

Mathematics and Statistics Std XI (Part II)
for Arts and Science

Competency Statement

The students will be able to.

1. understand set of complex numbers and different ways of expressing complex numbers.
2. perform algebraic operations on complex number
3. simplify algebraic expressions involving complex numbers.
4. Revise AP, learn GP and HP sequences
5. Find the general term and the sum of the first n terms of these sequences
6. count the number of arrangements of given objects satisfying specific condition.
7. count the number of possible selections of objects with certain conditions.
8. understand the method of induction and apply it to verify mathematical statements.
9. expand binomial expressions and find its general term.
10. simplify the binomial expression for negative index or fractional power.
11. work with sets and operations on sets.
12. construct sets from given conditions
13. solve problems on applications of set theory.
14. identify the types of relations.
15. Study equivalence relations.
16. work with function defined on different domains.
17. identify different types of functions.
18. carry out algebraic operations on functions.
19. understand the concept of limit of a function.
20. determine the limits of function if it exists.
21. Define and study the continuity of a function at a point and in an interval.
22. understand and study the differentiability of function.
23. understand and study differentiation of various functions.