



R18 Regulation *Subject code: 2E7AA*
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A+' Grade)
B.Tech VII Semester Supplementary Examinations, November 2023

WATER RESOURCES ENGINEERING-II
(Civil Engineering)

Maximum Marks: 70

Date: 12.12.2023 Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

		Bloom Tx
1	What is reservoir?	L1
2	Mention the parts of dam.	L1
3	Write the functions of drainage galleries?	L1
4	Mention types of canals.	L1
5	What is rock toe in an earth dam?	L1
6	State khosla theory.	L1
7	What is meant by spillway?	L1
8	Write notes on factor of safety of gravity dam?	L1
9	Define cross drainage work.	L1
10	How energy is dissipated in Sarda type fall?	L1

Part-B

Answer All the following questions.

(5X10M=50Marks)

11	Classify various types of dams. Discuss the factors that affect the selection of type of dam. [10]	L2
OR		
12	Explain in detail various classification of dams and its uses. [10]	L2
13	Describe various types of siphon spillways and explain the design principles of ogee spillways. [10]	L2
OR		
14	Discuss the factors that affect the selection of type of a reservoirs and draw mass curve for reservoir sedimentation. [10]	L2
15	Discuss briefly various types of energy dissipaters that used for energy dissipation below overflow spillway, under different relative positions of TWC and JHC. [10]	L2
OR		
16	Classify the various types of spillways and explain any two spillways with neat sketch. [10]	L2

17	Explain with neat sketch of various components and types of earth dams. [10]	L2
	OR	
18	Compute the discharge over an ogee spill way with coefficient of discharge $C= 2.2$ at a head of 4.2m. the effective length of the spillway is 120 m. neglect the velocity of approach. [10]	L3
19	Explain the following outlets: (i) Kennedy's gauge outlet and (ii) Gibb's outlet. [5+5]	L2
	OR	
20	Write in detail about sarada type fall and straight fall. [10]	L2