Discipline	semester	Name of the teaching Faculty
Mechanical	4th	AJAYA KUMAR SAHOO
Subject	No. of Days/Per week class	Semester From 13/02/23
Fluid Mechanics	04	to 23/05/23
		No. of weeks

Week	Class Day	Theory Topics
1st	1st	Defination of Fluid
	2nd	Description of Fluid properties, Density
	3rd	Specific weight, Specific gravity
	4th	x
	5th	x
	6th	x
2nd	1st	Specific Volume and simple problem
	2nd	Definations and Units of Dynamic Viscosity
	3rd	Kinematic Viscosity
	4th	Surface tension, Capillary phenomenon.
	5th	x
	6th	x
3rd	1st	Definations and Unit of Fluid pressure
	2nd	• pressure intensity and pressure head.
	3rd	statement of pascal's law
	4th	x
	5th	x
	6th	x

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	1st	Concept of atmospheric pressure, gauge pressure
	2nd	vacuum pressure and absolute pressure.
4th	3rd	pressure measuring instrument (simple manometers)
	4th	" Differential manometers
	5th	x
	6th	x
	1st	Bourdon tube pressure gauge
	2nd	Sumple problems on manometer
5th	3rd	Defination of hydrostatic pressure
	4th	x
	5th	x
	6th	x
	1st	Total pressure and centre pressure on horizontal immersed bodies
	2nd	Vertical immersed bodies
6th	3rd	Sumple problems on Total pressure and centre pressure
	4th	x
	5th	x
	6th	x
	1st	Archimedis principle
	2nd	Concept of buoyancy
7th	3rd	meta center and meta centric height
	4th	Concept of floatation
	5th	x
	6th	x

	1st	Types of Flow
	2nd	Continuity equation (Statement and proof)
8th	3rd	Bernoulli's Theorem (Statement and proof)
	4th	×
	5th	×
	6th	×
	1st	Application of Bernoulli's Theorem (Venturimeter)
	2nd	" " (pitot tube)
9th	3rd	Limitation of Bernoulli's Theorem
	4th	Simple problems on Venturimeter, pitot tube.
	5th	×
	6th	×
	1st	Defination of orifice
	2nd	Flow through orifice
10th	3rd	Orfice Coefficient and relation between Cc, Cv, Cd
	4th	×
	5th	×
	6th	×
	1st	Classification of notches and weirs
	2nd	Discharge over a rectangular notch and weir
11th	3rd	Discharge over a triangular notch and weir
	4th	Simple problems on above.
	5th	×
	6th	×

	1st	Defination of pipe
	2nd	Loss of energy in pipes
12th	3rd	Head Loss due to friction (Darcy's formula)
	4th	Head Loss due to friction (Chezy's formula)
	5th	x
	6th	x
	1st	Simple problems on Darcy's Formula
	2nd	Simple problems on Chezy's Formula
13th	3rd	Hydraulic gradient and Total gradient Line
	4th	Impact of jet on fixed Flat plate
	5th	x
	6th	x
	1st	Impact of jet on vertical Flat plate
	2nd	Derivation of work done on Series of vanes
14th	3rd	Condition for maximum efficiency
	4th	x
	5th	x
	6th	x
	1st	Impact of jet on moving curved vanes
	2nd	velocity triangles derivation of work done, efficiency
15th	3rd	Simple problems on above
	4th	x
	5th	x
	6th	x

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