

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER- V (New) EXAMINATION – WINTER 2019****Subject Code: 2151306****Date: 06/12/2019****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.

- Q.1** (a) Narrate the different sources of water for water supply in a town. **03**
(b) Write a short note on “Fluctuations in Water Demand”. **04**
(c) Explain the layout of water treatment plant with neat sketch. **07**

- Q.2** (a) Enlist different types of pipes used for water supply. **03**
(b) Write a short note on “Partial Consumptive Use of Water”. **04**
(c) Explain the different factors affecting the water demand. **07**

OR

- (c) Define water demand & explain different types of water demand. **07**

- Q.3** (a) Write design periods of important Components of water supply scheme. **03**
(b) Differentiate between Separate System & Combined System of Sewerage System. **04**
(c) Enlist different types of materials for Sewers. Explain any one in detail. **07**

OR

- Q.3** (a) Enlist the various pipe joints and briefly explain any one. **03**
(b) Enlist the different types of sewer sections & explain any one with neat sketch. **04**
(c) Write a note on ‘Sewer cleaning equipment and devices’. **07**

- Q.4** (a) Define: (i) Storm water (ii) Self cleansing velocity (iii) Plumbing System **03**
(b) State the factor affecting storm sewage. **04**
(c) Explain different layout of distribution network with their relative merits and demerits. **07**

OR

- Q.4** (a) Define: (i) Sewage (ii) Manhole (iii) Run Off **03**
(b) Discuss partially ventilated single stack plumbing system for house drainage. **04**
(c) How will you find out the capacity of elevated service reservoir? **07**

- Q.5** (a) Enlist various sewer appurtenances. **03**
(b) Differentiate between: Conservancy system and Water carriage system. **04**
(c) Explain Lake Intake with a neat sketch showing all the components. **07**

OR

- Q.5** (a) Give the classification of pumps. **03**
(b) Differentiate between: Gravity system and pressurized system of water supply **04**
(c) Write a short note on: Canal Intake. **07**
