

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV(NEW) EXAMINATION – WINTER 2022****Subject Code:3141312****Date:17-12-2022****Subject Name:Municipal Engineering****Time:10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Draw a neat flow diagram of water supply scheme.	03
	(b) What is the purpose of storm relief works?	04
	(c) Enlist and explain the factor affecting the demand of water.	07
Q.2	(a) Define the following terms: (i) sewage (ii) storm water (iii) infiltration	03
	(b) With the help of a neat sketch write a short note on Manholes.	04
	(c) Give the classification of sources of water. Explain each source in brief.	07
	OR	
	(c) Write a short note on Importance and reliability of Water works.	07
Q.3	(a) Prepare the list of pumps used in water supply.	03
	(b) Write down the difference between: Gravity system and pressurized system of water supply	04
	(c) What are the factors on which location of intake works depend? Draw a neat sketch of river intake and explain its working.	07
	OR	
Q.3	(a) Define the following terms: [i] Porosity [ii] Water Bearing stratum [iii] Aquifer	03
	(b) Write down the difference between: Combined sewerage system and separate sewerage system.	04
	(c) Enlist the distribution systems and explain anyone with a neat sketch, enlisting its merits and demerits.	07
Q.4	(a) Draw a diagram of Dead end system.	03
	(b) Enlist the types of reservoir & explain any one.	04
	(c) Explain construction and working of Gate Valve with neat sketch.	07
	OR	
Q.4	(a) What is coefficient of runoff?	03
	(b) Define the terms: (i) Self-cleaning velocity (ii) Non scouring velocity (iii) Invert (iv) Sullage	04
	(c) Explain the following with neat sketch: [1] Spigot & Socket joint [2] Expansion Joint	07
Q.5	(a) Write a short note on “Traps”	03
	(b) What do you understand by continuous and intermittent supply system of water?	04
	(c) Enlist various systems used in House Plumbing. Explain any one in detail.	07
	OR	
Q.5	(a) Enlist different types of sewer joints.	03
	(b) Enlist the requirements of good meter.	04
	(c) Enlist different types of Materials for Sewers. Explain any two in detail.	07
