Glossary

1. **Probability**
   Probability is a numerical measure of the likelihood that a specific event will occur.

2. **Events**
   One of the possible outcomes of an experiment is known as event.

3. **Mutually Exclusive Events**
   Two events are mutually exclusive if they cannot occur at the same time (i.e., they have no outcomes in common)

4. **Independent Events**
   Two events are said to be Independent Events if the occurrence or non-occurrence of one is not affected by the occurrence or non-occurrence of the other.

5. **Theorem**
   A theorem is a statement that has been proven based on previously established statements, such as other theorems, and previously accepted statements, such as axioms.

6. **Addition Theorem**
   For any two event A, B the Probability of A union B equals to probability of A added to probability of B minus probability of A intersection B.
   $P(A \cup B) = P(A) + P(B) - P(A \cap B)$

7. **Multiplication Theorem**
   According to Multiplication Theorem of Probability, for any two events A, B probability of A ∩ B is as given below
   $P(A \cap B) = P(A) . P(B/A) = P(B) . P(A/B)$

8. **Union**
   The union of A and B consist of all elements, which belong to either A, or B, denoted by A U B.

9. **Intersection**
   A point where lines join or cross each other is known as intersection, denoted by A ∩ B.

10. **Complement**
    The complement of an event A is the set of all outcomes in the sample space that are not included in the outcomes of event A. The complement of event A is represented by $\bar{A}$.

11. **Random Event**
    Random events are events that do not have a determined outcome.

12. **Disjoint Events**
    Two events that both cannot happen is known as disjoint events**.**

13. **Conditional Probability**
    Conditional Probability is a probability of an event or outcome based on the occurrence of a previous event or outcome.

14. Permutation

    It is all the possible arrangements of a collection of things.

15. Combination

    It is a collection of things, in which the order does not matter.