

Maulana Azad National Institute of Technology, Bhopal
Department of Chemistry

Mini Test
Engineering Chemistry
Date of Exam: 08.01.2022

Teacher: Prof. Alok Mittal

Section: G

Duration 1.00 Hour + 15 Minutes Uploading Time, Max. Marks: 10

Before Writing Answers Read Following Important Instructions Carefully:

- a. *There are 5 questions in this paper, all questions are compulsory and carry equal marks.*
- b. *Answers must be hand written (not typed) on a blank sheet.*
- c. **Write your name, scholar number, roll number and today's date on the top of every page of the uploaded document.**
- d. *The answer sheet(s) must be uploaded on the MS Teams portal within the stipulated time (as mentioned above). In case you fail to upload within the given duration, the attachment may be sent to chm122am@gmail.com.*
- e. *Please note, after uploading your file on MS Teams, make sure to turn in the uploaded document.*

Questions:

1. What are advantages of using Sodium aluminate as coagulant in the water treatment process?
2. What are specifications of drinking water?
3. Explain: Scale and Sludge
4. Explain use of liquid chlorine as disinfectant.
5. Calculate the amount of Lime (80% pure) and Soda (80% pure) for the treatment of 10000 liters of water containing:
 $\text{Ca}(\text{HCO}_3)_2 = 16.2 \text{ ppm}$ $\text{Mg}(\text{HCO}_3)_2 = 7.3 \text{ ppm}$
 $\text{CaCl}_2 = 11.1 \text{ ppm}$, $\text{MgCl}_2 = 19 \text{ ppm}$