

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

THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGINEERING  
SECTION: MA

SEMESTER: 3RD

NAME OF THE FACULTY : (1) ER. SUBHASMITA JENA,  
(2) ER. SAMIR PRASAD SAHU, (LECT. IN MECH. ENGG.)

SEMESTER FROM : 15.09.2022 to 21.01.2023

THEORY SUBJECT: PRODUCTION TECHNOLOGY (TH-1)

CLASS ALLOTTED /WEEK : 04 PERIODS

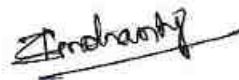
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
1	<b>METAL FORMING PROCESSES</b>	7		
	Extrusion: Definition & Classification	1	September.	Dt. 19.09.2022
	Explain direct, indirect and impact extrusion process	2		Dt. 20.09.2022 , 22.09.2022
	Define rolling. Classify it.	1		Dt. 23.09.2022 ,
	Differentiate between cold rolling and hot rolling process.	2		Dt. 26.09.2022 , 27.09.2022
	types of rolling mills used in Rolling process.	1		Dt. 29.09.2022
2	<b>WELDING</b>	16		
	Define welding and classify various welding processes.	1		Dt. 30.09.2022
	Explain fluxes used in welding.	1	October	Dt. 01.10.2022 ,
	Explain Oxy-acetylene welding process.	2		Dt. 10.10.2022 , 11.10.2022
	Explain various types of flames used in Oxy-acetylene welding process.	1		Dt. 13.10.2022
	Explain Arc welding process.	2		Dt. 14.10.2022 , 17.10.2022
	Specify arc welding electrodes.	2		Dt. 18.10.2022 , 20.10.2022
	Define resistance welding and classify it.	2		Dt. 21.10.2022 , 25.10.2022
	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.	2		Dt. 27.10.2022 , 28.10.2022
	Explain TIG and MIG welding process	2		Dt. 31.10.2022 , 01.11.2022
State different welding defects with causes and remedies	1	November	Dt. 03.11.2022	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	<b>CASTING</b>	15		
	Define Casting and Classify the various Casting processes	1	November	Dt. 04.11.2022
	Explain the procedure of Sand mould casting	2		Dt. 07.11.2022 , 10.11.2022
	Explain different types of molding sands with their composition and properties.	2		Dt. 11.11.2022 , 14.11.2022
	Classify different pattern and state various pattern allowances	2		Dt. 15.11.2022 , 17.11.2022
	Classify core	1		Dt. 18.11.2022
	Describe construction and working of cupola and crucible furnace.	2		Dt. 21.11.2022 , 22.11.2022
	Explain die casting method.	2		Dt. 24.11.2022 , 25.11.2022
	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.	2		Dt. 28.11.2022 , 29.11.2022
	Explain various casting defects with their causes and remedies.	2	December	Dt. 01.12.2022 , 02.12.2022 , 05.12.2022
4	<b>POWDER METALLURGY</b>	5		
	Define powder metallurgy process	1		Dt. 06.12.2022
	State advantages of powder metallurgy technology technique	1		Dt. 08.12.2022
	Describe the methods of producing components by powder metallurgy technique	1		Dt. 09.12.2022
	Explain sintering	1		Dt. 12.12.2022
	Economics of powder metallurgy	1		Dt. 13.12.2022
5	<b>PRESS WORK</b>	7		
	Describe Press Works: blanking, piercing and trimming	2		Dt. 15.12.2022 , 16.12.2022
	List various types of die and punch	2		Dt. 16.12.2022 , 19.12.2022
	Explain simple, Compound & Progressive dies	2		Dt. 20.12.2022 , 22.12.2022
	Describe the various advantages & disadvantages of above dies	1		Dt. 23.12.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	<b>JIGS AND FIXTURES</b>	7	January	Dt: 02.01.2023 , 03.01.2023
	Define jigs and fixtures	1		Dt: 05.01.2023 , 06.01.2023
	State advantages of using jigs and fixtures	1		Dt: 09.01.2023 , 10.01.2023
	State the principle of locations	2		Dt: 12.01.2023 , 13.01.2023 , 16.01.2023
	Describe the methods of location with respect to 3-2-1 point location of rectangular jig	2		Dt: 17.01.2023 , 19.01.2023
	List various types of jig and fixtures	1		Dt: 20.01.2023

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## THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING  
MA

SEMESTER: 3RD SECTION:-

NAME OF THE FACULTY : (1) ER. DEWAN KUMAR SAHU,  
(2) ER. SHUBHAM PRADHAN (LECT. IN MECH. ENGG.)

SEMESTER FROM : 15.09.2022 to 21.01.2023


THEORY SUBJECT: STRENGTH OF MATERIAL (TH-2)

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
	<b>SIMPLE STRESS &amp; STRAIN</b>	10		
1	Types of load, stresses & strains, (Axial and tangential) Hooke's law, Young's modulus, bulk modulus, modulus of rigidity, Poisson's ratio, derive the relation between three elastic constants	4	September	Dt. 15.09.2022 , 19.09.2022 20.09.2022 , 21.09.2022
	Principle of super position, stresses in composite section	2		Dt. 22.09.2022 , 26.09.2022
	Temperature stress, determine the temperature stress in composite bar (single core)	1		Dt. 27.09.2022
	Strain energy and resilience, Stress due to gradually applied, suddenly applied and impact load	2		Dt. 28.09.2022 , 29.09.2022
	Simple problems on above	1	October	Dt. 10.10.2022
	<b>THIN CYLINDER AND SPHERICAL SHELL UNDER INTERNAL PRESSURE</b>	8		
2	Definition of hoop and longitudinal stress, strain	1		Dt. 11.10.2022
	Derivation of hoop stress, longitudinal stress, hoop strain, longitudinal strain and volumetric strain	3		Dt. 12.10.2022 , 13.10.2022 , 17.10.2022
	Computation of the change in length, diameter and volume	2		Dt. 18.10.2022 , 19.10.2022
	Simple problems on above	2		Dt. 20.10.2022 , 26.10.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	<b>TWO DIMENSIONAL STRESS SYSTEMS</b>	10		
3	Determination of normal stress, shear stress and resultant stress on oblique plane	2		Dt. 27.10.2022 , 31.10.2022
	Location of principal plane and computation of principal stress	4	November	Dt. 01.11.2022 , 02.11.2022 , 03.11.2022 07.11.2022
	Location of principal plane and computation of principal stress and Maximum shear stress using Mohr's circle	4		Dt. 09.11.2022 , 10.11.2022 14.11.2022 , 15.11.2022
	<b>BENDING MOMENT &amp; SHEAR FORCE</b>	10		
	Types of beam and load	2		Dt. 16.11.2022 , 17.11.2022
4	Concepts of Shear force and bending moment	3		Dt. 21.11.2022 , 22.11.2022 , 23.11.2022
	Shear Force and Bending moment diagram and its salient features illustration in cantilever beam, simply supported beam and over hanging beam under point load and uniformly distributed load	5		Dt. 24.11.2022 , 25.11.2022 , 28.11.2022 , 29.11.2022 , 01.12.2022
	<b>THEORY OF SIMPLE BENDING</b>	10		
	Assumptions in the theory of bending,	3	December	Dt. 02.12.2022 , 05.12.2022 , 06.12.2022
5	Bending equation, Moment of resistance, Section modulus & neutral axis.	5		Dt. 08.12.2022 , 09.12.2022 , 12.12.2022 13.12.2022 , 15.12.2022
	Solve simple problems	2		Dt. 16.12.2022 , 19.12.2022
	<b>COMBINED DIRECT &amp; BENDING STRESSES</b>	6		
6	Define column	2		Dt. 20.12.2022 , 22.12.2022 , 23.12.2022
	Axial load, Eccentric load on column	4	January	Dt. 02.01.2023 , 03.01.23, 05.01.23, 06.01.23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	TORSION	6	January	
	Assumption of pure torsion	2		Dt. 09.01.2023 , 10.01.2023, 13.01.2023
7	The torsion equation for solid and hollow circular shaft	2		Dt. 16.01.2023 , 17.01.2023
	Comparison between solid and hollow shaft subjected to pure torsion	2		Dt. 19.01.2023 , 20.01.2023

  
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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGINEERING  
SECTION: MA SEMESTER: 3RD

NAME OF THE FACULTY : (1) ER. TARANISEN MOHANTY (H.O.D. IN MECH. ENGG.), (2) ER. LAKIN KUMAR SAHOO (LECT. IN MECH. ENGG.)

SEMESTER FROM : 15.09.2022 to 21.01.2023

THEORY SUBJECT: ENGINEERING MATERIAL (TH-3)

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	<b>ENGINEERING MATERIALS AND THEIR PROPERTIES</b>	5		
	Material classification into ferrous and non ferrous category and alloys	1	September	Dt. 19.09.2022
	Properties of Materials: Physical , Chemical	1		Dt. 20.09.2022
	Properties of Mechanical	1		Dt. 21.09.2022
	Performance requirements	1		Dt. 22.09.2022
	Material reliability and safety	1		Dt. 26.09.2022
2	<b>FERROUS MATERIALS AND ALLOYS</b>	4		
	Characteristics and application of ferrous materials	1		Dt. 27.09.2022
	Classification, composition and application of low carbon steel, medium carbon steel and High carbon steel	1		Dt. 28.09.2022
	Alloy steel: Low alloy steel, high alloy steel, tool steel and stainless steel	1		Dt. 29.09.2022
	Tool steel: Effect of various alloying elements such as Cr, Mn, Ni, V, Mo,	1	October.	Dt. 10.10.2022 , 11.10.2022
3	<b>IRON - CARBON SYSTEM</b>	8		
	Concept of phase diagram and cooling curves	3		Dt. 12.10.2022 , 13.10.2022 , 17.10.2022
	Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel	5		Dt. 18.10.22 , 19.10.22 , 20.10.22 , 25.10.2022 , 26.10.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	<b>CRYSTAL IMPERFECTIONS</b>	10		
	Crystal defines, classification of crystals, ideal crystal and crystal imperfections	1		Dt. 27.10.2022
	Classification of imperfection: Point defects, line defects, surface defects and volume defects	1		Dt. 01.11.2022
	Types and causes of point defects: Vacancies, Interstitials and impurities	1		Dt. 02.11.2022
	Types and causes of line defects: Edge dislocation and screw dislocation	2		Dt. 03.11.2022 , 07.11.2022
	Effect of imperfection on material properties	2		Dt. 09.11.2022 , 10.11.2022
	Deformation by slip and twinning	2		Dt. 14.11.2022 , 15.11.2022
	Effect of deformation on material properties	1		Dt. 16.11.2022
5	<b>HEAT TREATMENT</b>	10		
	Purpose of Heat treatment	1		Dt. 17.11.2022
	Process of heat treatment: Annealing, normalizing, hardening, tempering, stress relieving measures	4		Dt. 21.11.2022, 22.11.2022 , 23.11.2022 24.11.2022
	Surface hardening: Carburizing and Nitriding	2		Dt. 28.11.2022 , 29.11.2022
	Effect of heat treatment on properties of steel	2		Dt. 30.11.2022 , 01.12.2022
	Hardenability of steel	1	Dec	Dt. 05.12.2022 ,
6	<b>NON-FERROUS ALLOYS</b>	10	December	
	Aluminum alloys: Composition, property and usage of Duralmin, $\gamma$ - alloy.	3		Dt. 06.12.2022 , 07.12.2022 , 08.12.2022
	Copper alloys: Composition, property and usage of Copper- Aluminum, Copper-Tin, Babbit , Phosperous bronze, brass, Copper- Nickel	3		Dt. 12.12.2022 , 13.12.2022 , 14.12.2022
	Predominating elements of lead alloys, Zinc alloys and Nickel alloys	3		Dt. 15.12.2022 , 19.12.2022 , 20.12.2022



Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Low alloy materials like P-91, P-22 for power plants and other high temperature services. High alloy materials like stainless steel grades of duplex, super duplex materials etc.	1		Dt. 21.12.2022
7	<b>BEARING MATERIAL</b>	3		
	Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials	3		Dt. 22.12.2022 , 02.01.2023 , 03.01.2023
8	<b>SPRING MATERIALS</b>	3		
	Classification, composition, properties and uses of Iron-base and Copper base spring material	3	January	Dt. 04.01.2023, 05.01.2023, 09.01.2023
9	<b>POLYMERS</b>	3		
	Properties and application of thermosetting and thermoplastic polymers	2		Dt. 10.01.2023 , 11.01.2023
	Properties of elastomers	1		Dt. 12.01.2023 , 16.01.2023
10	<b>COMPOSITES AND CERAMICS</b>	3		
	Classification, composition, properties and uses of particulate based and fiber reinforced composites	2		Dt. 17.01.2023 , 18.01.2023
	Classification and uses of ceramics	1		Dt. 19.01.2023 .

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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGINEERING  
SECTION: MA

SEMESTER: 3RD

NAME OF THE FACULTY : (1) ER. SATYANARAYAN MAJHI,  
(2) ER. HIMANSU SEKHAR SAMAL (LECT. IN MECH ENGG.)

SEMESTER FROM : 15.09.2022 to 21.01.2023

THEORY SUBJECT: THERMAL ENGINEERING - I (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	THERMODYNAMIC CONCEPT & TERMINOLOGY	12	September	
	Thermodynamic Systems (closed, open, isolated)	1		Dt. 19.09.2022
	Thermodynamic properties of a system	2		Dt. 21.09.2022 , 22.09.2022
	Intensive and extensive properties	1		Dt. 23.09.2022 , 26.09.2022
	Define thermodynamic processes, path, cycle , state, path function, point function	3		Dt. 29.09.2022 , 30.09.2022 10.10.2022
	Thermodynamic Equilibrium	2	October	Dt. 12.10.2022 , 13.10.2022
	Quasi-static Process	1		Dt. 14.10.2022
	Conceptual explanation of energy and its sources	1		Dt. 17.10.2022
	Work , heat and comparison between the two	1		Dt. 19.10.2022
	Mechanical Equivalent of Heat	1		Dt. 20.10.2022
Work transfer, Displacement work	2		Dt. 21.10.2022 , 26.10.2022	

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2	<b>LAWS OF THERMODYNAMICS</b>	12		
	State & explain Zeroth law of thermodynamics	2		Dt. 27.10.2022 , 28.10.2022
	State & explain First law of thermodynamics	1		Dt. 31.10.2022
	Limitations of First law of thermodynamics	2	November	Dt. 02.11.2022 , 03.11.2022
	Application of First law of Thermodynamics	2		Dt. 04.11.2022 , 07.11.2022
	Second law of thermodynamics	2		Dt. 09.11.2022 , 10.11.2022
	Application of second law in heat engine,	2		Dt. 11.11.2022 , 14.11.2022
3	<b>PROPERTIES PROCESSES OF PERFECT GAS</b>	10		
	Laws of perfect gas:	2		Dt. 16.11.2022 , 17.11.2022
	Explain specific heat of gas ( $C_p$ and $C_v$ )	1		Dt. 18.11.2022
	Relation between $C_p$ & $C_v$ .	1		Dt. 21.11.2022 ,
	Enthalpy of a gas	1		Dt. 23.11.2022
	Work done during a non- flow process	1		Dt. 24.11.2022 ,
	Application of first law of thermodynamics to various non flow process (Isothermal, Isobaric, Isentropic and polytropic process	2		Dt. 25.11.2022 , 28.11.2022
	Solve simple problems on above.	1		Dt. 30.11.2022
Free expansion & throttling process	1	December	Dt. 01.12.2022	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	<b>INTERNAL COMBUSTION ENGINE</b>	8		
	Explain & classify I.C engine.	2	December	Dt. 02.12.2022 , 05.12.2022
	Terminology of I.C Engine such as bore, dead centers, stroke volume, piston speed & RPM.	2		Dt. 07.12.2022 08.12.2022
	Explain the working principle of 2-stroke & 4- stroke engine C.I & S.I engine.	2		Dt. 09.12.2022 , 12.12.2022
	Differentiate between 2-stroke & 4- stroke engine C.I & S.I engine.	2		Dt. 14.12.2022 , 15.12.2022
5	<b>GAS POWER CYCLE</b>	10		
	Carnot cycle	2		Dt. 16.12.2022
	Otto cycle	2		Dt. 19.12.2022
	Diesel cycle.	1		Dt. 21.12.2022
	Dual cycle.	2		Dt. 22.12.2022 , 23.12.2022
	Solve simple numerical.	3	January	Dt. 02.01.2023 , 04.01.2023, 05.01.2023
6	<b>FUELS AND COMBUSTION</b>	8		
	Define Fuel.	1		Dt. 09.01.2023
	Types of fuel.	2		Dt. 11.01.2023 , 12.01.2023
	Application of different types of fuel.	1		Dt. 13.01.2023
	Heating values of fuel	2		Dt. 16.01.2023 , 18.01.2023
	Quality of I.C engine fuels Octane number, Cetane number.	2		Dt. 19.01.2023 , 20.01.2023

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THEORY LESSON PLAN FOR THE SESSION 2022 -23

BRANCH:-MECHANICAL ENGINEERING  
SECTION: MA

SEMESTER: 3RD

NAME OF THE FACULTY : (1) ER. BIKASH RANJAN SAHU,  
(2) ER. MANAS RANJAN BEHERA (LECT. IN MECH. ENGG.), (3)  
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SEMESTER FROM : 15.09.2022 to 21.01.2023

THEORY SUBJECT: ENVIRONMENTAL STUDIES (TH-5)

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	<b>UNIT 1 : THE MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES</b>	4		
	Definition, scope and importance, Need for public awareness.	4	September	Dt. 20.09.2022 , 21.09.2022 , 23.09.2022 24.09.2022
2	<b>UNIT 2 : NATURAL RESOURCES</b>	10		
	Natural resources and associated problems: Forest resources, Water resources, Mineral Resources, Food Resources, Energy Resources, Land Resources.	5		Dt. 27.09.2022 , 28.09.2022 , 30.09.2022 , 11.10.2022 , 12.10.2022
	Role of individual in conservation of natural resources.	2	October	Dt. 14.10.2022 , 15.10.2022
	Equitable use of resources for sustainable lifestyles.	3		Dt. 18.10.2022 , 19.10.2022 , 21.10.2022
3	<b>UNIT 3 : SYSTEMS</b>	8		
	Concept of an ecosystem. Structure and function of an ecosystem.	1		Dt. 22.10.2022
	Producers, consumers, decomposers.	1		Dt. 25.10.2022
	Energy flow in the ecosystems.	1		Dt. 26.10.2022
	Ecological succession.	1		Dt. 28.10.2022
	Food chains, food web sand ecological pyramids.	1		Dt. 29.10.2022
	Introduction, types, characteristic features, structure and function of the following ecosystem.	1	November	Dt. 01.11.2022
	Forest ecosystem.	1		Dt. 02.11.2022
Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	1		Dt. 04.11.2022	

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4	<b>UNIT 4 : BIODIVERSITY AND ITS'S CONSERVATION</b>	8		
	Introduction-Definition: genetics, species and ecosystem diversity.	2	Nov	Dt. 05.11.2022 , 09.11.2022
	Biogeographically classification of India.	1		Dt. 11.11.2022
	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.	2		Dt. 12.11.2022 , 15.11.2022
	Biodiversity at global, national and local level.	2		Dt. 16.11.2022 , 18.11.2022
	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	1		Dt. 19.11.2022
5	<b>UNIT 5 : ENVIRIONMENTAL POLLUTION</b>	12		
	Definition Causes, effects and control measures of: Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards.	4		Dt. 22.11.2022 , 23.11.2022 25.11.2022 , 26.11.2022
	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	4		Dt. 29.11.2022 , 30.11.2022 , 02.12.2022 03.12.2022
	Role of an individual in prevention of pollution	2	December	Dt. 06.12.2022 , 07.12.2022
	Disaster management: Floods, earth quake, cyclone and landslides.	2		Dt. 09.12.2022 , 10.12.2022
6	<b>UNIT 6 : SOCIAL ISSUES AND THE ENVIRONMENT</b>	10		
	Urban problems related to energy, Water conservation, rain water harvesting, water shed management. Resettlement and rehabilitation of people; its problems and concern.	3		Dt. 13.12.2022 , 14.12.2022 , 16.12.2022
	Environmental ethics: issue and possible solutions.	2		Dt. 17.12.2022 , 20.12.2022
	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.	2		Dt. 21.12.2022 , 23.12.2022

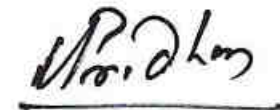
Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Air (prevention and control of pollution) Act, Water (prevention and control of pollution) Act.	2	December	Dt. 24.12.2022
	Public awareness	1	January	Dt. 03.01.2023
7	<b>UNIT 7 : HUMAN POPULATION AND THE ENVIRONMENT</b>	8		
	Population growth and variation among nations, Population explosion-family welfare program.	3		Dt. 04.01.2023 , 06.01.2023 , 07.01.2023
	Environment and human health.	1		Dt. 10.01.2023 , 11.01.2023
	Human rights.	1		Dt. 13.01.2023 , 17.01.2023
	Value education.	1		Dt. 18.01.2023
	Role of information technology in environment and human health.	2		Dt. 20.01.2023 , 21.01.2023



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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGINEERING  
SECTION: MB

SEMESTER: 3RD

NAME OF THE FACULTY : (1) ER. SUBHASHMITA JENA,  
(2) ER. SAMIR PRASAD SAHU, (LECT. IN MECH. ENGG.)

SEMESTER FROM : 15.09.2022 to 21.01.2023

THEORY SUBJECT: PRODUCTION TECHNOLOGY (TH-1)

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	<b>METAL FORMING PROCESSES</b>	7	September	
	Extrusion: Definition & Classification	1		Dt. 19.09.2022
	Explain direct, indirect and impact extrusion process	2		Dt. 20.09.2022 , 23.09.2022
	Define rolling. Classify it.	1		Dt. 23.09.2022
	Differentiate between cold rolling and hot rolling process.	2		Dt. 24.09.2022
	types of rolling mills used in Rolling process.	1		Dt. 26.09.2022
2	<b>WELDING</b>	16		
	Define welding and classify various welding processes.	1		Dt. 27.09.2022
	Explain fluxes used in welding.	1		Dt. 30.09.2022
	Explain Oxy-acetylene welding process.	2	October.	Dt. 01.10.2022 , 10.10.2022
	Explain various types of flames used in Oxy-acetylene welding process.	1		Dt. 11.10.2022
	Explain Arc welding process.	2		Dt. 14.10.2022 , 15.10.2022
	Specify arc welding electrodes.	2		Dt. 17.10.2022 , 18.10.2022
	Define resistance welding and classify it.	2		Dt. 21.10.2022 , 22.10.2022
	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.	2		Dt. 25.10.2022 , 28.10.2022
	Explain TIG and MIG welding process	2		Dt. 29.10.2022 , 31.10.2022
State different welding defects with causes and remedies	1	November.	Dt. 01.11.2022	

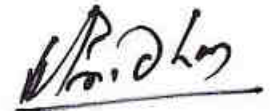


Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	<b>CASTING</b>	15	November.	
	Define Casting and Classify the various Casting processes	1		Dt. 04.11.2022
	Explain the procedure of Sand mould casting	2		Dt. 05.11.2022 , 07.11.2022
	Explain different types of molding sands with their composition and properties.	2		Dt. 11.11.2022 , 12.11.2022
	Classify different pattern and state various pattern allowances	2		Dt. 14.11.2022 , 15.11.2022
	Classify core	1		Dt. 18.11.2022
	Describe construction and working of cupola and crucible furnace.	2		Dt. 19.11.2022 , 21.11.2022
	Explain die casting method.	2		Dt. 22.11.2022 , 25.11.2022
	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.	2		Dt. 26.11.2022 , 28.11.2022
	Explain various casting defects with their causes and remedies.	2		Dt. 29.11.2022 , 02.12.2022
4	<b>POWDER METALLURGY</b>	5		
	Define powder metallurgy process	1	December.	Dt. 03.12.2022 ,
	State advantages of powder metallurgy technology technique	1		Dt. 05.12.2022
	Describe the methods of producing components by powder metallurgy technique	1		Dt. 06.12.2022
	Explain sintering	1		Dt. 09.12.2022
	Economics of powder metallurgy	1		Dt. 10.12.2022
5	<b>PRESS WORK</b>	7		
	Describe Press Works: blanking, piercing and trimming	2		Dt. 12.12.2022 , 13.12.2022
	List various types of die and punch	2		Dt. 16.12.2022 , 17.12.2022
	Explain simple, Compound & Progressive dies	2		Dt. 19.12.2022 , 20.12.2022
	Describe the various advantages & disadvantages of above dies	1		Dt. 23.12.2022 , 24.12.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
6	JIGS AND FIXTURES	7		
	Define jigs and fixtures	1	January	Dt. 02.01.2023 , 03.01.2023
	State advantages of using jigs and fixtures	1		Dt. 06.01.2023 , 07.01.2023
	State the principle of locations	2		Dt. 09.01.23 , 10.01.23 , 13.01.2023
	Describe the methods of location with respect to 3-2-1 point location of rectangular jig	2		Dt. 16.01.2023 , 17.01.2023
	List various types of jig and fixtures	1		Dt. 20.01.2021 , 21.01.2021

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THEORY LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGINEERING  
MB

SEMESTER: 3RD SECTION:-

NAME OF THE FACULTY : (1) ER. DEWAN KUMAR SAHU,  
(2) ER. SHUBHAM PRADHAN (LECT. IN MECH. ENGG.)

SEMESTER FROM : 15.09.2022 to 21.01.2023

THEORY SUBJECT: STRENGTH OF MATERIAL (TH-2)

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	SIMPLE STRESS & STRAIN	10	September	
	Types of load, stresses & strains, (Axial and tangential) Hooke's law, Young's modulus, bulk modulus, modulus of rigidity, Poisson's ratio, derive the relation between three elastic constants	4		Dt. 15.09.2022, 19.09.2022, 20.09.2022, 21.09.2022.
	Principle of super position, stresses in composite section	2		Dt. 26.09.2022, 27.09.2022
	Temperature stress, determine the temperature stress in composite bar (single core)	1		Dt. 28.09.2022. Dt. 29.09.2022
	Strain energy and resilience, Stress due to gradually applied, suddenly applied and impact load	2	October	Dt. 10.10.2022, 11.10.2022
	Simple problems on above	1		Dt. 12.10.2022.
2	THIN CYLINDER AND SPHERICAL SHELL UNDER INTERNAL PRESSURE	8		
	Definition of hoop and longitudinal stress, strain	1		Dt. 13.10.2022
	Derivation of hoop stress, longitudinal stress, hoop strain, longitudinal strain and volumetric strain	3		Dt. 17.10.2022, 18.10.2022 Dt. 19.10.2022
	Computation of the change in length, diameter and volume	2		Dt. 20.10.2022, 26.10.2022
	Simple problems on above	2		Dt. 27.10.2022, 31.10.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	<b>TWO DIMENSIONAL STRESS SYSTEMS</b>	10	NOVEMBER	
	Determination of normal stress, shear stress and resultant stress on oblique plane	2		Dt. 01.11.2022, 2.11.2022
	Location of principal plane and computation of principal stress	4		Dt. 03.11.2022, 07.12.2022, 09.11.2022, 10.11.2022
	Location of principal plane and computation of principal stress and Maximum shear stress using Mohr's circle	4		Dt. 14.11.2022, 15.11.2022, 16.11.2022, 17.11.2022
4	<b>BENDING MOMENT &amp; SHEAR FORCE</b>	10		
	Types of beam and load	2		Dt. 21.11.2022, 22.11.2022
	Concepts of Shear force and bending moment	3		Dt. 23.11.2022, 24.11.2022, 25.11.2022
	Shear Force and Bending moment diagram and its salient features illustration in cantilever beam, simply supported beam and over hanging beam under point load and uniformly distributed load	5		Dt. 28.11.2022, 30.11.2022, 01.12.2022, 02.12.2022, 05.12.2022, 07.12.2022
5	<b>THEORY OF SIMPLE BENDING</b>	10	DECEMBER	
	Assumptions in the theory of bending,	3		Dt. 08.12.2022, 09.12.2022, 12.12.2022
	Bending equation, Moment of resistance, Section modulus & neutral axis.	5		Dt. 14.12.2022, 15.12.2022, 16.12.2022, 19.12.2022, 21.12.2022
	Solve simple problems	2		Dt. 22.12.2022, 23.12.2022
6	<b>COMBINED DIRECT &amp; BENDING STRESSES</b>	6		
	Define column	2	JANUARY	Dt. 02.01.2023, 04.01.2023
	Axial load, Eccentric load on column	4		Dt. 05.01.2023, 06.01.2023, 09.01.2023, 11.01.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	TORSION	6		
	Assumption of pure torsion	2		Dt. 12.01.2023, 13.01.2023
7	The torsion equation for solid and hollow circular shaft	2		Dt. 16.01.2023, 18.01.2023
	Comparison between solid and hollow shaft subjected to pure torsion	2		Dt. 19.01.2023, 20.01.2023

  
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**THEORY LESSON PLAN FOR THE SESSION 2022 - 23**

**BRANCH:-MECHANICAL ENGINEERING**  
**SECTION: MB**

**SEMESTER: 3RD**

**NAME OF THE FACULTY : (1) ER. TARANISEN MOHANTY (H.O.D. IN MECH. ENGG.), (2) ER. LAKIN KUMAR SAHOO (LECT. IN MECH. ENGG.)**

**SEMESTER FROM : 15.09.2022 to 21.01.2023**

**THEORY SUBJECT: ENGINEERING MATERIAL (TH-3)**

**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
<b>1</b>	<b>ENGINEERING MATERIALS AND THEIR PROPERTIES</b>	<b>5</b>		
	Material classification into ferrous and non ferrous category and alloys	1	September	Dt. 20.09.2022
	Properties of Materials: Physical , Chemical	1		Dt. 21.09.2022
	Properties of Mechanical	1		Dt. 22.09.2022
	Performance requirements	1		Dt. 23.09.2022
	Material reliability and safety	1		Dt. 27.09.2022
<b>2</b>	<b>FERROUS MATERIALS AND ALLOYS</b>	<b>4</b>		
	Characteristics and application of ferrous materials	1		Dt. 28.09.2022
	Classification, composition and application of low carbon steel, medium carbon steel and High carbon steel	1		Dt. 29.09.2022
	Alloy steel: Low alloy steel, high alloy steel, tool steel and stainless steel	1		Dt. 30.09.2022
	Tool steel: Effect of various alloying elements such as Cr, Mn, Ni, V, Mo,	1	October.	Dt. 11.10.2022
<b>3</b>	<b>IRON - CARBON SYSTEM</b>	<b>8</b>		
	Concept of phase diagram and cooling curves	3		Dt. 12.10.2022, 13.10.2022, 14.10.2022
	Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel	5		Dt. 18.10.2022, 19.10.2022, 20.10.2022 21.10.2022, 25.10.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	<b>CRYSTAL IMPERFECTIONS</b>	10		
	Crystal defines, classification of crystals, ideal crystal and crystal imperfections	1	October	Dt. 26.10.2022
	Classification of imperfection: Point defects, line defects, surface defects and volume defects	1		Dt. 27.10.2022
	Types and causes of point defects: Vacancies, Interstitials and impurities	1		Dt. 28.10.2022
	Types and causes of line defects: Edge dislocation and screw dislocation	2	November	Dt. 01.11.2022 , 02.11.2022
	Effect of imperfection on material properties	2		Dt. 03.11.2022 , 04.11.2022
	Deformation by slip and twinning	2		Dt. 09.11.2022 , 10.11.2022
	Effect of deformation on material properties	1		Dt. 11.11.2022
5	<b>HEAT TREATMENT</b>	10		
	Purpose of Heat treatment	1		Dt. 15.11.2022
	Process of heat treatment: Annealing, normalizing, hardening, tempering, stress relieving measures	4		Dt. 16.11.2022 , 17.11.2022 , 18.11.2022 22.11.22
	Surface hardening: Carburizing and Nitriding	2		Dt. 23.11.2022 , 24.11.2022
	Effect of heat treatment on properties of steel	2		Dt. 25.11.2022 , 29.11.2022
	Hardenability of steel	1		Dt. 30.11.2022
6	<b>NON-FERROUS ALLOYS</b>	10		
	Aluminum alloys: Composition, property and usage of Duralmin, $\gamma$ - alloy.	3	December	Dt. 01.12.2022 , 02.12.2022 , 06.12.2022
	Copper alloys: Composition, property and usage of Copper- Aluminum, Copper-Tin, Babbit , Phosperous bronze, brass, Copper- Nickel	3		Dt. 07.12.2022 , 08.12.2022 , 09.12.2022
	Predominating elements of lead alloys, Zinc alloys and Nickel alloys	3		Dt. 13.12.2022 , 14.12.2022 , 15.12.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Low alloy materials like P-91, P-22 for power plants and other high temperature services. High alloy materials like stainless steel grades of duplex, super duplex materials etc.	1	December	Dt. 16.12.2022
7	<b>BEARING MATERIAL</b>	3		
	Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials	3		Dt. 20.12.2022 , 21.12.2022 , 22.12.2022 23.12.2022
8	<b>SPRING MATERIALS</b>	3		
	Classification, composition, properties and uses of Iron-base and Copper base spring material	3	January	Dt. 03.01.2023 , 04.01.2023, 05.01.2023 06.01.2023
9	<b>POLYMERS</b>	3		
	Properties and application of thermosetting and thermoplastic polymers	2		Dt. 10.01.2023 , 11.01.2023
	Properties of elastomers	1		Dt. 13.01.2023 , 17.01.2023
10	<b>COMPOSITES AND CERAMICS</b>	3		
	Classification, composition, properties and uses of particulate based and fiber reinforced composites	2		Dt 18.01.2023 , 19.01.2023
	Classification and uses of ceramics	1		Dt. 20.01.2023

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**BRANCH:-MECHANICAL ENGINEERING**  
**SECTION: MB**

**SEMESTER: 3RD**

**NAME OF THE FACULTY : (1) ER. SATYA NARAYAN MAJHI,**  
**(2) ER. HIMANSU SEKHAR SAMAL (LECT. IN MECH ENGG.)**

**SEMESTER FROM : 15.09.2022 to 21.01.2023**

**THEORY SUBJECT: THERMAL ENGINEERING - I (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	THERMODYNAMIC CONCEPT & TERMINOLOGY	12	SEPTEMBER	
	Thermodynamic Systems (closed, open, isolated)	1		Dt. 19.09.2022,
	Thermodynamic properties of a system	2		Dt. 20.09.2022, 21.09.2022
	Intensive and extensive properties	1		Dt. 23.09.2022
	Define thermodynamic processes, path, cycle, state, path function, point function	3		Dt. 26.09.2022, 27.09.2022 .28.09.2022
	Thermodynamic Equilibrium	2		Dt. 30.09.2022, 10.10.2022
	Quasi-static Process	1	OCTOBER	Dt. 11.10.2022,
	Conceptual explanation of energy and its sources	1		Dt. 12.10.2022
	Work, heat and comparison between the two	1		Dt. 14.10.2022
	Mechanical Equivalent of Heat	1		Dt. 17.10.2022
	Work transfer, Displacement work	2		Dt. 18.10.2022, 19.10.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
2	LAWS OF THERMODYNAMICS	12		
	State & explain Zeroth law of thermodynamics	2		Dt. 21.10.2022, 25.10.2022
	State & explain First law of thermodynamics	1		Dt. 26.10.2022
	Limitations of First law of thermodynamics	2		Dt. 28.10.2022, 31.10.2022
	Application of First law of Thermodynamics	2	NOVEMBER	Dt. 01.11.2022, 02.11.2022.
	Second law of thermodynamics	2		Dt. 04.11.2022, 07.11.2022
	Application of second law in heat engine,	2		Dt. 09.11.2022, 11.11.2022
3	PROPERTIES PROCESSES OF PERFECT GAS	10		
	Laws of perfect gas:	2		Dt. 14.11.2022, 15.11.2022, 16.11.2022
	Explain specific heat of gas ( $C_p$ and $C_v$ )	1		Dt. 18.11.2022.
	Relation between $C_p$ & $C_v$ .	1		Dt. 21.11.2022, 22.11.2022
	Enthalpy of a gas	1		Dt. 23.11.2022,
	Work done during a non- flow process	1		Dt. 25.11.2022
	Application of first law of thermodynamics to various non flow process (Isothermal, Isobaric, Isentropic and polytrophic process)	2		Dt. 28.11.2022, 29.11.2022
	Solve simple problems on above.	1		Dt. 30.11.2022
	Free expansion & throttling process	1	DECEMBER	Dt. 02.12.2022

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	<b>INTERNAL COMBUSTION ENGINE</b>	8		
	Explain & classify I.C engine.	2		Dt. 05.12.2022, 06.12.2022
	Terminology of I.C Engine such as bore, dead centers, stroke volume, piston speed & RPM.	2		Dt. 07.12.2022, 09.12.2022
	Explain the working principle of 2-stroke & 4- stroke engine C.I & S.I engine.	2		Dt. 12.12.2022, 13.12.2022
	Differentiate between 2-stroke & 4- stroke engine C.I & S.I engine.	2		Dt. 14.12.2022, 16.12.2022
5	<b>GAS POWER CYCLE</b>	10		
	Carnot cycle	2		Dt. 19.12.2022, 20.12.2022
	Otto cycle	3		Dt. 21.12.2022, 23.12.2022, 02.01.2023
	Diesel cycle.	1		Dt. 03.01.2023
	Dual cycle.	2		Dt. 04.01.2023, 06.01.2023
	Solve simple numerical.	3		Dt. 06.01.2023, 09.01.2023, 10.01.2023
6	<b>FUELS AND COMBUSTION</b>	8		
	Define Fuel.	1		Dt. 11.01.2023,
	Types of fuel.	2		Dt. 13.01.2023, 16.01.2023
	Application of different types of fuel.	1		Dt. 17.01.2023
	Heating values of fuel	2		Dt. 18.01.2023
	Quality of I.C engine fuels Octane number, Cetane number.	2		Dt. 20.01.2023

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BRANCH:-MECHANICAL ENGINEERING SECTION: MB	SEMESTER: 3RD	NAME OF THE FACULTY : (1) ER. BIKASH RANJAN SAHU, (2) ER. MANAS RANJAN BEHERA (LECT. IN MECH. ENGG.), (3) TAPAN KUMAR SAHU (LECT. IN CHEM.)
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SEMESTER FROM : 15.09.2022 to 21.01.2023	THEORY SUBJECT: ENVIRONMENTAL STUDIES (TH-5)
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**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	<b>UNIT 1 : THE MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES</b>	4	SEPTEMBER	Dt. 19.09.2022, 20.09.2022 21.09.2022, 22.09.2022
	Definition, scope and importance, Need for public awareness.	4		Dt. 26.09.2022, 27.09.2022 28.09.2022, 10.10.2022
2	<b>UNIT 2 : NATURAL RESOURCES</b>	10		
	Natural resources and associated problems; Forest resources, Water resources, Mineral Resources, Food Resources, Energy Resources, Land Resources.	5	OCTOBER	Dt. 11.10.2022, 12.10.2022, 13.10.2022 17.10.2022, 18.10.2022
	Role of individual in conservation of natural resources.	2		Dt. 19.10.2022, 20.10.2022
	Equitable use of resources for sustainable lifestyles.	3		Dt. 25.10.2022, 26.10.2022 27.10.2022.
3	<b>UNIT 3 : SYSTEMS</b>	8		
	Concept of an ecosystem. Structure and function of an ecosystem.	1		Dt. 31.10.2022
	Producers, consumers, decomposers.	1	NOVEMBER	Dt. 01.11.2022, 02.01.2023,
	Energy flow in the ecosystems.	1		Dt. 03.11.2022
	Ecological succession.	1		Dt. 07.11.2022
	Food chains, food web sand ecological pyramids.	1		Dt. 09.11.2022
	Introduction, types, characteristic features, structure and function of the following ecosystem.	1		Dt. 10.11.2022
	Forest ecosystem.	1		Dt. 14.11.2022
Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	1		Dt. 15.11.2022	

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	<b>UNIT 4 : BIODIVERSITY AND ITS'S CONSERVATION</b>	8		
	Introduction-Definition: genetics, species and ecosystem diversity.	2		Dt. 16.11.2022, 17.11.2022,
	Biogeographically classification of India.	1		Dt. 21.11.2022,
	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.	2		Dt. 22.11.2022, & Dt. 23.11.2022
	Biodiversity at global, national and local level.	2		Dt. 24.11.2022, 28.11.2022
	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	1		Dt. 29.11.2022
5	<b>UNIT 5 : ENVIRONMENTAL POLLUTION</b>	12		
	Definition Causes, effects and control measures of: Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards.	4		Dt. 30.11.2022, 01.12.2022, 05.12.2022, 06.12.2022
	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	4	DECEMBER	Dt. 06.12.2022, 07.12.2022, 08.12.2022, 12.12.2022
	Role of an individual in prevention of pollution	2		Dt. 13.12.2022, 14.12.2022
	Disaster management: Floods, earth quake, cyclone and landslides.	2		Dt. 15.12.2022, 19.12.2022
	<b>UNIT 6 : SOCIAL ISSUES AND THE ENVIRONMENT</b>	10		
6	Urban problems related to energy, Water conservation, rain water harvesting, water shed management. Resettlement and rehabilitation of people; its problems and concern.	3		Dt. 20.12.2022, 21.12.2022, 22.12.2022
	Environmental ethics: issue and possible solutions.	2	JANUARY	Dt. 02.01.2023, 03.01.2023.
	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.	2		Dt. 04.01.2023, 05.01.2023

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
	Air (prevention and control of pollution) Act, Water (prevention and control of pollution) Act.	2		Dt. 09.01.2023, 10.01.2023
	Public awareness	1		Dt. 11.01.2023
7	<b>UNIT 7 : HUMAN POPULATION AND THE ENVIRONMENT</b>	8		
	Population growth and variation among nations, Population explosion-family welfare program.	3		Dt. 12.01.2023,
	Environment and human health.	1		Dt. 16.01.2023
	Human rights.	1		Dt. 17.01.2023
	Value education.	1		Dt. 18.01.2023
	Role of information technology in environment and human health.	2		Dt. 19.01.2023

  
  
  
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**PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23**

BRANCH:- MECHANICAL ENGG.

SEMESTER: 3RD

SECTION :- MA1

NAME OF THE FACULTY : (1) ER. TARANISEN MOHANTY, (H.O.D., MECH. ENGG.), (2) ER. BIKASH RANJAN SAHU, (LECT. IN MECH. ENGG.), (3) ER. BISHNU CHARANA BEHERA (T.A.)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: MECHANICAL ENGG. DRAWING (PR-1)

CLASS ALLOTTED /WEEK :- 06 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Revision of Engg. Drawing of 1st year.	September	02	Dt. 19.09.2022 , 20.09.2022
2	Draw plan, elevation and side view of different machine element from their isometric view using AUTO CAD and mini drafter. (Minium 5 drawing)		03	Dt. 26-09.2022 , 27-09.2022 10.10.2022
3	Engineering drawing of fastening elements in first angle orthographic projection.	October		
	3.1. Bolt , nut and threads.		02	Dt. 11.10.2022 , 17.10.2022
	3.2. Cotter joint.		02	Dt. 18.10.2022 , 25.10.2022
	3.3. Knuckle joint.	November	02	Dt. 01.11.2022 , 07.11.2022
4	Details to assembly.			
	4.1. Rigid pedestal bearing.		02	Dt. 14.11.2022 , 15.11.2022
	4.2. Foot step bearing.		01	Dt. 21.11.2022 ,
	4.3. Simple screw jack.		02	Dt. 22.11.2022 , 23.11.2022

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
5	Assembly to details.			
	5.1.Connecting rod of I.C. engine.		03	Dt. 29.11.2022 , 05.12.2022 06.12.2022
	5.2.Boiler safety valve.	December	03	Dt. 12.12.2022 , 13.12.2022 19.12.2022
	5.3.Spring loaded valve.		02	Dt. 20.12.2022 , 02.01.2023
	5.4.Hydraulic non return valve.	January	03	Dt. 03.01.2023 , 09.01.2023 10.01.2023
	5.5.Flat belt pulley.		02	Dt. 06.01.23 , 17.01.23



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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MA1

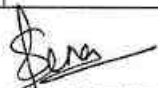
NAME OF THE FACULTY : (1) ER. SUBHASHMITA JENA (LECT. IN MECH. ENGG.) ,(2) ER. GOBINDA BARIK, (3) ER. PRADEEP KUMAR SAHOO, (T.A. MECH. ENGG.)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

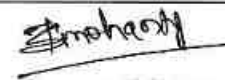
PRACTICAL SUBJECT: MECHANICAL ENGINEERING LABORATORY-I (PR-2)

CLASS ALLOTTED /WEEK:- 04 PERIODS

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
	<b>STRENGTH OF MATERIALS AND THERMAL LABROTARY</b>		<del>02</del>	
1	Determine end reactions in a simply supported beam using parallel foree apparatus.	September	02	Dt.21.09.2022 , 28.09.2022
2	Determine of Young's modulus using searle's apparatus.	October	02	Dt.12.10.2022 , 19.10.2022
3	Determiation of torsional rigidity of the shaff using torsion testing machine.		02	Dt.26.10.2022 , 02.11.2022
4	Determination of salient points (Young's modulus ,Yield point,fracture point) from stress-strain curve	Novembere	02	Dt.09.11.2022 , 16.11.2022
5	Determination of hardness number by Rockwell or vickers hardness testing machine.		02	Dt.23.11.2022 , 30.11.2022
6	Determination of toughness using Impact testing machine (charpy/izod)	Decembere	02	Dt.07.12.2022 , 14.12.2022
7	Determination of flash point and fire point.		02	Dt.21.12.2022 , 04.01.2023
8	Joule's experiment.		02	Dt.11.01.2023 , 18.01.2023



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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MA1

NAME OF THE FACULTY : (1) ER. GOURI SANKAR PRADHAN, (2) ER. BIKASH RANJAN SAHU (LECT. IN MECH. ENGG.), (3) ER. GOBINDA BARIK (T.A., MECH. ENGG.), (4) KRUSHNA CH. SAHU, (5) BHIMASEN ROUT (INSTRUCTOR)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: WORKSHOP PRACTICE-II (PR-3)

CLASS ALLOTTED /WEEK:- 06 PERIODS

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	<b>FITTING PRACTICES</b>			
	1.1.Preparation of caliper.	September	03	Dt.16.09.2022 , 22.09.2022 , 28.9.22
	1.2.Preparation of try square.		03	Dt.29.09.2022 , 30.9.22 , 13.10.22
	1.3.Preparation of hammer, square, hexagonal.	October	03	Dt.14.10.2022 , 20.10.2022 , 21.10.2022
2	<b>SMITHY PRACTICES</b>			
	2.1.Preparation of door ring with hook.		03	Dt.27.10.22 , 28.10.22 , 03.11.22
	2.2.Preparation of hexagonal head bolt.	November	03	Dt.04.11.22 , 10.11.22 , 11.11.2022
	2.3.Preparation of octagon flat chisel .		03	Dt.17.11.2022 , 18.11.22 , 24.11.2022
3	<b>CARPENTRY PRACTICES</b>			
	3.1.Cutting slot,botch,mortise and tenon joint.		03	Dt.25.11.2022 , 01.12.2022 , 02.12.22
	3.2.Preparation of single dove tail joint.	December	03	Dt.08.12.22 , 09.12.2022 , 15.12.22
4	<b>WELDING PRACTICES</b>			
	4.1.Lap and Butt joint using dre welding.		03	Dt.16.12.22 , 22.12.22 , 23.12.2022
	4.2.Lap joint using gas welding.	January	03	Dt.05.01.23 , 06.01.23 , 12.01.2023
	4.3.Joining 2 non-ferrous parts through.		03	Dt.13.01.2023 , 19.01.23 , 20.01.23.

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*Bhimachand*  
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**PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23**

BRANCH:- MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MA1

NAME OF THE FACULTY : (1) ER. RASABIHARI SAHU (LECT. IN MECH. ENGG.)

SEMESTER FROM DT.15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
01	Library Study and Technical Quiz	September	03	Dt.17.09.2022 , 24.09.2022 15.10.2022
02	Seminar On different technical topics	October	03	Dt. 22.10.2022 , 29.10.2022 05.11.2022
03	Seminar on different environmental issues	November	03	Dt. 12.11.2022 , 19.11.2022 26.11.2022
04	Personality development Class	December	03	Dt. 03.12.2022 , 10.12.2022 17.12.2022
05	Cultural activities	January	03	Dt. 24.12.2022 , 07.01.2023 21.01.2023
06				

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGG.

SEMESTER: 3RD

SECTION :- MA2

NAME OF THE FACULTY : (1) ER. TARANISEN MOHANTY, (H.O.D., MECH. ENGG.), (2) ER. BIKASH RANJAN SAHU, (LECT. IN MECH. ENGG.), (3) ER. BISHNU CHARANA BEHERA (T.A.)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: MECHANICAL ENGG. DRAWING (PR-1)

CLASS ALLOTTED /WEEK :- 06 PERIODS

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Revision of Engg. Drawing of 1st year.	September	02	Dt. 19.09.2022 , 20.09.2022
2	Draw plan, elevation and side view of different machine element from their isometric view using AUTO CAD and mini drafter. (Minimum 5 drawing)		03	Dt. 26.09.2022 , 27.09.2022 10.10.2022
3	Engineering drawing of fastening elements in first angle orthographic projection.	October		
	3.1. Bolt, nut and threads.		02	Dt. 11.10.2022 , 17.10.2022
	3.2. Cotter joint.		02	Dt. 18.10.2022 , 25.10.2022
	3.3. Knuckle joint.	November	02	Dt. 01.11.2022 , 07.11.2022
4	Details to assembly.			
	4.1. Rigid pedestal bearing.		02	Dt. 14.11.2022 , 15.11.2022
	4.2. Foot step bearing.		01	Dt. 21.11.2022
	4.3. Simple screw jack.		02	Dt. 22.11.2022 , 28.11.2022

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
5	Assembly to details.			
	5.1.Connecting rod of I.C. engine.		03	Dt. 29.11.2022 , 05.12.2022 06.12.2022
	5.2.Boiler safety valve.	December	03	Dt. 12.12.2022 , 13.12.2022 19.12.2022
	5.3.Spring loaded valve.		02	Dt. 20.12.2022 , 02.01.2023
	5.4.Hydraulic non return valve.	January	03	Dt. 03.01.2023 , 09.01.2023 10.01.2023
	5.5.Flat belt pulley.		02	Dt. 16.01.2023 , 17.01.2023

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*Prasanth*

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*P. D. K.*

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**PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23**

**BRANCH:-MECHANICAL ENGG.**

**SEMESTER: 3RD**

**SECTION:- MA2**

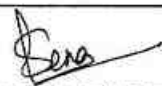
**NAME OF THE FACULTY : (1) ER. SUBHASHMITA JENA (LECT. IN MECH. ENGG.) ,(2) ER. GOBINDA BARIK, (3) ER. PRADEEP KUMAR SAHOO, (T.A. MECH. ENGG.)**

**SEMESTER FROM DT. 15.09.2022 TO 21.01.2023**

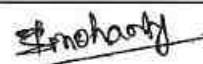
**PRACTICAL SUBJECT: MECHANICAL ENGINEERING LABORATORY-I (PR-2)**

**CLASS ALLOTTED /WEEK:- 04 PERIODS**

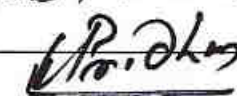
SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
	<b>STRENGTH OF MATERIALS AND THERMAL LABROTARY</b>			
1	Determine end reactions in a simply supported beam using parallel foree apparatus.	September	02	Dt. 21.09.2022 , 28.09.2022
2	Determine of Young's modulus using searle's apparatus.	October	02	Dt. 12.10.2022 , 19.10.2022
3	Determiation of torsional rigidity of the shaft using torsion testing machine.		02	Dt. 26.10.2022 , 02.11.2022
4	Determiation of salient points (Young's modulus ,Yield point,fracture point) from stress-strain curve	November	02	Dt. 09.11.2022 , 16.11.2022
5	Determiation of hardness number by Rockwell or vickers hardness testing machine.		02	Dt. 23.11.2022 , 30.11.2022
6	Determiation of toughness using Impact testing machine (charpy/izod)	December	02	Dt. 07.12.2022 , 14.12.2022
7	Determiation of flash point and fire point.		02	Dt. 21.12.2022 , 04.01.2023
8	Joule's experiment.	January	02	Dt. 11.01.2023 , 18.01.2023



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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MA2

NAME OF THE FACULTY : (1) ER. GOURI SANKAR PRADHAN, (2) ER. BIKASH RANJAN SAHU (LECT. IN MECH. ENGG.), (3) ER. GOBINDA BARIK (T.A., MECH. ENGG.), (4) KRUSHNA CH. SAHU, (5) BHIMASEN ROUT (INSTRUCTOR)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: WORKSHOP PRACTICE-II (PR-3)

CLASS ALLOTTED /WEEK:- 06 PERIODS

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	<b>FITTING PRACTICES</b>			
	1.1.Preparation of caliper.	September	03	Dt.16.09.2022, 22.09.2022, 29.09.2022
	1.2.Preparation of try square.		03	Dt.29.09.22, 30.09.22, 13.10.22
	1.3.Preparation of hammer, square, hexagonal.	October	03	Dt.14.10.22, 20.10.22, 21.10.2022
2	<b>SMITHY PRACTICES</b>			
	2.1.Preparation of door ring with hook.		03	Dt.27.10.22, 28.10.22, 03.11.2022
	2.2.Preparation of hexagonal head bolt.	November	03	Dt.04.11.22, 10.11.22, 11.11.2022
	2.3.Preparation of octagon flat chisel .		03	Dt.17.11.22, 18.11.22, 24.11.2022
3	<b>CARPENTRY PRACTICES</b>			
	3.1.Cutting slot,botch,mortise and tenon joint.		03	Dt.25.11.22, 01.12.22, 02.12.2022
	3.2.Preparation of single dove tail joint.		03	Dt.08.12.2022, 09.12.22, 15.12.2022
4	<b>WELDING PRACTICES</b>			
	4.1.Lap and Butt joint using dre welding.		03	Dt.16.12.22, 22.12.2022, 23.12.22
	4.2.Lap joint using gas welding.		03	Dt.04.01.23, 05.01.23, 12.01.23
	4.3.Joining 2 non-ferrous parts through.		03	Dt.13.01.23, 19.01.23, 20.01.23

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*B. Barik*  
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*B. Pradhan*  
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**PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23**

BRANCH:- MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MA1

NAME OF THE FACULTY : (1) ER. RASABIHARI SAHU (LECT. IN MECH. ENGG.)

SEMESTER FROM DT.15.09.2022 TO 21.01.2023


PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
01	Library Study and Technical quiz	September	03	Dt. 17.09.2022 , 24.09.2022 15.10.2022
02	Seminar on different technical topics	October	03	Dt. 22.10.2022 , 29.10.2022 05.11.2022
03	Seminar on different environmental issues.	November	03	Dt. 12.11.2022 , 19.11.2022 26.11.2022
04	Personality development Class	December	03	Dt. 03.12.2022 , 10.12.2022 17.12.2022
05	Cultural Activities.	January	03	Dt. 24.12.2022 , 07.01.2023 21.01.2023



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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGG.

SEMESTER: 3RD

SECTION :- MB1

NAME OF THE FACULTY : (1) ER. TARANISEN MOHANTY (H.O.D. MECH. ENGG.), (3) ER. BISHNU CHARANA BEHERA (T.A., MECH. ENGG.)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: MECHANICAL ENGG. DRAWING (PR-1)

CLASS ALLOTTED /WEEK :- 06 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Revision of Engg. Drawing of 1st year.	September	02	Dt. 16.09.2022 , 19.09.2022
2	Draw plan, elevation and side view of different machine element from their isometric view using AUTO CAD and mini drafter. (Minimum 5 drawing)		03	Dt. 23.09.2022 , 26.09.2022 30.09.2022
3	Engineering drawing of fastening elements in first angle orthographic projection.			φ
	3.1. Bolt , nut and threads.	October	02	Dt. 10.10.2022 , 14.10.2022
	3.2. Cotter joint.		02	Dt. 17.10.2022 , 21.10.2022
	3.3. Knuckle joint.		02	Dt. 28.10.2022 , 04.11.2022
4	Details to assembly.			
	4.1. Rigid pedestal bearing.	November	02	Dt. 07.11.2022 , 11.11.2022
	4.2. Foot step bearing.		01	Dt. 14.11.2022
	4.3. Simple screw jack.		02	Dt. 18.11.2022 , 21.11.2022

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
5	Assembly to details.			
	5.1.Connecting rod of I.C. engine.		03	Dt. 25.11.2022 , 28.11.2022 02.12.2022
	5.2.Boiler safety valve.	December	03	Dt. 05.12.2022 , 09.12.2022 12.12.2022
	5.3.Spring loaded valve.		03	Dt. 16.12.2022 , 19.12.2022 23.12.2022
	5.4.Hydraulic non return valve.	January	03	Dt. 02.01.2023 , 06.01.2023 09.01.2023
	5.5.Flat belt pulley.		03	Dt. 13.01.2023 , 16.01.2023 20.01.2023



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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MB1

NAME OF THE FACULTY : (1) ER. DEWAN KUMAR SAHU (LECT. IN MECH. ENGG.), (2) ER. GOBINDA BARIK (T.A., MECH. ENGG.)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: MECHANICAL ENGINEERING LABORATORY-I (PR-2)

CLASS ALLOTTED /WEEK:- 04 PERIODS

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
	STRENGTH OF MATERIALS AND THERMAL LABROTARY			
1	Determine end reactions in a simply supported beam using parallel foree apparatus.	Septembers	02	Dt. 22.09.2022 , 29.09.2022
2	Determine of Young's modulus using searle's apparatus.	Octobers	02	Dt. 13.10.2022 , 20.10.2022
3	Determination of torsional rigidity of the shaft using torsion testing machine.		02	Dt. 27.10.2022 , 03.11.2022
4	Determination of salient points (Young's modulus , Yield point, fracture point) from stress-strain curve using universal testing machine.	Novembers	02	Dt. 10.11.2022 , 17.11.2022
5	Determination of hardness number by Rockwell or vickers hardness testing machine.		02	Dt. 24.11.2022 , 01.12.2022
6	Determination of toughness using Impact testing machine (charpy/izod)	Decembers	02	Dt. 08.12.2022 , 15.12.2022
7	Determination of flash point and fire point.		02	Dt. 22.12.2022 , 05.01.2023
8	Joule's experiment.	January	02	Dt. 12.01.2023 , 19.01.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MB1

NAME OF THE FACULTY : (1) ER. GOURI SANKAR PRADHAN, (LECT. IN MECH. ENGG.), (2) SANATAN SAHU, (3) KRUSHNA CH. SAHU (INSTRUCTOR)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: WORKSHOP PRACTICE-II (PR-3)

CLASS ALLOTTED /WEEK:- 06 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	<b>FITTING PRACTICES</b>			
	1.1.Preparation of caliper.	September	03	Dt. 20.09.22, 21.09.22, 27.09.22
	1.2.Preparation of try square.		03	Dt. 28.09.22, 11.10.22, 12.10.22
	1.3.Preparation of hammer, square, hexagonal.	October	03	Dt. 18. .22, 19. .22, 25. .22
2	<b>SMITHY PRACTICES</b>			
	2.1.Preparation of door ring with hook.		02	Dt. 26.10.22, 01.11.22
	2.2.Preparation of hexagonal head bolt.	November	02	Dt. 02.11.22, 09.11.22
	2.3.Preparation of octagon flat chisel .		03	Dt. 15.11.22, 16.11.22, 22.11.22
3	<b>CARPENTRY PRACTICES</b>			
	3.1.Cutting slot, botch, mortise and tenon joint.		03	Dt. 23.11.22, 29.11.22, 30.11.2022
	3.2.Preparation of single dove tail joint.	December	03	Dt. 06.12.22, 07.12.22, 13.12.2022
4	<b>WELDING PRACTICES</b>			
	4.1.Lap and Butt joint using dre welding.		03	Dt. 14.12.22, 20.12.22, 21.12.22
	4.2.Lap joint using gas welding.	January	03	Dt. 03.01.23, 04.01.23, 10.01.2023
	4.3.Joining 2 non-ferrous parts through.		03	Dt. 11.01.23, 17.01.23, 18.01.2023

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*S. Pradhan*  
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*P. Ch. Sahu*  
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**PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23**

BRANCH:- MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- ~~MBA~~ MB1

NAME OF THE FACULTY : (1) ER. MANAS RANJAN BEHERA (LECT. IN MECH. ENGG.)

SEMESTER FROM DT.15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
01	Library Study and Technical quiz	September	03	Dt. 17.09.2022 , 24.09.2022 15.10.2022
02	Seminar on different technical topics	October	03	Dt. 22.10.2022 , 29.10.2022. 05.11.2022
03	Seminar on different environmental issues	November	03	Dt. 12.11.2022 , 19.11.2022 26.11.2022
04	Personality development class	December	03	Dt. 03.12.2022 , 10.12.2022 17.12.2022
05	Cultural Activities	January	03	Dt. 24.12.2022 , 07.01.2023 21.01.2023.

*M. Behera*

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGG.

SEMESTER: 3RD

SECTION :- MB2

NAME OF THE FACULTY : (1) ER. TARANISEN MOHANTY (H.O.D. MECH. ENGG.), (3) ER. BISHNU CHARANA BEHERA (T.A., MECH. ENGG.)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: MECHANICAL ENGG. DRAWING (PR-1)

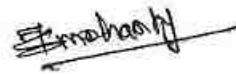
CLASS ALLOTTED /WEEK :- 06 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	Revision of Engg. Drawing of 1st year.	September	02	Dt. 16.09.2022 , 19.09.2022
2	Draw plan, elevation and side view of different machine element from their isometric view using AUTO CAD and mini drafter. (Minimum 5 drawing)		03	Dt. 23.09.2022 , 26.09.2022 30.09.2022
3	Engineering drawing of fastening elements in first angle orthographic projection.			
	3.1. Bolt, nut and threads.	October	02	Dt. 10.10.2022 , 14.10.2022
	3.2. Cotter joint.		02	Dt. 17.10.22 , 21.10.2022
	3.3. Knuckle joint.		02	Dt. 28.10.2022 , 04.11.2022
4	Details to assembly.			
	4.1. Rigid pedestal bearing.	November	02	Dt. 07.11.2022 , 11.11.2022
	4.2. Foot step bearing.		01	Dt. 14.11.2022
	4.3. Simple screw jack.		02	Dt. 18.11.2022 , 21.11.2022

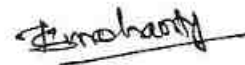
SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
5	Assembly to details.			
	5.1.Connecting rod of I.C. engine.		03	Dt. 25.11.2022 , 28.11.2022 02.12.2022
	5.2.Boiler safety valve.	Decembert	03	Dt. 05.12.2022 , 09.12.2022 12.12.2022
	5.3.Spring loaded valve.		03	Dt. 16.12.2022 , 19.12.2022 23.12.2022
	5.4.Hydraulic non return valve.	January	03	Dt. 02.01.2023 , 06.01.2023 09.01.2023
	5.5.Flat belt pulley.		03	Dt. 13.01.23 , 16.01.23 20.01.23

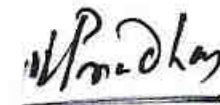


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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MB2

NAME OF THE FACULTY : (1) ER. DEWAN KUMAR SAHU (LECT. IN MECH. ENGG.), (2) ER. GOBINDA BARIK (T.A., MECH. ENGG.)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: MECHANICAL ENGINEERING LABORATORY-I (PR-2)

CLASS ALLOTTED /WEEK:- 04 PERIODS

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOB TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
	<b>STRENGTH OF MATERIALS AND THERMAL LABROTARY</b>			
1	Determine end reactions in a simply supported beam using parallel foree apparatus.	September	02	Dt. 22.09.2022 , 29.09.2022
2	Determine of Young's modulus using searle's apparatus.	October	02	Dt. 13.10.2022 , 20.10.2022
3	Determination of torsional rigidity of the shaft using torsion testing machine.		02	Dt. 27.10.2022 , 03.11.2022
4	Determination of salient points (Young's modulus ,Yield point,fracture point) from stress-strain curve	November	02	Dt. 10.11.2022 , 17.11.2022
5	Determination of hardness number by Rockwell or vickers hardness testing machine.		02	Dt. 24.11.2022 , 01.12.2022
6	Determination of toughness using Impact testing machine (charpy/izod)	December	02	Dt. 08.12.2022 , 15.12.2022
7	Determination of flash point and fire point.		02	Dt. 22.12.2022 , 05.01.2023
8	Joule's experiment.	January	02	Dt. 12.01.2023 , 19.01.2023

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:-MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MB2

NAME OF THE FACULTY : (1) ER. GOURI SANKAR PRADHAN, (LECT. IN MECH. ENGG.), (2) SANATAN SAHU, (3) KRUSHNA CH. SAHU (INSTRUCTOR)

SEMESTER FROM DT. 15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: WORKSHOP PRACTICE-II (PR-3)

CLASS ALLOTTED /WEEK:- 06 PERIODS

SI. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
1	<b>FITTING PRACTICES</b>			
	1.1.Preparation of caliper.	September	03	Dt.20.09.2022, 21.09.22, 27.09.22
	1.2.Preparation of try square.		03	Dt.28.09.22, 11.10.22, 12.10.22
	1.3.Preparation of hammer, square, hexagonal.	October	03	Dt.18.10.22, 19.10.22, 25.10.22
2	<b>SMITHY PRACTICES</b>			
	2.1.Preparation of door ring with hook.	November	02	Dt.26.10.22, 01.11.22
	2.2.Preparation of hexagonal head bolt.		02	Dt.02.11.2022, 09.11.2022
	2.3.Preparation of octagon flat chisel .		03	Dt.15.11.22, 16.11.22, 22.11.2022
3	<b>CARPENTRY PRACTICES</b>			
	3.1.Cutting slot,botch,mortise and tenon joint.	December	03	Dt.23.11.22, 29.11.22, 30.11.22
3.2.Preparation of single dove tail joint.	03		Dt.06.12.22, 07.12.22, 13.12.22	
4	<b>WELDING PRACTICES</b>			
	4.1.Lap and Butt joint using dre welding.	January	03	Dt.14.12.22, 20.12.22, 21.12.22
	4.2.Lap joint using gas welding.		03	Dt.03.01.23, 04.01.23, 10.01.23
	4.3.Joining 2 non-ferrous parts through.		03	Dt.11.01.23, 17.01.23, 18.01.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2022 - 23

BRANCH:- MECHANICAL ENGG.

SEMESTER: 3RD

SECTION:- MA1

NAME OF THE FACULTY : (1) ER. MANAS RANJAN BEHERA (LECT. IN MECH. ENGG.)

SEMESTER FROM DT.15.09.2022 TO 21.01.2023

PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES

CLASS ALLOTTED /WEEK :- 03 PERIODS

Sl. No.	NAME OF THE PRACTICAL EXPERIMENT/JOBS TO BE COVERED	MONTH	AS PER ACADEMIC CALENDAR & TIME TABLE CLASS DAYS	ACTUAL PROGRESS OF THE COURSES MADE DATES
01	Library study & Technical quiz	September	03	Dt. 17.09.2022 , 24.09.2022 15.10.2022
02	Seminar on different technical topics	October	03	Dt. 22.10.2022 , 29.10.2022 05.11.2022
03	Seminar on different environmental issues	November	03	Dt. 12.11.2022 , 19.11.2022 26.11.2022
04	Personality development class	December	03	Dt. 03.12.2022 , 10.12.2022 17.12.2022
05	Cultural Activities	January	03	Dt. 24.12.2022 , 07.01.2023 21.01.2023

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