

Mid-West University
Examinations Management Office
End-Semester Examinations -2080

Bachelor level/ B.E. Civil /6th Semester
Time: 3 hours

Full Marks: 50
Pass Marks: 25

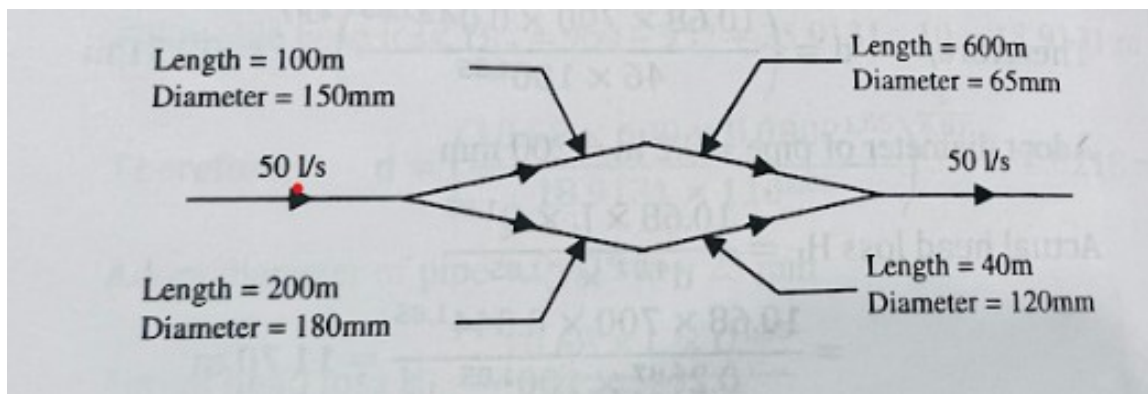
Subject: Water Supply Engineering (CE316)

- Attempt all the questions
- Figures in the margin indicate full marks.
- Assume suitable values, with a stipulation, if necessary.
- Candidates are required to answer the questions in their own words as far as possible.

1. What are the impact of water supply system? Explain about infiltration galleries with neat sketch. [2+3]
2. Estimate the population of a town for the year 2025 by all the three methods with the help of following data. [5]

Year (B.S.)	1965	1975	1985	1995	2005
Population	75000	85000	115000	125000	145000

3. You are hired as an engineer in Birendranagar municipality for quality control of drinking water. How do you find the impurities in water and maintain quality of water for drinking purpose? [5]
4. Define intake. Describe the factors governing site selection in intake. [1+4]
5. Why air is necessary to remove from the pipe before used it? Draw a SSF with typical values for effective size, uniform coefficient and thickness of sand bed. [1+3]
6. What do you mean by coagulants and flocculation? Give an outline of various process adopted for treatment of water. [2+3]
7. What are the objectives of aeration? Give neat diagram of various layouts of distribution system. [1+4]
8. Design a plain rectangular sedimentation tank for treating 4 million liters of water per day, assume other data suitably. [5]
9. Calculate the discharge and velocity in each pipe in the network given below. Assume Hazen William's coefficient as 100. [6]



10. Why break pressure tank is necessary in water supply scheme? Describe the process of laying of pipes. [2+3]

The End