

water resources engg lecture plan

SHAMBHUNATH INSTITUTE OF ENGINEERING AND TECHNOLOGY				
DEPARTMENT OF CIVIL ENGINEERING				
SUBJECT- WATER RESOURCES ENGGINEERING(NCE-702 )				
LECTURE PLAN - AMITESH BHATT				
Unit	Lecture No.	Topic	Book	
UNIT 1	1	INTRODUCTION TO WATER RESOURCES ENGG.	B. C. PUNMIA AND K SUBRAMANYA	
	2	HYDROLOGICAL CYCLE AND WATER BUDGET EQUATION		
	3	QUESTIONS ON WATER BUDGET EQUATION		
	4	PRECIPITATION AND ITS FORMS		
	5	TYPES OF PRECIPITATION AND MEASUREMENT OF RAINFALL		
	6	RAINGAUGE NETWORK AND ADEQUACY OF RAINGUAGES		
	7	ERROR IN ESTIMATION AND MISSING DATA ANALYSIS		
	8 AND 9	CONSISTENCY OF RAINFALL DATA AND DIFFERENT CURVES		
	10 AND 11	QUESTION ON PRECIPITATION		
	12	EVAPORATION AND FACTORS AFFECTING EVAPORATION		
	13	MEASUREMENT TECHNIQUES		
	14	INFILTRATION AND FACTORS AFFECTING		
	15	ESTIMATION OF INFILTRATION		
	16	QUESTIONS ON INFILTRATION		
	UNIT 2	17		RUNOFF AND FACTORS AFFECTING
		18		ESTIMATION OF PEAK RUNOFF
19		RAINFALL RUNOFF RELATIONSHIP		
20		HYDROGRAPH ANALYSIS		
21		BASE FLOW SEPARATION		
22		DIRECT RUNOFF HYDROGRAPH		
23		DEFINITION OF UNIT HYDROGRAPH AND ASSUMPTION		
24		DERIVATION OF UNIT HYDROGRAPH		
25,26 AND 27		QUESTIONS ON HYDROGRAPH		
28		IRRIGATION ITS ADVANTAGES AND DISADVANTAGES		
29 AND 30		METHODS OF IRRIGATION		
31 AND 32		WATER REQUIREMENT OF CROPS		
33	IRRIGATION EFFICIENCIES			
34	QUESTION ON WATER REQUIREMENT			
35 AND 36	CANAL IRRIGATION			
UNIT 3	37	IRRIGATION CHANNELS AND ITS TYPES		
	38	KENNEDY THEORY FOR CHANNEL DESIGN		
	39	QUESTION ON KENNEDYS THEORY		
	40	LACEYS THEORY FOR CHANNEL DESIGN		
	41	QUESTIONS ON LACEYS THEORY		
	42 AND 43	ESTIMATION OF LOADS ON CHANNELS		
	44	GARRETS DIAGRAM FOR CHANNEL DESIGN		
	45	CHANNEL LINING ITS ADVT. AND DISADVANTAGES		
	46	DESIGN OF LINED CHANNELS		
	47 AND 48	WATER LOGGING ITS CONTROL AND DISADV. T.		
UNIT 4	49 AND 50	CANAL REGULATION WORK AND ITS TYPES		
	51 AND 52	IRRIGATION OUTLETS AND ITS TYPES		
	53	QUESTIONS ON IRRIGATION OUTLETS		
	54	RIVER TRAINING -DEFINITION, OBJECTIVE		
	55	RIVER TRAINING WORKS		
	56	MEANDERING OF RIVER AND ITS PARAMETER		
	57 AND 58	METHODS OF RIVER TRAINING WORKS		
	UNIT 5	59		INTRODUCTION TO GROUNDWATER HYDROLOGY
60		DIFFERENT PARAMETERS INVOLVE		
61		MEASUREMENT OF DISCHARGE THROUGH AQUIFERS		
62		WELL HYDRAULICS		

63	WELL LOSS , CAPACITY DETERMINATION
64 AND 65	TYPES OF WELL
66	WELL IRRIGATION VS CANAL IRRIGATION
67	QUESTIONS ON DICHARGE THROUGH AQUIFERS