

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – VI (OLD).EXAMINATION – WINTER 2016

Subject Code: 161301**Date: 26/10/2016****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) Enlist and explain the factors which should be kept in mind while selecting the location of intake work? **07**
- (b) With the help of a neat sketch write a short note on Manholes **07**
- Q.2** (a) Enlist and explain the types of demand of water **07**
- (b) With the help of a neat sketch write a short note on “River intake”. **07**
- OR**
- (b) Differentiate between: **07**
- (i) Combined Sewerage system and Separate sewerage system.
- (ii) Storm water and sanitary sewage.
- Q.3** (a) What is the purpose of storm relief works? Enlist and explain any one type of storm relief work along with neat sketch. **07**
- (b) Define the terms: **07**
- | | |
|----------------------|-------------------------------|
| (i) Sewage | (v) Non scouring velocity |
| (ii) Sanitary sewage | (vi) Infiltration |
| (iii) Storm water | (vii) Self cleansing velocity |
| (iv) Design period | |
- OR**
- Q.3** (a) Enlist the types of distribution systems and explain any one with a neat sketch and advantages & disadvantages. **07**
- (b) Give the classification of sources of water. Explain each source in brief. **07**
- Q.4** (a) Enlist the types of valves used in water supply system. Explain any one with a neat sketch. **07**
- (b) Prepare a list of pumps used in water supply and explain any two **07**
- OR**
- Q.4** (a) What is coefficient of runoff? Enlist and explain the factors on which it depends. **07**
- Q.4** (b) With the help of a neat sketch explain the different types of traps. **07**
- Q.5** (a) Differentiate between: **07**
- (i) Dead end system and radial system of water supply
- (ii) Gravity system and pressurized system of water supply.

(b) Write a note on ‘Laying of sewers.’ **07**

OR

- Q.5** (a) A sewer of diameter 100 mm is laid at 1 in 600 slope. Determine the velocity of flow in a sewer running half full. Also determine the discharge flowing through the sewer. Assume $n=0.012$ in Manning’s formula. **07**
- (b) Discuss the one pipe and two pipe system of house plumbing. **07**
