



RAMCO INSTITUTE OF TECHNOLOGY

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Department of Computer Science and Engineering

Academic Year 2022 – 2023 (Odd Semester)

Degree, Semester & Branch: V Semester B.E. CSE

Course Code & Title: CS8501 Theory of Computation

Name of the Faculty member (s): Mrs.S.Manjula

Innovative Practice Description

Unit / Topic: Unit V / Post Correspondence problem (PCP)

Course Outcome: CO5

Topic Learning Outcome: TLO 15

Activity Chosen: One Minute Paper

Justification:

- The topic “**Post Correspondence problem (PCP)**” contains problem as well as theory part. This activity provides students with a strong understanding of this concept. A minute paper is a brief writing task in which students respond to questions posed by the teacher about the topics covered in class. These questions encourage students to reflect on the lessons they've learned and provide feedback on their understanding. This assists teachers in preparing for the following class. Its main advantage is that it provides immediate feedback on whether the instructor's and students' main ideas are the same.
- **Time Allotted for the Activity:** 10 minutes

Details of the Implementation:

- The instructor explained the specific concepts/topic in the classroom in 40 minutes.
- At the end of the class, students were instructed to write about the topic addressed in class based on the discussion.
- In class, students expressed what they had learned.
- This activity shows whether students understand the material and are actively participating in the lesson.

CO – PO / PSO mapping:

CO	PO1	PO2	PO4	PO9	PO10	PSO1
CO 1	2	2	1	1	1	1

(1 – Low 2 – Moderate 3 – High)

PO / PSO mapped:

Innovative practice	PO1	PO2	PO4	PO9	PO10	PSO1
	2	2	1	1	1	1
Justification for correlation	Apply mathematical knowledge to find computational solutions to various problems.	To analyze complex engineering problems using undecidable problems	Analyze the list to find the solution of PCP	To work as an individual	To Communicate effectively on complex engineering activities	Will be able to solve complex computation task

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

Post correspondence Problem

- ⇒ It is an undecidable Problem
- ⇒ We can't construct algorithm
- ⇒ It is represented in two forms,
- ⇒ Domino's & Table
- ⇒ It can't decide the solution

PCP: To match a string on both sides that matches the no. of elements used to pair up the string.

MPCP:

1. That is to add star on front and back
2. And to put w_0 and x_0 .
3. to write $\$$ and $\$$ on last.

And to match a string on both sides.

Figure:1 Glimpses of One Minute Paper

- **Reflective Critique:**

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

- Students informed the instructor that the activity motivates them to pay attention in class and ask questions.

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

- From this activity, the students can get more clarity in the particular topic.
- Students can able to explain the concepts without any confusion.

- ❖ *Challenges faced in implementation:*

Few students were hesitant to present the concepts because they were unsure of their correctness in that concept.

References:

https://www.ritrjpm.ac.in/images/computer-science/IG_CS8494-One_Minute_Paper.pdf
<https://oncourseworkshop.com/self-awareness/one-minute-paper/>
<https://www.eur.nl/en/teacheur/one-minute-paper>
<https://www.ritrjpm.ac.in/images/computer-science/2021-2022/Unit-3%20One%20Minute.pdf>

Signature of Faculty Member

HOD