

III B. Tech II Semester Supplementary Examinations, November - 2018

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

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|---|----|--|------|
| 1 | a) | Discuss the factors affecting water demand. | [4M] |
| | b) | What are the sources of water? | [3M] |
| | c) | Write a note on common impurities found in water. | [4M] |
| | d) | What do you understand by treatment of water? Why is it necessary? | [3M] |
| | e) | Write short note on Softening of Water | [4M] |
| | f) | What are requirement of distribution of water? | [4M] |

PART -B

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|---|----|---|------|
| 2 | a) | Describe the importance and necessity of protected water supply system. | [8M] |
| | b) | Explain in detail about the population forecasting. | [8M] |
| 3 | a) | Differentiate between the gravity and pressure conduits? | [3M] |
| | b) | What are the factors governing the selection of Intake structures | [8M] |
| | c) | Explain the balancing storage capacity of reservoir by mass curve analysis. | [5M] |
| 4 | a) | Explain in brief various important tests conducted for chemical examination of water. | [8M] |
| | b) | Describe the WHO guidelines for drinking water. | [8M] |
| 5 | a) | Describe various types of coagulation commonly used in water treatment. | [8M] |
| | b) | Describe with help of a neat sketch slow sand filter. Explain its working. | [8M] |
| 6 | a) | Discuss the chlorination and Disinfection methods | [8M] |
| | b) | Distinguish between fluoridation and defluoridation. | [8M] |
| 7 | a) | Discuss about Hardy Cross method in detail | [8M] |
| | b) | Discuss the sluice valves, scour valves and check valves. | [8M] |
