

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2019****Subject Code: 2151306****Date: 17/06/2019****Subject Name: Municipal Engineering****Time: 02:30 PM TO 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. **03**
(b) Differentiate between Gravity system & Pressurized system of water supply. **04**
(c) Enlist and explain the factors affecting the demand of water. **07**
- Q.2** (a) Define: (1) Storm water (2) Infiltration (3) Porosity. **03**
(b) State the design periods for different components of water supply scheme. **04**
(c) Explain the different sources of water for water supply. **07**
- OR**
- (c) Prepare a list of pumps used in water supply and explain any two. **07**
- Q.3** (a) Write a short note on fire Hydrants. **03**
(b) Differentiate between Separate sewerage system & Combined sewerage system. **04**
(c) Enlist the types of layout for water distribution systems and explain any two in detail. **07**
- OR**
- Q.3** (a) Write a short note on meters. **03**
(b) Differentiate between drains and sewers. **04**
(c) Give the procedure for laying of sewer lines. **07**
- Q.4** (a) Define the term (1) Self-cleansing velocity (2) Dry weather flow (3) Soil pipe. **03**
(b) Write a short note on sluice valve. **04**
(c) Draw a neat sketch of lake intake and explain its working. **07**
- OR**
- Q.4** (a) Define: (1) Invert (2) Non-scouring velocity (3) Grey water. **03**
(b) Write a short note on Air relief valves. **04**
(c) Explain the river intake with the help of a neat sketch. **07**
- Q.5** (a) What are the requirements of a good trap? **03**
(b) Write down the factors affecting the quantity of storm water. **04**
(c) List of various sewer appurtenances and explain drop manhole with neat sketch. **07**
- OR**
- Q.5** (a) Enlist the different types of pipe materials and explain any one. **03**
(b) With the help of a neat sketch explain inverted siphon. **04**
(c) Explain the system of plumbing. **07**
