

DELHI PUBLIC SCHOOL GHAZIABAD
CLASS – XII
CONSOLIDATED LESSON PLAN
CHAPTER-2 solution

Unit	Solution
Class Transaction	Total: 7 periods
Pre-requisite for the course	This lesson requires 1. Basic knowledge of concentration of solutions 2. Knowledge of states of matter
Assessment of qualifying knowledge	1. Written test 2. HW notebook
Objective	Students would be able to understand preparation properties and uses of P-Block element , structure of their important compound.
Learning Outcomes	<u>KNOWLEDGE</u>- describe the formation of different types of solutions; • express concentration of solution in different units; • state and explain Henry’s law and Raoult’s law; • distinguish between ideal and non-ideal solutions; <u>SKILLS</u>- <i>Students would be able to</i> • explain deviations of real solutions from Raoult’s law; • describe colligative properties of solutions and correlate these with molar masses of the solutes; • explain abnormal colligative properties exhibited by some solutes in solutions
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- <i>Brain Storming</i>-The class would start with a discussion on what the students have already learnt in the previous classes and hence what is it that they would learn now. They would also be told the significance of the topic that they would be studying. <i>Communication and brainstorming:</i> <i>Students develop effective communication skills and learn to put across their views.</i> <i>Introduction of the topic-</i> ppt and Digital Content would be made by students. <i>Collaboration:</i><i>Students learn to work in collaboration to achieve a common goal. They learn to manage time and divide and delegate work and responsibilities.</i> <i>Creativity and innovation</i>

	<i>Students use the knowledge given in class and create projects and models and perform research to give innovative solutions to the problem studied. Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom. : Helps students to think critically and solve the given problem</i> <i>Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom.</i> Techniques to be used: Daily Practice Problem MCQ Peer Assessment Character and citizenship: Group discussion helps to develop interpersonal skills, respecting and valuing views of others HOTS Any Other								
Resources	Text Book: NCERT text book for Mathematics Reference Book 1. CBSE Exemplar 2. DPSG Spiral 3. Previous year questions								
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks as mentioned in the monthly planner. It is also advised that the students come to the class with proper background knowledge of the topic under discussion. They can refer to the resources stated above.								
Assessments	<table> <tr> <td>3 UNIT TESTS</td><td>30,35,35 marks respectively</td></tr> <tr> <td>MID TERM EXAMINATION</td><td>70 Marks</td></tr> <tr> <td>HALF YEARLY EXAMINATION</td><td>70 Marks</td></tr> <tr> <td>PRE BOARD EXAMINATION</td><td>70 Marks</td></tr> </table>	3 UNIT TESTS	30,35,35 marks respectively	MID TERM EXAMINATION	70 Marks	HALF YEARLY EXAMINATION	70 Marks	PRE BOARD EXAMINATION	70 Marks
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Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: <i>For higher scoring students:</i>								

	• Spiral Level 3 questions to be done • Encouragement for referring other resources <i>For lower scoring students:</i> • Spiral Level 1 to be completed • Peer help to be provided • Provide grade-up classes(PCC) <i>For differently abled students:</i> • Ignore spelling mistakes and formulae,if not written • Call parents at regular intervals • Provide grade-up classes • Encourage and motivate them at every level.
Marks	The weightage would be given by CBSE.

DELHI PUBLIC SCHOOL GHAZIABAD
CLASS XII
LESSON PLAN
Unit-02
Solution
(Based on DOL)

Anticipatory Set: Facilitator introduces the topic **Solutuion**

Objective:

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- Given questions based on the topic. learners will be able to provide knowledge of concepts of solutions containing nonvolatile solute/ dissolution of gases in liquids. What are colligative properties? Calculation of molar mass of nonvolatile solute through colligative properties
 - To make students able to solve questions based on the topics to be discussed
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Techniques to be used:

- Peer Assessment
- Quiz
- Case Study
- PPT

Materials required and Teaching Aids: Smart Class Modules, blackboard, chalk, duster, NCERT book

Strategy

Student – teacher interaction, collaborative learning, independent practice

DAY 1

- The students will be shown a PPT and will be able to describe the formation of different types of solution .
- The students will be told about the uses of the concentration of solution in day to day life.
- The students would be given practice on simple questions / numerical based on concentration.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher.

- Critical thinking

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some questions will be asked based on the day's teaching and doubts will be cleared.

Communication

INDEPENDENT PRACTICE – Students will do the leftover questions of exercise. in assignment copy. Students will make ppt in group .

(Collaboration)

DAY 2

*The students will be made to learn the Henry's law & Raoult's law.

*Questions from NCERT will be discussed along with the discussion of solved examples given.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher.

- Critical thinking

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some questions will be asked based on the day's teaching and doubts will be cleared.

Communication

INDEPENDENT PRACTICE – Students will do the leftover questions of exercise in their Assignment notebook

DAY 3

*The students will be explained the properties of ideal and non-ideal solution.

*Explain deviation of real solutions from Raoult's law.

*The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher. Brain storming questions

(Critical thinking)

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some questions will be asked based on the day's teaching and doubts will be cleared.

Communication

INDEPENDENT PRACTICE – Students will do the left over questions of exercise in their assignment notebook.

DAY 4

The students will be explained about colligative properties of solutions

- The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.
- * The students will be explained depression of freezing point, elevation of boiling point and correlate to molecular mass.
- * The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher.(Critical thinking)

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some conceptual questions will be asked based on the day's teaching and doubts will be cleared.(Communication)

INDEPENDENT PRACTICE – Students will do the leftover questions of exercise in their assignment notebook.

Creativity: Students will be asked to draw graphs on positive and negative deviation from Raoult's law

DAY 5

* Student will be explained about relative lowering of vapor pressure, Osmotic pressure and correlate with molecular mass.

*The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher.

-Critical thinking

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some conceptual questions will be asked based on the day's teaching and doubts will be cleared.

Group Discussion : Communication

INDEPENDENT PRACTICE – Students will do the leftover questions of exercise in their assignment notebook.

DAY 6

Students will be explained about abnormal molar mass of non volatile solute.

- Cause of abnormal molar mass.
- Calculation of degree of dissociation/ degree of association.
- Numericals based on Van't Hoff factor.
- The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

*The students will be explained describe the association and dissociation of non volatile solute.

*Van't Hoff factor will be explained.

*The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher.

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some conceptual questions will be asked based on the day's teaching and doubts will be cleared.

Communication

INDEPENDENT PRACTICE – Students will do the leftover questions of exercise in their assignment notebook.

Brain storming Questions : **Critical thinking**