

Lesson plan (for Even-semester as per revised curriculum and study scheme)		
Name of Faculty		Mr. Mohan Lal
Discipline		Civil Engineering
Semester		4 th Sem.
Subject		Irrigation Engineering
Lesson Plan		From 15 feb 2024 to 14 June 2024
Work load (Theory)		2+0
Week	Day	Topics
1st	1	Definition and necessity of irrigation , Major, medium and minor irrigation projects
	2	Hydrology and hydrological cycle
2nd	1	Rain-gauges – automatic and non-automatic (Symons rain gauge) ,Methods of estimating average rainfall (Arithmetic system)
	2	Runoff and Factors affecting runoff, Catchment area
3rd	1	Hydrograph
	2	basic concept of unit hydrograph
4th	1	Principal crops in India and their water requirements
	2	Crop seasons – Kharif and Rabi
5th	1	Crop period, base period, Duty, Delta and their relationship
	2	Gross commanded area (GCA), culturable commanded area (CCA), Intensity of Irrigation, Irrigable area
6th	1	Flow irrigation – Definition and its types
	2	Lift Irrigation – Tube well, Types of tube wells
7th	1	Explanation of terms: water table, radius of influence, depression head, cone of depression, confined and unconfined aquifers, advantages and disadvantages of tube
	2	Sprinkler irrigation- Conditions favourable, Types and component parts, advantages and disadvantages of sprinkler irrigation
8th	1	Drip irrigation- layout, component parts, advantages and disadvantages of drip irrigation
	2	Definition and Classification of canals
9th	1	Appurtenances of a canal and their function
	2	Various types of canal lining - their related advantages and disadvantages
10th	1	Canal breaches and their control
	2	Maintenance of lined and unlined canals
11th	1	Definition, objectives and general layout of different parts of head works, Difference between weir and barrage
	2	Dam and its Classification
12th	1	Earth dams - types, causes of failure; cross-section of zoned earth dam, method of construction
	2	Gravity dams – types, cross-sections of a dam,
13th	1	method of construction
	2	Concept of spillways and energy dissipators
14th	1	Concept of Canal Falls, Outlets and Escapes
	2	Class test
15th	1	REVISION
	2	REVISION