

Seat No: \_\_\_\_\_

Enrollment No: \_\_\_\_\_

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**Diploma Engineering, Mid semester Examination**

**Semester: 4th**  
**Subject Code: 0360503**  
**Subject Name: Public Health Engineering**

**Date: (dd/mm/yyyy)**  
**Time: (1hr: 30min)**  
**Total Marks: 40**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

<b>Q.1</b>	<b>Answer any six out of Ten. (2 Marks Each)</b>	<b>(12)</b>
	1. List out the sources of water.	
	2. Explain the importance of PH value in water.	
	3. Explain T.S.(total solid).	
	4. What is M.P.N.?	
	5. Write down the equation of Kuichling's formula and Freeman's formula for fire demand.	
	6. Types of Pipes used for conveyance of water	
	7. List out any four requirements of jointing Material.	
	8. List out type of valves.	
	9. Draw figure of sluice valve	
	10. Name any two hydrants.	
<b>Q.2</b>	A) Explain domestic water demand?	<b>(03)</b>
	<b>OR</b>	
	A) Discuss duties of a public health engineer.	<b>(03)</b>
	B) List types of fluctuation in water demand and explain anyone.	<b>(03)</b>
	<b>OR</b>	
	C) Enlist various methods of population forecasting and explain Geometrical progression methods.	<b>(03)</b>
	D) Estimate the water demand for firefighting for a population of 2, 80,000 using Kuichling formula.	<b>(04)</b>
	<b>OR</b>	
	C) List out any four requirements of jointing Material.	<b>(04)</b>
	D) Types of Pipes used for conveyance of water	<b>(04)</b>
<b>Q.3</b>	A) List Out Methods to prevent leaks	<b>(03)</b>
	<b>OR</b>	
	A) Explain Dead End System Layout of distribution system.	<b>(03)</b>
	B) Draw a figure of Gravity system of distribution of water and explain.	<b>(03)</b>
	<b>OR</b>	
	B) Write short note asbestos cement (ac) pipes.	<b>(03)</b>
	C) Write Procedure of Laying of Pipe.	<b>(04)</b>
	<b>OR</b>	
	C) Factor affecting choice of pipe material.	<b>(04)</b>
	D) Explain Radial system of distribution of water.	<b>(04)</b>

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	□) ડિસ્ટ્રિબ્યુશન સિસ્ટમના ડેડ એન્ડ સિસ્ટમ લેઆઉટને સમજાવો	(□□)
	□□) પાણીના વિતરણની ગુરુત્વાકર્ષણ પ્રણાલીની આકૃતિ દોરો અને સમજાવો.	(□□)
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	□□) પાઇપ નાખવાની પ્રક્રિયા લખો.	(□□)
	□□) ટૂંકી નોંધ એસ્બેસ્ટોસ સિમેન્ટ (ac) પાઈપો લખો.	(□□)
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	□□) પાઇપ સામગ્રીની પસંદગીને અસર કરતું પરિબળ.	(□□)
	□□) પાણીના વિતરણની રેડિયલ સિસ્ટમ સમજાવો.	(□□)