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Name.....

Reg. No.....

**SEVENTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE
EXAMINATION, NOVEMBER 2016**

CE/PTCE 09 703—ENVIRONMENTAL ENGINEERING —I

Time : Three Hours

Maximum : 70 Marks

Part A

Answer all questions.

1. Which method of forecasting population is better for water distribution ?
2. Which location is suitable for intake structures ?
3. What is the quality of drinking water ?
4. What is the unit of color and taste ?
5. What are the pumps available for pumping water ?

(5 × 2 = 10 marks)

Part B

Answer any four questions.

6. What are the factors involved in the consumption of water for domestic use ?
7. What are the parameters involved in the quality of water ? Give the importance of any two parameters
8. What are the factors for the suitability of sources with respect to quality and quantity ?
9. What are the methods available for the removal of excess of iron and manganese in water ?
10. What are the factors to be considered in the selection of type of pump ?
11. What are the Points to be kept in view in the design of distribution systems ?

(4 × 5 = 20 marks)

Part C

Answer all questions.

12. (a) Write a note on the fluctuations in the rate of water consumption explaining its significance in the design of water systems.

Or

- (b) Sketch a shallow well showing there in the constructional details to protect water from contamination.

Turn over

13. (a) Draw a sketch of spigot and socket joint showing the position of the materials used in making it water tight.

Or

- (b) What are the soundness tests conducted before bringing a pipe line into consideration.
14. (a) Explain how chlorine reacts with water and mention the role of various factors and conditions accompanying the reactions.

Or

- (b) Write short notes on :
- (i) Hardness Removal.
 - (ii) Iron and Mg Removal.
15. (a) What are the different methods of analyzing a given distribution system ? Explain any one in detail.

Or

- (b) Write brief note on waste detection and preventions.

(4 × 10 = 40 marks)