

LESSON PLAN-SUMMER 2023
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- CIVIL DEPARTMENT	Semester-4TH	Name of teaching faculty- <i>Mitali Sethi</i>
Subject- HI	No class allotted/ per week -6	SEM From date- 14/02/2023 to 25/05/2023 No of weeks- 17
Week	Class day	Theory Topics
3RD	2/14/2023	Properties of fluid: density, specific gravity
	2/15/2023	Properties of fluid: density, specific gravity
	2/16/2023	surface tension, capillarity, viscosity and their uses
	2/17/2023	surface tension, capillarity, viscosity and their uses
4TH	2/20/2023	Pressure and its measurements: intensity of pressure
	2/21/2023	atmospheric pressure, gauge pressure, absolute pressure and vacuum pressure
	2/22/2023	atmospheric pressure, gauge pressure, absolute pressure and vacuum pressure
	2/23/2023	relationship between atmospheric pressure
	2/24/2023	relationship between atmospheric pressure
	2/25/2023	absolute pressure and gauge pressure; pressure head; pressure gauges.
5TH	2/27/2023	absolute pressure and gauge pressure; pressure head; pressure gauges.
	2/28/2023	absolute pressure and gauge pressure; pressure head; pressure gauges.
1ST	3/1/2023	Pressure exerted on an immersed surface: Total pressure, resultant pressure, expression for total pressure exerted on horizontal & vertical surface.
	3/2/2023	Pressure exerted on an immersed surface: Total pressure, resultant pressure, expression for total pressure exerted on horizontal & vertical surface.
	3/3/2023	KINEMATICS OF FLUID FLOW:
	3/4/2023	Basic equation of fluid flow and their application:
2ND	3/6/2023	Rate of discharge, equation of continuity of liquid flow, total energy of a liquid in motion
	3/7/2023	Rate of discharge, equation of continuity of liquid flow, total energy of a liquid in motion
	3/9/2023	potential, kinetic & pressure, Bernoulli's theorem and its limitations
	3/10/2023	Assignment
	3/11/2023	potential, kinetic & pressure, Bernoulli's theorem and its limitations
3RD	3/13/2023	potential, kinetic & pressure, Bernoulli's theorem and its limitations
	3/14/2023	Practical applications of Bernoulli's equation.
	3/15/2023	Practical applications of Bernoulli's equation.
	3/16/2023	Practical applications of Bernoulli's equation.
	3/17/2023	Flow over Notches and Weirs: Notches, Weirs, types of notches and weirs,

	3/18/2023	Flow over Notches and Weirs: Notches, Weirs, types of notches and weirs,
4TH	3/20/2023	Discharge through different types of notches and weirs-their applications (No Derivation)
	3/21/2023	Types of flow through the pipes: uniform and non uniform; laminar and turbulent; steady and unsteady; Reynold's number and its application
	3/22/2023	Types of flow through the pipes: uniform and non uniform; laminar and turbulent; steady and unsteady; Reynold's number and its application
	3/23/2023	Types of flow through the pipes: uniform and non uniform; laminar and turbulent; steady and unsteady; Reynold's number and its application
	3/24/2023	Losses of head of a liquid flowing through pipes: Different types of major and minor losses.
	3/25/2023	Simple numerical problems on losses due to friction using Darcy's equation,
	5TH	3/27/2023
3/28/2023		Flow through the Open Channels: Types of channel sections-rectangular,
3/29/2023		Flow through the Open Channels: Types of channel sections-rectangular,
3/30/2023		trapezoidal and circular, discharge formulae- Chezy's and Manning's equation, Best economical section.
3/31/2023		PUMPS- Type of pumps
1ST	4/1/2023	Centrifugal pump: basic principles, operation, discharge, horse power & efficiency.
2ND	4/3/2023	Centrifugal pump: basic principles, operation, discharge, horse power & efficiency.
	4/4/2023	Centrifugal pump: basic principles, operation, discharge, horse power & efficiency.
	4/5/2023	Reciprocating pumps: types, operation, discharge, horse power & efficiency
	4/6/2023	Reciprocating pumps: types, operation, discharge, horse power & efficiency
	4/7/2023	Hydrology-Hydrology Cycle
	4/8/2023	Rainfall: types, intensity, hyetograph
3RD	4/10/2023	Estimation of rainfall, rain gauges, Its types(concept only)
	4/11/2023	Concept of catchment area, types, run-off, estimation of flood discharge by Dicken's and Ryve's formulae
	4/12/2023	Concept of catchment area, types, run-off, estimation of flood discharge by Dicken's and Ryve's formulae
	4/13/2023	Water Requirement of Crops
	4/14/2023	Definition of irrigation, necessity, benefits of irrigation, types of irrigation
	4/15/2023	Crop season
	4/17/2023	INTERNAL ASSESSMENT
	4/18/2023	INTERNAL ASSESSMENT
	4/19/2023	2.3 Duty, Delta and base period their relationship, overlap allowance, kharif and rabi crops

4TH	4/20/2023	Gross command area, culturable command area, Intensity of Irrigation, irrigable area, time factor, crop ratio
	4/21/2023	Gross command area, culturable command area, Intensity of Irrigation, irrigable area, time factor, crop ratio
	4/22/2023	FLOW IRRIGATION-Canal irrigation, types of canals, loss of water in canals
5TH	4/24/2023	Different components of irrigation canals and their functions
	4/25/2023	Different components of irrigation canals and their functions
	4/26/2023	Sketches of different canal cross-sections
	4/27/2023	Classification of canals according to their alignment, Various types of canal lining – Advantages and disadvantages
	4/28/2023	Classification of canals according to their alignment, Various types of canal lining – Advantages and disadvantages
	4/29/2023	WATER LOGGING AND DRAINAGE
1ST	5/1/2023	Causes and effects of water logging, detection, prevention and remedies
	5/2/2023	Causes and effects of water logging, detection, prevention and remedies
	5/3/2023	DIVERSION HEAD WORKS AND REGULATORY STRUCTURES
	5/4/2023	Necessity and objectives of diversion head works, weirs and barrages
	5/5/2023	General layout, functions of different parts of barrage
	5/6/2023	Functions of regulatory structures
2ND	5/8/2023	CROSS DRAINAGE WORKS :
	5/9/2023	Functions and necessity of Cross drainage works - aqueduct, siphon, super-passage, level crossing
	5/10/2023	Functions and necessity of Cross drainage works - aqueduct, siphon, super-passage, level crossing
	5/11/2023	super-passage, level crossing
	5/12/2023	Concept of each with help of neat sketch
	5/13/2023	DAMS-Necessity of storage reservoirs, types of dams
3RD	5/15/2023	DAMS-Necessity of storage reservoirs, types of dams
	5/16/2023	Earthen dams: types, description, causes of failure and protection measures
	5/17/2023	Earthen dams: types, description, causes of failure and protection measures
	5/18/2023	Gravity dam- types, description, Causes of failure and protection measures.
	5/19/2023	Gravity dam- types, description, Causes of failure and protection measures.
	5/20/2023	Spillways- Types (With Sketch) and necessity.
4TH	5/22/2023	Spillways- Types (With Sketch) and necessity.

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DEAN ACADEMIC

PRINCIPAL