

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 **07**
(i) Combined sewerage system and Separate sewerage system.
(ii) Gravity system and pressurized system of water supply.
- 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**
