

**CONTINUOUS INTERNAL EVALUATION- 3**

Dept: Civil Engg	Sem / Div: 4	Sub: WS&TE	S Code: 18CV46
Date: 02-09-2022	Time: 1:00-2:30 pm	Max Marks: 50	Elective: N

Note: Answer any 2 full questions, choosing one full question from each part.

Q N	Questions	Marks	RBT	COs
<b>PART A</b>				
1 a	Give a comparison of lime soda process and zeolite process of softening of water.	12	L1	CO3
b	A town with prospective population of 60000 is to be supplied with water from a river 4.8km away and 30.5m below the level of town. Design the economical section of rising main and pumping unit where electrical power is available. Take water supply rate as 150lped and $f=0.01$ . Assume other relevant details.	13	L3	CO4
OR				
2 a	Briefly explain Fluoridation . and Defluoridation of water with any one method of Defluoridation	13	L1	CO3
b	A centrifugal pump is to lift 4m <sup>3</sup> of water per sec to a height of 10m. Assuming total loss of head in pipes as 0.5m calculate the H.P of driving engine to run the pump if its efficiency is 75%.	12	L3	CO3
<b>PART B</b>				
3 a	Discuss the various methods of distribution system of water? With their merits and demerits.	10	L3	CO4
b	Write a note on different types of water distribution reservoir.	5	L2	CO4
c	Explain the economical diameter of raising main	10	L2	CO4
OR				
4 a	Write explanatory notes with sketch on the following : a. Fire hydrant. b. Air valves. c. Sluice valves. d. Pressure relief valves. f. water meters	25	L2	CO4