

Indraprastha College for women, Univ. of Delhi

WORK PLAN (January, 2023-May, 2023)

Course Name: B.Sc.(H) Mathematics

Semester: VI

Paper Code: 32361601

Paper Name: Complex Analysis

Faculty: Dr. Chander Shekhar

Week	Theme/ Curriculum
1	Convergence of sequences and series
2	exponential function, Logarithmic function, trigonometric function,
3	Taylor series and its examples
4	Taylor series and its examples
5	Laurent series and its examples
6	Laurent series and its examples
7	Laurent series and its examples
8	absolute and uniform convergence of power series, uniqueness of series representations of power series.
9	absolute and uniform convergence of power series, uniqueness of series representations of power series.
10	Isolated singular points, residues,
11	Cauchy's residue theorem, residue at infinity. Types of isolated singular points
12	Cauchy's residue theorem, residue at infinity. Types of isolated singular points
13	residues at poles and its examples, definite integrals involving sines and cosines.
14	residues at poles and its examples, definite integrals involving sines and cosines.
15	residues at poles and its examples, definite integrals involving sines and cosines.
16	Discussion and resolving doubts
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Readings/Reference Texts: