



## Department of Civil Engineering

Academic Year 2021– 2022 (Odd Semester)

Degree, Semester & Branch: III semester B.E Civil Engineering

Course Code & Title: CE8301 & Strength of Materials I

Name of the Faculty member (s): Mr.V.Ragavan

### Innovative Practice Description

Unit / Topic: Unit II / Shear Force & Bending Moment Diagram

- **Course Outcome:** CO2
- **Topic Learning Outcome:** TLO4
- **Activity Chosen:** One Minute Paper
- **Justification:**

Shear force and bending moment diagram is a topic that involves the definition of shear force, bending moment and construction of SFD & BMD for various types of beams. Before starting problem, I want to assess the understanding level of the students that's why I have chosen one minute paper for the above topic.

- **Time Allotted for the Activity:** 3 minutes
- **Details of the Implementation:**
  - The one minute paper is a very commonly used classroom assessment technique. It really does take about a minute and, while usually used at the end of class, it can be used at the end of any topic discussion.
  - I asked all students to take a piece of paper and made them to write answers for the questions within one minute.
- **CO – PO / PSO mapping:**

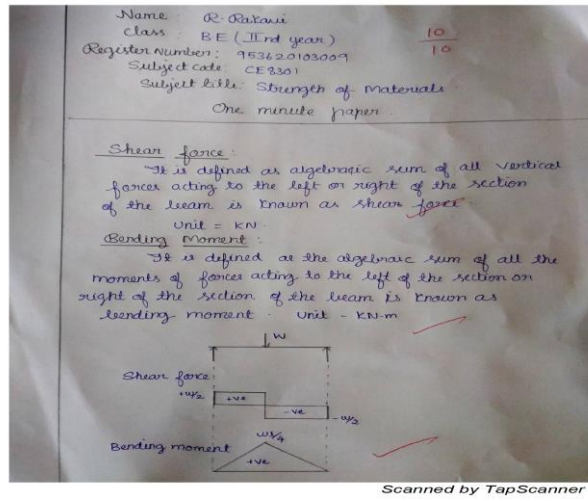
CO	PO1	PO2
CO2	3	2

(1 – Low      2 – Moderate      3 – High)

- **PO / PSO mapped:**

Innovative practice	PO1	PO2
<b>Justification for correlation</b>	Apply the knowledge of basic engineering fundamentals to construct the SFD & BMD for various beams.	Able to determine shear force and bending moment values under various loading conditions and construct SFD & BMD by using fundamental concepts of mechanics and principals of mathematics.

• **Images / Screenshot of the practice:**



• **Reflective Critique:**

❖ **Feedback of practice from students and other stakeholders:**

The students felt easy to remember and recollect the concepts involved in the given topic which will make them to attend the questions under this topic in Internal Assessment Test.

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

- i. One minute paper activities are an effective way of involving all students in class simultaneously.
- ii. It prompts students to reflect on the day's lesson and provides the instructor with useful feedback.

❖ **Challenges faced in implementation:**

Initially, I have planned the activity for 3 minute but students have taken 5 minutes to write the answers.

**References:**

- ❖ Rajput.R.K. "Strength of Materials", S.Chand and Co, New Delhi, 2015.
- ❖ Timoshenko.S.B. and Gere.J.M, "Mechanics of Materials", Van Nos Reinhold, New Delhi 1999.