Annual Pedagogical Plan for session 2023-24

CLASS XI PHYSICS

| What are the problems? | Compilation of problems | Categorization of Problems (Subjective & Behavioral) |
|--|--|--|
| Lack of proper writing skills. Difficulty in solving case studies. Source – based questions Assertion Reasoning and logical reasoning-based Questions. Not using proper format in solving numerical questions. Slow in Mathematical calculations. Slow in Mathematical calculations. applying concepts to day-to-day life. Comprehending the language of question paper. | Students find problem in: 1. Deriving the formula, calculation, unit conversion and application (Application) 2. analysis of graph and to solve questions related to graph (Analysis) 3. relating the concept with daily life. (Application) 4. understanding the language of question paper and time management during exam. (Evaluate) 5. Attempting less number of Question in exam due to above problem | <u>Subjective</u> Students, instead of understanding, few of them Mug up the subject content and could not able to solve the Application based Question paper Students face problems in understanding the conceptual questions, HOT'S questions <u>Behavioral</u> Students lack focus and perform careless mistakes during application of formulae. Lack of regular practice in numerical. Lack of concentration and interest in the topic and takes more time to understand the concepts. |

COMMON KPI FOR CLASS XI PHYSICS TERM 1 2022-23

| KPI NAME | KPI DE F. NO | KPI DEFn. COMMON | WHERE ARE WE NOW? (scale & desc ription) | KPI GOA L | KPI LIMIT | WHAT WE NEED TO DO? | HOW WILL IT BE ACHIEVED? | KPI MEASURE MENT | REVIEW | KPI REPO RTIN G | KPI ACHIE VEME NT | KPI IMPROV EMENT |
|---|-----------------------|---|---|-----------------|--------------|---|--|--|---|-----------------------------------|----------------------------|------------------------|
| Analytical and scientific problems | 01 | KPI 01: Students face problems in understan ding the conceptua I questions, HOT'S questions KPI 02 : Students face problems in solving numerical portion/ mathemati cal calculation in chapters like motion in straight | Appr. 30% of the students are able to understan d. | 40% | +2% /- 2% | To give more Practice and continuou s follow – up action. | To prepare lesson plan according to the KPI. Written assignment sheet after completing topic / Chapters will be given. Providing Supporting Material/summ ary such as discussion of points to remember to understand the basic terminologies of the chapter in the form of notes should be provided. | Self – Assessment test /practice Test after every Chapter. | It will be done after every periodic test and exam | In every Six month s. | | |

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| | laws of | with its unit |
| | motion, | should be |
| | work and | given to all the |
| | energy | students in |
| | gravitation | class along with the |
| | etc. | framing of |
| | KPI 03 : | given content |
| | Students | in numerical |
| | Face | part. |
| | | |
| | problem in | 5.proper copy |
| | analytical | checking work |
| | study of | should be |
| | Graphical | done in class |
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| | d the sign | average and |
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| | n in topics | average |
| | such as | students. |
| | motion, | |
| | forces and | 7. Proper |
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CSNC SUPER 10 JEE/NEET/CBSE

ACTION PLAN / PROPOSAL PLAN

TO INCULCATE CLASS XI AND XII STUDENTS FOR THE PREPRATION OF JEE/NEET EXAMINATION FOR THE SESSION 2023-24.

EXPENSES BEARED BY STUDENTS

- 1. A CHARGE OF RS. 25000/- PER SUBJECT FROM EACH STUDENT
- 2. STUDY MATERIAL COST WILL BE
 - A) APPROX. 2500 PAGES (PER SUBJECT) WHICH INCLUDE MODULES, TEST PAPERS, SOLUTIONS ETC WILL BE APPROX. 10 TO 12 RS PER PAGE WILL BE THE COST
 - B) MISC. EXPENSES FOR STATIONARY ITEMS APPROX.15000 RS

FUTURE SCOPE

- 1. STUDENTS OF CLASS IX AND X COULD BE GIVEN FREE CLASSES IN THE MONTH OF DEC/JAN FOR PREPRATION OF KVPY AND OTHER ENTRANCE EXAMS OF THAT LEVEL
- 2. DISCUSSION OF IMO/NSO EXAM PAPER CAN ALSO BE DONE.
- 3. ON SECOND/FOURTH SATURDAY, STUDENTS CAN BE CALLED FOR THEIR REGULAR JEE/NEET CLASSES.

COMMON ISSUES/PROBLEMS

- 1. ADJUSTMENT OF SCHOOL TIME TABLE AS WELL AS JEE/COMPETITIVE TIME TABLE.
- 2. APPROPRIATE TIME IS REQUIRED FOR SYLLABUS COMPLETION AND REVISION.
- 3. STUDENTS OFTEN REQUIRE ALL MAJOR SUBJECTS AT THE SAME PLACE.
- 4. MINIMUM NUMBER OF STUDENTS SHOULD BE 15.
- 5. NO. OF DAYS REQUIRED PER WEEK WILL BE 4.

LESSON PLAN 1 SUBJECT : PHYSICS CLASS: XI

(BLOOM'S LEVELS AND SUB CATEGORIES TO BE PUT, ACCORDINGLY, THE TABLE TO BE FILLED)

TOPIC- UNITS AND DIMENSIONS

BRIEF DESCRIPTION- Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. significant figures. Dimensions of physical quantities, dimensional analysis and its applications.

KPI DEFINITION :

KPI 01: Students face problems such as in understanding the concept of degree, minute and second of an angle to find the size of Any long distance Object and other practical Applications such as degree of order and Basic differences between the system of units and their conversion and to apply the concept of Significant figures

KPI 02: students face problem in understanding the concepts of forming the dimensional formulas, committing mistakes in framing the equations for relation among two different physical quantities and other Applications

KPI 03 : Students face problems in understanding the conceptual questions, HOT'S questions

OBJECTIVES:

I- Specific Objectives-

SP 1. To identify the Basic differences between fundamental and derived units of different physical Quantities and to understand the importance of the topic that what is the need of units

SP2. It helps the students to understand the basic concepts of Accuracy and Precision and also helps to find the errors in calculation part.

II -Behavioural Objectives

To enable the students to-

B 1 To learn the practical aspects of the chapter along with different parameters

B 2 Students will learn how to find the difference between experimental value and True value of any physical Quantity.

PROCESS /ACTIVITIES

ACT 1. To prepare chart of Dimensional formula for Different physical quantities

ACT 2. By Group Discussion method and make them understand about the various types of units and dimensional formula

ASSESSMENT:

A1 - Worksheet of Related topic should be given to the students

A2 – To solve examples related to applications of dimensional analysis About the different values of different Physical Quantities along with proper units

A3- To give them assignment to form few examples related to degrees, minutes and seconds of an angle used in day to day life such as reading of a Analog clock in format of degree.

DIGITAL CONTENT TO BE USED: (if applicable) PPt's

EXPECTED LEARNING OUTCOME-

Students will be able to:

- 1. To get the complete understanding of the chapter.
- 2. Solve different typology of questions.

3. To use the Theoretical concepts in practical knowledge for measuring different physical Quantities

| | Placement of Objectives, Instructional Activities and Assessment | | | | | | | | | | |
|------------|--|----------|----------|--|--|--|--|--|--|--|--|
| | Topic: UNITS AND MEASURMENT | | | | | | | | | | |
| | KNOWLEDGE UNDERSTANDING APPLICATION ANALYSIS SYNTHESIS EVALUA | | | | | | | | | | |
| Objectives | B1 | SP1 /SP2 | SP2 / B2 | | | | | | | | |
| Activities | ACT 1 | ACT2 | | | | | | | | | |
| Assessment | 1 | A1 | A2 , A3 | | | | | | | | |

REVIEW OF THE LESSON PLAN (TO BE DONE WHEN THE LESSON GETS OVER)

Problems faced – Success-Failure-Real Learning Outcomes ELO-Students' response/ participation Teacher's Learning TO INCORPORATE IN TERM 2-

LESSON PLAN 2 SUBJECT: PHYSICS CLASS: XI (BLOOM'S LEVELS AND SUB CATEGORIES TO BE PUT, ACCORDINGLY, THE TABLE TO BE FILLED)

TOPIC- MOTION IN ONE DIMENSION

BRIEF DESCRIPTION-). Motion in a Straight-Line Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and nonuniform motion, and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment

KPI DEFINITION :

- **KPI 01 :** Students face problem in Analytical part/ Application part of numerical
- KPI 02: Also the students gets confused in applying three Equations of motion in numerical part along with their graph
- **KPI 03 :** Students face problems in understanding the conceptual questions, HOT'S questions

OBJECTIVES:

I- Specific Objectives-

SP1 To apply the concept of one dimension in Gravitation part and to solve conceptual Questions

SP2. To understand concepts of one dimension and to cover the topics such as distance, displacement, speed velocity etc. and to relate it with practical examples an would be able to solve Questions related to one dimensional motion

II -Behavioural Objectives

To enable the students to-

- B1. students face problems in the graphs of relative velocity
- B2 To learn the other practical aspects of the chapter and would be able to solve different types of questions

PROCESS / ACTIVITIES

ACT 1. To Frame their own practical life example in which they can show one dimension motion.

ACT 2. By Group Discussion method and make them understand about the various concepts of one-dimensional motion such as relative velocity, gravity questions etc.

ASSESSMENT:

A1 - Worksheet of Related topic should be given to the students

DIGITAL CONTENT TO BE USED: (if applicable) PPt's

EXPECTED LEARNING OUTCOME-

Students will be able to:

- 1. To get the complete understanding of the chapter.
- 2. Solve different typology of questions.

| | Placement of Objectives, Instructional Activities and Assessment | | | | | | | | | | |
|------------|---|-----------|-----------|--|--|--|--|--|--|--|--|
| | Topic: UNITS AND MEASURMENT | | | | | | | | | | |
| | KNOWLEDGE UNDERSTANDING APPLICATION ANALYSIS SYNTHESIS EVALUATION | | | | | | | | | | |
| Objectives | | SP 1 / B1 | SP2 / B 2 | | | | | | | | |
| Activities | ACT 1 | | ACT 2 | | | | | | | | |
| Assessment | | | | | | | | | | | |

REVIEW OF THE LESSON PLAN (TO BE DONE WHEN THE LESSON GETS OVER)

Problems faced – Success-Failure-Real Learning Outcomes ELO-Students' response/ participation Teacher's Learning TO INCORPORATE IN TERM 2-