Mathematics & Statistics (Arts and Science)
Standard XI
Paper II

Chapter 1. COMPLEX NUMBERS

1. A complex number.(C.N)
2. Algebra of C.N
3. Geometrical representation of C.N.
4. Polar and exponential form of C.N.
5. DE Moiver's Theorem.

Chapter 2: SEQUENCE AND SERIES

1. A.P and G.P.
2. Sum of nterms of a G.P.
3. H.P.and A.G.P
4. A.M. ,G.M. ,H.M

Chapter 3: PERMUTATIONS AND COMBINATIONS

1. Fundamental principles of counting
2. Factorial notations
3. Permutations
4. Permutations of distinct objects
5. Permutations when some objects are identical
6. Circular Permutations
7. Combinations.

Chapter 4: METHOD OF INDUCTION AND BINOMIAL THEOREM

1. Mathematical Induction.
2. Binomial theorem.
3. General term of expansion.
4. Expansion for negative and fractional index.
5. Binomial coefficients.

Chapter 5: SETS AND RELATIONS

1. Representation of a set.
2. Types of sets
3. Intervals.
4. Operation on sets.
5. Ordered pair
6. Types of relations.

Chapter 6 : FUNCTIONS

1. Function , Domain, Co-domain ,Range
2. Types of functions
3. Representation of function
4. Basic types of functions.
5. Piece-wise defined and special functions.

Chapter 7: LIMITS

1. Meaning – Definition of limit
2. Calculation of various limits
3. Limits of trigonometric functions
4. Limits of Rxponential and Logarithmic functions .
5. Limit at infinity and Infinite limit.

Chapter 8: CONTINUITY

1. Continuity of a function at a point
2. Continuity of a function over an interval.
3. Intermediate value theorem.

Chapter 9: DIFFERENTIATION

1. The meaning of rate of change
2. Definition of derivative and the formula associated with it.
3. Derivatives of some standard functions.
4. Relationship between Continuity and Differentiability.