

**Vivekananda College of Engineering & Technology, Puttur**  
 [A Unit of Vivekananda Vidyavardhaka Sangha Puttur ®]  
 Affiliated to VTU, Belagavi & Approved by AICTE New Delhi

CRM08

Rev 1.10

<Civil>

<30-06-2022>

**CONTINUOUS INTERNAL EVALUATION- 1**

Dept: Civil Engg	Sem / Div: 4	Sub: WS&TE	S Code: 18CV46
Date:06-07-2022	Time: 3:00-4:30 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 Explain the importance and necessity for protected water supply	5	L1	CO1										
	b Explain briefly different types of water demand.	10	L1	CO1										
	c The following population data are available for a town. Estimate the probable population in the year 2031 by geometrical and incremental increase methods.	10	L3	CO1										
	<table border="1" style="width: 100%; border-collapse: collapse; margin-left: 20px;"> <tr> <td style="width: 15%;">Year</td> <td style="width: 15%;">1971</td> <td style="width: 15%;">1981</td> <td style="width: 15%;">1991</td> <td style="width: 15%;">2001</td> </tr> <tr> <td>Population</td> <td>80000</td> <td>120000</td> <td>168000</td> <td>228000</td> </tr> </table>	Year	1971	1981	1991	2001	Population	80000	120000	168000	228000			
Year	1971	1981	1991	2001										
Population	80000	120000	168000	228000										
<b>OR</b>														
2	a What is meant by per capita demand? List and discuss the factors that affect per capita demand.	10	L1	CO1										
	b The population of a city in three consecutive years i.e., 1991, 2001, 2011 is 80,000, 2,50,000 and 4,80,000 respectively. Determine saturation population, the equation of logistic curve and expected population in 2021.	10	L3	CO1										
	c Make the list of population forecasting methods and explain in detail comparative graphical method.	5	L1	CO1										
<b>PART B</b>														
3	a Write a neat flow diagram of municipal water treatment plant with the significance of each units.	10	L2	CO2										
	b What is Sampling? Briefly explain different types of sampling.	5	L3	CO2										
	c Distinguish between infiltration gallery and infiltration well.	10	L2	CO2										
<b>OR</b>														
4	a What is intake works and their types and factors affecting the selection and location of a suitable site for intake works construction.	10	L2	CO2										
	b Explain the significance with respect to quality of water. I) turbidity ii) hardness iii) fluoride iv) nitrate	10	L3	CO2										
	c Write note on water borne diseases and their control.	5	L2	CO2										