

LESSON PLAN (CONSOLIDATED)
SUBJECT: MATHEMATICS
GRADE: XII

Chapter Number and Title of Chapter	Chapter 3- Matrices
No. of Periods	Total: 25 periods (approx. 40 min each)
Learning Objectives	Given the content (chapter) the learners will be able to • Define a matrix • Identify the order of a matrix • Construct a matrix of given order and identify its entries • Classify different types of matrices • Check the equality of matrices • Perform addition, scalar multiplication, subtraction of matrices and to multiply two or more matrices • Study the properties of matrix addition, scalar multiplication and multiplication. • Understand the elementary row and column operations • Calculate the inverse of an invertible matrix using elementary operations.
Teaching Aids / Resources	Videos (Teaching and Explanation)- Tata class edge modules PPT- https://drive.google.com/file/d/11W1-tTIDzDev4J8O_G2mJs_feBGvr9gp/view?usp=sharing Concept Map- https://drive.google.com/open?id=1xt65Q5YZxz_QDuVSw5XA4Be-NSAr9w5J Additional Resources URL (Web links)- https://www.youtube.com/playlist?list=PLmdFyQYShrjcoVkhCCIwxNj9N4rW1-T5I

Previous Knowledge/ Curiosity Questions	• Knowledge of concept of permutations and combinations • Basic knowledge of linear equations • What are the applications of matrices
Announcement of topic	Teacher will announce that today we are going to study “ Matrices ”
Teaching Methodology/ Strategy	Transaction would proceed in the following manner- Active learning- • Teacher will explain all the concepts of matrices on board • Class edge module/PPT will be shown to enhance the learning experience Guided practice - teacher will solve some questions based on the topic on board to develop their skills and understanding. NCERT questions will be discussed in the classroom. Independent Practice- students will solve similar exercise questions form textbook.
Learning Concepts/ Teaching Points	• Definition of matrix • Order and notation elements of a matrix • Equal or comparable matrices • Types of matrices • Operations on matrices-(addition, scalar multiplication, subtraction and multiplication) • Properties of addition, scalar multiplication and multiplication • Transpose and its properties • Symmetric and skew symmetric matrix • Elementary operations and invertible matrices • Inverse of a matrix and its uniqueness

Hard Spots/ Focus Spots	• Students should remember that while finding inverse of a matrix they have to use either row operations only or column operations only. • Students usually apply both type of elementary operations while finding inverse • While calculating inverse students should apply transformations carefully on both sides of equation.
Subject Enrichment Activities for Internal Assessment	• Students will solve topic wise Quiz from class edge modules. • A short class test will be taken to assess the students understanding.
Recapitulation :	• Recapitulation will be done in each period • Doubts of students will be taken. • At the end of the chapter mind mapping/concept mapping will be used to summarize the topic.
Assignment:	• NCERT EXEMPLAR questions will be given as assignment and after submission solution of assignment will be shared.