

II B. Tech II Semester Regular Examinations, August/September - 2021
ENVIRONMENTAL ENGINEERING - I
(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions each Question from each unit
All Questions carry **Equal** Marks

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- 1 a) Explain the various methods of predicting the future population. [8M]  
b) Write a note on fluctuation in the rate of water consumption. [7M]
- Or
- 2 Discuss the various types of water demands and factors affecting water demand [15M]
- 3 a) Explain the main sources of water w.r.t quality and quantity. [8M]  
b) Discuss Infiltration galleries. [7M]
- Or
- 4 a) What is an intake? Explain where and how it is used. [8M]  
b) Differentiate between shallow well and deep well w.r.t quality and quantity. [7M]
- 5 a) What is meant by turbidity? Explain how turbidity is measured and removed. [8M]  
b) Explain the method to find the presence of hardness in water. What is its significance in water? [7M]
- Or
- 6 a) Discuss the water quality standards for agriculture and industries [8M]  
b) Discuss "IS :10500-2012". [7M]
- 7 a) Explain Nalgonda technique in deflouriodation of water. [8M]  
b) Explain the drawbacks in rapid sand filter. [7M]
- Or
- 8 a) Discuss briefly sedimentation with coagulation. [8M]  
b) Explain the common methods of desalination of water. [7M]
- 9 a) Describe the various methods of water distribution. [8M]  
b) Under what conditions should water be supplied to distribution system by direct pumping. [7M]
- Or
- 10 a) Explain the function of air valve in distribution system. [8M]  
b) What is hydraulically balance network. Explain in detail. [7M]

