

Code No: RT32011

R13**SET - 1****III B.Tech II Semester Supplementary Examinations, April/May - 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 compulsory3. Answer any **THREE** Questions from **Part-B**

PART –A

- 1 a) Discuss the average per capita demand for an Indian. [3M]
- b) What are factors governing the selection of the intake structure. [4M]
- c) What do you understand by coli form index? How do you determine it? [4M]
- d) Why alum is commonly used coagulant? Write down the reaction. [3M]
- e) Discuss about chlorination [4M]
- f) Discuss the components of distribution system. [4M]

PART -B

- 2 a) Discuss the role of environmental engineer. [4M]
- b) What are the factors affecting the design period? Explain. [8M]
- c) Explain the importance of protected water supply systems. [4M]
- 3 a) Write about Wells and Infiltration galleries. [3M]
- b) Discuss the merits and demerits of different kinds of pipes. [8M]
- c) Distinguish between gravity spring and artesian spring. [5M]
- 4 a) Describe in brief various tests conducted for physical examination of water. [8M]
- b) Discuss the bacteriological analysis of water. [8M]
- 5 a) What do you understand by plain sedimentation? Describe the design principles of a settling tank. [8M]
- b) Draw a neat flow chart of water treatment plant. [8M]
- 6 a) Explain chlorine-ammonia treatment for disinfecting drinking water. What are its advantages? [8M]
- b) Discuss the methods for softening of water. Mention the advantages and drawbacks of the methods. [8M]
- 7 Explain in detail about the various methods of distributing water system and discuss the advantages and disadvantages of each. [16M]
