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

THEORY LESSON PLAN FOR THE SESSION 2023 - 24

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

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

SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023

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	**METAL FORMING PROCESSES**	**7**	AUGUST	
	Extrusion: Definition & Classification	1		01.08.23, 03.08.23
	Explain direct, indirect and impact extrusion process	2		Dt. 04.08.23, 06.08.23
	Define rolling. Classify it.	1		Dt. 07.08.23 REVISION:- 01.12.23 04.12.23
	Differentiate between cold rolling and hot rolling process.	2		Dt. 08.08.23, 10.08.23
	types of rolling mills used in Rolling process.	1		
2	**WELDING**	**16**		
	Define welding and classify various welding processes.	1		Dt. 11.08.23
	Explain fluxes used in welding.	1		Dt. 14.08.23
	Explain Oxy-acetylene welding process.	2		Dt. 17.08.23, 18.08.23
	Explain various types of flames used in Oxy-acetylene welding process.	1		Dt. 21.08.23
	Explain Arc welding process.	2		Dt. 22.08.23, 24.08.23
	Specify arc welding electrodes.	2		Dt. 25.08.23, 28.08.23
	Define resistance welding and classify it.	2		Dt. 29.08.23, 31.08.23
	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.	2	SEPTEMBER	Dt. 04.09.23, 05.09.23
	Explain TIG and MIG welding process	2		Dt. 07.09.23, 08.09.23
	State different welding defects with causes and remedies	1		Dt. 11.09.23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**CASTING**	**15**		
	Define Casting and Classify the various Casting processes	1		Dt. 12.09.23
	Explain the procedure of Sand mould casting	2		Dt. 14.09.23, 15.09.23 Revision:- 08.12.23, 07.12.23
	Explain different types of molding sands with their composition and properties.	2		Dt. 18.09.23, 21.09.23
	Classify different pattern and state various pattern allowances	2		Dt. 22.09.23, 25.09.23
	Classify core	1		Dt. 26.09.23, 28.09.23
	Describe construction and working of cupola and crucible furnace.	2	OCTOBER	Dt. 03.10.23, 05.10.23
	Explain die casting method.	2		Dt. 06.10.23, 09.10.23
	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.	2		Dt. 10.10.23, 12.10.23
	Explain various casting defects with their causes and remedies.	2		Dt. 13.10.23, 16.10.23
4	**POWDER METALLURGY**	**5**		
	Define powder metallurgy process	1		Dt. 17.10.23
	State advantages of powder metallurgy technology technique	1		Dt. 19.10.23
	Describe the methods of producing components by powder metallurgy technique	1		Dt. 20.10.23
	Explain sintering	1		Dt. 30.10.23
	Economics of powder metallurgy	1		Dt. 31.10.23
5	**PRESS WORK**	**7**	NOVEMBER	
	Describe Press Works: blanking, piercing and trimming	2		Dt. 02.11.23, 03.11.23
	List various types of die and punch	2		Dt. 06.11.23, 07.11.23
	Explain simple, Compound & Progressive dies	2		Dt. 09.11.23, 10.11.23
	Describe the various advantages & disadvantages of above dies	1		Dt. 13.11.23

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		Dt. 14.11.23, 16.11.23
	State advantages of using jigs and fixtures	1		Dt. 17.11.23
	State the principle of locations	2		Dt. 20.11.23 21.11.23
	Describe the methods of location with respect to 3-2-1 point location of rectangular jig	2		Dt. 23.11.23, 24.11.23, 28.11.23
	List various types of jig and fixtures	1		Dt. 30.11.23

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MECHANICAL ENGINEERING SEMESTER: 3RD SECTION:- MA	**NAME OF THE FACULTY : (1) ER. TARANISEN MOHANTY (H.O.D. MECH. ENGG.), (2) ER. SHUBHAM PRADHAN (LECT. IN MECH. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**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**	AUGUST	
	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. 01.08.23, 02.08.23, 03.08.23, 04.08.23
	Principle of super position, stresses in composite section	2		Dt. 07.08.23, 08.08.23
	Temperature stress, determine the temperature stress in composite bar (single core)	1		Dt. 10.08.23, 11.08.23
	Strain energy and resilience, Stress due to gradually applied, suddenly applied and impact load	2		Dt. 14.08.23, 17.08.23
	Simple problems on above	1		Dt. 18.08.23
2	**THIN CYLINDER AND SPHERICAL SHELL UNDER INTERNAL PRESSURE**	**8**		
	Definition of hoop and longitudinal stress, strain	1		Dt. 21.08.23
	Derivation of hoop stress, longitudinal stress, hoop strain, longitudinal strain and volumetric strain	3		Dt. 22.08.23, 24.08.23, 25.08.23
	Computation of the change in length, diameter and volume	2		Dt. 28.08.23, 29.08.23, 31.08.23
	Simple problems on above	2	SEPTEMBER	Dt. 04.09.23, 05.09.23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**TWO DIMENSIONAL STRESS SYSTEMS**	**10**		
	Determination of normal stress, shear stress and resultant stress on oblique plane	2		Dt. 07.09.23, 08.09.23
	Location of principal plane and computation of principal stress	4		Dt. 11.09.23, 12.09.23, 14.09.23, 15.09.23
	Location of principal plane and computation of principal stress andMaximum shear stress using Mohr's circle	4		Dt. 18.09.23, 21.09.23, 22.09.23, 25.09.23
4	**BENDING MOMENT & SHEAR FORCE**	**10**		
	Types of beam and load	2		Dt. 26.09.23, 28.09.23
	Concepts of Shear force and bending moment	3	OCTOBER	Dt. 03.10.23, 05.10.23, 06.10.23
	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. 09.10.23, 10.10.23, 12.10.23 13.10.23, 16.10.23
5	**THEORY OF SIMPLE BENDING**	**10**		
	Assumptions in the theory of bending,	3		Dt. 17.10.23, 19.10.23, 20.10.23
	Bending equation, Moment of resistance, Section modulus& neutral axis.	5	NOVEMBER	Dt. 30.10.23, 31.10.23, 02.11.23 03.11.23, 06.11.23
	Solve simple problems	2		Dt. 07.11.23, 09.11.23
6	**COMBINED DIRECT & BENDING STRESSES**	**6**		
	Define column	2		Dt. 10.11.23, 13.11.23
	Axial load, Eccentric load on column	4		Dt. 14.11.23, 16.11.23, 17.11.23, 20.11.23

Sl No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
7	**TORSION**	**6**		
	Assumption of pure torsion	2		Dt·21·11·23, 23·11·23
	The torsion equation for solid and hollow circular shaft	2		Dt·24·11·23, 28·11·23, 30/11/23
	Comparison between solid and hollow shaft subjected to pure torsion	2	DECEMBER	Dt·01·12·23, 04·12·23, 05·12·23 Dt·12·22, 08·12·23

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGINEERING SEMESTER: 3RD **SECTION: MA**	**NAME OF THE FACULTY : (1) ER. KAMALAKANTA TRIPATHY, (2) ER. LAKIN KUMAR SAHOO (LECT. IN MECH. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**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	**ENGINEERING MATERIALS AND THEIR PROPERTIES**	**5**	AUGUST	
	Material classification into ferrous and non ferrous category and alloys	1		Dt·01·08·23
	Properties of Materials: Physical , Chemical	1		Dt·02·08·23
	Properties of Mechanical	1		Dt·03·08·23
	Performance requirements	1		Dt·07·08·23
	Material reliability and safety	1		Dt·08·08·23
2	**FERROUS MATERIALS AND ALLOYS**	**4**		
	Characteristics and application of ferrous materials	1		Dt·09·08·23
	Classification, composition and application of low carbon steel, medium carbon steel and High carbon steel	1		Dt·10·08·23
	Alloy steel: Low alloy steel, high alloy steel, tool steel and stainless steel	1		Dt·14·08·23
	Tool steel: Effect of various alloying elements such as Cr, Mn, Ni, V, Mo,	1		Dt·16·08·23
3	**IRON - CARBON SYSTEM**	**8**		
	Concept of phase diagram and cooling curves	3		Dt·17·08·23, 21·08·23, 22·08·23
	Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel	5		Dt·23·08·23, 24·08·23, 28·08·23 29·08·23, 31·08·23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**CRYSTAL IMPERFECTIONS**	**10**	SEPTEMBER	
	Crystal defines, classification of crystals, ideal crystal and crystal imperfections	1		Dt·04·09·23
	Classification of imperfection: Point defects, line defects, surface defects and volume defects	1		Dt·05·09·23
	Types and causes of point defects: Vacancies, Interstitials and impurities	1		Dt·07·09·23
	Types and causes of line defects: Edge dislocation and screw dislocation	2		Dt·11·09·23, 12·09·23
	Effect of imperfection on material properties	2		Dt·13·09·23, 14·09·23
	Deformation by slip and twinning	2		Dt·18·09·21, 21·09·23
	Effect of deformation on material properties	1		Dt·25·09·23
5	**HEAT TREATMENT**	**10**		
	Purpose of Heat treatment	1		Dt·26·09·23
	Process of heat treatment: Annealing, normalizing, hardening, tampering, stress relieving measures	4		Dt·27·09·23, 28·09·23, 03·10·23, 04·10·23
	Surface hardening: Carburizing and Nitriding	2	OCTOBER	Dt·05·10·23, 09·10·23
	Effect of heat treatment on properties of steel	2		Dt·10·10·23, 11·10·23
	Hardenability of steel	1		Dt·12·10·23
6	**NON-FERROUS ALLOYS**	**10**		
	Aluminum alloys: Composition, property and usage of Duralmin, y- alloy.	3		Dt·16·10·23, 17·10·23, 18·10·23
	Copper alloys: Composition, property and usage of Copper- Aluminum, Copper-Tin, Babbit , Phosperous bronze, brass, Copper- Nickel	3		Dt·19·10·23, 30·10·23, 31·10·23
	Predominating elements of lead alloys, Zinc alloys and Nickel alloys	3	NOVEMBER	

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		
7	**BEARING MATERIAL**	**3**		
	Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials	3		
8	**SPRING MATERIALS**	**3**		
	Classification, composition, properties and uses of Iron-base and Copper base spring material	3		
9	**POLYMERS**	**3**		
	Properties and application of thermosetting and thermoplastic polymers	2		
	Properties of elastomers	1		
10	**COMPOSITES AND CERAMICS**	**3**		
	Classification, composition, properties and uses of particulate based and fiber reinforced composites	2		
	Classification and uses of ceramics	1		

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24				
BRANCH:-MECHANICAL ENGINEERING SEMESTER: 3RD SECTION: MA			NAME OF THE FACULTY : (1) ER. SATYANARAYAN MAJHI, (2) ER. HIMANSU SEKHAR SAMAL (LECT. IN MECH ENGG.)	
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023			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	AUGUST	[illegible]
	Thermodynamic Systems (closed, open, isolated)	1		Dt·02·08·23
	Thermodynamic properties of a system	2		Dt·03·08·23, 04·08·23
	Intensive and extensive properties	1		Dt·07·08·23
	Define thermodynamic processes, path, cycle , state, path function, point function	3		Dt·09·08·23, 10·08·23, 11·08·23
	Thermodynamic Equilibrium	2		Dt·14·08·23, 16·08·23
	Quasi-static Process	1		Dt·17·08·23
	Conceptual explanation of energy and its sources	1		Dt·18·08·23
	Work , heat and comparison between the two	1		Dt·21·08·23
	Mechanical Equivalent of Heat	1		Dt·23·08·23
	Work transfer, Displacement work	2		Dt·24·08·23, 25·08·23

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·26·08·23, 31·08·23
	State & explain First law of thermodynamics	1	SEPTEMBER	Dt· 01·09·23
	Limitations of First law of thermodynamics	2		Dt·04·09·23, 07·09·23
	Application of First law of Thermodynamics	2		Dt·08·09·23, 11·09·23
	Second law of thermodynamics	2		Dt·13·09·23, 14·09·23
	Application of second law in heat engine,	2		Dt·15·09·23, 18·09·23
3	**PROPERTIES PROCESSES OF PERFECT GAS**	**10**		
	Laws of perfect gas:	2		Dt·21·09·23, 22·09·23
	Explain specific heat of gas (Cp and Cv)	1		Dt·25·09·23
	Relation between Cp & Cv.	1		Dt·27·09·23
	Enthalpy of a gas	1		Dt·28·09·23
	Work done during a non- flow process	1	OCTOBER	Dt·04·10·23,
	Application of first law of thermodynamics to various non flow process (Isothermal, Isobaric, Isentropic and polytrophic process	2		Dt·05·10·23, 06·10·23
	Solve simple problems on above.	1		Dt·09·10·23
	Free expansion & throttling process	1		Dt·11·10·23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**INTERNAL COMBUSTION ENGINE**	**8**		
	Explain & classify I.C engine.	2		Dt·12·10·23, 13·10·23
	Terminology of I.C Engine such as bore, dead centers, stroke volume, piston speed &RPM.	2		Dt·16·10·23, 18·10·23
	Explain the working principle of 2-stroke & 4- stroke engine C.I & S.I engine.	2		Dt·19·10·23, 20·10·23
	Differentiate between 2-stroke & 4- stroke engine C.I & S.I engine.	2		Dt·30·10·23, Dt·1·11·23
5	**GAS POWER CYCLE**	**10**	NOVEMBER	
	Carnot cycle	2		Dt·02·11·23, 03·11·23
	Otto cycle	3		Dt·06·11·23, 08·11·23, 09·11·23
	Diesel cycle.			
	Dual cycle.	2		Dt·10·11·23, 13·11·23
	Solve simple numerical.	3		Dt·15·11·23, 16·11·23, 17·11·23
6	**FUELS AND COMBUSTION**	**8**		
	Define Fuel.	1		Dt·20·11·23, 2211·23
	Types of fuel.	2		Dt·23·11·23, 24·11·23
	Application of different types of fuel.	1		Dt·29·11·23, 30·11·23
	Heating values of fuel	2	DECEMBER	Dt·01·12·23, 04·12·23
	Quality of I.C engine fuels Octane number, Cetane number.	2		Dt·06·12·23, 07·12·23, 08·12·23

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THEORY LESSON PLAN FOR THE SESSION 2023 -24

BRANCH:-MECHANICAL ENGINEERING SECTION: MA **SEMESTER: 3RD**	**NAME OF THE FACULTY : (1) ER. MANAS RANJAN BEHERA, (2) ER. SHUBHAM PRADHAN (LECT. IN MECH. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**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	**UNIT 1 : THE MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES**	**4**	AUGUST	
	Definition, scope and importance, Need for public awareness.	4		Dt·01·08·23, 02·08·23, 04·08·23, 05·08·23
2	**UNIT 2 : NATURAL RESOURCES**	**10**		
	Natural resources and associated problems: Forest resources, Water resources, Mineral Resources, Food Resources, Energy Resources, Land Resources.	5		REVISION :- 01·12·23, 02·112·23 Dt·12·08·23, 16·08·23, 08·12·23 09·12·23 Dt·08·08·23, 0908·23, 11·08·23,
	Role of individual in conservation of natural resources.	2		Dt·16·08·23, 19·08·23
	Equitable use of resources for sustainable lifestyles.	3		Dt· 22·08·23, 23·08·23, 25·08·23
3	**UNIT 3 : SYSTEMS**	**8**		
	Concept of an ecosystem.Structure and function of an ecosystem.	1		Dt·26·08·23
	Producers, consumers, decomposers.	1		Dt·29·08·23
	Energy flow in the ecosystems.	1	SEPTEMBER	Dt.01.09.23.
	Ecological succession.	1		Dt·02.09.23
	Food chains, food web sand ecological pyramids.	1		Dt·05·09·23
	Introduction, types, characteristic features, structure and function of the following ecosystem.	1		Dt·08·09·23
	Forest ecosystem.	1		Dt·09·09·23
	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	1		Dt·12·09·23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**UNIT 4 : BIODIVERSITY AND ITS'S CONSERVATION**	**8**		
	Introduction-Definition: genetics, species and ecosystem diversity.	2		Dt·13·09·23, 15·09·23
	Biogeographically classification of India.	1		Dt·16·09·23
	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.	2		Dt·22·09·23, 23·09·23
	Biodiversity at global, national and local level.	2		Dt·26·09·23
	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	1		Dt·27·09·23
5	**UNIT 5 : ENVIRIONMENTAL POLLUTION**	12		
	Definition Causes, effects and control measures of:Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards.	4	OCTOBER	Dt·06·10·23 Dt·30·09·23, 03·10·23, 04·10·23
	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	4		Dt·07·10·23, 10, 10·23, 11·10·23
	Role of an individual in prevention of pollution	2		Dt·13·10·23, 14, 10·23, 17·10·23
	Disaster management: Floods, earth quake, cyclone and landslides.	2		Dt·18·10·23, 20·10·23,
6	**UNIT 6 : SOCIAL ISSUES AND THE ENVIRONMENT**	**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: 31·10·23, 01·11·23, 03·11·23
	Environmental ethics: issue and possible solutions.	2		Dt·04·11·23, 07·11·23
	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.	2		Dt·08·11·23, 10·11·23

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·11·11·23, 14·11·23
	Public awareness	1		Dt·15·11·23, 17·11·23
7	**UNIT 7 : HUMAN POPULATION AND THE ENVIRONMENT**	**8**		
	Population growth and variation among nations, Population explosion-family welfare program.	3		Dt·16·11·23, 21·11·23, 22·11·23
	Environment and human health.	1		Dt· 22·11·23
	Human rights.	1		Dt· 24·11·23
	Value education.	1		Dt·25·11·23
	Role of information technology in environment and human health.	2		Dt· 28·11·23, 29·11·23

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

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

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

SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023

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	**METAL FORMING PROCESSES**	**7**	AUGUST	
	Extrusion: Definition & Classification	1		Dt. 01.08.23,
	Explain direct, indirect and impact extrusion process	2		Dt 02.08.23, 05.08.23
	Define rolling. Classify it.	1		Dt. 07.08.23
	Differentiate between cold rolling and hot rolling process.	2		Dt. 08.08.23, 11.08.23
	types of rolling mills used in Rolling process.	1		Dt. 12.08.23
2	**WELDING**	**16**		
	Define welding and classify various welding processes.	1		Dt. 14.08.23, 18.08.23
	Explain fluxes used in welding.	1		Dt. 19.08.23
	Explain Oxy-acetylene welding process.	2		Dt. 21.08.23, 22.08.23
	Explain various types of flames used in Oxy-acetylene welding process.	1		Dt. 25.08.23
	Explain Arc welding process.	2		Dt. 26.08.23, 28.08.23, 29.08.23
	Specify arc welding electrodes.	2	SEPTEMBER	Dt. 01.09.23, 02.09.23
	Define resistance welding and classify it.	2		Dt. 04.09.23, 05.09.23
	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.	2		Dt. 08.09.23, 09.09.23, 11.09.23
	Explain TIG and MIG welding process	2		Dt. 12.09.23, 15.09.23
	State different welding defects with causes and remedies	1		Dt. 16.09.23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**CASTING**	**15**		
	Define Casting and Classify the various Casting processes	1		Dt·18·09·23
	Explain the procedure of Sand mould casting	2		Dt·22·09·23, 23·09·23
	Explain different types of molding sands with their composition and properties.	2		Dt·25·09·23, 26·09·23, 30·09·23
	Classify different pattern and state various pattern allowances	2	OCTOBER.	Dt· 03·10·23, 06·10·23
	Classify core	1		Dt· 07·10·23, 09·10·23
	Describe construction and working of cupola and crucible furnace.	2		Dt·10·10·23, 13·10·23, 14·10·23
	Explain die casting method.	2		Dt·16·10·23, 17·10·23
	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.	2		Dt·20·10·23, 30·10·23
	Explain various casting defects with their causes and remedies.	2		Dt·31·10·23, 03·11·23
4	**POWDER METALLURGY**	**5**	NOVEMBER.	
	Define powder metallurgy process	1		Dt·04·11·23, 07·11·23,
	State advantages of powder metallurgy technology technique	1		Dt·10·11·23
	Describe the methods of producing components by powder metallurgy technique	1		Dt·11·11·23, 13·11·23
	Explain sintering	1		Dt·14·11·23
	Economics of powder metallurgy	1		Dt·17·11·23
5	**PRESS WORK**	**7**		
	Describe Press Works: blanking, piercing and trimming	2		Dt·18·11·23, 20·11·23
	List various types of die and punch	2		Dt·21·11·23, 24·11·23
	Explain simple, Compound & Progressive dies	2		Dt·25·11·23, 28·11·23
	Describe the various advantages & disadvantages of above dies	1	DECEMBER	Dt·01·12·23

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		Dt·02·12·23
	State advantages of using jigs and fixtures	1		Dt·04·12·23
	State the principle of locations	2		Dt 05·12·23, 08·12·23
	Describe the methods of location with respect to 3-2-1 point location of rectangular jig	2		Dt·09·12·23
	List various types of jig and fixtures	1		Dt·10·12·23

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MECHANICAL ENGINEERING SEMESTER: 3RD SECTION:- MB	**NAME OF THE FACULTY : (1) ER. TARANISEN MOHANTY (H.O.D. MECH. ENGG.), (2) ER. SHUBHAM PRADHAN (LECT. IN MECH. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**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**	AUGUST	
	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. 02.08.23, 03.08.23 Dt. 04.08.23, 07.08.23
	Principle of super position, stresses in composite section	2		Dt. 09.08.23, 10.08.23
	Temperature stress, determine the temperature stress in composite bar (single core)	1		Dt. 11.08.23
	Strain energy and resilience, Stress due to gradually applied, suddenly applied and impact load	2		Dt. 14.08.23, 16.08.23
	Simple problems on above	1		Dt. 17.08.23
2	**THIN CYLINDER AND SPHERICAL SHELL UNDER INTERNAL PRESSURE**	**8**		
	Definition of hoop and longitudinal stress, strain	1		Dt. 18.08.23
	Derivation of hoop stress, longitudinal stress, hoop strain, longitudinal strain and volumetric strain	3		Dt. 21.08.23, 23.08.23, 24.08.23
	Computation of the change in length, diameter and volume	2		Dt. 25.08.23, 28.08.23
	Simple problems on above	2		Dt. 31.08.23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
3	**TWO DIMENSIONAL STRESS SYSTEMS**	**10**	SEPTEMBER	
	Determination of normal stress, shear stress and resultant stress on oblique plane	2		Dt·01·09·23, 04·09·23
	Location of principal plane and computation of principal stress	4		Dt· 13·09·23 Dt·07·09·23, 08·09·23, 11·09·23
	Location of principal plane and computation of principal stress andMaximum shear stress using Mohr's circle	4		Dt·14·09·23, 15·09·23 Dt·18·09·23, 21·09·23
4	**BENDING MOMENT & SHEAR FORCE**	**10**		
	Types of beam and load	2		Dt·22·09·23, 25·09·23
	Concepts of Shear force and bending moment	3		Dt·27·09·23, 28·09·23, 04·10·23
	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	OCTOBER	Dt·05·10·23, 06·10·23, 09·10·23 Dt·11·10·23, 12·10·23
5	**THEORY OF SIMPLE BENDING**	**10**		
	Assumptions in the theory of bending,	3		Dt·13·10·23, 16·10·23, 18·10·23
	Bending equation, Moment of resistance, Section modulus& neutral axis.	5		Dt·19·10·23 20·10·23, 30·10·23 Dt·01·11·23, 02·11·23
	Solve simple problems	2	NOVEMBER	Dt·03·11·23, 06·11·23
6	**COMBINED DIRECT & BENDING STRESSES**	**6**		
	Define column	2		Dt·08·11·23, 09·11·23, 10·11·23
	Axial load, Eccentric load on column	4		Dt·13·11·23, 15·11·23, 16·11·23, 17·11·23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
7	**TORSION**	**6**		
	Assumption of pure torsion	2	DECEMBER	Dt·20·11·23, 22·11·23, 23·11·23 24·11·23, 29·11·23
	The torsion equation for solid and hollow circular shaft	2		Dt·30·11·23, 01·12·23, 04·12·23
	Comparison between solid and hollow shaft subjected to pure torsion	2		Dt·06·12·23, 07·12·23, 08·12·23

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BRANCH:-MECHANICAL ENGINEERING SECTION: MB **SEMESTER: 3RD**	**NAME OF THE FACULTY : (1) ER. KAMALAKANTA TRIPATHY, (2) ER. LAKIN KUMAR SAHOO (LECT. IN MECH. ENGG.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**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	**ENGINEERING MATERIALS AND THEIR PROPERTIES**	**5**	AUGUST	
	Material classification into ferrous and non ferrous category and alloys	1		Dt. 01.08.23
	Properties of Materials: Physical , Chemical	1		Dt. 02.08.23
	Properties of Mechanical	1		Dt. 03.08.23
	Performance requirements	1		Dt. 04.08.23
	Material reliability and safety	1		Dt. 05.08.23
2	**FERROUS MATERIALS AND ALLOYS**	**4**		
	Characteristics and application of ferrous materials	1		Dt. 09.08.23
	Classification, composition and application of low carbon steel, medium carbon steel and High carbon steel	1		Dt. 10.08.23
	Alloy steel: Low alloy steel, high alloy steel, tool steel and stainless steel	1		Dt. 11.08.23
	Tool steel: Effect of various alloying elements such as Cr, Mn, Ni, V, Mo,	1		Dt. 16.08.23
3	**IRON - CARBON SYSTEM**	**8**		
	Concept of phase diagram and cooling curves	3		Dt. 17.08.23, 18.08.23, 22.08.23
	Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel	5		29.08.23, 31.08.23 Dt. 23.08.23, 24.08.23, 25.08.23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**CRYSTAL IMPERFECTIONS**	**10**	SEPTEMBER	
	Crystal defines, classification of crystals, ideal crystal and crystal imperfections	1		Dt·01·09·23
	Classification of imperfection: Point defects, line defects, surface defects and volume defects	1		Dt·05·09·23
	Types and causes of point defects: Vacancies, Interstitials and impurities	1		Dt·07·09·23
	Types and causes of line defects: Edge dislocation and screw dislocation	2		Dt·08·09·23, 12·09·23, 13·09·23
	Effect of imperfection on material properties	2		Dt·14·09·23, 15·09·23, 21·09·23
	Deformation by slip and twinning	2		Dt·22·09·23, 26·09·23
	Effect of deformation on material properties	1		Dt·27·09·23
5	**HEAT TREATMENT**	**10**		
	Purpose of Heat treatment	1		Dt·28·09·23
	Process of heat treatment: Annealing, normalizing, hardening, tampering, stress relieving measures	4	OCTOBER	Dt·03·10·23, 04·10·23, 05·10·23, 06·10·23
	Surface hardening: Carburizing and Nitriding	2		Dt·10·10·23, 11·10·23, 13·10·23
	Effect of heat treatment on properties of steel	2		Dt·13·10·23, 17·10·23
	Hardenability of steel	1		Dt·18·10·23
6	**NON-FERROUS ALLOYS**	**10**		
	Aluminum alloys: Composition, property and usage of Duralmin, y- alloy.	3		Dt·19·10·23, 20·10·23, 31·10·23
	Copper alloys: Composition, property and usage of Copper- Aluminum, Copper-Tin, Babbit , Phosperous bronze, brass, Copper- Nickel	3	NOVEMBER	Dt·01·11·23, 02·11·23, 03·11·23
	Predominating elements of lead alloys, Zinc alloys and Nickel alloys	3		Dt·07·11·23, 08·11·23, 09·11·23

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. 10.11.23
7	**BEARING MATERIAL**	**3**		
	Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials	3		Dt. 14.11.23, 15.11.23, 16.11.23
8	**SPRING MATERIALS**	**3**		
	Classification, composition, properties and uses of Iron-base and Copper base spring material	3		Dt. 17.11.23, 21.11.23, 22.11.23
9	**POLYMERS**	**3**		
	Properties and application of thermosetting and thermoplastic polymers	2		Dt. 23.11.23, 24.11.23, Dt. 28.11.23
	Properties of elastomers	1		Dt. 29.11.23
10	**COMPOSITES AND CERAMICS**	**3**		
	Classification, composition, properties and uses of particulate based and fiber reinforced composites	2	DECEMBER	Dt. 30.11.23, 01.12.23, 05.12.23 Dt. 06.12.23
	Classification and uses of ceramics	1		Dt. 07.12.23, 08.12.23

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THEORY LESSON PLAN FOR THE SESSION 2023 - 24				
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 : DT. 01.08.2023 TO 09.12.2023			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	AUGUST	
	Thermodynamic Systems (closed, open, isolated)	1		Dt:- 01.08.23, 02.08.23
	Thermodynamic properties of a system	2		Dt. 04.08.23, 07.08.23
	Intensive and extensive properties	1		Dt. 08.08.23
	Define thermodynamic processes, path, cycle , state, path function, point function	3		Dt. 09.08.23, 11.08.23, 14.08.23
	Thermodynamic Equilibrium	2		Dt. 16.08.23, 18.08.23
	Quasi-static Process	1		Dt. 21.08.23
	Conceptual explanation of energy and its sources	1		Dt. 22.08.23
	Work , heat and comparison between the two	1		Dt. 23.08.23
	Mechanical Equivalent of Heat	1		Dt. 25.08.23
	Work transfer, Displacement work	2		Dt. 28.08.23, 29.08.23

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**	SEPTEMBER	
	State & explain Zeroth law of thermodynamics	2		Dt. 01.09.23, 04.09.23
	State & explain First law of thermodynamics	1		Dt. 05.09.23, 08.09.23
	Limitations of First law of thermodynamics	2		Dt. 11.09.23, 12.09.23
	Application of First law of Thermodynamics	2		Dt. 13.09.23, 15.09.23
	Second law of thermodynamics	2		Dt. 18.09.23, 22.09.23
	Application of second law in heat engine,	2		Dt. 25.09.23, 26.09.23
3	**PROPERTIES PROCESSES OF PERFECT GAS**	**10**		
	Laws of perfect gas:	2		Dt. 27.09.23, 03.10.23
	Explain specific heat of gas (Cp and Cv)	1	OCTOBER	Dt. 04.10.23, 06.10.23
	Relation between Cp & Cv.	1		Dt. 09.10.23, 10.10.23
	Enthalpy of a gas	1		Dt. 11.10.23
	Work done during a non- flow process	1		Dt. 13.10.23
	Application of first law of thermodynamics to various non flow process (Isothermal, Isobaric, Isentropic and polytrophic process	2		Dt. 16.10.23, 17.10.23
	Solve simple problems on above.	1		Dt. 18.10.23, 20.10.23
	Free expansion & throttling process	1		Dt. 30.10.23, 31.10.23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**INTERNAL COMBUSTION ENGINE**	**8**	NOVEMBER	
	Explain & classify I.C engine.	2		Dt. 01.11.23, 03.11.23
	Terminology of I.C Engine such as bore, dead centers, stroke volume, piston speed &RPM.	2		Dt. 06.11.23, 07.11.23
	Explain the working principle of 2-stroke & 4- stroke engine C.I & S.I engine.	2		Dt. 08.11.23, 10.11.23
	Differentiate between 2-stroke & 4- stroke engine C.I & S.I engine.	2		Dt. 13.11.23, 14.11.23
5	**GAS POWER CYCLE**	**10**		
	Carnot cycle	2		Dt. 15.11.23, 17.11.23
	Otto cycle	3		Dt. 20.11.23, 21.11.23, 22.11.23
	Diesel cycle.			
	Dual cycle.	2		Dt. 24.11.23, 28.11.23
	Solve simple numerical.	3	DECEMBER	Dt. 29.11.23, 01.12.23
6	**FUELS AND COMBUSTION**	**8**		Dt.
	Define Fuel.	1		Dt. 04.12.23
	Types of fuel.	2		Dt. 05.12.23, 06.12.23
	Application of different types of fuel.	1		Dt. 08.12.23
	Heating values of fuel	2		
	Quality of I.C engine fuels Octane number, Cetane number.	2		

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THEORY LESSON PLAN FOR THE SESSION 2023 -24

BRANCH:-MECHANICAL ENGINEERING SEMESTER: 3RD **SECTION: MB**	**NAME OF THE FACULTY : (1) ER. BIKASH RANJAN SAHU,** **(2) TAPAN KUMAR SAHU (LECT. IN CHEM.)**
SEMESTER FROM : DT. 01.08.2023 TO 09.12.2023	**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	**UNIT 1 : THE MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES**	**4**	AUGUST	
	Definition, scope and importance, Need for public awareness.	4		Dt·01·08·23, 02·08·23, 03·08·23, 07·08·23
2	**UNIT 2 : NATURAL RESOURCES**	**10**		
	Natural resources and associated problems: Forest resources, Water resources, Mineral Resources, Food Resources, Energy Resources, Land Resources.	5		Dt·08·08·23, 09·08·23, 10·08·23 14·08·23, 16·08·23
	Role of individual in conservation of natural resources.	2		Dt·17·08·23, 21·08·23
	Equitable use of resources for sustainable lifestyles.	3		Dt·22·08·23, 23·08·23, 24·08·23
3	**UNIT 3 : SYSTEMS**	**8**		
	Concept of an ecosystem.Structure and function of an ecosystem.	1		Dt·28·08·23,
	Producers, consumers, decomposers.	1		Dt·29·08·23
	Energy flow in the ecosystems.	1		Dt·31·08·23
	Ecological succession.	1	SEPTEMBER	Dt·04·09·23
	Food chains, food web sand ecological pyramids.	1		Dt·05·09·23
	Introduction, types, characteristic features, structure and function of the following ecosystem.	1		Dt·07·09·23
	Forest ecosystem.	1		Dt·11·09·23
	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	1		Dt·12·09·23

Sl. No.	CHAPTERS TO BE COVERED	NO OF PERIODS AS PER ACADEMIC CALENDAR	MONTH	ACTUAL PROGRESS OF THE COURSES MADE
4	**UNIT 4 : BIODIVERSITY AND ITS'S CONSERVATION**	**8**		
	Introduction-Definition: genetics, species and ecosystem diversity.	2		Dt: 13.09.23, 14.09.23
	Biogeographically classification of India.	1		Dt: 18.09.23
	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.	2		Dt: 21.09.23, 25.09.23, 26.09.23
	Biodiversity at global, national and local level.	2		Dt: 27.09.23, 28.09.23
	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	1	OCTOBER	Dt: 03.10.23
5	**UNIT 5 : ENVIRIONMENTAL POLLUTION**	12		
	Definition Causes, effects and control measures of:Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards.	4		Dt: 04.10.23, 05.10.23, Dt: 09.10.23, 10.10.23
	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	4		Dt: 11.10.23, 12.10.23, 16.10.23, 17.10.23
	Role of an individual in prevention of pollution	2		Dt: 18.10.23, 19.10.23
	Disaster management: Floods, earth quake, cyclone and landslides.	2		Dt: 30.10.23, 31.10.23
6	**UNIT 6 : SOCIAL ISSUES AND THE ENVIRONMENT**	**10**	NOVEMBER	
	Urban problems related to energy, Water conservation, rain water harvesting, water shed management.Resettlement and rehabilitation of people; its problems and concern.	3		Dt: 01.11.23, 02.11.23, 06.11.23
	Environmental ethics: issue and possible solutions.	2		Dt: 07.11.23, 08.11.23, 09.11.23
	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.	2		Dt: 13.11.23, 14.11.23

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-15.11.23, 16.11.23
	Public awareness	1		Dt-20.11.23
7	**UNIT 7 : HUMAN POPULATION AND THE ENVIRONMENT**	**8**		
	Population growth and variation among nations, Population explosion-family welfare program.	3		Dt-21.11.23, 22.11.23, 23.11.23
	Environment and human health.	1		Dt-28.11.23, 29.11.23, 30.11.23
	Human rights.	1	DECEMBER	Dt. 04.12.23
	Value education.	1		Dt-05-12-23
	Role of information technology in environment and human health.	2		Dt-06.12.23, 07.12.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

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., MECH. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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.	AUGUST	06	Dt. 04.08.23
2	Draw plan,elevation and side view of different machine element from their isometric view using AUTO CAD and mini drafter.(Minium 5 drawing)		06	Dt. 09.08.23
3	Engineering drawing of fastening elements in first angle orthographic projection.			
	3.1.Bolt ,nut and threads.		06	Dt. 16.08.23
	3.2.Cotter joint.		06	Dt. 23.08.23
	3.3.Knuckle joint.	SEPTEMBER	06	Dt. 13.09.23
4	Details to assembly.			
	4.1.Rigid pedestal bearing.		06	Dt. 27.09.23
	4.2.Foot step bearing.		06	Dt. 04.10.23
	4.3.Simple screw jack.		06	Dt. 11.10.23

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.		06	Dt. 18.10.23, 22.10.23
	5.2.Boiler safety valve.		06	Dt. 01.11.23, 08.11.23
	5.3.Spring loaded valve.		06	Dt. 15.11.23, 22.11.23
	5.4.Hydraulic non return valve.		06	Dt. 29.11.23
	5.5.Flat belt pulley.	DECEMBER	06	Dt. 06.12.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MA1**

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

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: MECHANICAL ENGINEERING LABORATORY-I (PR-2)**

CLASS ALLOTTED /WEEK:- 04 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
	STRENGTH OF MATERIALS AND THERMAL LABROTARY	AUGUST	12	Dt·02·08·23, 09·08·23
1	Determine end reactions in a simply supported beam using parallel foree apparatus.		08	Dt·16·08·23, 23·08·23
2	Determine of Young's modulus using searle's apparatus.	SEPTEMBER	08	Dt·13·09·23, 27·09·23
3	Determination of torsional rigidity of the shaff using torsion testing machine.	OCTOBER	08	Dt·04·10·23, 11·10·23
4	Determination of salient points (Young's modulus ,Yield point,fracture point) from stress-strain curve using universal testing machine.		08	Dt·18·10·23, 01·11·23
5	Determination of hardness number by Rockwell or vickers hardness testing machine.	NOVEMBER	08	Dt·08·11·23, 15·11·23
6	Determination of toughness using Impact testing machine (charpy/izod)		08	Dt·22·11·23, 29·11·23
7	Determination of flash point and fire point.	DECEMBER	08	Dt·06·12·23
8	Joule's experiment.		04	Dt·02·08·23, 09·08·23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MA1**

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

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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	**FITTING PRACTICES**			
	1.1.Preparation of caliper.	AUGUST	06	Dt·03·08·23, 04·08·23, 10·08·23
	1.2.Preparation of try square.		06	Dt·11·08·23, 17·08·23, 18·08·23
	1.3.Preparation of hammer,square,hexagonal.		06	Dt·24·08·23, 25·08·23, 31·08·23
2	**SMITHY PRACTICES**	SEPT.		
	2.1.Preparation of door ring with hook.		09	Dt·01·09·23, 07·09·23, 08·09·23
	2.2.Preparation of hexagonal head bolt.		09	Dt·14·09·23, 15·09·23, 21·09·23
	2.3.Preparation of octagon flat chisel .		09	Dt·22·09·23, 28·09·23, 05·10·23
3	**CARPENTRY PRACTICES**			
	3.1.Cutting slot,botch,mortise and tenon joint.	OCTOBER	09	Dt·05·10·23, 06·10·23, 12·10·23
	3.2.Preparation of single dove tail joint.		09	Dt·13·10·23, 19·10·23, 20·10·23
4	**WELDING PRACTICES**			
	4.1.Lap and Butt joint using dre welding.	NOVEMBER	09	Dt·02·11·23, 03·11·23, 09·11·23
	4.2.Lap joint using gas welding.		09	Dt·10·11·23, 10·11·23, 16·11·23
	4.3.Joining 2 non-ferrous parts through.		09	Dt·17·11·23, 23·11·23, 24·11·23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MA1**

NAME OF THE FACULTY : (1) ER. RASABIHARI SAHU, (2) ER. SATYANARAYAN MAJHI (LECT. IN MECH. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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	personality development class	AUGUT	03	Dt. 05.08.23, 12.08.23
02	Seminar on diff. topics		03	Dt. 02.09.23, 19.08.23 Dt. 26.08.23
03	library study	SEPT.	03	Dt. 09.09.23, 16.09.23 Dt. 23.09.23, 30.09.23
04	Technical Quiz.	OCTOBER	03	Dt. 07.10.23, 14.10.23
05	Cultural Activities.	NOVEMBER	03	Dt. 04.11.23, 11.11.23 Dt. 18.11.23, 25.11.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

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., MECH. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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.	AUGUST	06	Dt·02·08·23
2	Draw plan,elevation and side view of different machine element from their isometric view using AUTO CAD and mini drafter.(Minium 5 drawing)		06	Dt· 09·08·23
3	Engineering drawing of fastening elements in first angle orthographic projection.		06	Dt·16·08·23, 23·08·23
	3.1.Bolt ,nut and threads.	SEPTEMBER	06	Dt·04·09·23
	3.2.Cotter joint.		06	Dt· 13·09·23,
	3.3.Knuckle joint.		06	Dt· 27·09·23
4	Details to assembly.			
	4.1.Rigid pedestal bearing.	OCTOBER	06	Dt·04·10·23,
	4.2.Foot step bearing.		06	Dt·11·10·23
	4.3.Simple screw jack.		06	Dt·18·10·23

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.	NOVEMBER		
	5.1.Connecting rod of I.C. engine.		06	Dt·01·11·23
	5.2.Boiler safety valve.		06	Dt·08·11·23, 15·11·23
	5.3.Spring loaded valve.		06	Dt·22·11·23,
	5.4.Hydraulic non return valve.		06	Dt·29·11·23
	5.5.Flat belt pulley.		06	Dt·06·12·23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MA2**

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

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: MECHANICAL ENGINEERING LABORATORY-I (PR-2)**

CLASS ALLOTTED /WEEK:- 04 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
	STRENGTH OF MATERIALS AND THERMAL LABROTARY	AUGUST	12	Dt. 09
1	Determine end reactions in a simply supported beam using parallel foree apparatus.		10	Dt. 02.08.23, 09.08.23
2	Determine of Young's modulus using searle's apparatus.		10	Dt. 16.08.23, 23.08.23
3	Determination of torsional rigidity of the shaff using torsion testing machine.	SEPTEMBER	08	Dt. 13.09.23, 17.09.23
4	Determination of salient points (Young's modulus ,Yield point,fracture point) from stress-strain curve using universal testing machine.	OCTOBER	08	Dt. 04.10.23, 11.10.23
5	Determination of hardness number by Rockwell or vickers hardness testing machine.		08	Dt. 18.10.23, 1.11.23
6	Determination of toughness using Impact testing machine (charpy/izod)	NOVEMBER	08	Dt. 08.11.23, 15.11.23
7	Determination of flash point and fire point.		08	Dt. 22.11.23, 29.11.23
8	Joule's experiment.	DECEMBER	04	Dt. 06.12.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MA2**

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

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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	**FITTING PRACTICES**			
	1.1.Preparation of caliper.	AUGUST	06	Dt. 03.08.2023, 04.08.2023 10.08.2023
	1.2.Preparation of try square.		06	Dt. 11.08.2023, 17.08.23, 18.08.23
	1.3.Preparation of hammer,square,hexagonal.		06	Dt. 24.08.23, 25.08.23, 31.08.23
2	**SMITHY PRACTICES**	SEPT.		
	2.1.Preparation of door ring with hook.		09	Dt. 01.09.2023, 07.09.23 08.09.23
	2.2.Preparation of hexagonal head bolt.		09	Dt. 14.09.23, 15.09.23, 21.09.23
	2.3.Preparation of octagon flat chisel .		09	Dt. 22.09.23, 28.09.23, 05.10.23
3	**CARPENTRY PRACTICES**			
	3.1.Cutting slot,botch,mortise and tenon joint.	OCTOBER	09	Dt. 05.10.23, 06.10.23, 12.10.23
	3.2.Preparation of single dove tail joint.		09	Dt. 13.10.23, 19.10.23, 20.10.23
4	**WELDING PRACTICES**			
	4.1.Lap and Butt joint using dre welding.	NOVEMBER	09	Dt. 02.11.23, 03.11.23, 09.11.23
	4.2.Lap joint using gas welding.		09	Dt. 10.11.23, 10.11.23, 16.11.23
	4.3.Joining 2 non-ferrous parts through.		09	Dt. 17.11.23, 23.11.23, 24.11.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MA2**

NAME OF THE FACULTY : (1) ER. RASABIHARI SAHU, (2) ER. SATYANARAYAN MAJHI (LECT. IN MECH. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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	Personality development class	AUGUST	03	Dt. 05.08.23, 12.08.23
02	Seminar on diff. topics		03	Dt. 02.09.23, 09.09.23 Dt. 19.08.23, 26.08.23
03	Library study.	SEPTEMBER	03	Dt. 09.09.23, 16.09.23 Dt. 23.09.23, 30.09.23
04	Technical Quiz.	OCTOBER	03	Dt. 07.10.23, 14.10.23
05	Cultural Activities	NOVEMBER	03	Dt. 04.11.23, 11.11.23 Dt. 18.11.23, 25.11.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION :- MB1**

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., MECH. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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.	AUGUST	18	Dt. 03.08.23, 10.08.23
2	Draw plan,elevation and side view of different machine element from their isometric view using AUTO CAD and mini drafter.(Minium 5 drawing)		18	Dt. 17.08.23, 24.08.23
3	Engineering drawing of fastening elements in first angle orthographic projection.			
	3.1.Bolt ,nut and threads.		06	Dt. 31.08.23
	3.2.Cotter joint.	SEPTEMBER	06	Dt. 07.09.23
	3.3.Knuckle joint.		06	Dt. 14.09.23
4	Details to assembly.			Dt.
	4.1.Rigid pedestal bearing.		03	Dt. 21.09.23
	4.2.Foot step bearing.		03	Dt. 28.09.23
	4.3.Simple screw jack.	OCTOBER	03	Dt. 05.10.23, 12.10.23

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. 19.10.23
	5.2.Boiler safety valve.	NOVEMBER	03	Dt. 02.11.23
	5.3.Spring loaded valve.		06	Dt. 09.11.23, 16.11.23
	5.4.Hydraulic non return valve.		06	Dt. 23.11.23, 30.11.23
	5.5.Flat belt pulley.	DECEMBER	06	Dt. 07.12.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MB1**

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

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: MECHANICAL ENGINEERING LABORATORY-I (PR-2)**

CLASS ALLOTTED /WEEK:- 04 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
	STRENGTH OF MATERIALS AND THERMAL LABROTARY		08	
1	Determine end reactions in a simply supported beam using parallel foree apparatus.	AUGUST	08	Dt·03·08·23, 10·08·23
2	Determine of Young's modulus using searle's apparatus.		08	Dt·17·08·23, 24·08·23, 31·08·23
3	Determination of torsional rigidity of the shaff using torsion testing machine.	SEPTEMBER	08	Dt·07·09·23, 14·09·23
4	Determination of salient points (Young's modulus ,Yield point,fracture point) from stress-strain curve using universal testing machine		08	Dt·05·10·23 Dt·21·09·23, 28·09·23
5	Determination of hardness number by Rockwell or vickers hardness testing machine.	OCTOBER	08	Dt·12·10·23, 19·10·23
6	Determination of toughness using Impact testing machine (charpy/izod)	NOVEMBER	08	Dt·02·11·23, 09·11·23
7	Determination of flash point and fire point.		08	Dt·16·11·23, 23·11·23
8	Joule's experiment.	DECEMBER	04	Dt· 30·11·23, 07·12·23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MB1**

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

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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	FITTING PRACTICES			
	1.1.Preparation of caliper.	AUGUST	06	Dt·01·08·23, 02·08·23, 08·08·23
	1.2.Preparation of try square.		06	Dt·09·08·23, 16·08·23, 22·08·23
	1.3.Preparation of hammer,square,hexagonal.		06	Dt·23·08·23, 29·08·23, 05·09·23
2	SMITHY PRACTICES			
	2.1.Preparation of door ring with hook.	SEPT.	09	Dt·12·09·23, 13·09·23, 26·09·23
	2.2.Preparation of hexagonal head bolt.		09	Dt·27·09·23, 03·10·23, 04·10·23
	2.3.Preparation of octagon flat chisel .	OCTOBER	09	Dt·10·10·23, 11·10·23, 17·10·23
3	CARPENTRY PRACTICES			
	3.1.Cutting slot,botch,mortise and tenon joint.		09	Dt·18·10·23, 31·10·23, 01·11·23
	3.2.Preparation of single dove tail joint.		09	Dt·07·11·23, 08·11·23, 14·11·23
4	WELDING PRACTICES	NOVEMBER		
	4.1.Lap and Butt joint using dre welding.		09	Dt·15·11·23, 21·11·23, 22·11·23
	4.2.Lap joint using gas welding.		09	Dt·28·11·23, 29·11·23
	4.3.Joining 2 non-ferrous parts through.	DECEMBER	09	Dt·05·12·23, 06·12·23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MB1**

NAME OF THE FACULTY : (1) ER. MANAS RANJAN BEHERA, (2) ER. SUBHASMITA JENA (LECT. IN MECH. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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	Personality development class	AUGUST	03	Dt.05.08.23, 12.08.23
02	Seminar on diff. topics.		03	Dt.02.09.23, 19.08.23 Dt.26.08.23
03	library study.	SEPT.	03	Dt.09.09.23, 16.09.23 Dt.23.09.23, 30.09.23
04	Technical Quiz.	OCTOBER	03	Dt.07.10.23, 14.10.23
05	Cultural Activities	NOVEMBER	03	Dt.04.11.23, 11.11.23 Dt.18.11.23, 25.11.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION :- MB2**

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., MECH. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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.	AUGUST	18	Dt. 17.08.23, 24.08.23 Dt. 03.08.23, 10.08.23
2	Draw plan, elevation and side view of different machine element from their isometric view using AUTO CAD and mini drafter.(Minium 5 drawing)	SEPTEMBER	16	Dt. 31.08.23, 07.09.23 Dt. 14.09.23, 21.09.23
3	Engineering drawing of fastening elements in first angle orthographic projection.			
	3.1.Bolt ,nut and threads.	OCTOBER	06	Dt. 28.09.23,
	3.2.Cotter joint.		06	Dt. 05.10.23
	3.3.Knuckle joint.		06	Dt. 12.10.23
4	Details to assembly.			Dt.
	4.1.Rigid pedestal bearing.		03	Dt. 19.10.23
	4.2.Foot step bearing.	NOVEMBER	03	Dt. 02.11.23
	4.3.Simple screw jack.		03	Dt. 09.11.23

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. 16.11.23
	5.2.Boiler safety valve.		03	Dt. 23.11.23
	5.3.Spring loaded valve.		06	Dt. 30.11.23
	5.4.Hydraulic non return valve.	DECEMBER	06	Dt. 06.12.23
	5.5.Flat belt pulley.		06	Dt. 07.12.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MB2**

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

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: MECHANICAL ENGINEERING LABORATORY-I (PR-2)**

CLASS ALLOTTED /WEEK:- 04 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
	STRENGTH OF MATERIALS AND THERMAL LABROTARY	AUGUST	08	
1	Determine end reactions in a simply supported beam using parallel foree apparatus.		08	Dt. 03.08.23, 10.08.23
2	Determine of Young's modulus using searle's apparatus.		08	Dt. 17.08.23, 24.08.23, 31.08.23
3	Determination of torsional rigidity of the shaff using torsion testing machine.	SEPTEMBER	08	Dt. 07.09.23, 14.09.23
4	Determination of salient points (Young's modulus ,Yield point,fracture point) from stress-strain curve using universal testing machine.		08	Dt. 21.09.23, 28.09.23, 05.10.23
5	Determination of hardness number by Rockwell or vickers hardness testing machine.	OCTOBER	08	Dt. 12.10.23, 19.10.23
6	Determination of toughness using Impact testing machine (charpy/izod)	NOVEMBER	08	Dt. 02.11.23, 09.11.23
7	Determination of flash point and fire point.		08	Dt. 16.11.23, 23.11.23
8	Joule's experiment.	DECEMBER	04	Dt. 30.11.23, 07.12.23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:-MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MB2**

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

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **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	**FITTING PRACTICES**			
	1.1.Preparation of caliper.	AUGUST	06	Dt·01·08·23, 02·08·23, 08·08·23
	1.2.Preparation of try square.		06	Dt·09·08·23, 16·08·23, 22·08·23
	1.3.Preparation of hammer,square,hexagonal.		06	Dt·23·08·23, 29·08·23, 05·09·23
2	**SMITHY PRACTICES**			
	2.1.Preparation of door ring with hook.	SEPT.	09	Dt·12·09·23, 13·09·23, 26·09·23
	2.2.Preparation of hexagonal head bolt.		09	Dt·27·09·23, 03·10·23, 04·10·23
	2.3.Preparation of octagon flat chisel .	OCTOBER	09	Dt·10·10·23, 11·10·23, 17·10·23
3	**CARPENTRY PRACTICES**			
	3.1.Cutting slot,botch,mortise and tenon joint.		09	Dt·18·10·23, 31·10·23, 01·11·23
	3.2.Preparation of single dove tail joint.	NOVEMBER	09	Dt·07·11·23, 08·11·23, 14·11·23
4	**WELDING PRACTICES**			
	4.1.Lap and Butt joint using dre welding.		09	Dt·15·11·23, 21·11·23, 22·11·23
	4.2.Lap joint using gas welding.		09	Dt·28·11·23, 29·11·23
	4.3.Joining 2 non-ferrous parts through.	DECEMBER	09	Dt·05·12·23, 06·12·23

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PRACTICAL LESSON PLAN FOR THE SESSION 2023 - 24

BRANCH:- MECHANICAL ENGG. **SEMESTER: 3RD** **SECTION:- MB2**

NAME OF THE FACULTY : (1) ER. MANAS RANJAN BEHERA, (2) ER. SUBHASMITA JENA (LECT. IN MECH. ENGG.)

SEMESTER FROM DT. 01.08.2023 TO 09.12.2023 **PRACTICAL SUBJECT: STUDENT CENTRED ACTIVITIES**

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	personality development class	AUGUST	03	Dt. 05.08.23, 12.08.23
02	Seminar on diff. topics		03	Dt. 02.09.23, 19.08.23 Dt. 26.08.23
03	library study	SEPT.	03	Dt. 09.09.23, 16.09.23 Dt. 23.09.23, 30.09.23
04	Technical Quiz	OCTOBER	03	Dt. 07.10.23, 14.10.23
05	Cultural Activities	NOVEMBER	03	Dt. 04.11.23, 11.11.23 Dt. 18.11.23, 25.11.23

MR Behera Jena

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