



KBPCOES	INNOVATIVE ACTIVITY	DOC NO.: KBPCOES/ACD/F/05-00-08
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Program / Department: Basic Sciences & Humanities Department		Class: FY Mechanical	Semester: I	Div: A
Course: Engineering Chemistry	Course Code: 24AF1CHEBS102	Course Coordinator: Ms. Kamane A.R.		

INNOVATIVE ACTIVITY REPORT

“Internet Search Activity”

Date of Conduction: : 11/09/2025

Introduction:

Learning the concept using search engines this innovative learning is called an Internet search activity. To learn concepts by using different search engines it will help students to gain more information and more knowledge. This is experiential learning by doing self-study.

Objectives:

- 1) To use search engine
- 2) To learn concept effectively
- 3) To develop problem-solving skills
- 4) To activate or boost the brain

Procedure:

- 1) One point is to search by using different search engines.
For Example: “Search on Removal methods for wastewater for domestic or industrial purpose”
- 2) Students should use Google Scholar as a search engine . Here, Students will get more and more articles related to the topic.
- 3) When they find out information about a given topic they should write it on a paper to remember the concept.
- 4) It will help students to familiarize themselves with concepts.

Herewith attached sample copies of Students:

Name :- Tanishka Ganesh Gaikwad.
Roll No :- 16

Summary

- Title :- A Review on the methods of industrial waste water treatment
- Authors :- Khandakar M. Nahin, Bijoyee Sarker, Kamrun N. Keya, Fatin I. Mahir, Shahrima Shahida, Rahul A. Khan
- Published :- 2021 in Scientific Review.
- Summary :- The paper provides a comprehensive review of various industrial wastewater treatment methods used to reduce environmental pollution caused by industrial waste discharges. It highlights that wastewater pollution is a significant global challenge due to organic matter, heavy metals, dyes, and other contaminants entering water bodies from industries such as textiles, chemicals, mining, and metallurgy.
- Physical method :- Filtration techniques like greensand, multimedia, microfiltration, ultrafiltration, nanofiltration, and reverse osmosis.

chemical methods :-
Coagulation, flocculation, advanced oxidation processes, and electrochemical treatments.

Biological processes :-
Biofilm technology, microbial fuel cells and biodegradation methods.

Hybrid approaches :-
Combining adsorption with biodegradation, membrane bioreactors, and innovative low-cost methods using natural zeolite and bentonite.

The study emphasizes the need for combining various techniques to achieve effective and economical wastewater treatment, especially in developing countries where only a small percentage of wastewater is treated. It also discusses the global trends, sustainable development goals related to sanitation, the potential for resource recovery from wastewater, and the importance of regulatory, community, and technical management in successful treatment practices.

Conclusion :-
The paper concludes that low-cost integrated, and sustainable wastewater treatment technologies are vital to improving

Thursday

DATE 15/09/25

“Domestic & Industrial water uses of the past 60 years as a mirror of socio-economic development:- A global Simulation Study”

- Authors :- Martina Florke, Ellen Kynast, Tlana Barlund, Stephanie Eisner, Florian Wimmer, Joseph Alcamo
- Published in :- Global Environmental Change (Elsevier, 2013)

Summary :-

- Aim :- Study changes in domestic & industrial water use (1950-2010) & link to socio-economic growth.
- Purpose of the Study :-
 - To examine how domestic, manufacturing, & thermoelectric (power generation cooling) water uses have changed globally from 1950 to 2010
 - Also to simulate how much wastewater was generated in domestic + manufacturing Sectors, & where untreated wastewater is a big issue.

- Method :- Used Water-GAP3 global model for 177 countries.
- Simulated water withdrawals, consumption & wastewater
- Key findings :-
 - Water withdrawals \uparrow from $\sim 300 \text{ km}^3$ (1950) \rightarrow $\sim 1,845 \text{ km}^3$ (2010).
 - Untreated wastewater still $\sim 50\%$ in many regions (Asia, Africa, Eastern Europe).
 - Industrial water use shifted from developed countries \rightarrow emerging economies.
 - Water use trends “mirror” global economic development.
- Implications :-
 - Need better wastewater treatment worldwide.
 - Efficiency + technology are key to control future water demand.
 - Water use patterns can be used as an indicator of development.

“Quick Test”

Date of Conduction: 30/09/2025

Introduction:

Class test shows a fair mirror to students. Whether they understand, memorize and analyze the concept clearly. This will help the students to speed up their writing skills

Objectives:

- 1) To analyze concept
- 2) To boost the memory
- 3) Helps to speed up their writing skills
- 4) To manage time effectively for examination

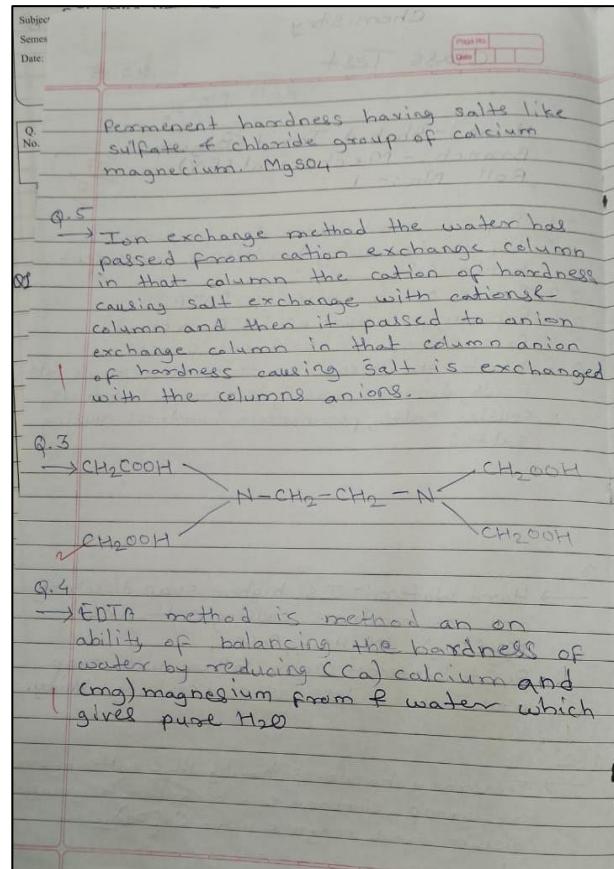
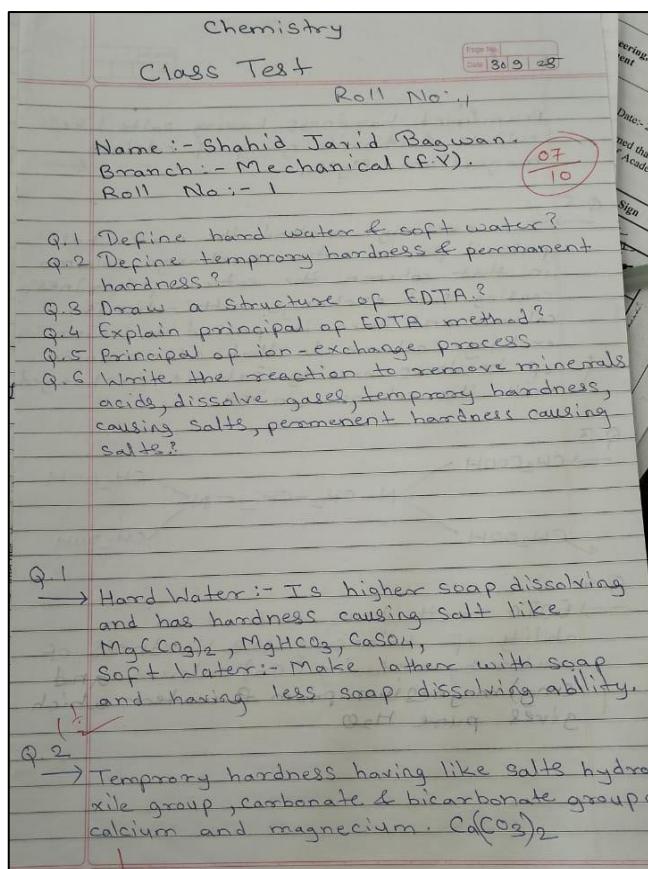
Procedure:

- 1) Class Test has been conducted on completed unit 1: Water Treatment topic for 10 marks in 20 Minutes.

2)

Que. No.	Solve any 5	Marks
1	Define Hard Water & Soft Water	2
2	Difference between Temporary Hardness & Permanent Hardness	2
3	Draw Structure of EDTA	2
4	Explain Principle of EDTA Method	2
5	Explain Principle of Ion Exchange Process.	2
6	Write Reaction to remove acid, hardness from water	2

Herewith attached sample copies of Students:





Rayat Shikshan Sanstha's
Karmaveer Bhaurao Patil College of Engineering, Satara
Academic Year: 2025-26

Basic Sciences & Humanities Department

Program: Mechanical Engineering
Unit I: Water Treatment

Division: A
Date: 30/09/2025

Class test result (10Marks)

Roll No.	Obtained Marks	Roll No.	Obtained Marks
1	07	31	07
2	06	32	07
3	--	33	06
4	--	34	08
5	--	35	--
6	06	36	--
7	--	37	03
8	03	38	07
9	--	39	08
10	08	40	06
11	--	41	04
12	06	42	--
13	--	43	04
14	05	44	07
15	--	45	--
16	08	46	09
17	06	47	--
18	03	48	--
19	06	49	08
20	--	50	06
21	06	52	06
22	06	53	06
23	05	54	05
24	08	55	--
25	06	56	--
26	04	57	07
27	03	58	06
28	--	59	--
29	07		
30	06		

Prof. Kamane A.R.
Course Coordinator



Basic Sciences & Humanities Department

Program: Mechanical Engineering
 Unit I: Water Treatment

Division: A
 Date: 11/10/2025

Class test (20Marks)

A		B	
Q.1 Solve any 3 (12Marks)		Q.1 Solve any 3 (12Marks)	
1	Differentiate between temporary hardness and permanent hardness.	1	What is softening of water and discuss the various types?
2	List advantages & disadvantages of Ion Exchange method.	2	List advantages & disadvantages of Hot Lime Soda Process.
3	Differentiate between Hot lime soda Process & Ion Exchange Process	3	Describe Winkler's method for determination of dissolved oxygen
4	Describe Winkler's method for determination of dissolved oxygen	4	Explain Hardness of water
Q.2 Solve Any 1 (8 Marks)		Q.2 Solve Any 1 (8 Marks)	
1	How does the hardness of water determined by using EDTA method?	1	Explain treatment of water in domestic purpose by using aeration, sedimentation, filtration
2	Explain in detail Ion exchange process	2	Explain in detail Ion exchange process

Course Coordinator

Paper A

Dr. Babasaheb Ambedkar Technological University, Lonere
 Center: Karmaveer Bhaurao Patil College of Engineering, Satara

(To be filled by the Candidate)

Mid Sem Exam. / First Test / Second Test **9730**

Course: Fy (Mechanical) Examination Seat No. 49

Subject: Engineering Chemistry Semester: 1

Date: 11/10/25 Time: 11:30 to 12:30

Signature of the Supervisor

(To be filled in by the examiner)

Q. No.	1	2	3	4	5	6	7	8	Total Marks	Signature
									In Fig.	
									<u>14</u> <u>20</u>	

(Start writing from here)

Q1 Ans:

Temporary Hardness	Permanent Hardness
--------------------	--------------------

1] Temporary hardness means the water sample containing salts like Cl^- , NO_3^- & OH^- , carbonates and bicarbonates of Ca^{+2} and Mg^{+2} ions.

2] To remove the temporary hardness we have to do

1] Permanent hardness means the water sample containing salts like Ca^{+2} and Mg^{+2} ions.

2] To remove the permanent hardness we have to do some

B Class Test

Dr. Babasaheb Ambedkar Technological University, Lonere
 Center: Karmaveer Bhaurao Patil College of Engineering, Satara

(To be filled by the Candidate)

Mid Sem Exam. / First Test / Second Test **9736**

Course: First Year (Mechanical) Examination Seat No. FY-38

Subject: Chemistry Semester: 1

Date: 11/10/2025 Time: _____

Signature of the Supervisor

(To be filled in by the examiner)

Q. No.	1	2	3	4	5	6	7	8	Total Marks	Signature
									In Fig.	
									<u>12</u> <u>20</u>	

(Start writing from here)

Q1 Ans:

Temporary Hardness	Permanent Hardness
--------------------	--------------------

1] Softening of water is a process in which the reducing or removing a hardness causing salt present in a water. There are various types to softening water like,

1] for temporary hardness causing salt - Boiling is best and efficient way to remove temporary hardness from water and hardness causing salt deposits at a precipitate reaction: $\text{Mg}(\text{HCO}_3)_2 \xrightarrow{\Delta} \text{Mg}(\text{OH})_2 + \text{CO}_2$

2] for permanent hardness causing salts.

Surprise Test

Unit 2: Fuel & Lubricants

Class: F. Y. Mechanical Date: 06/11/2025

Total Marks: 20marks

Q. Solve the questions

- 1) Define Fuel?
- 2) Give the classification of chemical fuel
- 3) Define Calorific value & write units of calorific value.
- 4) State & explain types of calorific value.
- 5) Write principle of Bomb Calorimeter
- 6) Write principle of Boys Calorimeter
- 7) What are the purposes of analysis of coal?
- 8) What are the types of analysis of coal?
- 9) Give the Composition of petroleum
- 10) Define lubricants & give the classification of lubricants

Course Coordinator

“Kahoot”

Date of Conduction: 14/10/2025

Introduction:

Kahoot! is a game-based learning platform that makes it easy to create, share and play learning games or trivia quizzes in minutes. Unleash the fun in classrooms, offices and living rooms

Benefits of Kahoot!

- Makes learning fun and engaging
- Promotes active participation
- Enhances the classroom experience
- Serves as a formative assessment tool to gauge student understanding, review material, and reinforce concepts

Procedure:

Log in to your Kahoot! account.

1. Create and choose New kahoot.

2. Start typing your first quiz question. Add answer alternatives and mark the correct answer(s).

3. Tune the timer and points depending on the complexity of the question.

4. Add an image by uploading it from your computer or choosing one from our image library. You can also embed a YouTube link or add audio to the question (requires an upgrade).

5 Click Add question on the left-hand side. With a free Kahoot! account, you can add multiple-choice quiz, true or false questions, and classic slides. With an optional upgrade to one of our paid plans, you can add these advanced question types:

►Puzzle: students need to arrange answers in the correct order

►Poll: gather feedback or do a quick pulse-check during a lesson

►Advanced slide layouts: teach a topic or provide more context

►Type answer: students need to type a short text answer

►Open-ended question(available in Kahoot! EDU): gather student opinions as text answers up to 250 characters

Activity



Kahoot Activity on Water treatment unit

Due Oct 14



Posted Oct 11 (Edited Nov 27)

2

Turned in

62

Assigned

All students hereby inform to solve kahoot activity and upload screenshot of attempting this activity proof here.

You can Use link also:

https://kahoot.it/challenge/01507325?challenge-id=199e2118-e7a7-4fdb-ba0f-d9febca7df97_1760176186070

assignment-qr-code.png

Image





The Kahoot! report interface for the game 'Unit 1 Water Treatment'. The left sidebar shows navigation links: Home, Discover, Library, Reports (selected), Groups, Language Learning, Marketplace, AccessPass, Kahootopia!, Channels, and Help. The main content area shows the game title 'Unit 1 Water Treatment' and a summary section with a 'Well played!' message, a 64% correct badge, and a 'Play again' button. To the right, 'Assignment details' show 7 participants and 22 questions. A 'Challenge' section indicates the challenge is 'Finished'. The report also shows the start date (Oct 12, 2025, 12:23 PM), end date (Oct 15, 2025, 12:00 PM), and host (ankitakamane). A tip at the bottom right suggests boosting participant engagement by sharing the podium.

Kahoot!

Search public content

Super Kahootopia! Upgrade Create

Home Discover Library

Reports

Groups

Language Learning

Marketplace

AccessPass

Kahootopia!

Channels

Help

Report

Unit 1 Water Treatment

Report options

Challenge Finished

Start date: Oct 12, 2025, 12:23 PM

End date: Oct 15, 2025, 12:00 PM

Hosted by ankitakamane

Well played!

64% correct

Play again

Assignment details

Participants: 7

Questions: 22

View podium

Share podium

Top tip: Boost participant engagement by sharing the podium.

“Think – Pair – Share”

Date of Conduction: 06/11/2025

Introduction:

Think-pair-share is a collaborative learning strategy where students work together to solve a problem or answer a question about an assigned reading. This strategy requires students to (1) think individually about a topic or answer to a question; and (2) share ideas with classmates. Discussing with a partner maximizes participation, focuses attention, and engages students in comprehending the reading material.

Objectives:

1. It helps students to think individually about a topic or answer to a question.
2. It teaches students to share ideas with classmates and builds oral communication skills.
3. It helps focus attention and engage students in comprehending the reading material.

Procedure:

1. Decide upon the text to be read and develop the set of questions or prompts that target key content concepts.
2. Describe the purpose of the strategy and provide guidelines for discussions.
3. Model the procedure to ensure that students understand how to use the strategy.
4. Monitor and support students as they work through the following:

T : (Think) Teachers begin by asking a specific question about the text. Students “think” about what they know or have learned about the topic.

P : (Pair) Each student should be paired with another student or a small group.

S : (Share) Students share their thinking with their partner. Teachers expand the “share” into a whole-class discussion.

FY Mech 25-26
Engineering Chemistry

Instructions

Student work



Think Pair Share Activity (Unit - 2)

Ankita Kamane • Nov 6 (Edited Nov 27)

20 points

Class comments



Add class comment...

Herewith attached sample copies of Students:

Roll No :- 40 Name:- Sanika Pawar
Think pair and share Activity Test 2

2] → chemical fuel mainly divided into two parts ① primary / natural fuel and ② Derived / secondary fuel
Then primary and secondary fuel are divided on basis of physical state ① solid ② liquid ③ gas

chemical
(occurrence)

Primary / Natural (Physical state)	↓	secondary / Derived ↓		
solid e.g. coal vegetable oil	↓	solid natural gas charcoal	liquid coke kerosene petrol	gas LPG petrol gas

3] Define fuel :-
Fuel is substance that undergoes combustion in presence of oxygen and releases energy in form of heat.
 $\text{Fuel} + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O} + \Delta$

4] calorific value :-
The no. of heat evolved or released by complete combustion of unit mass or unit weight of fuel is called calorific value.

Przem Pawar
Roll No. 39
chemistry. Activity :- Pair & share

Q.1] fuel is defined as 'substance undergoing combustion produces large amount of heat which is used as economically in domestic and industrial purpose'.

Q.2] Give classification of chemical fuel.
→ Chemical fuels can be classified as.
① Solid Natural
- Which can occurs naturally from natural sources.
② Derived
- Which can get by adding or manually from natural sources.

Q.3] Calorific value defined as 'The number of unit of heat evolved during combustion measured by unit weight of fuel.'
② Units of calorific value are.
i) Calories per gram
ii) British calorific farheit.

Q.4] Calorific values types are follows.
i) High or Gross calorific value.
ii) Low or Net calorific value.
$$\text{G.C.V} = \frac{(W-W)(T_2-T_1)}{\text{mass of fuel}(\Delta)}$$

ii) Low or Net calorific value.
- contains net value & have formula.
$$\text{N.C.V} = \text{G.C.V} - [g \times \% \text{H} \times S]$$

$$\text{N.C.V} = \frac{\text{G.C.V} - [g \times \% \text{H} \times S]}{\text{mass of fuel}(\Delta)}$$

Roll no:- 10 Name:- Chinnay Dharma Dikari
Activity :- pair & share activity

Q.1] fuel is defined as substance undergoing combustion produces large amount of heat which is used as economically in domestic & industrial purpose.

Q.2] Chemical fuels can be classified as.
① Natural
- Which can occurs naturally from natural sources.
② Derived
- Which is obtained by addition of chemical

Q.3] the number of unit of heat evolved during complete combustion of unit weight of fuel.
i) units of C.V
ii) B.C.F (British calorific farheit)
iii) Calories per gram
iv) C.V is also defined as carbon content present in fuel.

Q.4] types of calorific value.
i) High or Gross calorific value.
ii) Low or Net calorific value.

Q.5] principle of bomb calorimeter is 'A known quantity of fuel is get combustion and heat produced from it is get absorbed by known quantity of fuel in water.'

Divya Mung classmate
Roll no:- 06

Think pair and share activity.

1) Define fuel?
→ The substance goes reaction combustion with air to produce large amount of heat is called fuel.

2) Give the classification of chemical fuel.
→ On is 1^o natural and 2^o is 2^o & 3^o fuel. which one is after in natural secondary fuel and artificial fuel.

Fuel

```

graph TD
    Fuel --> Primary[Primary]
    Fuel --> Secondary[Secondary]
    Primary --> LiquidWood[liquid - wood]
    Primary --> SolidVegetableOil[solid - vegetable oil]
    Primary --> GasesNaturalGas[gases - natural gas]
    Secondary --> LiquidCoal[liquid - coal]
    Secondary --> SolidAlcohol[solid - alcohol]
    Secondary --> GasesLPG[gases - LPG]
  
```

3) Define the calorific value & write the units of calorific value.
→ calorific is defined as number of heat which evolved or liberated by complete combustion reaction of unit weight or unit mass of fuel.
unit of calorific value.
1) British thermal unit (B.T.U)
2) Kilogram calorie unit (K.C.U)
3) Centigrade heat unit (C.H.U)

“Cross Word Puzzle”

Date of Conduction: 06/11/2025

Introduction:

Crossword puzzles can be a fun and effective innovative teaching and learning activity. By incorporating them into lessons, educators can engage students in a way that promotes critical thinking, problem-solving, and vocabulary enhancement. Here's how crossword puzzles can be used innovatively in education:

Objectives:

- 1) To help students recall and reinforce key terms, concepts, and facts learned in class.
- 2) To foster critical thinking by encouraging students to make connections between clues and answers.
- 3) To evaluate students' understanding of key concepts in a given subject or lesson.
- 4) To increase student engagement and motivation by making learning fun and interactive.

Procedure:

1) Preparation:

Step 1: Select the Subject Matter

Step 2: Create the Crossword Puzzle

Step 3: Prepare Instructions : Briefly introduce the activity to students. Let them

- 2) Inform students to know the purpose of the crossword and how it aligns with the lesson's learning objectives.
- 3) Instruct students to solving the puzzle: Allow students time to solve the crossword puzzle individually
- 4) Review the Answers : Once most students have completed (or attempted) the puzzle, go over the answers as a class. Discuss any tricky clues and explain the reasoning behind the correct answers

FY Mech 25-26
Engineering Chemistry

Stream Classwork People Grades

Lab Cross Word Puzzle Due Sep 15

Think Pair Share Activity (Unit - 2) Edited Nov 27

Crossword Puzzle (Unit-2) Due Nov 17

Posted Nov 13 (Edited Nov 27)

8 Turned in 56 Assigned

All Students here by informed to take a print of crossword puzzle and solve it. Submit the crossword puzzle on or before due date . Also upload image of solve crossword puzzle in given tab.

Unit 2 cross word puzzle-1... PDF

View instructions Review work

Blank Crossword puzzle

Unit 2: Fuel & Lubricant
Complete the crossword puzzle below

Name: _____

Across:

1. The good lubricant should require.....V.I.
4. Fossil Fuel
7. The calorific value measured from volatile fuel
8. Method used to determined %N from fuel
10. 1. The minimum temperature at which fuel get start to burn continuously
11. 14. Example of Semi-solid lubricant
12. 10. The combustible materials in a substance that are released as gas or vapour when the substance is heated
13. 7. Example of liquid lubricant
15. 15. The chemical substance used to reduce the friction
16. 16. the formation of emulsions from two immiscible liquid phases
17. 17. High Ranked coal

Down:

2. Type of Calorific value where combustion product are condensed
3. Example of solid lubricant
5. Low Grade Coal
6. Apparatus used to measured calorific value of fuel
8. Chemical Composition of petroleum
14. 13. material that can react with other substances to release energy
18. 1. The minimum temperature at which fuel get start to burn continuously (ignitionpoint)
19. 12. Example of Semi-solid lubricant (grease)
20. the combustible materials in a substance that are released as gas or vapour when the substance is heated (volatilometer)
21. 13. Example of liquid lubricant (mineraloil)
22. 15. The chemical substance used to reduce the friction (lubricant)
23. 16. the formation of emulsions from two immiscible liquid phases (emulsification)
24. 17. High Ranked coal (anthracite)

Created using the Crossword Maker on TheTeachersCorner.net

Answer sheet of Crossword puzzle

Unit 2: Fuel & Lubricant
Complete the crossword puzzle below

Name: _____

Across:

1. The good lubricant should require.....V.I. (high)
4. Fossil Fuel (petroleum)
7. 11. The calorific value measured from volatile fuel (boyscalorimeter)
8. 5. Method used to determined %N from fuel (Kjeldahl)
10. 1. The minimum temperature at which fuel get start to burn continuously (ignitionpoint)
11. 14. Example of Semi-solid lubricant (grease)
12. 10. the combustible materials in a substance that are released as gas or vapour when the substance is heated (volatilometer)
13. 7. Example of liquid lubricant (mineraloil)
15. 15. The chemical substance used to reduce the friction (lubricant)
16. 16. the formation of emulsions from two immiscible liquid phases (emulsification)
17. 17. High Ranked coal (anthracite)

Down:

2. Type of Calorific value where combustion product are condensed (gross)
3. 4. Example of solid lubricant (molybdenumdisulfide)
5. 9. Low Grade Coal (lignite)
6. 3. Apparatus used to measured calorific value of fuel (calorimeter)
8. 8. Chemical Composition of petroleum (paraffin)
13. 13. materials that can react with other substances to release energy (fuel)

Created using the Crossword Maker on TheTeachersCorner.net

Herewith attached sample copies of Students:

Rayat Shikshan Sanstha's
Karmaveer Bhaurao Patil College of Engineering, Satara

Basic Sciences & Humanities Department

Academic Year - 2025-2026

Program- Mechanical Engineering

Course: Engineering Chemistry

Course coordinator: Ms. Kamane A.R.

Course Code: 24AF1CHEBS102

Name of Student: Amit Nitin Kamble

Roll No.: 22

Innovative Teaching Learning Activity

Unit 2: Fuel & Lubricant
Complete the crossword puzzle below

Name: _____

Across:

1. The good lubricant should require.....V.I.
4. Fossil Fuel
7. The calorific value measured from volatile fuel
8. Method used to determined %N from fuel
10. 1. The minimum temperature at which fuel get start to burn continuously
11. 14. Example of Semi-solid lubricant
12. 10. The combustible materials in a substance that are released as gas or vapour when the substance is heated
13. 7. Example of liquid lubricant
15. 15. The chemical substance used to reduce the friction
16. 16. the formation of emulsions from two immiscible liquid phases
17. 17. High Ranked coal

Down:

2. Type of Calorific value where combustion product are condensed
3. Example of solid lubricant
5. Low Grade Coal
6. Apparatus used to measured calorific value of fuel
8. Chemical Composition of petroleum
14. 13. material that can react with other substances to release energy
18. 1. The minimum temperature at which fuel get start to burn continuously (ignitionpoint)
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22. 15. The chemical substance used to reduce the friction (lubricant)
23. 16. the formation of emulsions from two immiscible liquid phases (emulsification)
24. 17. High Ranked coal (anthracite)

Created using the Crossword Maker on TheTeachersCorner.net

Rayat Shikshan Sanstha's
Karmaveer Bhaurao Patil College of Engineering, Satara

Basic Sciences & Humanities Department

Academic Year - 2025-2026

Program- Mechanical Engineering

Course coordinator: Ms. Kamane A.R.

Name of Student: Sanika Niles Pawar

Roll No.: 40

Innovative Teaching Learning Activity

Unit 2: Fuel & Lubricant
Complete the crossword puzzle below

Name: _____

Across:

1. The good lubricant should require.....V.I.
4. Fossil Fuel
7. The calorific value measured from volatile fuel
8. Method used to determined %N from fuel
10. 1. The minimum temperature at which fuel get start to burn continuously
11. 14. Example of Semi-solid lubricant
12. 10. The combustible materials in a substance that are released as gas or vapour when the substance is heated
13. 7. Example of liquid lubricant
15. 15. The chemical substance used to reduce the friction
16. 16. the formation of emulsions from two immiscible liquid phases
17. 17. High Ranked coal

Down:

2. Type of Calorific value where combustion product are condensed
3. Example of solid lubricant
5. Low Grade Coal
6. 3. Apparatus used to measured calorific value of fuel
8. Chemical Composition of petroleum
14. 13. materials that can react with other substances to release energy
18. 1. The minimum temperature at which fuel get start to burn continuously (ignitionpoint)
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21. 13. Example of liquid lubricant (mineraloil)
22. 15. The chemical substance used to reduce the friction (lubricant)
23. 16. the formation of emulsions from two immiscible liquid phases (emulsification)
24. 17. High Ranked coal (anthracite)

Created using the Crossword Maker on TheTeachersCorner.net

“Mind Mapping”

Date of Conduction: 16/12/2025

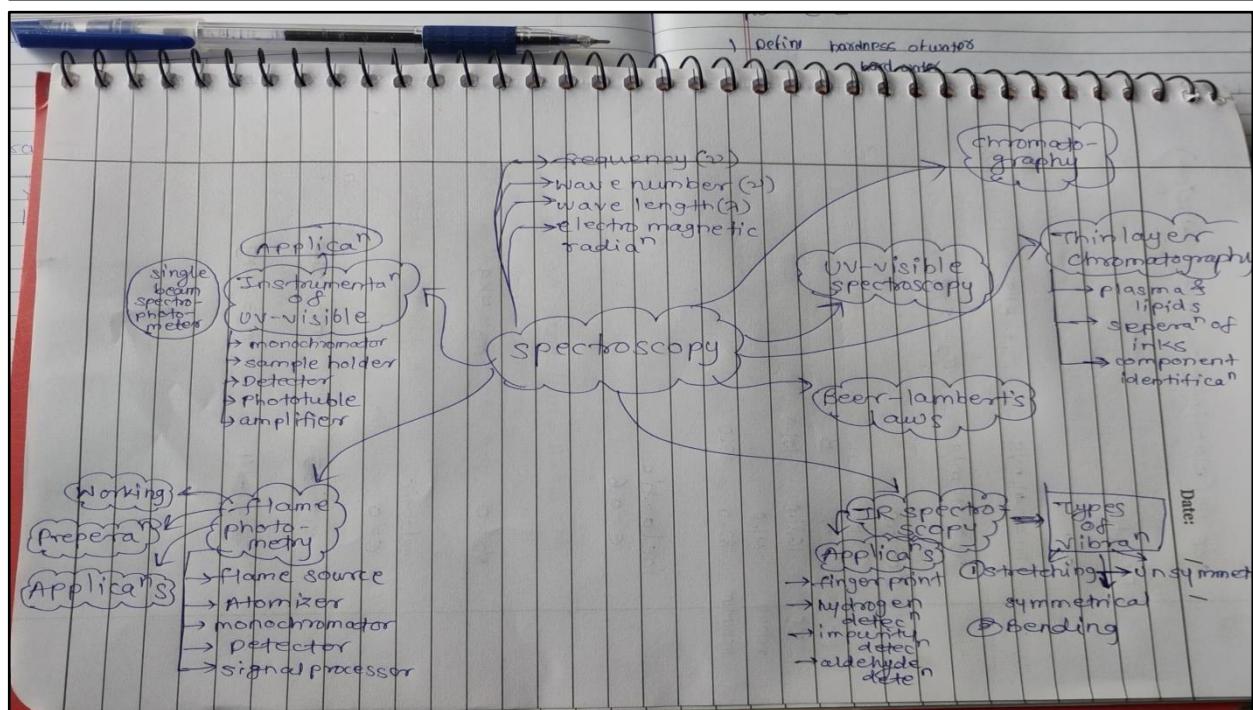
Introduction:

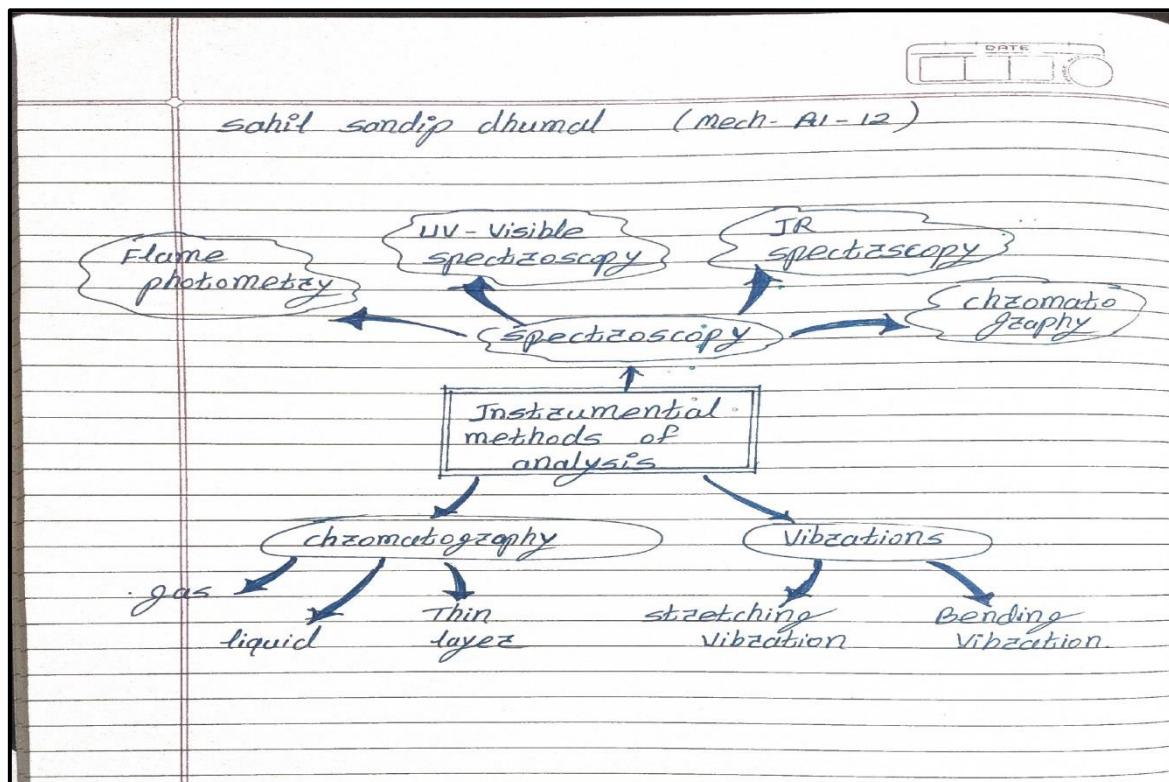
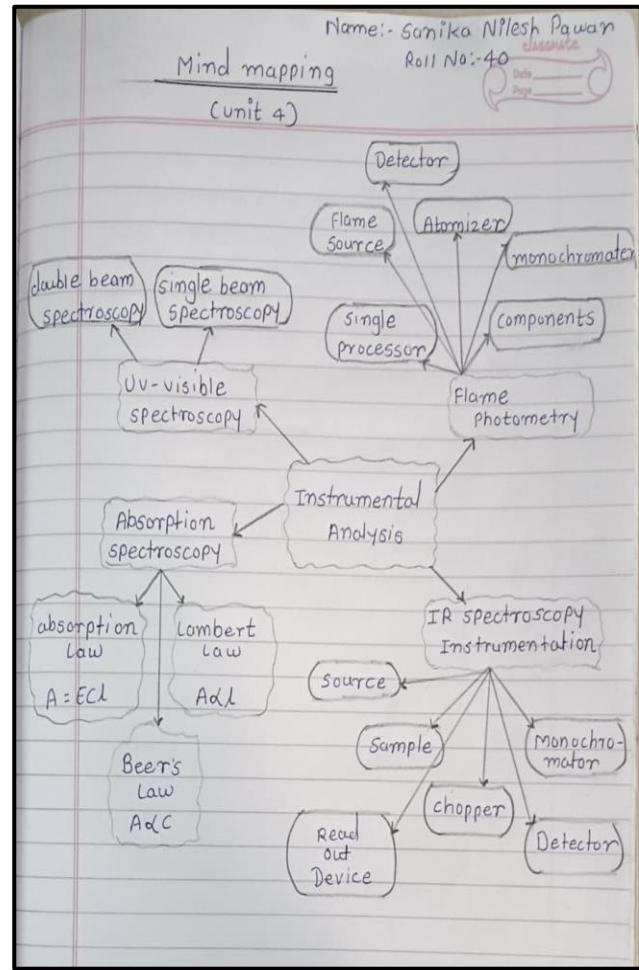
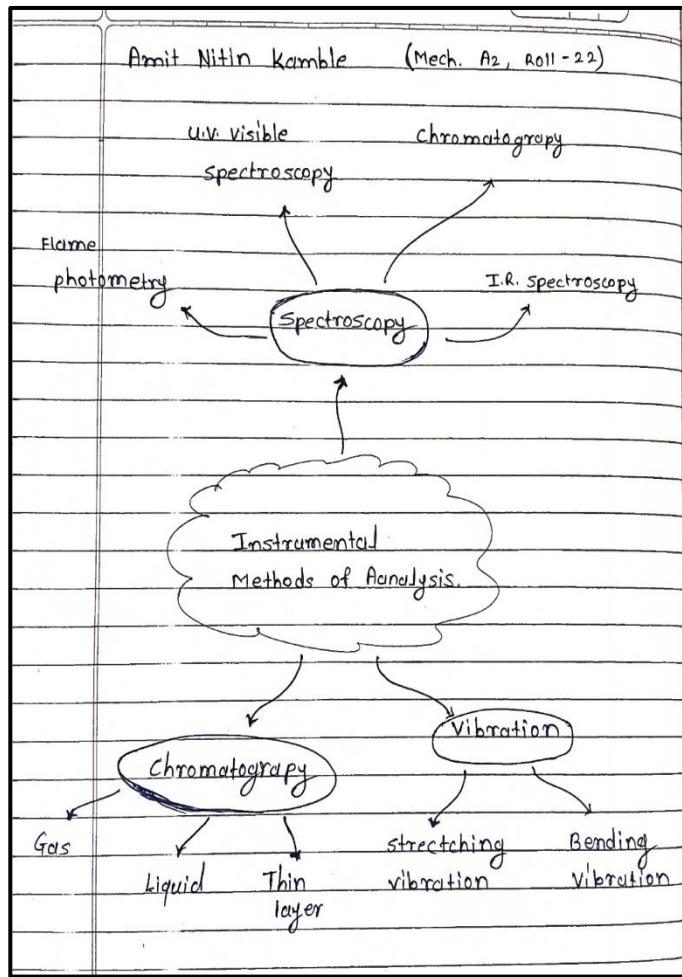
Mind mapping is a visual technique for organizing information around a central topic, using a non-linear, tree-like structure with radiating branches for related ideas, keywords, and images, to enhance brainstorming, learning, and problem-solving by mirroring natural thought patterns, improving recall, and revealing connections.

Objectives:

- Improved Memory:** Visual elements and associations aid retention.
- Enhanced Creativity:** Breaks linear thinking, fostering new ideas.
- Better Understanding:** Breaks down complex topics into manageable parts.
- Increased Productivity:** Organizes thoughts for planning and execution.

The screenshot shows a Google Classroom assignment titled "Mind mapping (unit 4)". The assignment is created by Ankita Kamane on Dec 16, 2025, and is worth 10 points. It includes a "Class comments" section where users can add comments. The assignment is part of the "FY Mech 25-26 Engineering Chemistry" course, which is currently selected in the sidebar. Other courses listed include "E & TC Engg. Chemistry Lab", "Div - E (24-25) Engineering chemistry", "Div - D (24-25) Engg. Chemistry", and "Engineering chemistry lab C...". The sidebar also shows sections for "Home", "Calendar", "Gemini", "Teaching", "To review", and "FY Civil 2024-2025".





“Library Activity”

Date of Conduction: 08/09/2025

Introduction: Library visit objectives focus on fostering literacy, developing research skills, promoting self-learning, and familiarizing users with resources, aiming to support education, encourage reading, and ensure equitable access to information for personal and academic growth

Objectives:

- **Promote Reading & Literacy:** Instill a lifelong love for reading and self-learning.
- **Develop Information Literacy:** Teach effective strategies for selecting, retrieving, analyzing, and using information.
- **Support Curriculum:** Supplement classroom learning with library resources for deeper understanding.
- **Enhance Research Skills:** Guide users in independent and group research using diverse materials.
- **Foster Creativity & Critical Thinking:** Inspire new ideas and develop analytical skills.
- **Build Community:** Create a welcoming space for intellectual and cultural exchange.

Herewith attached photos of Students:



Course Coordinator

HOD