

Indraprastha College for women, Univ. of Delhi

WORK PLAN (January, 2023-May, 2023)

Course Name: B.Sc. (Hons.) Mathematics

Semester: VI

Paper Code:

Paper Name: Complex Analysis LAB

Faculty: Dolly Jain

Week	Theme/ Curriculum
1	Practical – 10: Evaluation of Contour integral through Mathematica
2	Practical – 11: Plotting of different contour with same initial & same end point and evaluation of integrals over these contours
3	Practical – 11: Plotting of different contour with same initial & same end point and evaluation of integrals over these contours
4	Practical – 12: Verification of ML- inequality through Mathematica
5	Practical – 12: Verification of ML- inequality through Mathematica
6	Practical – 13: Integration over a given path
7	Practical – 14: Laurent series expansion
8	Practical – 14: Laurent series expansion
9	Practical – 15: Locating poles of a given function
10	Practical – 15: Locating poles of a given function
11	Practical – 16: Locating poles and zeros of a given function and finding the residue
12	Practical – 16: Locating poles and zeros of a given function and finding the residue
13	Practical – 17: Integral of a given function over a given path
14	Practical – 17: Integral of a given function over a given path
15	Revision
16	Revision
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Readings/Reference Texts:

1. Brown, James Ward, & Churchill, Ruel V. (2014). Complex Variables and Applications (9th ed.). McGraw-Hill Education. New York.

Additional Readings:

1. Bak, Joseph & Newman, Donald J. (2010). Complex Analysis (3rd ed.). Undergraduate Texts in Mathematics, Springer. New York.
2. Zills, Dennis G., & Shanahan, Patrick D. (2003). A First Course in Complex Analysis with Applications. Jones & Bartlett Publishers, Inc.
3. Mathews, John H., & Howell, Rusell W. (2012). Complex Analysis for Mathematics and Engineering (6th ed.). Jones & Bartlett Learning. Narosa, Delhi. Indian Edition.