6E3035

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6E 3035

B.Tech. VI Semester(Back) Examination, May 2015

Civil Engineering

6CE Environmental Engineering-I

Time : 3 Hours **Maximum Marks : 80**

Min. Passing Marks : 24

Instructions to Candidates:

*Attempt any **five** questions, selecting **one** question from **each unit**. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.*

Unit - I

1. a) Define environment Explain the various components of Environment in detailed **(10)**

   b) Write note on 'importance of water in life' **(6)**

OR

1. Write notes on the following

   a) Factors affecting water consumption **(8)**

   b) Various types of water demand **(8)**

Unit - II

2. a) Describe various sources of water & compare the quality of surface and ground water, in detail **(10)**

   b) Explain the methods of drilling & working of tube well **(6)**

OR

2. a) Enlist the chemical, physical & bacteriological standards of drinking water with their permissible limits. **(10)**

   b) Explain the Indian standard for drinking water **(6)**

Unit - III

3. a) Write notes on types of pipes & their working also discuss the pumping station **(10)**

   b) Explain various types of joints of pipes **(6)**

OR

3. a) What do you mean by softening of water. Explain any one technique for water softening by neat labelled diagram **(10)**

   b) Write note on settling operations **(6)**

Unit - IV

4. What is the difference between slow sand rapid sand filters. Explain the working of rapid sand filters with diagram & write the desirable quantities of filters **(16)**

OR

4. a) Explain Break point chlorination & its significance **(8)**

   b) Various methods of disinfection of water **(8)**

Unit - V

5. Write short notes on

   a) Methods of water distribution & components of distribution system **(8)**

   b) Types of distribution reservoir & fixture units **(8)**

OR

5. a) Write various components of water service connection and pressure requirement **(8)**

   b) Explain handy-cross method of analysis of pipe network with example & note of ferrule **(8)**