

Hydraulics &

Lesson Plan

Subject: Irrigation Engg. (Code) TH.2 Name of faculty: Tina Gaur
 Semester: 4th Class allotted: 75 periods Branch: Civil Engg.

Discipline	Semester	From date: 14.02.23 To date: 23.05.23	Teaching Aid
Subject	No. of days/ per week 5P/Week:	Theory/ Practical - Topics/Lesson	
Week	Date/Period		
<u>PART-A (Hydraulic)</u>			
1	14.02.23 To 17.02.23 (04 P/W)	CH.1:- <u>Hydrostatics</u> :- Properties of fluid → Density, specific gravity, surface tension, capillarity & their uses.	white board & Marker
	20.02.23 To 25.02.23 (05 P/W)	1.2. Types of pressure & Measurement. 1.3. Pressure exerted on an immersed surface:- Total pressure, Resultant pressure, Total pressure exerted on horizontal & vertical surface.	white board & Marker
	27.02.23 To 04.03.23 (05 P/W)	CH.2:- <u>Kinematics of fluid flow</u> :- 2.1. Basic equation of fluid flow & their application, Practical application of Bernoulli's	white board & Marker
2	06.03.23 To 11.03.23 (03 P/W)	2.2. Flow over Notches & weirs. → Discharge through different types of notches & weirs. 2.3. Types of flow through the pipes.	White board & Marker
	13.03.23 To 18.03.23 (05 P/W)	2.4. Losses of head of a liquid flowing through pipes with numericals. 2.5. Flow through the open channels.	white board & Marker
	20.03.23 To 25.03.23 (05 P/W)	CH.3:- <u>PUMPS</u> :- 3.1. Types of pumps. 3.2. Centrifugal pump (Principle, operation, discharge, efficiency) etc, reciprocating pumps.	White board & Marker
3	20.03.23 To 25.03.23 (05 P/W)	<u>PART-B (Irrigation Engg)</u> CH.1:- <u>Hydrology</u>	white board & Marker
		1.1. Hydrology cycle. 1.2. Rainfall: Types, intensity, hydrograph	


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7	27.03.23	1.3. Estimation of rainfall, rain gauge, its types.	White board
	To	1.4. Concept of catchment area, run-off, estimation of flood discharge by Licken & Rye ^{for}	Marker
	31.03.23 (04 P/W)		
8	03.04.23	CH.2 - Water Requirement of Crops	White board
	To	2.1. Definition, necessity, benefits & types of irrigation.	Marker
	08.04.23 (04 P/W)	2.2. Crop Season.	
9	10.04.23	2.3. Duty, Delta & base period & their relationship, Kharif & Rabi Crops.	White board
	To		Marker
	15.04.23 (05 P/W)	2.4. Gross command area, Culturable command area, time factor, crop ratio.	
10	17.04.23	CH.3:- Flow Irrigation:-	White board
	To	3.1. Canal Irrigation, types of Canal; loss of water in canals:-	Marker
	21.04.23 (05 P/W)	3.2. Perennial Irrigation:-	
11	24.04.23	3.3. Different components of irrigation canals & their functions.	White board
	To	3.4. Sketches of different canal cross-section.	Marker
	29.04.23 (05 P/W)	3.5. Classification of canals, types of canals, Advantages & disadvantages.	
12	01.05.23	CH.4:- Water logging & drainage:-	White board
	To	→ Cause & effect of water logging.	Marker
	06.05.23 (04 P/W)	→ detection, prevention & remedies	
13	08.05.23	CH.5:- Diversion Headworks and Regulatory structures.	White board
	To	5.1. Necessity & objectives of diversion headwork.	Marker
	13.05.23 (05 P/W)	5.2. General layout functions of different parts of barrage.	
14	15.05.23	5.4. Functions of regulatory structure.	White board
	To	CH.6:- Cross drainage work:-	Marker
	20.05.23 (05 P/W)	6.1. Functions & necessity of cross drainage work.	
		6.2. Concept of each with help of neat sketch.	

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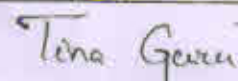
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15	22.05.23	CH.7: - Dams:-		White board & Marker
	To	7.1. Necessity of storage reservoirs, types of dams.		
	23.05.23 (02 PLW)	7.2. Earthdams: types, description.		White board & Marker
		7.2. Cause of failure and protection measures.		
16		7.3. Gravity dam - types, description		
		7.4. Spillway - types & necessity.		


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