FLUID MECHANICS LESSON PLAN		
Discipline : Mechanical Engg.	Semester : 4th	Name of the Teachnig Faculty : Miss BHAGYASHREE PATRA
Course : fluid mechanics	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 16th JAN 2024 To Date: 26 APR 2024
Weeks	Class day	Theory
3RD(JAN-2024)	1st	Define fluid,fluid properties
	2nd	density,specific weight,specific gravity
	3rd	numericals based on fluid propertoies
	4th	numericals based on fluid propertoies
4TH(JAN-2024)	1st	Definitions and Units of Dynamic viscosity, kinematic viscosity,
	2nd	surface tension
	3rd	numericals based on surface tension
	4th	numericals based on surface tension
1ST(FEB-2024)	1st	Capillary phenomenon
	2nd	numericals based on capillarity
	3rd	Definitions and units of fluid pressure
	4th	pressure intensity and pressure head
2ND(FEB-2024)	1st	pressure intensity and pressure head
	2nd	Statement of Pascal's Law,applications of pascal law
	3rd	Concept of atmospheric pressure, gauge pressure, vacuum pressure and absolute pressure
	4th	Concept of atmospheric pressure, gauge pressure, vacuum pressure and absolute pressure
3RD(FEB-2024)	1st	Pressure measuring instruments,classification
	2nd	Simple Manometers
	3rd	numericals on Simple Manometers
	4th	Differential manometer
4TH(FEB-2024)	1st	numericals on differential Manometers
	2nd	Bourdon tube pressure gauge
	3rd	Definition of hydrostatic pressure , Total pressure and centre of pressure
	4th	Total pressure and centre of pressure on immersed bodies(Horizontal and Vertical Bodies)
1ST(MAR-2024)	1st	numericals based on total pressure and center of pressure
	2nd	Archimedes 'principle
	3rd	concept of buoyancy
	4th	meta center and meta centric height
2ND(MAR-2024)	1st	Concept of floatation
	2nd	Continuity equation(Statement and proof for one dimensional flow)

	3rd	Bernoulli's theorem(Statement) and total energy concept
	4th	proof of Bernoulli's theorem
3RD(MAR-2024)	1st	numericals based on Bernoulli's theorem
	2nd	numericals based on Bernoulli's theorem
	3rd	venturimeter
	4th	numericals on(Venturimeter)
4TH(MAR-2024)	1st	problems on Orifices coefficient & the relation between the orifice coefficients
	2nd	Classifications of notches & weirs
	3rd	Define orifice and Flow through orifice
	4th	Orifices coefficient & the relation between the orifice coefficients
1ST(APR-2024)	1st	INTERNAL ASSESSMENT
	2nd	INTERNAL ASSESSMENT
	3rd	Discharge over a rectangular notch or weir
	4th	Definition of pipe
2ND(APR-2024)	1st	Loss of energy in pipes.
	2nd	type of Head loss
	3rd	Darcy's formula,numericals based on darcy's formula
	4th	Hydraulic gradient and total gradient line
3RD(APR-2024)	1st	Hydraulic gradient and total gradient line
	2nd	Impact of jet on fixed and moving vertical flat plates
	3rd	Impact of jet on fixed and moving vertical flat plates
	4th	Derivation of work done on series of vanes
4TH(APR-2024)	1st	condition for maximum efficiency.
	2nd	Impact of jet on moving curved vanes,
	3rd	illustration using velocity triangles,
	4th	derivation of work done, efficiency

Babu
16/01/2024