquid and semisolid with examples only)	1		Dt. 25.05.2023
	specific uses of lubricants (Graphite, Oils, Grease), Purpose of lubrication.	1		Dt. 27.05.2023
	specific uses of lubricants (Graphite, Oils, Grease), Purpose of lubrication	1		Dt. 29.05.2023
	Doubt clear	1		Dt. 30.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
12	Fuel	4	JUNE 2023	
	Definition and classification of fuel, Definition of calorific value of fuel, Choice of good fuel.	1		Dt. 01.06.2023
	Liquid: Diesel, Petrol, and Kerosene --- Composition and uses.	1		Dt. 03.06.2023
	Gaseous: Producer gas and Water gas (Composition and uses).	1		Dt. 05.06.2023
	Elementary idea about LPG, CNG and coal gas (Composition and uses only).	1		Dt. 06.06.2023
13	Polymer	5		
	Definition of Monomer, Polymer, Homo-polymer, Co-polymer and Degree of polymerization	1		Dt. 08.06.2023
	Difference between Thermosetting and Thermoplastic, Composition and uses of Polythene	1		Dt. 10.06.2023
	Poly-Vinyl Chloride and Bakelite.	1		Dt. 12.06.2023
	Definition of Elastomer (Rubber). Natural Rubber (it's draw backs).	1		Dt. 13.06.2023
	Vulcanisation of Rubber. Advantages of Vulcanised rubber over raw rubber.	1		Dt. 17.06.2023
14	Chemicals in Agriculture	4		
	Pesticides: Insecticides	1		Dt. 19.06.2023
	herbicides, fungicides- Examples and uses.	1		Dt. 22.06.2023
	Bio Fertilizers: Definition, examples and uses.	1		Dt. 24.06.2023
	Doubt clear	1		Dt. 24.06.2023

Tapan Ku Sahu
SIGNATURE OF THE CONCERNED FACULTY

[Signature]
SIGNATURE OF THE H.O.D.

[Signature]
PRINCIPAL
Puma Education Institute of
F. G. U. E. CHHENDIPADA
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING
SECTION:- MB

SEMESTER: 2ND

NAME OF THE FACULTY : (1) KSHIRA MOHAN BEHERA
(2) SAROJ KUMAR SAHOO (LECT. IN MATH.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING MATHEMATICS-II (TH-3)

CLASS ALLOTTED /WEEK : 05 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	VECTOR ALGEBRA	12	MARCH	
	a) Introduction: definition of scalar , vector with examples	1		Dt- 20.03.2023
	b) Types of vectors: null vector, parallel vector, collinear vectors with examples	1		Dt- 21.03.2023
	c) Representation of a vector	1		Dt- 22.03.2023
	d) Magnitude and direction of vectors with examples	1		Dt- 23.03.2023
	e) Addition and subtraction of vectors with examples	1		Dt- 24.03.2023
	Properties of vector addition and position vector	1		Dt- 25.03.2023
	Problems on magnitude and position vector	1		Dt- 26.03.2023
	f) scalar product of two vectors with examples	1		Dt- 27.03.2023
	g) Geometrical meaning of dot product	1		
	Problems on dot product	1		

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	i) Angle between two vectors with example	1		Dt - 28.03.2023
	j) Scalar and vector projection of two vectors with examples	1		Dt - 29.03.2023
	Problems on Scalar and vector projection of two vectors	1		Dt - 31.03.2023
	k) Vector product and geometrical meaning	1	APRIL 2023	Dt - 03.04.2023
	Problems on vector product	1		Dt - 04.04.2023
	LIMITS AND CONTINUITY	12		
2	a) Definition of a function b) Types of functions i) Constant function, ii) Identity function iii) Absolute value function iv) The greatest integer function with examples	1		Dt - 05.04.2023 Dt - 06.04.2023
	v) Trigonometric function with example vi) Exponential function vii) Logarithmic function With examples	1		Dt - 08.04.2023
	c) Introduction of limit: definition, example d) Existence of limit with example	1		Dt - 10.04.2023
	e) Methods of evaluation of limit	1		Dt - 11.04.2023
	Methods of evaluation of limit continues with some examples	1		Dt - 12.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	problems on existence of limit and evaluation of limit	1		Dt- 13. 04. 2023
	Problem Solving and Tutorials	1		Dt- 15. 04. 2023
	Problem Solving and Tutorials	1		Dt- 17. 04. 2023
	Problem Solving and Tutorials	1		Dt- 18. 04. 2023
	f) Definition of continuity of a function at a point, Existence of continuity with example	1		Dt- 19. 04. 2023
	Problem Solving and Tutorials	1		Dt- 20. 04. 2023
	Problems on limit and continuity	1		Dt- 21. 04. 2023
	DERIVATIVES	20		1
	a) Derivative of a function at a point	1		Dt - 22. 04. 2023
	b) Algebra of derivative	1		Dt - 22. 04. 2023
	c) Derivative of standard functions: $x^n, a^x, \log x, e^x a$	1		Dt- 24. 04. 2023
	Derivative of standard functions continues: $\sin x, \cos x, \tan x$	1		Dt- 25. 04. 2023
3	Derivative of standard functions continues: $\cot x, \sec x, \csc x, \sin^{-1} x$	1		Dt- 26. 04. 2023
	Derivative of standard functions continues: $\cos^{-1} x, \tan^{-1} x, \cot^{-1} x$	1		Dt- 27. 04. 2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem solving on trigonometric functions	1		Dt-28.04.2023
	Derivative of standard functions continues: $\sec^{-1} x, \csc^{-1} x,$ d) Derivatives of composite function	1		Dt-29.04.2023
	Derivatives of composite function(Chain rule) continues with examples	1	MAY 2023	Dt-01.05.2023
	Derivatives of composite function(Chain rule) continues with examples	1		Dt-02.05.2023
	e) Methods of differentiation of i) Parametric function with examples	1		Dt-03.05.2023
	Methods of differentiation of ii) Implicit function with examples	1		Dt-04.05.2023
	Solving problems on derivatives of parametric function and implicit function	1		Dt-06.05.2023
	Methods of differentiation of iii) Logarithmic function with example	1		Dt-08.05.2023
	Methods of differentiation of iv) A function wrt another function with example	1		Dt-09.05.2023
	f) Applications of derivatives: i) Successive differentiation (up to second order) Some problems on successive differentiation	1		Dt-10.05.2023

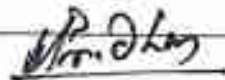
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Solving problems on successive differentiation	1		Dt- 11.05.2023
	ii) Partial differentiation (function of two variables up to second order)	1		Dt- 12.05.2023
	Problems on derivative of logarithmic function and successive differentiation.	1		Dt- 13.05.2023
	Partial differentiation continues	1		Dt - 15.05.2023
	Some more problems on partial differentiation	1		Dt- 16.05.2023
	INTEGRATION	24		
	a) Definition of integration as inverse of differentiation	2		Dt- 17.05.2023
	b) Integral of standard functions			Dt- 18.05.2023
	c) Methods of integration:			Dt- 20.05.2023
	i) Integration by substitution with examples	2		Dt- 22.05.2023
4	Problems on integration by substitution	1		Dt- 23.05.2023
	ii) Integration by parts with examples	1		Dt- 23.05.2023
	Problems on integration by parts	1		Dt- 24.05.2023
	d) Integration of the following forms	2		Dt- 24.05.2023 - Dt- 25.05.2023
	Problem Solving and Tutorials	1		Dt- 26.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1		Dt - 26.05.2023
	e) Definite integral, properties of definite integrals	4		Dt - 27.05.2023, Dt - 29.05.2023 Dt - 30.05.2023, Dt - 31.05.2023
	Problem Solving and Tutorials	1	JUNE 2023	Dt - 01.06.2023
	Problem Solving and Tutorials	1		Dt - 01.06.2023
	Problem Solving and Tutorials	1		Dt - 02.06.2023
	Problem Solving and Tutorials	1		Dt - 02.06.2023
	Solving problems on properties of definite integration	1		Dt - 03.06.2023
	f) Application of Integration	2		Dt - 05.06.2023, Dt - 06.06.2023
	i) Area enclosed by a curve and X - axis	1		Dt - 07.06.2023
	ii) Area of a circle with centre at origin	1		Dt - 08.06.2023
	DIFFERENTIAL EQUATION	12		
5	Definition, ODE, PDE, a) Order and degree of a differential equation	1		Dt - 09.06.2023
	Determining Order and degree of a differential equation with examples	1		Dt - 10.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	b) Solution of differential equation Definition i) By method of separation of variable with examples	1		Dt - 12.06.2023
	method of separation of variable continues with problem solving	1		Dt - 13.06.2023
	Some more problems on separation of variables	1		Dt - 16.06.2023
	Problems on determination of degree and order of a differential equation	1		Dt - 17.06.2023
	ii) Linear equation example	1		Dt - 19.06.2023
	Solving linear equation	1		Dt - 21.06.2023
	Problems on linear differential equation	1		Dt - 22.06.2023
	Some more Problems on linear differential equation	1		Dt - 23.06.2023
	Revision of differential equation	1		Dt - 23.06.2023
	Revision of differential equation	1		Dt - 24.06.2023

SIGNATURE OF THE CONCERNED FACULTY

SIGNATURE OF THE H.O.D.


 PRINCIPAL
 Puma Institute of
 Engineering & Technology
 P.C.I.E.T. CHENDIPADAY
 CHENDIPADA, ANGIIL

P.C.I.E.T., CHHENDIPADA

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING SECTION:- MB		SEMESTER: 2ND	NAME OF THE FACULTY : (1) ER. DEWAN KUMAR SAHU, (2) ER. ABINASH SAHOO (LECT. IN MECH. ENGG.)	
SEMESTER FROM : 20.03.2023 to 27.06.2023		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)		
CLASS ALLOTTED /WEEK : 04 PERIODS				
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	FUNDAMENTALS OF ENGINEERING MECHANICS	14	MARCH 2023	
	Definitions of Mechanics, Statics, Dynamics, Rigid Bodies,	1		Dt. 20.03.2023
	Force System. Definition, Classification of force system according to plane & line of action.	1		Dt. 21.03.2023
	Characteristics of Force & effect of Force, Principles of Transmissibility & Principles of Superposition, Action & Reaction Forces & concept of Free Body Diagram.	1		Dt. 23.03.2023
	Resolution of a Force. Definition, Method of Resolution, Types of Component forces, Perpendicular components & non-perpendicular components.	1		Dt. 24.03.2023
	Composition of Forces. Definition, Resultant Force, Method of composition of forces.	1		Dt. 27.03.2023
	Analytical Method such as Law of Parallelogram of forces & method of resolution.	1		Dt. 28.03.2023
	Graphical Method. Introduction, Space diagram, Vector diagram, Polygon law of forces.	1		Dt. 31.03.2023
	Resultant of concurrent, non-concurrent & parallel force system by Analytical & Graphical Method.	1	APRIL 2023	Dt. 3.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Moment of Force, Definition, Geometrical meaning of moment of a force, measurement of moment of a force & its S.I units.	1		Dt. 04.04.2023
	Classification of moments according to direction of rotation, sign convention.	1		Dt. 06.04.2023
	Law of moments, Varignon's Theorem	1		Dt. 06.04.2023
	Couple - Definition, S.I. units, measurement of couple	1		Dt. 10.04.2023
	properties of couple, simple problems on Force systems	1		Dt. 10.04.2023.
	Revision- CH-1	1		Dt. 11.04.2023
	EQUILIBRIUM	8		
	Introduction to Equilibrium, Definition, condition of equilibrium	2		Dt. 13.04.2023, Dt. 17.04.2023
2	Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	3		Dt. 18.04.2023, Dt. 20.04.2023 Dt. 21.04.2023
	Lami's Theorem - Statement, Application for solving various engineering problems.	3		Dt. 24.04.2023, Dt. 25.04.2023 Dt. 27.04.2023
	FRICTION	10		
	Definition of friction & Frictional forces	1		Dt. 28.04.2023
3	Define Limiting frictional force & Coefficient of Friction.	1	MAY 2023	Dt. 1.05.2023
	Define Angle of Friction & Repose & Laws of Friction	1		Dt. 1.05.2023
	Advantages & Disadvantages of Friction.	1		Dt. 2.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Friction problem	1		Dt. 2.05.2023
	Equilibrium of bodies on level plane – Force applied on horizontal plane	1		Dt. 4.05.2023
	Equilibrium of bodies on level plane – Force applied on inclined plane	1		Dt. 4.05.2023
	Ladder, Wedge Friction	1		Dt. 8.05.2023
	Problems solved on Ladder friction	1		Dt. 9.05.2023
	Problems solved on wedge friction	1		Dt. 9.05.2023
	CENTROID & MOMENT OF INERTIA	14		
	Introduction to centroid and M.I, Lamia's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 11.05.2023, Dt. 12.05.2023 Dt. 15.05.2023
	centroid of geometrical figures such as squares, rectangles, triangles, circles, semicircles & quarter circles	2		Dt. 16.05.2023, Dt. 18.05.2023
	centroid of composite figures, problems on centroid	2		Dt. 22.05.2023, Dt. 23.05.2023
4	Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems	2		Dt. 23.05.2023, Dt. 25.05.2023
	M.I. of plane lamina & different engineering sections.	2		Dt. 25.05.2023, Dt. 26.05.2023
	Problems on M.I	1		Dt. 29.05.2023
	Problems on M.I	1		Dt. 29.05.2023
	Revision- CH-4	1		Dt. 30.05.2023
	SIMPLE MACHINES	8		
5	Definition of simple machine, velocity ratio of simple and compound gear train	1	JUNE 2023	Dt. 1.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Explain simple & compound lifting machine	1		Dt. 2.06.2023
	Define M.A, V.R. & Efficiency and State the relation between them	1		Dt. 5.06.2023
	State Law of Machine, Reversibility of Machine, Self-Locking Machine.	1		Dt. 6.06.2023
	Study of simple machines – simple axle & wheel	1		Dt. 8.06.2023
	Discussion about double purchase crab winch Discussion of Worm & Worm Wheel	1		Dt. 8.06.2023
	Screw Jack	1		Dt. 9.06.2023
	Types of hoisting machine-like derricks etc. Their use and working principle	1		Dt. 12.06.2023
	DYNAMICS	6		
	Kinematics & Kinetics, Principles of Dynamics, Newton's Laws of Motion	1		Dt. 13.06.2023
	Motion of Particle acted upon by a constant force, Equations of motion	1		Dt. 16.06.2023
6	De-Alembert's Principle, Work, Power, Energy & its Engineering Applications	1		Dt. 19.06.2023
	Kinetic & Potential energy & its application, Momentum & impulse, conservation of energy & linear momentum	1		Dt. 22.06.2023
	collision of elastic bodies, and Coefficient of Restitution	1		Dt. 23.06.2023
	Solving problems	1		Dt. 23.06.2023


SIGNATURE OF THE CONCERNED FACULTY


SIGNATURE OF THE H.O.D.


PRINCIPAL
Puma Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGINEERING SEMESTER: 2ND
SECTION:- MNA

NAME OF THE FACULTY : (1) ASWINI KUMAR PRADHAN,
(2) ER. DIPTIMAYEE PRADHAN(LECT.IN COMP. SC. & ENGG.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: COMPUTER APPLICATION (TH-1B)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	COMPUTER ORGANISATION	5	March	
	Introduction to Computer, Evolution of Computers	1		Dt - 20/03/2023
	Generation of Computers, Classification of computer	1		Dt - 21/03/2023
	Basic Organisation of Computer (Functional Block diagram)	1		Dt - 23/03/2023
	Input Devices, CPU & Output Devices,	1		Dt - 23/03/2023
	Computer Memory and Classification of Memory	1		Dt - 27/03/2023
2	COMPUTER SOFTWARE	7		
	Software concept, System software, Application software	1		Dt - 28/03/2023
	What is Operating System, Objectives and Functions of O.S	1		Dt - 28/03/2023
	Types of Operating System: Batch Processing, Multiprogramming, Time Sharing OS	1	April	Dt - 03/04/2023
	Features of DOS, Windows and UNIX	1		Dt - 03/04/2023
	Programming Languages Compiler, Interpreter	1		Dt - 04/04/2023
	Computer Virus, Different Types of computer virus, Detection and prevention of Virus	1		Dt - 06/04/2023
Application of computers in different Domain	1		Dt - 06/04/2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	COMPUTER NETWORK AND INTERNET	8		
	Networking concept, Protocol	1		Dt-10/04/2023
	Connecting Media, Data Transmission mode	1		Dt-10/04/2023
	Network Topologies	1		Dt-11/04/2023
	Types of Network	1		Dt-11/04/2023
	Networking Devices (Hub, Repeater, Switch, Bridge, Router, Gateway & NIC)	1		Dt-13/04/2023
	Internet Services (E-Mail, WWW, FTP, Chatting, Internet Conferencing)	1		Dt-13/04/2023
	Electronic Newspaper & Online Shopping	1		Dt-17/04/2023
	Different types of Internet connectivity and ISP	1		Dt-17/04/2023
4	FILE MANAGEMENT AND DATA PROCESSING	5		
	Concept of File and Folder	1		Dt-18/04/2023
	File Access and Storage methods. Sequential, Direct, ISAM	1		Dt-18/04/2023
	Data Capture	1		Dt-20/04/2023
	Data storage	1		Dt-20/04/2023
	Data Processing and Retrieval	1		Dt-24/04/2023
5	PROBLEM SOLVING METHODOLOGY	5		
	Algorithm, Pseudo code	1		Dt-24/04/2023
	Flowchart Generation of Programming Languages	2		Dt-25/04/2023, Dt-27/04/2023
	Structured Programming Language	1	May	Dt-01/05/2023
	Examples of Problem solving through Flowchart	1		Dt-02/05/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	OVERVIEW OF C PROGRAMMING LANGUAGE	15		
	Introduction to C, History of C	1		Dt - 02/05/2023
	Constants, Variables	1		Dt - 02/05/2023
	Data types in C	1		Dt - 04/05/2023
	Input and Output operations.	1		Dt - 04/05/2023
	Operators, Different types of operator	2		Dt - 08/05/2023, Dt - 09/05/2023
	Expressions, Type conversion & Typecasting	2		Dt - 09/05/2023, Dt - 11/05/2023
	Decision Control and Looping Statements (If, If-else, If-else-if, Switch, While, Do-while, For, Break, Continue & Goto)	4		Dt - 15/05/2023, Dt - 16/05/2023 Dt - 18/05/2023, Dt - 22/05/2023
	Programming Assignments using the above features	3		Dt - 23/05/2023, Dt - 25/05/2023 Dt - 29/05/2023.
7	ADVANCED FEATURES OF C	15		
	Functions and Passing Parameters to the Function (Call by Value and Call by Reference)	3	June	Dt - 29/05/2023, Dt - 30/05/2023 Dt - 01/06/2023
	Scope of Variables and Storage Classes	2		Dt - 05/06/2023, Dt - 06/06/23
	Recursion Function and Types of Recursion	2		Dt - 06/06/2023, Dt - 08/06/23
	One Dimensional Array and Multidimensional Array	2		Dt - 08/06/2023, Dt - 12/06/23
	String Operations and Pointers	2		Dt - 12/06/2023, Dt - 13/06/23
	Pointer Expression and Pointer Arithmetic Programming	2		Dt - 13/06/2023, Dt - 19/06/23
	Structure and Union	2		Dt - 19/06/2023, Dt - 22/06/23

Diptimayee Pradhan
SIGNATURE OF THE CONCERNED FACULTY

[Signature]
SIGNATURE OF THE H.O.D.

[Signature]
PRINCIPAL
Purna Chandra Institute of
P.C.E.T. CHHENDIPADA
Engineering & Technology
CHHENDIPADA, ANGLA

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGINEERING SEMESTER: 2ND
SECTION:- MNA

**NAME OF THE FACULTY : (1) DOLAGOBIND SAHOO,
 (2) LALATENDU SAHU (LECT. IN PHYSICS)**

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING PHYSICS (TH-2A)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	UNIT 1 - UNITS AND DIMENSIONS	3	MARCH	
1	Physical quantities, Units, types of units and system of units	1		Dt. 20.03.2023
	Dimension and dimensional formulae of physical quantities	1		Dt. 21.03.2023
	Principle of homogeneity and application of dimensional analysis: Checking the correctness of physical relations and Numerical.	1		Dt. 22.03.2023
	UNIT 2 - SCALARS AND VECTORS	3		
2	Concept of scalar and vector quantities with definition, types of vectors, Rules of vector addition: Statements of Triangle law of vector addition	1		Dt. 23.03.2023
	Parallelogram law of vector addition and simple numericals, Concept on Resolution of vectors with simple numerical on Horizontal and vertical components	1		Dt. 27.03.2023
	Vector multiplication: Dot product and Cross Product with simple numericals on dot and cross products.	1		Dt. 28.03.2023
3	UNIT 3 - KINEMATICS	6		
	Concept of Rest and Motion with examples, Fundamental ideas on distance, displacement, speed, velocity, acceleration and force, equations of motion under gravity both for upward and downward motion	1		Dt. 29.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Circular motion: Conceptual idea on circular motion and terms related to circular motion such as angular displacement, angular velocity and angular acceleration.	2	APRIL 2023	Dt. 3.04.2023, Dt. 4.04.2023
	Derivations of Relation between- (i) Linear & angular velocity, (ii) Linear & Angular acceleration	1		Dt. 9.04.2023
	Projectile motion: Definition and examples, Expression for equation of Trajectory, Time of Flight, Maximum Height and Horizontal Range for a projectile fired at an angle, condition for maximum horizontal range with simple numericals	2		Dt. 5.04.2023, Dt. 6.04.2023
	UNIT 4 – WORK AND FRICTION	5		
	Definition of work, its formula and SI unit with simple numericals.	1		Dt. 10.04.2023
	Concept of friction with definition and simple examples, Types of friction	1		Dt. 11.04.2023
4	Definition with concept on limiting friction, and laws of limiting friction (statement only)	1		Dt. 11.04.2023
	Theory on Coefficient of Friction and simple numericals	1		Dt. 12.04.2023
	Methods to reduce friction with practical examples	1		Dt. 13.04.2023
	UNIT 5 - GRAVITATION	5		
	Introduction, a detail explanation on Newton's Laws of Gravitation (1 st and 2 nd law)	1		Dt. 17.04.2023
5	A detail explanation on Newton's Laws of Gravitation (3 rd law) and Definition of Universal Gravitational Constant (G) with its unit and dimensions	2		Dt. 18.04.2023, Dt. 19.04.2023
	Definition and concept of acceleration due to gravity (g), Relation between 'g' and 'G' and definition of mass and weight	1		Dt. 20.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Explanation (No derivation) on variation of 'g' with altitude and depth, statements on Kepler's Laws of Planetary motion.	1		Dt. 24.04.2023
	UNIT 6 - OSCILLATIONS AND WAVES	6		
	Definition and examples on Simple Harmonic Motion (SHM), expressions for displacement, velocity and acceleration of a body or particle in SHM	2		Dt. 25.04.2023, Dt. 26.04.2023
6	Wave Motion (Definition & Concept), Transverse and Longitudinal wave motion (Definition, examples and Comparison)	2	MAY 2023	Dt. 27.04.2023, Dt. 1.05.2023
	Wave parameters and Establish a relation between velocity, frequency and Time period, Ultrasonics- Definition, properties & Applications	2		Dt. 2.05.2023, Dt. 3.05.2023
	UNIT 7 - HEAT AND THERMODYNAMICS	7		
	Heat & temperature-Definition and difference, Units of Heat (FPS, CGS, MKS & SI)	1		Dt. 4.05.2023
	Fundamental ideas on Specific heat, Change of State and Latent Heat with simple numericals.	1		Dt. 8.05.2023
7	Concept on Thermal expansion and Coefficient of linear (α), superficial (β) and cubical (γ) expansions of Solids, Relation between α , β and γ	2		Dt. 9.05.2023, Dt. 10.05.2023
	Definition and Relation between Work and Heat, Joule's Mechanical Equivalent of Heat, Statement and explanation on 1 st law of thermodynamics.	3		Dt. 11.05.2023, Dt. 15.05.2023, Dt. 16.05.2023
	UNIT 8 - OPTICS	4		
8	Concept of Reflection and laws of Reflection, Concept of Refraction and laws of Refraction and Refractive index (Definition, formula and Simple numericals)	2		Dt. 17.05.2023, Dt. 18.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Concept and Explanation of Total Internal Reflection and Critical angle	1		Dt. 22.05.2023
	Definition, Properties and Applications on Fiber Optics	1		Dt. 22.05.2023
	UNIT 9 – ELECTROSTATICS & MAGNETOSTATICS	7		
	Concept of Electric field and Electric field intensity, Statement and Explanation of Coulomb's law and definition of Unit charge, Absolute & Relative Permittivity (Definition, Relation & Unit),	1		Dt. 23.05.2023
	Definition of Unit charge, Absolute & Relative Permittivity (Definition, Relation & Unit),	1		Dt. 24.05.2023
9	Electric Field, Electric field intensity, Electric potential & Electric potential difference (Definition, formula & SI units), Concept of capacitor and capacitance,	1		Dt. 24.05.2023
	Series and parallel combination of capacitors: Formula for equivalent capacitance and simple numericals	1		Dt. 25.05.2023
	Fundamental idea on magnet, Coulomb's law in magnetism and definition of Unit pole	1		Dt. 25.05.2023
	Definition of magnetic field and Magnetic field Intensity (H) with its formula and SI unit,	1		Dt. 29.05.2023
	Magnetic lines of force-Definition and Properties. Magnetic flux(Φ) and Magnetic flux density (B)	1		Dt. 29.05.2023
	UNIT 10 – CURRENT ELECTRICITY	6		
	Introduction to Electric Current	1		Dt. 30.05.2023
10	Ohm's law and its applications	1		Dt. 30.05.2023
	Series and parallel combination of resistors: Formula for equivalent resistance and	1		Dt. 31.05.2023
	Simple numericals on combination of resistors	1		Dt. 31.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Kirchhoff's laws: Statements & Explanation with diagram	1	JUNE 2023	Dt. 1.06.2023
	Kirchhoff's laws: Explanation and application to circuit with diagram			Dt. 1.06.2023
	Application of Kirchhoff's laws to Wheatstone bridge- Derivation of balance condition of Wheatstone bridge	1		Dt. 5.06.2023
	UNIT 11 – ELECTROMAGNETISM & ELECTROMAGNETIC INDUCTION	5		
11	Introduction, Force acting on a current carrying conductor placed in a uniform magnetic field; Fleming's left hand rule	1		Dt. 6.06.2023
	Statement on Faraday's Laws of Electromagnetic Induction & Lenz's law	2		Dt. 7.06.2023, Dt. 8.06.2023
	Fleming's Right Hand Rule, Comparison between Fleming's RHR & LHR	2		Dt. 12.06.2023, Dt. 13.06.2023
	UNIT 12 - MODERN PHYSICS			
12	Introduction to LASER and laser beam, characteristics of laser beam	1		Dt. 19.06.2023
	LASER principle: Population inversion & Optical Pumping	1		Dt. 21.06.2023
	Application of LASER beams			Dt. 21.06.2023
	Concept on Wireless Transmission- Ground waves	1		Dt. 22.06.2023
	Sky waves & Space Waves			Dt. 22.06.2023

Lalitendu Sahu
SIGNATURE OF THE CONCERNED FACULTY

[Signature]
SIGNATURE OF THE H.O.D.

[Signature]
PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGLUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGINEERING SEMESTER: 2ND
SECTION:- MNA

NAME OF THE FACULTY : (1) KSHIRA MOHAN BEHERA,
(2) SAROJ KUMAR SAHOO (LECT. IN MATH.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING MATHEMATICS-II (TH-3)

CLASS ALLOTTED /WEEK : 05 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	VECTOR ALGEBRA	12	MARCH	
1	a) Introduction: definition of scalar, vector with examples	1		Dt - 21.03.2023
	b) Types of vectors: null vector, parallel vector, collinear vectors with examples			
	c) Representation of a vector			
	d) Magnitude and direction of vectors with examples	1		Dt - 22.03.2023
	e) Addition and subtraction of vectors with examples	1		Dt - 22.03.2023
	Properties of vector addition and position vector	1		Dt - 23.03.2023
	f) Problems on magnitude and position vector	1		Dt - 23.03.2023
	g) scalar product of two vectors with examples			
	h) Geometrical meaning of dot product	1		Dt - 24.03.2023
	i) Problems on dot product	1		Dt - 24.03.2023
	i) Angle between two vectors with example	1		Dt - 25.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	j) Scalar and vector projection of two vectors with examples	1		Dt-28.03.2023
	Problems on Scalar and vector projection of two vectors	1		Dt-29.03.2023
	k) Vector product and geometrical meaning	1		Dt-29.03.2023
	Problems on vector product	1		Dt-31.03.2023
	LIMITS AND CONTINUITY	12		
2	a) Definition of a function. b) Types of functions i) Constant function, ii) Identity function iii) Absolute value function iv) The greatest integer function with examples	1	APRIL 2023	Dt-04.04.2023
	v) Trigonometric function with example vi) Exponential function vii) Logarithmic function With examples	1		Dt-04.04.2023
	c) Introduction of limit: definition , example d) Existence of limit with example	1		Dt-05.04.2023
	e) Methods of evaluation of limit	1		Dt-06.04.2023
	Methods of evaluation of limit continues with some examples	1		Dt-08.04.2023
	problems on existence of limit and evaluation of limit	1		Dt-08.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1		Dt- 11.04.2023
	Problem Solving and Tutorials	1		Dt- 12.04.2023
	Problem Solving and Tutorials	1		Dt- 13.04.2023
	f) Definition of continuity of a function at a point, Existence of continuity with example	1		Dt - 13.04.2023
	Problem Solving and Tutorials	1		Dt- 15.04.2023
	Problems on limit and continuity	1		Dt- 18.04.2023
	DERIVATIVES	20		
	a) Derivative of a function at a point b) Algebra of derivative	1		Dt- 19.04.2023
	c) Derivative of standard functions: $x^n, a^x, \log x, e^a$	1		Dt- 20.04.2023
	Derivative of standard functions continues: $\sin x, \cos x, \tan x$	1		Dt- 20.04.2023
3	Derivative of standard functions continues: $\cot x, \sec x, \csc x, \sin^{-1} x$	1		Dt- 21.04.2023
	Derivative of standard functions continues: $\cos^{-1} x, \tan^{-1} x, \cot^{-1} x$	1		Dt- 22.04.2023
	Problem solving on trigonometric functions	1		Dt- 22.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Derivative of standard functions continues: $\sec^{-1} x, \csc^{-1} x,$ d) Derivatives of composite function	1		Dt- 25.04.2023
	Derivatives of composite function(Chain rule) continues with examples	1		Dt- 26.04.2023
	Derivatives of composite function(Chain rule) continues with examples	1		Dt- 26.04.2023
	e) Methods of differentiation of i) Parametric function with examples	1		Dt- 27.04.2023
	Methods of differentiation of ii) Implicit function with examples	1		Dt- 28.04.2023
	Solving problems on derivatives of parametric function and implicit function	1		Dt - 29.04.2023
	Methods of differentiation of iii) Logarithmic function with example	1	MAY 2023	Dt- 02.05.2023
	Methods of differentiation of iv) A function wrt another function with example	1		Dt - 03.05.2023
	f) Applications of derivatives: i) Successive differentiation (up to second order) Some problems on successive differentiation	1		Dt- 04.05.2023
	Solving problems on successive differentiation	1		Dt- 04.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	ii) Partial differentiation (function of two variables up to second order)	1		Dt- 06.05.2023
	Problems on derivative of logarithmic function and successive differentiation.	1		Dt- 09.05.2023
	Partial differentiation continues	1		Dt- 09.05.2023
	Some more problems on partial differentiation	1		Dt- 10.05.2023
	INTEGRATION	24		
4	a) Definition of integration as inverse of differentiation	2		Dt- 11.05.2023 Dt- 12.05.2023
	b) Integral of standard functions			Dt- 12.05.2023
	c) Methods of integration: i) Integration by substitution with examples	2		Dt- 13.05.2023 Dt- 16.05.2023
	Problems on integration by substitution	1		Dt- 16.05.2023
	ii) Integration by parts with examples	1		Dt- 17.05.2023
	Problems on integration by parts	1		Dt- 18.05.2023
	d) Integration of the following forms	2		Dt- 20.05.2023, Dt- 23.05.2023
	Problem Solving and Tutorials	1		Dt- 24.05.2023
	Problem Solving and Tutorials	1		Dt- 25.05.2023
	e) Definite integral, properties of definite integrals	4		Dt- 26.05.2023, Dt- 27.05.2023 Dt- 30.05.2023, Dt- 31.05.2023
	Problem Solving and Tutorials	1		Dt- 31.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1	JUNE 2023	Dt - 01.06.2023
	Problem Solving and Tutorials	1		Dt - 02.06.2023
	Problem Solving and Tutorials	1		Dt - 02.06.2023
	Solving problems on properties of definite integration	1		Dt - 03.06.2023
	f) Application of integration	2		Dt - 03.06.2023, Dt - 06.06.2023
	i) Area enclosed by a curve and X - axis	1		Dt - 07.06.2023
	ii) Area of a circle with centre at origin	1		Dt - 08.06.2023
	DIFFERENTIAL EQUATION	12		
	Definition, ODE, PDE,			
	a) Order and degree of a differential equation	1		Dt - 09.06.2023
	Determining Order and degree of a differential equation with examples	1		Dt - 09.06.2023
5	b) Solution of differential equation Definition			
	i) By method of separation of variable with examples	1		Dt - 10.06.2023
	method of separation of variable continues with problem solving	1		Dt - 13.06.2023
	Some more problems on separation of variables	1		Dt - 13.06.2023

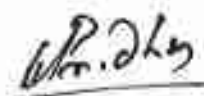
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problems on determination of degree and order of a differential equation	1		Dt- 16.06.2023
	ii) Linear equation example	1		Dt- 17.06.2023
	Solving linear equation	1		Dt- 21.06.2023
	Problems on linear differential equation	1		Dt- 22.06.2023
	Some more Problems on linear differential equation	1		Dt- 23.06.2023
	Revision of differential equation	1		Dt - 23.06.2023
	Revision of differential equation	1		Dt - 24.06.2023

SIGNATURE OF THE CONCERNED FACULTY

 Saroj Kumar Sahoo

SIGNATURE OF THE H.O.D.




 PRINCIPAL
 P.C.I.E.T., CHHENDIPADA
 PRINCIPAL
 Purna Chandra Institute of
 Engineering & Technology
 CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGINEERING		SEMESTER: 2ND		NAME OF THE FACULTY : ER. KEDARA KUMAR PRADHAN (LECT. IN MECH. ENGG.)	
SECTION:- MNA		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)			
SEMESTER FROM : 20.03.2023 to 27.06.2023		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)			
CLASS ALLOTTED /WEEK : 04 PERIODS					
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE	
	FUNDAMENTALS OF ENGINEERING MECHANICS	14	MARCH 2023		
	Definitions of Mechanics, Statics, Dynamics, Rigid Bodies.	1		Dt. 20.03.2023	
	Force System. Definition, Classification of force system according to plane & line of action.	1		Dt. 21.03.2023	
	Characteristics of Force & effect of Force. Principles of Transmissibility & Principles of Superposition. Action & Reaction Forces & concept of Free Body Diagram.	1		Dt. 23.03.2023	
1	Resolution of a Force. Definition, Method of Resolution, Types of Component forces, Perpendicular components & non-perpendicular components.	1		Dt. 24.03.2023	
	Composition of Forces. Definition, Resultant Force, Method of composition of forces.	1		Dt. 27.03.2023	
	Analytical Method such as Law of Parallelogram of forces & method of resolution.	1		Dt. 28.03.2023	
	Graphical Method. Introduction, Space diagram, Vector diagram, Polygon law of forces.	1		Dt. 31.03.2023	
	Resultant of concurrent, non-concurrent & parallel force system by Analytical & Graphical Method.	1	APRIL 2023	Dt. 3.04.2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Moment of Force, Definition, Geometrical meaning of moment of a force, measurement of moment of a force & its S.I units.	1		Dt. 4.04.2023
	Classification of moments according to direction of rotation, sign convention,	1		Dt. 6.04.2023
	Law of moments, Varignon's Theorem	1		Dt. 10.04.2023
	Couple – Definition, S.I. units, measurement of couple	1		Dt. 11.04.2023
	properties of couple, simple problems on Force systems	1		Dt. 11.04.2023
	Revision- CH-1	1		Dt. 13.04.2023
	EQUILIBRIUM	8		
2	Introduction to Equilibrium, Definition, condition of equilibrium	2		Dt. 17.04.2023, Dt. 18.04.2023
	Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	3		Dt. 18.04.2023, Dt. 20.04.2023 Dt. 21.04.2023
	Lami's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 21.04.2023, Dt. 24.04.2023 Dt. 25.04.2023
	FRICTION	10		
3	Definition of friction & Frictional forces	1		Dt. 27.04.2023
	Define Limiting frictional force & Coefficient of Friction.	1		Dt. 27.04.2023
	Define Angle of Friction & Repose & Laws of Friction	1		Dt. 28.04.2023
	Advantages & Disadvantages of Friction.	1		Dt. 28.04.2023
	Friction problem	1		Dt. 28.04.2023
	Equilibrium of bodies on level plane – Force applied on horizontal plane	1	MAY 2023	Dt. 1.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Equilibrium of bodies on level plane – Force applied on inclined plane	1		Dt. 1.05.2023
	Ladder, Wedge Friction	1		Dt. 2.05.2023
	Problems solved on Ladder friction	1		Dt. 2.05.2023
	Problems solved on wedge friction	1		Dt. 2.05.2023
	CENTROID & MOMENT OF INERTIA	14		
	Introduction to centroid and M.I, Lamia's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 4.05.2023, Dt. 8.05.2023 Dt. 09.05.2023
	centroid of geometrical figures such as squares, rectangles, triangles, circles, semicircles & quarter circles	2		Dt. 11.05.2023, Dt. 12.05.2023
	centroid of composite figures, problems on centroid	2		Dt. 15.05.2023, Dt. 16.05.2023
4	Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems	2		Dt. 18.05.2023, Dt. 22.05.2023
	M.I. of plane lamina & different engineering sections.	2		Dt. 23.05.2023, Dt. 25.05.2023
	Problems on M.I	1		Dt. 26.05.2023
	Problems on M.I	1		Dt. 26.05.2023
	Revision- CH-4	1		Dt. 29.05.2023
	SIMPLE MACHINES	8		
	Definition of simple machine, velocity ratio of simple and compound gear train	1		Dt. 30.05.2023
	Explain simple & compound lifting machine	1	JUNE 2023	Dt. 1.06.2023
5	Define M.A, V.R.& Efficiency and State the relation between them	1		Dt. 2.06.2023
	State Law of Machine, Reversibility of Machine, Self-Locking Machine.	1		Dt. 5.06.2023
	Study of simple machines – simple axle & wheel	1		Dt. 5.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Discussion about double purchase crab winch Discussion of Worm & Worm Wheel	1		Dt. 6.06.2023
	Scraw Jack	1		Dt. 8.06.2023
	Types of hoisting machine-like derricks etc. Their use and working principle	1		Dt. 9.06.2023
	DYNAMICS	6		
	Kinematics & Kinetics, Principles of Dynamics, Newton's Laws of Motion	1		Dt. 12.06.2023
	Motion of Particle acted upon by a constant force, Equations of motion	1		Dt. 13.06.2023
6	De-Alembert's Principle, Work, Power, Energy & its Engineering Applications	1		Dt. 16.06.2023
	Kinetic & Potential energy & its application, Momentum & impulse, conservation of energy & linear momentum	1		Dt. 19.06.2023
	collision of elastic bodies, and Coefficient of Restitution	1		Dt. 22.06.2023
	Solving problems	1		Dt. 23.06.2023

Kajon Ku Pradhan

SIGNATURE OF THE CONCERNED FACULTY



SIGNATURE OF THE H.O.D.



PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Puma Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGINEERING SEMESTER: 2ND
SECTION:- MNB

NAME OF THE FACULTY : (1) ASWINI KUMAR PRADHAN,
(2) ER. DIPTIMAYEE PRADHAN(LECT.IN COMP. SC. & ENGG.)

THEORY SUBJECT: COMPUTER APPLICATION (TH-1B)

SEMESTER FROM : 20.03.2023 to 27.06.2023

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	COMPUTER ORGANISATION	5	March	
1	Introduction to Computer, Evolution of Computers	1		Dt-20/03/2023
	Generation of Computers, Classification of computer	1		Dt-21/03/2023
	Basic Organisation of Computer (Functional Block diagram)	1		Dt-23/03/2023
	Input Devices, CPU & Output Devices.	1		Dt-23/03/2023
	Computer Memory and Classification of Memory	1		Dt-24/03/2023
			7	
	COMPUTER SOFTWARE			
2	Software concept, System software, Application software	1		Dt-27/03/2023
	What is Operating System, Objectives and Functions of O.S	1		Dt-27/03/2023
	Types of Operating System: Batch Processing, Multiprogramming, Time Sharing OS	1		Dt-28/03/2023
	Features of DOS, Windows and UNIX	1		Dt-31/03/2023
	Programming Languages Compiler, Interpreter	1	April	Dt-03/04/2023
	Computer Virus, Different Types of computer virus, Detection and prevention of Virus	1		Dt-04/04/2023
	Application of computers in different Domain	1		Dt-04/04/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	COMPUTER NETWORK AND INTERNET	8		
	Networking concept, Protocol	1		Dt - 06/04/2023
	Connecting Media, Data Transmission mode	1		Dt - 06/04/2023
	Network Topologies	1		Dt - 10/04/2023
	Types of Network	1		Dt - 10/04/2023
	Networking Devices (Hub, Repeater, Switch, Bridge, Router, Gateway & NIC)	1		Dt - 11/04/2023
	Internet Services (E-Mail, WWW, FTP, Chatting, Internet Conferencing)	1		Dt - 13/04/2023
	Electronic Newspaper & Online Shopping	1		Dt - 13/04/2023
	Different types of Internet connectivity and ISP	1		Dt - 17/04/2023
	4	FILE MANAGEMENT AND DATA PROCESSING	5	
Concept of File and Folder		1		Dt - 18/04/2023
File Access and Storage methods: Sequential, Direct, ISAM		1		Dt - 18/04/2023
Data Capture		1		Dt - 20/04/2023
Data storage		1		Dt - 20/04/2023
Data Processing and Retrieval		1		Dt - 21/04/2023
5	PROBLEM SOLVING METHODOLOGY	5		
	Algorithm, Pseudo code	1		Dt - 24/04/2023
	Flowchart Generation of Programming Languages	2		Dt - 25/04/2023, Dt - 27/04/2023
	Structured Programming Language	1		Dt - 28/04/2023
	Examples of Problem solving through Flowchart	1	May	Dt - 02/05/2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	OVERVIEW OF C PROGRAMMING LANGUAGE	15		
	Introduction to C, History of C	1		Dt - 02/05/2023
	Constants, Variables	1		Dt - 02/05/2023
	Data types in C	1		Dt - 04/05/2023
	Input and Output operations	1		Dt - 04/05/2023
	Operators, Different types of operator	2		Dt - 08/05/2023, Dt - 09/05/2023
	Expressions, Type conversion & Typecasting	2		Dt - 09/05/2023, Dt - 11/05/2023
	Decision Control and Looping Statements (If, If-else, If-else-if, Switch, While, Do-while, For, Break, Continue & Goto)	4		Dt - 12/05/2023, Dt - 15/05/2023 Dt - 16/05/2023, Dt - 18/05/2023
	Programming Assignments using the above features	3		Dt - 22/05/2023, Dt - 23/05/2023 Dt - 25/05/2023
7	ADVANCED FEATURES OF C	15		
	Functions and Passing Parameters to the Function (Call by Value and Call by Reference)	3		Dt - 26/05/2023, Dt - 29/05/2023 Dt - 30/05/2023
	Scope of Variables and Storage Classes	2	June	Dt - 01/06/2023, Dt - 02/06/2023
	Recursion Function and Types of Recursion	2		Dt - 05/06/2023, Dt - 06/06/2023
	One Dimensional Array and Multidimensional Array	2		Dt - 08/06/2023, Dt - 09/06/2023
	String Operations and Pointers	2		Dt - 12/06/2023, Dt - 13/06/2023
	Pointer Expression and Pointer Arithmetic Programming	2		Dt - 16/06/2023, Dt - 19/06/2023
	Structure and Union	2		Dt - 22/06/2023, Dt - 23/06/2023

Deeptimayee Broukham
SIGNATURE OF THE CONCERNED FACULTY

[Signature]
SIGNATURE OF THE H.O.D.

[Signature]
PRINCIPAL
Pumpkin Institute of
P. E. T. CHHENDIPADA
CHHENDIPADA, ANGI

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGINEERING SEMESTER: 2ND
SECTION:- MNB

NAME OF THE FACULTY : (1) DOLAGOBIND SAHOO,
(2) LALATENDU SAHU (LECT. IN PHYSICS)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING PHYSICS (TH-2A)

CLASS ALLOTTED /WEEK : 04 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	UNIT 1 - UNITS AND DIMENSIONS	3	MARCH	
	Physical quantities, Units, types of units and system of units	1		Dt. 21.03.2023
	Dimension and dimensional formulae of physical quantities	1		Dt. 23.03.2023
	Principle of homogeneity and application of dimensional analysis: Checking the correctness of physical relations and Numerical.	1		Dt. 24.03.2023
2	UNIT 2 - SCALARS AND VECTORS	3		
	Concept of scalar and vector quantities with definition, types of vectors, Rules of vector addition: Statements of Triangle law of vector addition	1		Dt. 25.03.2023
	Parallelogram law of vector addition and simple numericals, Concept on Resolution of vectors with simple numerical on Horizontal and vertical components	1		Dt. 28.03.2023
	Vector multiplication: Dot product and Cross Product with simple numericals on dot and cross products	1		Dt. 31.03.2023
3	UNIT 3 - KINEMATICS	6		
	Concept of Rest and Motion with examples, Fundamental ideas on distance, displacement, speed, velocity, acceleration and force, equations of motion under gravity both for upward and downward motion	1	APRIL 2023	Dt. 04.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Circular motion: Conceptual idea on circular motion and terms related to circular motion such as angular displacement, angular velocity and angular acceleration.	2		Dt. 6.04.2023, Dt. 8.04.2023
	Derivations of Relation between- (i) Linear & angular velocity, (ii) Linear & Angular acceleration	1		Dt. 8.04.2023
	Projectile motion: Definition and examples, Expression for equation of Trajectory, Time of Flight, Maximum Height and Horizontal Range for a projectile fired at an angle, condition for maximum horizontal range with simple numericals	2		Dt. 11.04.2023, Dt. 13.04.2023
	UNIT 4 – WORK AND FRICTION	5		
4	Definition of work, its formula and SI unit with simple numericals	1		Dt. 15.04.2023
	Concept of friction with definition and simple examples. Types of friction	1		Dt. 18.04.2023
	Definition with concept on limiting friction, and laws of limiting friction (statement only)	1		Dt. 18.04.2023
	Theory on Coefficient of Friction and simple numericals	1		Dt. 20.04.2023
	Methods to reduce friction with practical examples	1		Dt. 20.04.2023
	UNIT 5 - GRAVITATION	5		
5	Introduction, a detail explanation on Newton's Laws of Gravitation (1 st and 2 nd law)	1		Dt. 21.04.2023
	A detail explanation on Newton's Laws of Gravitation (3 rd law) and Definition of Universal Gravitational Constant (G) with its unit and dimensions	2		Dt. 22.04.2023, Dt. 25.04.2023
	Definition and concept of acceleration due to gravity (g). Relation between 'g' and 'G' and definition of mass and weight	1		Dt. 25.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Explanation (No derivation) on variation of 'g' with altitude and depth, statements on Kepler's Laws of Planetary motion.	1		Dt. 27.04.2023
	UNIT 6 - OSCILLATIONS AND WAVES	6		
	Definition and examples on Simple Harmonic Motion (SHM), expressions for displacement, velocity and acceleration of a body or particle in SHM	2		Dt. 28.04.2023, Dt. 29.04.2023
6	Wave Motion (Definition & Concept), Transverse and Longitudinal wave motion (Definition, examples and Comparison)	2	MAY 2023	Dt. 29.04.2023, Dt. 2.05.2023
	Wave parameters and Establish a relation between velocity, frequency and Time period, Ultrasonics- Definition, properties & Applications	2		Dt. 4.05.2023, Dt. 06.05.2023
	UNIT 7 - HEAT AND THERMODYNAMICS	7		
	Heat & temperature-Definition and difference, Units: of Heat (FPS, CGS, MKS & SI)	1		Dt. 09.05.2023
	Fundamental Ides on Specific heat, Change of State and Latent Heat with simple numericals.	1		Dt. 09.05.2023
7	Concept on Thermal expansion and Coefficient of linear (α), superficial (β) and cubical (γ) expansions of Solids, Relation between α , β and γ	2		Dt. 11.05.2023, Dt. 12.05.2023
	Definition and Relation between Work and Heat, Joule's Mechanical Equivalent of Heat, Statement and explanation on 1 st law of thermodynamics.	3		Dt. 12.05.2023, Dt. 13.05.2023, Dt. 16.05.2023
	UNIT 8 - OPTICS	4		
8	Concept of Reflection and laws of Reflection, Concept of Refraction and laws of Refraction and Refractive index (Definition, formula and Simple numericals)	2		Dt. 16.05.2023, Dt. 18.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Concept and Explanation of Total Internal Reflection and Critical angle	1		Dt. 20.05.2023
	Definition, Properties and Applications on Fiber Optics	1		Dt. 20.05.2023
	UNIT 9 – ELECTROSTATICS & MAGNETOSTATICS	7		
	Concept of Electric field and Electric field intensity, Statement and Explanation of Coulomb's law and definition of Unit charge, Absolute & Relative Permittivity (Definition, Relation & Unit),	1		Dt. 23.05.2023
	Definition of Unit charge, Absolute & Relative Permittivity (Definition, Relation & Unit),	1		Dt. 25.05.2023
9	Electric Field, Electric field intensity, Electric potential & Electric potential difference (Definition, formula & SI units), Concept of capacitor and capacitance,	1		Dt. 25.05.2023
	Series and parallel combination of capacitors: Formula for equivalent capacitance and simple numericals	1		Dt. 26.05.2023
	Fundamental idea on magnet, Coulomb's law in magnetism and definition of Unit pole	1		Dt. 27.05.2023
	Definition of magnetic field and Magnetic field Intensity (H) with its formula and SI unit,	1		Dt. 30.05.2023
	Magnetic lines of force-Definition and Properties, Magnetic flux(ϕ) and Magnetic flux density (B)	1		Dt. 30.05.2023
	UNIT 10 – CURRENT ELECTRICITY	6		
	Introduction to Electric Current	1	JUNE	Dt. 1.06.2023
10	Ohm's law and its applications	1		Dt. 1.06.2023
	Series and parallel combination of resistors: Formula for equivalent resistance and	1		Dt. 2.06.2023
	Simple numericals on combination of resistors	1		Dt. 3.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Kirchhoff's laws: Statements & Explanation with diagram	1		Dt. 6.06.2023
	Kirchhoff's laws: Explanation and application to circuit with diagram			Dt. 6.06.2023
	Application of Kirchhoff's laws to Wheatstone bridge- Derivation of balance condition of Wheatstone bridge	1		Dt. 8.06.2023
	UNIT 11 – ELECTROMAGNETISM & ELECTROMAGNETIC INDUCTION	5		
11	Introduction, Force acting on a current carrying conductor placed in a uniform magnetic field, Fleming's left hand rule	1		Dt. 9.06.2023
	Statement on Faraday's Laws of Electromagnetic Induction & Lenz's law	2		Dt. 10.06.2023, Dt. 13.06.2023
	Fleming's Right Hand Rule, Comparison between Fleming's RHR & LHR	2		Dt. 16.06.2023, Dt. 17.06.2023
	UNIT 12 - MODERN PHYSICS			
12	Introduction to LASER and laser beam, characteristics of laser beam	1		Dt. 22.06.2023
	LASER principle: Population Inversion & Optical Pumping	1		Dt. 23.06.2023
	Application of LASER beams			Dt. 23.06.2023
	Concept on Wireless Transmission- Ground waves	1		Dt. 24.06.2023
	Sky waves & Space Waves			Dt. 24.06.2023

Lalatesh Sahu · Deogobind Sahoo
SIGNATURE OF THE CONCERNED FACULTY

[Signature]
SIGNATURE OF THE H.O.D.

[Signature]
PRINCIPAL
P.C.I.E.T. CHHENDIPADA
Puma Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGLI

P.C.I.E.T., CHHENDIPADA, DIST- ANGUL

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGINEERING SEMESTER: 2ND
SECTION:- MNB

NAME OF THE FACULTY : (1) KSHIRA MOHAN BEHERA,
(2) SAROJ KUMAR SAHOO (LECT. IN MATH.)

SEMESTER FROM : 20.03.2023 to 27.06.2023

THEORY SUBJECT: ENGINEERING MATHEMATICS-II (TH-3)

CLASS ALLOTTED /WEEK : 05 PERIODS

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	VECTOR ALGEBRA	12	MARCH	
	a) Introduction: definition of scalar , vector with examples	1		Dt- 20.03.2023
	b) Types of vectors: null vector, parallel vector, collinear vectors with examples	1		Dt- 22.03.2023
	c) Representation of a vector	1		Dt- 22.03.2023
	d) Magnitude and direction of vectors with examples	1		Dt- 22.03.2023
	e) Addition and subtraction of vectors with examples	1		Dt- 23.03.2023
	Properties of vector addition and position vector	1		Dt- 23.03.2023
	f) Problems on magnitude and position vector	1		Dt- 24.03.2023
	g) scalar product of two vectors with examples h) Geometrical meaning of dot product	1		Dt- 24.03.2023
	i) Problems on dot product j) Angle between two vectors with example	1		Dt- 25.03.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	j) Scalar and vector projection of two vectors with examples	1		DI- 27.03. 2023
	Problems on Scalar and vector projection of two vectors	1		DI- 29.03. 2023
	k) Vector product and geometrical meaning	1		DI- 29.03. 2023
	Problems on vector product	1		DI- 31.03.2023
	LIMITS AND CONTINUITY	12		
	a) Definition of a function b) Types of functions i) Constant function, ii) Identity function iii) Absolute value function iv) The greatest integer function with examples	1	APRIL 2023	DI- 03.04. 2023
2	v) Trigonometric function with example vi) Exponential function vii) Logarithmic function With examples	1		DI- 03.04. 2023
	c) Introduction of limit: definition , example d) Existence of limit with example	1		DI- 05.04. 2023
	e) Methods of evaluation of limit	1		DI- 06.04. 2023
	Methods of evaluation of limit continues with some examples	1		DI- 08.04. 2023
	problems on existence of limit and evaluation of limit	1		DI- 08.04. 2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1		Dt- 10.04.2023
	Problem Solving and Tutorials	1		Dt- 12.04.2023
	Problem Solving and Tutorials	1		Dt- 13.04.2023
	f) Definition of continuity of a function at a point, Existence of continuity with example	1		Dt- 13.04.2023
	Problem Solving and Tutorials	1		Dt- 15.04.2023
	Problems on limit and continuity	1		Dt- 17.04.2023
	DERIVATIVES	20		
	a) Derivative of a function at a point	1		Dt- 19.04.2023
	b) Algebra of derivative	1		Dt- 19.04.2023
	c) Derivative of standard functions: $x^n, a^x, \log x, e^x$	1		Dt- 20.04.2023
	Derivative of standard functions continues: $\sin x, \cos x, \tan x$	1		Dt- 20.04.2023
3	Derivative of standard functions continues: $\cot x, \sec x, \csc x, \sin^{-1} x$	1		Dt- 21.04.2023
	Derivative of standard functions continues: $\cos^{-1} x, \tan^{-1} x, \cot^{-1} x$	1		Dt- 22.04.2023
	Problem solving on trigonometric functions	1		Dt- 22.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Derivative of standard functions continues: $\sec^{-1} x, \csc^{-1} x,$ d) Derivatives of composite function	1		Dt- 24.04.2023
	Derivatives of composite function(Chain rule) continues with examples	1		Dt-26.04.2023
	Derivatives of composite function(Chain rule) continues with examples	1		Dt- 26.04.2023
	e) Methods of differentiation of i) Parametric function with examples	1		Dt- 27.04.2023
	Methods of differentiation of ii) Implicit function with examples	1		Dt- 28.04.2023
	Solving problems on derivatives of parametric function and implicit function	1		Dt- 29.04.2023
	Methods of differentiation of iii) Logarithmic function with example	1	MAY 2023	Dt- 01.05.2023
	Methods of differentiation of iv) A function wrt another function with example	1		Dt- 03.05.2023
	f) Applications of derivatives: i) Successive differentiation (up to second order) Some problems on successive differentiation	1		Dt- 04.05.2023
	Solving problems on successive differentiation	1		Dt- 04.05.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	ii) Partial differentiation (function of two variables up to second order)	1		Dt - 06.05.2023
	Problems on derivative of logarithmic function and successive differentiation.	1		Dt - 08.05.2023
	Partial differentiation continues	1		Dt - 08.05.2023
	Some more problems on partial differentiation	1		Dt - 10.05.2023
	INTEGRATION	24		
4	a) Definition of integration as inverse of differentiation	2		Dt - 11.05.2023
	b) Integral of standard functions			Dt - 12.05.2023
	c) Methods of integration:			
	i) Integration by substitution with examples	2		Dt - 13.05.2023
				Dt - 15.05.2023
	Problems on integration by substitution	1		Dt - 15.05.2023
	ii) Integration by parts with examples	1		Dt - 17.05.2023
	Problems on integration by parts	1		Dt - 18.05.2023
	d) Integration of the following forms	2		Dt - 20.05.2023, Dt - 22.05.2023
	Problem Solving and Tutorials	1		Dt - 24.05.2023
	Problem Solving and Tutorials	1		Dt - 25.05.2023
e) Definite integral, properties of definite integrals	4		Dt - 26.05.2023, Dt - 27.05.2023	
			Dt - 29.05.2023, Dt - 31.05.2023	
Problem Solving and Tutorials	1		Dt - 31.05.2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problem Solving and Tutorials	1	JUNE 2023	Dt-01.06.2023
	Problem Solving and Tutorials	1		Dt-02.06.2023
	Problem Solving and Tutorials	1		Dt-02.06.2023
	Solving problems on properties of definite integration	1		Dt-03.06.2023
	f) Application of Integration	2		Dt-03.06.2023 . Dt-05.06.2023
	i) Area enclosed by a curve and X – axis	1		Dt-07.06.2023
	ii) Area of a circle with centre at origin	1		Dt-08.06.2023
	DIFFERENTIAL EQUATION	12		
	Definition, ODE, PDE, a) Order and degree of a differential equation	1		Dt-09.06.2023
	Determining Order and degree of a differential equation with examples	1		Dt-09.06.2023
5	b) Solution of differential equation Definition i) By method of separation of variable with examples	1		Dt-10.06.2023
	method of separation of variable continues with problem solving	1		Dt-12.06.2023
	Some more problems on separation of variables	1		Dt-12.06.2023


Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Problems on determination of degree and order of a differential equation	1		Dt-16.06.2023
	ii) Linear equation example	1		Dt-17.06.2023
	Solving linear equation	1		Dt-19.06.2023
	Problems on linear differential equation	1		Dt-21.06.2023
	Some more Problems on linear differential equation	1		Dt-22.06.2023
	Revision of differential equation	1		Dt-23.06.2023
	Revision of differential equation	1		Dt-24.06.2023.

SIGNATURE OF THE CONCERNED FACULTY


Savoy Kumar Sahoo

SIGNATURE OF THE H.O.D.




PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Purna Chandra Institute of
Engineering & Technology
CHHENDIPADA, ANGUL

P.C.I.E.T., CHHENDIPADA

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MINING ENGINEERING		SEMESTER: 2ND		NAME OF THE FACULTY : (1) ER. BIKASH RANJAN SAHU, (2) ER. KEDARA KUMAR PRADHAN (LECT. IN MECH. ENGG.)	
SECTION:- MNB		SEMESTER FROM : 20.03.2023 to 27.06.2023		THEORY SUBJECT: ENGINEERING MECHANICS (TH-4)	
CLASS ALLOTTED /WEEK : 04 PERIODS					
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE	
	FUNDAMENTALS OF ENGINEERING MECHANICS	14	MARCH 2023		
	Definitions of Mechanics, Statics, Dynamics, Rigid Bodies.	1		Dt. 21.03.2023	
	Force System, Definition, Classification of force system according to plane & line of action.	1		Dt. 21.03.2023	
	Characteristics of Force & effect of Force. Principles of Transmissibility & Principles of Superposition. Action & Reaction Forces & concept of Free Body Diagram.	1		Dt. 22.03.2023	
1	Resolution of a Force. Definition, Method of Resolution, Types of Component forces, Perpendicular components & non-perpendicular components.	1		Dt. 23.03.2023	
	Composition of Forces. Definition, Resultant Force, Method of composition of forces.	1		Dt. 28.03.2023	
	Analytical Method such as Law of Parallelogram of forces & method of resolution.	1		Dt. 28.03.2023	
	Graphical Method. Introduction, Space diagram, Vector diagram, Polygon law of forces.	1		Dt. 29.03.2023	
	Resultant of concurrent, non-concurrent & parallel force system by Analytical & Graphical Method.	1		Dt. 29.03.2023	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Moment of Force, Definition, Geometrical meaning of moment of a force, measurement of moment of a force & its S.I units.	1	APRIL 2023	Dt. 4.04.2023
	Classification of moments according to direction of rotation, sign convention.	1		Dt. 5.04.2023
	Law of moments, Varignon's Theorem	1		Dt. 5.04.2023
	Couple – Definition, S.I. units, measurement of couple	1		Dt. 6.04.2023
	properties of couple, simple problems on Force systems	1		Dt. 6.04.2023
	Revision- CH-1	1		Dt. 11.04.2023
	EQUILIBRIUM	8		
	Introduction to Equilibrium, Definition, condition of equilibrium	2		Dt. 12.04.2023, Dt. 13.04.2023
2	Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	3		Dt. 13.04.2023, Dt. 18.04.2023 Dt. 19.04.2023
	Lami's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 19.04.2023, Dt. 20.04.2023
	FRICTION	10		
	Definition of friction & Frictional forces	1		Dt. 25.04.2023
	Define Limiting frictional force & Coefficient of Friction.	1		Dt. 26.04.2023
3	Define Angle of Friction & Repose & Laws of Friction	1		Dt. 26.04.2023
	Advantages & Disadvantages of Friction.	1		Dt. 27.04.2023
	Friction problem	1		Dt. 27.04.2023
	Equilibrium of bodies on level plane – Force applied on horizontal plane	1		Dt. 27.04.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Equilibrium of bodies on level plane – Force applied on inclined plane	1	MAY 2023	Dt. 2.05.2023
	Ladder, Wedge Friction	1		Dt. .05.2023
	Problems solved on Ladder friction	1		Dt. 3.05.2023
	Problems solved on wedge friction	1		Dt. 3.05.2023
	CENTROID & MOMENT OF INERTIA	14		
	Introduction to centroid and M.I, Lamia's Theorem – Statement, Application for solving various engineering problems.	3		Dt. 4.05.2023, Dt. 09.05.2023 Dt. 10.05.2023
	centroid of geometrical figures such as squares, rectangles, triangles, circles, semicircles & quarter circles	2		Dt. 10.05.2023, Dt. 11.05.2023
	centroid of composite figures, problems on centroid	2		Dt. 11.05.2023, Dt. 16.05.2023
4	Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems	2		Dt. 17.05.2023, Dt. 18.05.2023
	M.I. of plane lamina & different engineering sections.	2		Dt. 23.05.2023, Dt. 24.05.2023
	Problems on M.I	1		Dt. 25.05.2023
	Problems on M.I	1		Dt. 25.05.2023
	Revision- CH-4	1		Dt. 30.05.2023
	SIMPLE MACHINES	8		
	Definition of simple machine, velocity ratio of simple and compound gear train	1		Dt. 31.05.2023
	Explain simple & compound lifting machine	1		Dt. 31.05.2023
5	Define M.A, V.R.& Efficiency and State the relation between them	1	JUNE 2023	Dt. 1.06.2023
	State Law of Machine, Reversibility of Machine, Self-Locking Machine.	1		Dt. 1.06.2023
	Study of simple machines – simple axle & wheel	1		Dt. 6.06.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Discussion about double purchase crab winch Discussion of Worm & Worm Wheel	1		Dt. 06.06.2023
	Screw Jack	1		Dt. 7.06.2023
	Types of hoisting machine-like derricks etc. Their use and working principle	1		Dt. 7.06.2023
	DYNAMICS	6		
	Kinematics & Kinetics, Principles of Dynamics, Newton's Laws of Motion	1		Dt. 8.06.2023
	Motion of Particle acted upon by a constant force, Equations of motion	1		Dt. 8.06.2023
	De-Alembert's Principle, Work, Power, Energy & its Engineering Applications	1		Dt. 13.06.2023
6	Kinetic & Potential energy & its application, Momentum & impulse, conservation of energy & linear momentum	1		Dt. 21.06.2023
	collision of elastic bodies, and Coefficient of Restitution	1		Dt. 22.06.2023
	Solving problems	1		Dt. 22.06.2023

Bikash ranjan Sahu Kedar Ku Pradhan
SIGNATURE OF THE CONCERNED FACULTY

[Signature]
SIGNATURE OF THE H.O.D.

[Signature]
PRINCIPAL
P.C.I.E.T., CHHENDIPADA
PRINCIPAL
Purna Chandra Institute of Engineering & Technology
CHHENDIPADA, ANGUL