

**EKS-341**

UTians

**B.E. VII Semester (CGPA) Civil Engg.  
Examination 2017**

**ENVIRONMENTAL ENGINEERING - III**

**Paper : CE-701**

**Time Allowed : Three Hours**

**Maximum Marks : 60**

**Note :** Attempt all questions. Each question carry equal marks. Make suitable assumptions and draw neat sketches wherever necessary.

- Q.1. a) Discuss about the design period of a project and water demand per 100 person.  
b) Describe quality of water supply from any River?

**OR**

- a) Describe methods for the estimation of following parameters in water sample :  
i) Nitrate and Nitrite  
ii) Sulphide  
b) Explain the sources of arsenic contamination of ground water.

- Q.2. a) Describe method for the estimation of bacteriological parameter in water sample.

**OR**

Discuss various factors that affect the average per capita water consumption.



- b) Explain different types of pumping system in pumping station.

- Q.3.
- a) Describe various types of filter and coagulants commonly used in water treatment.
  - b) Explain different water softening process.

OR

- a) What are aerobic treatment process show the methods of aeration?
- b) Give the utilisation of break point chlorination in disinfection process during the treatment of water.

- Q.4.
- a) Explain with the sketch the different pipe fittings in distribution system.
  - b) Enlist different types valves and appurtenances.

OR

- a) Describe the maintenance of distribution system.
- b) Draw the design of service reservoir according the capacity of 50,000 liters of water.

- Q.5.
- a) Discuss the management of water supply in rural water supply system.
  - b) Discuss some of the advantages of physiochemical treatment of sewage as opposed to biological treatment.

OR

- a) Describe sanitary appliance and their operation.
- b) Discuss about building drainage system of plumbing.

