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SEVENTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE EXAMINATION, NOVEMBER 2015

CE/PTCE 09 703—ENVIRONMENTAL ENGINEERING

Time : Three Hours

Maximum : 70 Marks

Part A

Answer any all questions.

1. What is per capita demand ?

2. What is the necessity of pumping in water distribution system ?

3. What are the four important parameters to be tested for the quality of water ?

4. Why grit chamber is provided in water treatment plants ?

5. What are the use of meters and hydrants in distribution system ?

(5 × 2 = 10 marks)

Part B

Answer any four questions.

6. What are the importance and necessity of community water supply ?

7. What are the importance of drinking water standards ?

8. How to estimate the yield from various ground water sources ?

9. What are the appurtenances used in distribution system ?

10. What is fluoridation and defluoridation?

(4 × 5 = 20 marks)

Part C

11. The population of a locality as obtained from the census report is as follows :—

Year	Census Population
1960	22500
1970	29000
1980	37500
1990	47000
2000	57000
2010	66500

Estimate the population of the locality in 2020 by incremental, arithmetic and geometric methods.

Or

Turn over

12. What are the factors affecting consumption of water ? Describe the fluctuations in demand.

13. What are the procedures adopted for development and protection of wells ?

Or

14. What are water borne diseases and how can they be prevented ?

15. Why sedimentation is adopted for the first steps of treatment in water treatment ? When is flocculation necessary ? What are the important flocculants ?

Or

16. How to remove iron and manganese from drinking water ? What are the importance of iron and manganese in drinking water ?

17. Describe the various methods of distributing water and discuss the advantages and disadvantages of each.

Or

18. What are the different methods of analyzing a given distribution system ? Explain Hardy Cross method of pipe network analysis.

(4 × 10 = 40 marks)