

Class – XI

Lesson Plan

TOPIC: THREE-DIMENSIONAL GEOMETRY

Brief Description: In this Chapter, we shall study the basic concepts of geometry in three-dimensional space

UN Sustainable Goals to be achieved (if any): Quality Education

Objectives: (put Bloom's level)

I - Specific Objectives

Students will be able to understand:

- ❖ Coordinate Axes and Coordinate Planes in Three-Dimensional Space
- ❖ Coordinates of a point in space
- ❖ Distance between Two Points
- ❖ Section Formula

II - Behavioral Objectives

After learning this chapter students will be able to develop: Visualization skill

Process / Activities:

Activity (to introduce the lesson)

For introducing the chapter (Three-Dimensional Geometry), students will be asked to:

1. Visual demonstration of octant

Skills (as per subject)

- ❖ Observation
- ❖ Understanding
- ❖ Problem solving

Digital Content to be used:

PPT/Video will be shown to students for better understanding of the concept

Exercise for Notebook (put Bloom's level)

- ❖ Glossary
- ❖ R.T.C (Reference to Context)
- ❖ Typology of questions
- ❖ Value based question

Expected Learning Outcomes

Students would be able to learn:

- ❖ Coordinate Axes and Coordinate Planes in Three-Dimensional Space
- ❖ Coordinates of a Point in Space
- ❖ Distance between Two Points
- ❖ Section Formula
- ❖ Visualization skill

Assessment: (put Bloom's level)

- Q1. A point is on the x -axis. What are its y -coordinate and z -coordinates? (PS)
- Q2. Find the distance between the following pairs of points: (i) (2, 3, 5) and (4, 3, 1). (US)
- Q3. Are the points A (3, 6, 9), B (10, 20, 30) and C (25, -41, 5), the vertices of a right angled triangle? (MS)
- Q4. Find the equation of set of points P such that $PA^2 + PB^2 = 2k^2$, where A and B are the points (3, 4, 5) and (-1, 3, -7), respectively. (R)