



# RAMCO INSTITUTE OF TECHNOLOGY

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## Department of Civil Engineering

Academic Year 2022– 2023 (Odd Semester)

Degree, Semester & Branch: VI Semester B.E Civil Engineering

Course Code & Title: EN8491 Water Supply Engineering

Name of the Faculty member(s): Mrs. C. Subha

### Innovative Practice Description

- **Course Outcome:** CO4
- **Activity Chosen:** One-Minute Paper
- **Justification:**

The water softening process is to remove temporary hardness and permanent hardness. Various softening methods include boiling water, adding lime-soda, ion exchange process, zeolite process, etc. To make the students more attentive, one-minute paper activity was conducted.

**Time Allotted for the Activity:** 5 minutes

- **Details of the Implementation:**

✓ One-minute paper is a commonly used classroom assessment technique. It gives ideas about the student's attentiveness and understanding.

✓ The various processes involved in water softening are taught in the class. At the end of the session, students were asked to write the precipitate formation in the lime soda process and any of its merits and demerits.

- **CO – PO / PSO mapping:**

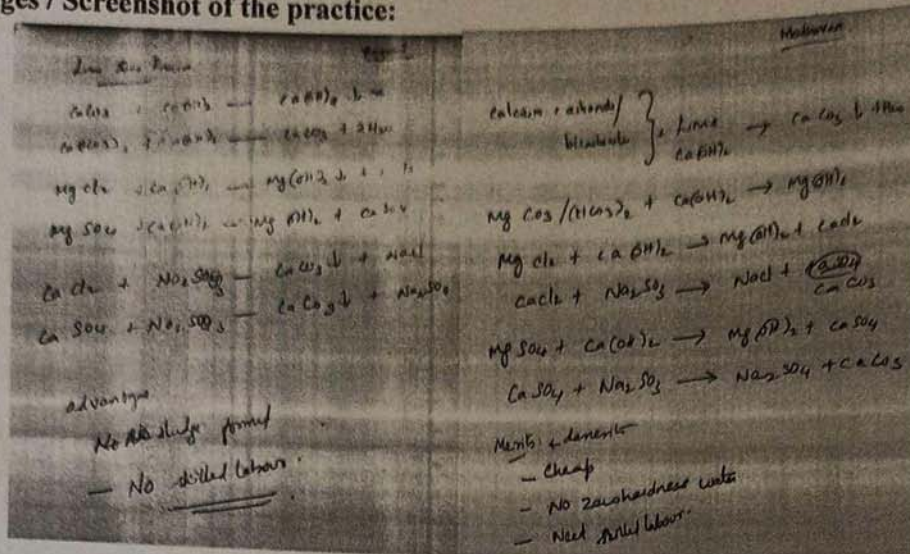
CO	PO6	PSO3
CO1	1	2

(1 – Low      2 – Moderate      3 – High)

- **PO / PSO mapped:**

Innovative practice	PO6	PSO3
<b>Justification for correlation</b>	Students will learn about water-softening procedures beneficial to society.	Learn advanced water treatment methods and can adopt sustainable technology at required places.

• Images / Screenshot of the practice:



• Reflective Critique:

• **Feedback on practice from students and other stakeholders:**

The students were able to recollect the basic concepts of the lime soda process and were able to write the equations involved in the lime soda process. They will be able to write the same in exams.

• **The benefit of the practice:** (E.g.: Outcome attainment would have increased due to innovative practice over conventional practice)

- ✓ This activity will help all the students get involved in the class.
- ✓ It prompts the students to reflect on the day's lesson and provides the instructor useful feedback.

**Challenges faced in implementation:**

Nil

**References:**

1. Garg S. K., "Irrigation Engineering and Hydraulic structures", Khanna Publishers, 23rd Revised Edition, New Delhi, 2009.
2. Garg, S.K., "Environmental Engineering" Vol. I, Khanna Publishers, New Delhi, 2005.

*C. G. S. K.*  
Signature of Faculty Member

*[Signature]*  
HOD