



**National Institute of Technology, Silchar-10**

**Department of Mathematics**

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## **Notice**

This is to inform all the concerned that the syllabus of the End-Sem exam for MA201 which will be held on Monday 2<sup>nd</sup> December 2024 is as follows:

Fourier Transforms: Introduction, Fourier series (F.S.), Even and Odd functions, Half range expansions. Fourier Integral (F.I.), Fourier Sine & Cosine transforms, Fourier Transforms (F.T.)

Formation of PDE. Linear PDE of first order Lagrange's method. Non-linear PDE of first order Charpit's method. Homogenous and Non-homogeneous linear equations with constant coefficients. Boundary and Initial value problems: (Dirichlet and Neumann type),

Method of separation of variables for PDEs, Wave Equation: One-dimensional, Cartesian Coordinates.

Probability & Statistics: Introduction, Random Variable. Cumulative distribution function. Probability Mass and Density function. Binomial Distribution

Poisson Distribution, Normal Distribution.

Curve fitting: Fitting of Straight line and Parabola (by the method of Least Squares). Correlation and Coefficient of Correlation. Regression and Coefficient of Regression, Lines of Regression. Angle between Regression Lines.

  
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