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B.E / B.Tech. (Full – Time) DEGREE END SEMESTER EXAMINATIONS APR / MAY 2012
 CIVIL ENGINEERING BRANCH
 FIFTH SEMESTER – (REGULATION 2008)
CE 9304 – WATER SUPPLY ENGINEERING

Time: 3 hr.

Max Mark: 100

Answer all Questions

Part – A (10 x 2 = 20 Mark)

1. List the factors influencing design period of water supply scheme.
2. Write the advantages and disadvantages of surface sources of water.
3. Mention the merits of R.C.C pipe.
4. Differentiate gravity conduit and pressure conduit.
5. Discusses the effect of excess fluoride in drinking water.
6. Write short note on ozone treatment of water.
7. Find the settling velocity of a discrete particle of diameter 5×10^{-3} cm, and specific gravity 2.65. Take $v = 1.11 \times 10^{-2}$ cm²/s at 20°C.
8. Write short note on activated carbon.
9. Mention any two methods used in desalinization.
10. What are the basic requirements of good water distribution system.

Part – B (5 x 16 = 80 Mark)

11. Design a rapid sand gravity filter unit for 4MLD of water demand of city. Assume the necessary data suitable.
12. (a). (i). Discuss the variation in water demands (6)
 (ii). The census of city if given below. (10)

Year	1971	1981	1991	2001	2011
Population	75,000	88,500	1,10,200	1,35,000	1,72,300

Forecast the 2021, 2041 population by incremental and geometric increase methods.

(OR)

- (b). (i). Explain the construction of infiltration galleries. (6)
- (ii). Discuss the different types of tube wells (10)