



# Yashoda Technical Campus, Satara

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Faculty of Engineering  
Department of Computer Science and Engineering

Academic Year 2024-25

## Report On

### Continue Assessment Activity

**Day & Date:** Monday, 4 Nov 2024

**Name of Activity:** Think Pair and Share

**Name of the Faculty Coordinator:** Ms. Siddhi Ramchandra Sankpal

**Class & Division:** - S.Y.B. Tech

**Semester:** - III

**Name of subject:** - Engineering Mathematics-III

**Subject Code:** - BTBS301

**Total no of Students Present:** - 140

**CO and PO Mapped with activity:** -

CO1, CO2, CO3, CO4, CO5

PO1-Engineering Knowledge

PO2-Problem analysis

PO4- Conduct investigations of complex problems

PO9- Individual and Team

PO12-Life-long learning

**Rubrics of Activity:** -

Group formation 5M

Stepwise solution of Example 10M

Representation of Example 10M

Total 25M

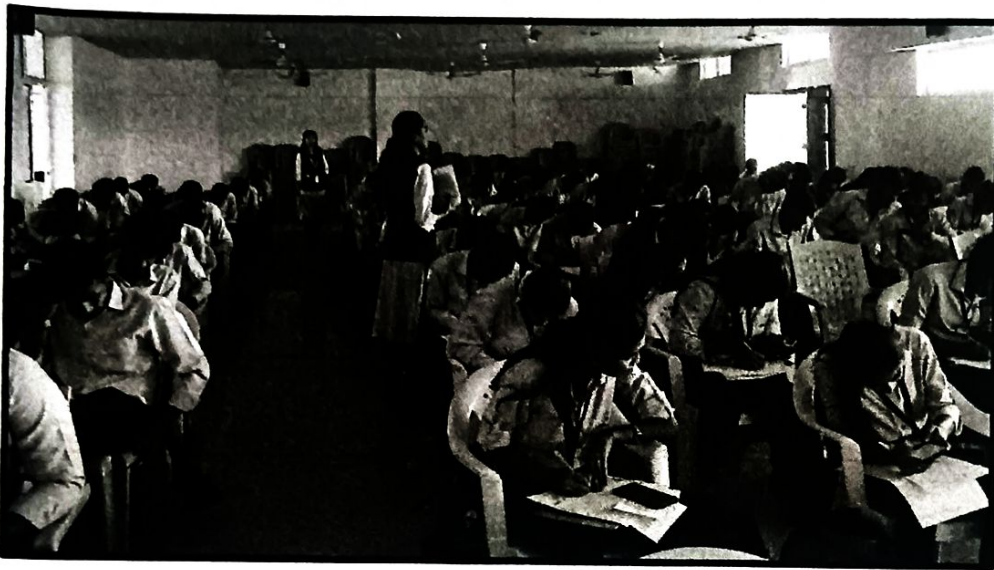
**Objectives:**

1. Students will develop critical thinking skills through collaborative discussion and sharing of ideas.
2. Students will practice effective communication skills by articulating their thoughts and listening to their peers.
3. Students will develop the knowledge

## Outcomes:

1. Students develop a deeper understanding of the concept or problem through individual reflection and peer discussion.
2. Students learn to analyze information, evaluate ideas, and develop well-supported arguments.
3. Students practice applying mathematical concepts to solve problems and develop innovative solutions.

## Photographs: -



*Siddhi*  
**Subject Teacher**



*[Signature]*  
**HOD**

**H.O.D.**  
**Computer Science & Engg.**  
**SPM'S Yashoda Technical Campus, Satara**



Q.1

Find the inverse Laplace transform of  $\cot^{-1}\left(\frac{s+3}{2}\right)$ 

$$\rightarrow \mathcal{L}^{-1}\left\{\cot^{-1}\left(\frac{s+3}{2}\right)\right\} = f(t)$$

$$\mathcal{L}^{-1}\left\{\frac{d}{ds}\cot^{-1}\left(\frac{s+3}{2}\right)\right\} = -t f(t)$$

$$\mathcal{L}^{-1}\left\{\frac{-1}{\left(\frac{s+3}{2}\right)^2+1} \cdot \frac{1}{2}\right\} = -t f(t)$$

$$\frac{1}{2} \mathcal{L}^{-1}\left\{\frac{1}{\frac{\left(\frac{s+3}{2}\right)^2+1}{4}}\right\} = t f(t)$$

$$2 \mathcal{L}^{-1}\left\{\frac{1}{(s+3)^2+4}\right\} = t f(t)$$

$$\mathcal{L}^{-1}\left\{\frac{2}{(s+3)^2+2^2}\right\} = t f(t)$$

$$e^{-3t} \mathcal{L}^{-1}\left\{\frac{2}{s^2+2^2}\right\} = t f(t)$$

$$e^{-3t} \sin 2t = t f(t)$$

$$f(t) = \frac{e^{-3t} \cdot \sin 2t}{t}$$

$$\mathcal{L}^{-1}\left\{\cot^{-1}\left(\frac{s+3}{2}\right)\right\} = \frac{e^{-3t} \cdot \sin 2t}{t}$$