Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI • EXAMINATION – WINTER • 2014

Subject Code: 161301 **Date: 26-11-2014**

Subject Name: Municipal Engineering

Time: 02:30 pm - 05:00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q-1	(a) Draw a neat flow diagram of water supply scheme. Also enlist the duties of water works engineers.	**07**
	(b) Give difference between (i) Combined sewerage system and Separate sewerage system. (ii)Gravity system and pressurized system of water supply.	**07**
Q-2	(a) What are the factors on which location of intake works depend? Draw a neat sketch of river intake and explain its working.	**07**
	(b) Enlist and explain the factor affecting the demand of water.	**07**
	OR	
	(b) Prepare the list of pumps used in water supply and explain any one.	**07**
Q-3	(a) Compare the surface water and ground water sources based on quantity and quality.	**07**
	(b) Draw a neat sketch of Reservoir intake and explain its working.	**07**
	OR	
Q-3	(a) Enlist the different storm relief works and explain any one with sketch.	**07**
	(b) Enlist the distribution systems and explain any one with neat sketch, enlisting its merits and demerits.	**07**
Q-4	(a) Define the following terms: (i) sewage (ii) storm water (iii) infiltration (iv) porosity (v) manhole (vi) invert (vii) combined sewer.	**07**
	(b) Give the breakup of total per capita water demand. Explain each type of water demand.	**07**
	OR	
Q-4	(a) Draw a neat sketch and explain the construction and working of Gate valve.	**07**
	(b) Enlist the different types of materials for sewers. Explain any two in detail.	**07**
Q-5	(a) Explain the followings: (i) Hydrants (ii) Meters	**07**
	(b) Enlist the requirements of good meter. Also give the advantages and disadvantages of metering.	**07**
	OR	
Q-5	(a) Write a note on different types of sewer joints.	**07**
	(b) Write down the procedure for laying of sewer pipes.	**07**

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