GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN			
Discipline : MECHANICAL ENGG.		Semester: 4th Sem	Name of the Teaching Faculty :Sagar Kumar Mohapatra
Subject : FM		No. of Days / per week class allotted : 04	Semester From date : 14.02.2023 To Date : 23.05.2023
MONTH	Week	Day	Topics
FEBRUARY	3rd	2nd	**1.0 Properties of Fluid ,**Define fluid ,Description of fluid properties like Density, Specific weight
		3rd	problem solved
	4th	1st	specific gravity, specific volume and solve simple problems
		2nd	Definitions and Units of Dynamic viscosity, kinematic viscosity,
		3rd	surface tension ,Capillary phenomenon
		6th	problem solved
	5th	1st	problem solved
		2nd	**2.0 Fluid Pressure and its measurements** , Definitions and units of fluid pressure, pressure intensity and pressure head
MARCH	1st	3rd	Statement of Pascal's Law. Concept of atmospheric pressure, gauge pressure, vacuum pressure and absolute pressure
		6th	Pressure measuring instruments Manometers (Simple and Differential)
	2nd	1st	Pressure measuring instruments Manometers (Simple and Differential)
		6th	Pressure measuring instruments Manometers (Simple and Differential)
	3rd	1st	Bourdon tube pressure gauge
		2nd	Solve simple problems on Manometer.
		3rd	Solve simple problems on Manometer.
		6th	Hydrostatics 3.1 Definition of hydrostatic pressure
		1st	Total pressure and centre of pressure on immersed bodies(Horizontal Bodies)

	4th	2nd	Total pressure and centre of pressure on immersed bodies(Vertical Bodies)
		3rd	CLASS TEST -1
		6th	Solve Simple problems.
	5th	1st	**4.0 Kinematics of Flow** 4.1 Types of fluid flow 4.2 Continuity equation(Statement and proof for one dimensional flow)
		2nd	Different type of fluid flow
		3rd	Bernoulli's theorem(Statement and proof) Applications and limitations of Bernoulli's theorem (Venturimeter, pitot tube)
APRIL	2nd	1st	Bernoulli's theorem(Statement and proof) Applications and limitations of Bernoulli's theorem
		2nd	Solve simple problems
		3rd	Venturimeter
		6th	Solve simple problems
	3rd	1st	pitot tube
		2nd	Solve simple problems
		3rd	INTERNAL
		6th	**5.0 Orifices, notches & weirs**,Define orifice , Flow through orifice
	4th	1st	Orifices coefficient & the relation between the orifice coefficients
		2nd	Classifications of notches & weirs
		3rd	Discharge over a rectangular notch or weir
		6th	Discharge over a triangular notch or weir
	5th	1st	Simple problems
		2nd	Simple problems
		3rd	**6.0 Flow through pipe** ,Definition of pipe. Loss of energy in pipes.
		6th	Head loss due to friction: Darcy's and Chezy's formula (Expression only)
	1st	1st	Head loss due to friction: Minor loss
		2nd	Head loss due to friction: Minor loss
		3rd	Hydraulic gradient and total gradient line
		6th	problem solved
		1st	problem solved

MAY	2nd	2nd	**7.0 Impact of jets** , Impact of jet on fixed and moving vertical flat plates
		3rd	Impact of jet on fixed and moving vertical inclined plates
		6th	Impact of jet on fixed and moving vertical curved plates
	3rd	1st	Derivation of work done on series of vanes and condition for maximum efficiency.
		2nd	Derivation of work done on series of vanes and condition for maximum efficiency.
		3rd	Impact of jet on moving curved vanes, illustration using velocity triangles, derivation of work done, efficiency
		6th	Impact of jet on moving curved vanes, illustration using velocity triangles, derivation of work done, efficiency
	4th	1st	problem solved
		2nd	class test-02

PROGRESS R

SUB:-DIGITAL ELECTRONICS & MICROPROCESSOR

NAME O

SL.NO	DATE	TOPIC TO BE COVERED AS PER LESSION PLAN
1	8/1/2023	Introduction to Digital Electronics
2	8/2/2023	Binary, Octal, Hexadecimal number systems and compare with Decimal system.
3	8/3/2023	Binary addition, subtraction, Multiplication and Division.
4	8/4/2023	binary number 1.4 Subtraction of binary numbers in 2's complement method.
5	8/7/2023	1.5 Use of weighted and Un-weighted codes & write Binary equivalent number for a number in 8421, Excess-3 and Gray Code and vice-
6	8/8/2023	1.6 Importance of parity Bit. 1.7 Logic Gates: AND, OR, NOT, NAND, NOR and EX-OR gates with truth table.
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REGISTER FOR THE ACADEMIC YEAR-2023-

DISCIPLINE:- ELECTRICAL ENG

OF THE TEACHING FACULTY:- LEENA MARNDI

TOPIC ACTUALLY COVERED
Introduction to Digital Electronics
Binary, Octal, Hexadecimal number systems and compare with Decimal system.
Binary addition, subtraction, Multiplication and Division.
for a binary number 1.4 Subtraction of binary numbers in 2's complement method.
Use of weighted and Un-weighted codes & write Binary equivalent number for a number in 8421, Excess-3 and Gray Code
Realize AND, OR, NOT operations using NAND gates

-24

G. *SEMESTER:-5TH*

POINTS/CONTENTS DISCUSSED(IN BRIEF)	SIGNATURE
Difference between analog electronics and digital electronics	
Conversion any number system to decimal,decimal to any number system.	
Binary addition, subtraction, Multiplication and Division. Representation of signed number in binary form	
Representation of signed binary number,1's,2's,subtraction using 2's compliment method.	
Difference between weighted & Non weighted code,examples,conversion Gray to binary,binary to Excess-3 & vice versa	
All logic gates:defination,truth table,Realisation of all gates using NAND gates.	

GOVT. POLYT

Discipline : ELECTRICAL ENGG.		Semester: 3rd Sem	
Subject : EME lab		No. of Days / per week class allotted : 02	
MONTH	Week	Day	
AUGUST	1st	5th	G-I
		6th	G-II
	2nd	5th	G-I
		6th	G-II
	3rd	5th	G-I
		6th	G-II
	4TH	5th	G-I
		6th	G-II
	1st		

TECHNIC MAYURBHANJ LESSON PLAN
Name of the Teaching Faculty :Sagar Kumar Mohapatra
Semester From date : 01.08.2023 To Date : 30.11.2023
Topics

SEPTEMBER

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NOVEMBER

PROGRESS REC

SUB:-DIGITAL ELECTRONICS & MICROPROCESSOR Lab

NAME OF T

SL.NO	DATE	TOPIC TO BE COVERED AS PER LESSION PLAN
1	8/1/2023	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.
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GISTER FOR THE ACADEMIC YEAR-2023-24

DISCIPLINE:- ELECTRICAL ENGG.

THE TEACHING FACULTY:- LEENA MARNDI

TOPIC ACTUALLY COVERED
Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.

SEMESTER:-5TH

POINTS/CONTENTS DISCUSSED(IN BRIEF)	SIGNATURE

GOVT		
Discipline :		Semester: 3rd Sem
Subject : EME		No. of Days / per week class allotted : 04
MONTH	Week	Day
SEPTEMBER	1st	4th
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OCTOBER	2nd	4th
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JANUARY	1st	1st
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. POLYTECHNIC MAYURBHANJ LESSON PLAN

Name of the Teaching Faculty :Sagar Kumar Mohapatra

Semester From date : 15.09.2022 To Date : 21.01.2023

Topics
1. THERMODYNAICS:1 . 1 State Unit of Heat and work, 1st law of thermodynamics.
1 . 2 State Laws of perfect gases
Gas laws
1.3 Determine relationship of specific heat of gases at constant volume and constant pressure.
Different thermodynamic process
Revision
2. PROPERTIES OF STEAM:2 . 1 Use steam table for solution of simple problem
Formation of steam at constant pressure process
2 . 2 Explain total heat of wet, dry and super heated steam
Critical point, dryness fraction
Explain latent heat and sensible heat
Problem solved
Problem solved
3. BOILERS: 3 . 1 State types of Boilers
Difference between fire tube and water tube boiler
3 . 2 Describe Cochran boiler
Describe Babcock Wilcox boiler
3 . 3 Describe Mountings and accessories
3 . 3 Describe Mountings and accessories
Revision
class test -1
4. STEAM ENGINES: 4.1 Explain the principle of Simple steam engine
4.1 Explain the principle of Simple steam engine
classification of simple steam engine
4.2 Draw Indicator diagram
Theoritical indicator diagram Actual indicator diagram
Diagram factor
4.3 Calculate Mean effective pressure, IHP and BHP and mechanical efficiency.
4.3 Calculate Mean effective pressure, IHP and BHP and mechanical efficiency.
4.4 Solve Simple problem.
4.4 Solve Simple problem.
4.4 Solve Simple problem.
5.STEAM TURBINES 5.1 State Types
Describe about pelton wheel and francis turbine
Describe about kaplan turbine
5.2 Differentiate between impulse and reaction Turbine
6. CONDENSER: classification of condenser
6.1 Explain the function of condenser

6.2 State their types and difference
Working principle of surface condenser
Revision
Revision
7. I.C. ENGINE: 7.1 Explain working of two stroke and 4 stroke petro engine
7.1 Explain working of two stroke and 4 stroke diesel engine
7.2 Differentiate between two stroke and 4 stroke engine
otto cycle and diesel cycle
8.HYDROSTATICS: 8.1 Describe properties of fluid
8.1 Describe properties of fluid
8.1 Describe properties of fluid
8.2 Determine pressure at a point,
pressure measuring Instruments
pressure measuring Instruments
Bourdon tube pressure gauge
Internal
solved problem
solved problem
9.HYDROKINETICS: different type of fluid flow
9.1 Deduce equation of continuity of flow
9.2 Explain energy of flowing liquid
9.3 State and explain Bernoulli's theorem
9.3 State and explain Bernoulli's theorem
HYDRAULIC DEVICES AND PNEUMATICS
10.1 Intensifier
10.2 Hydraulic lift
10.3 Accumulator
10.4 Hydraulic ram
Class test -2
Revision
Revision