

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (Old) EXAMINATION – WINTER 2019****Subject Code: 150603****Date: 04/12/2019****Subject Name: Environmental 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) Explain the different types of water demands which are to be considered while fixing the quantity of water to be supplied to the community. **07**

(b) Explain the growth pattern of microbes based upon number. **07**

Q.2 (a) Enlist different physical and chemical characteristics of water. Explain physical characteristics of water in detail. **07**

(b) Explain different ground water sources which can be used as source of public water supply. **07**

OR

(b) Enlist different methods of population forecasting. Find out the population of 2031 and 2041 using the data given below by any three methods of population forecasting: **07**

Year	Population
1981	45800
1991	57000
2001	68050
2011	75000

Q.3 (a) Explain the factors affecting self purification capacity of the river. **07**

(b) Explain why EIA is required before setting up a nuclear power plant. **07**

OR

Q.3 (a) What is sewage farming? Write short note on sewage sickness. **07**

(b) What is house drainage system? State the principles of house drainage system **07**

Q.4 (a) Describe the procedure of EIA with the flow chart. **07**

(b) Explain different types of traps commonly used in a house drainage system. **07**

OR

Q.4 (a) Give the classification, composition and characteristics of municipal solid waste. **07**

(b) Explain the source and effect of carbon monoxide, oxides of sulphur and oxides of nitrogen. **07**

Q.5 (a) Explain different sources of noise pollution. **07**

(b) Explain composting as a method of solid waste disposal. **07**

OR

Q.5 (a) Explain sound level meter in detail. **07**

(b) Define 1. Garbage 2. Sullage 3. Refuse 4. Compost 5. leachate 6. Soil pipe 7. Necrosis **07**
