

Class – XI
Lesson Plan

TOPIC: PROBABILITY

Brief Description: In this Chapter, we will study about the approach called axiomatic approach of probability. To understand this approach, we must know about few basic terms viz. random experiment, sample space, events, etc.

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

Objectives: (put Bloom's level)

I - Specific Objectives

Students will be able to understand:

- ❖ Random experiments
- ❖ Outcomes and sample space
- ❖ Types of events
- ❖ Algebra of events
- ❖ Probability of an event

II - Behavioral Objectives

Through this chapter students will develop Reasoning Skill

Process / Activities:

Activity (to introduce the lesson)

For introducing the chapter (Probability), students will be asked to:

1. Probability of getting head or tail will be asked from the students

Activity (to support learning)

Students will be asked to conduct an activity in the classroom regarding:

To write the sample space, when a coin is tossed once, two times, three times, four times.

Skills (as per subject)

- ❖ Observation
- ❖ Understanding
- ❖ Problem solving

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:

- ❖ Random experiments
- ❖ Outcomes and sample space
- ❖ Types of events
- ❖ Algebra of events
- ❖ Probability of an event
- ❖ Reasoning Skill

Assessment: (put Bloom's level)

Q1. Describe the sample space when a coin is tossed and a die is thrown. (PS)

Q2. The marks obtained by a student of Class XI in first and second terminal examination is 62 and 48, respectively. Find the minimum marks he should get in the annual examination to have an average of at least 60 marks. (US)

Q3. Find the probability that when a hand of 7 cards is drawn from a well shuffled deck of 52 cards, it contains (i) all Kings (ii) 3 Kings (iii) at least 3 Kings. (MS)

Q4. Two dice are thrown and the sum of the numbers which come up on the dice is noted. Let us consider the following events associated with this experiment
A: 'the sum is even'. B: 'the sum is a multiple of 3'.
C: 'the sum is less than 4'. D: 'the sum is greater than 11'.
Which pairs of these events are mutually exclusive? (R)

Q5. In a class of 60 students, 30 opted for NCC, 32 opted for NSS and 24 opted for both NCC and NSS. If one of these students is selected at random, find the probability that
(i) The student opted for NCC or NSS. (ii) The student has opted neither NCC nor NSS.
(iii) The student has opted NSS but not NCC. (AEL)