

B.Tech. 5th Semester (Civil Engg.)

Examination, December-2015

WATER SUPPLY TREATMENT

Paper-CE-305-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : • *Question No. 1 is compulsory.*

- *Students have to attempt five questions in total at least one question from each section.*
- *Assume any data if missing.*

1. (a) Write down the factors on which selection of water supply depends. 5
- (b) Explain the objectives of water treatment plant. 5
- (c) What are major five differences between Gravity system and plumbing system ? 5
- (d) Explain the merits and demerits of distribution system. 5

Section-A

2. (a) What do you understand by continuous and intermittent system of water supply ? What are their relative advantages and disadvantages ?
- (b) Give a reasonable estimate of average daily consumption of water for a residential town of 50,000 population. Also suggest a possible break-up of consumption on different heads. 10+10

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3. Enumerate and discuss the various physical, chemical and bacterial characteristics of testing of raw water supplies. What steps should be taken in order to make them fit for drinking ? 20

Section-B

4. (a) What do you meant by “disinfection” in treating public water supply ? What is its importance ? What are the chemicals which are used as disinfectants and also write down its merits and demerits.
(b) Define break point chlorination with graph. 12+8
5. Explain any two advanced method of water treatment in detail with neat and clean diagram. 20

Section-C

6. What are different types of distribution methods of supply ? Explain gravity and pumping system in detail. 20
7. (a) Explain the method of fixing different pipe sizes of a simple distribution system.
(b) What are the problems that encounter in conveyance system ? Explain. 10+10

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Section-D

8. Explain the following in detail : 20
(a) Dead end system.
(b) Ring system.
(c) Radial system.
9. Write down the factors that are considered while designing plumbing system for water supply. 20

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