

III B.Tech II Semester Supplementary Examinations, November - 2019
ENVIRONMENTAL ENGINEERING – I
 (Civil Engineering)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
 2. Answering the question in **Part-A** is compulsory
 3. Answer any **THREE** Questions from **Part-B**

PART –A**(22 Marks)**

- 1 a) Write about the water borne diseases. [3M]
- b) What are the advantages of pressure conduits over gravity conduits? [4M]
- c) Write short note on pH value and its determination. [4M]
- d) Discuss the factors effecting sedimentation. [3M]
- e) Discuss break point chlorination. [4M]
- f) Write notes on air valves and sluice valves. [4M]

PART –B**(48 Marks)**

- 2 a) Discuss the factors affecting water demand. [4M]
- b) Explain in brief various factors that affect population growth. [8M]
- c) Draw the flow chart of public water supply system and discuss it. [4M]
- 3 a) Write short note on infiltration galleries. [3M]
- b) Explain in detail about the various types of wells with the help of sketches. [8M]
- c) Discuss the design aspects of pipe lines. [5M]
- 4 a) Describe the multiple tube fermentation technique for the determination of coli forms. [8M]
- b) Write a note on significance of MPN in water quality. [8M]
- 5 a) Describe various methods of application of coagulants. [8M]
- b) Explain the working of a rapid sand gravity filter. [8M]
- 6 a) Describe in detail about the chlorination. Explain its action in killing bacteria. [8M]
- b) Describe Aeration methods for the removal of objectionable dissolved gases. [8M]
- 7 a) Distinguish between Hardy cross method and equivalent pipe method. [8M]
- b) Discuss about use of water meters, their classification and merits and demerits of using meters. [8M]
