

Code No: 135CE

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech III Year I Semester Examinations, October - 2020****ENVIRONMENTAL ENGINEERING****(Common to CE, EEE, ME, ECE, CSE, IT, MIE)****Time: 2 hours****Max. Marks: 75**

Answer any five questions
All questions carry equal marks

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1. Evaluate various types of intake works. Describe a river intake with the help of a neat sketch. [15]
2. The population data of a city is given as under:

Year	1961	1971	1981	1991	2001	2011
Population	76000	90000	115000	150000	187000	225000

- Estimate the population of the city in 2021 and 2025. [15]
3. Discuss the physical methods for disinfection and explain the chlorine demand. How does chlorine behave in water? [15]
 4. Design a set of rapid gravity filters for treating water required for a population of 65000, the rate of supply being 180 l/day/person. The filters are rated to work 6000 l/sq/m. Assume whatever data is necessary. [15]
 5. Evaluate the Hardy Cross method used for pipe net work analysis in water distribution system. [15]
 6. Explain different types of layout of Distribution system by stating relative advantages and disadvantages. [15]
 7. Differentiate between single stack and one pipe systems of plumbing for drainage. [15]
 8. Explain with a neat sketch the construction and working of a conventional trickling filter. [15]

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