

CC-1 MATHEMATICAL PHYSICS- I

(Theory)

- This course recapitulates the mathematical tools such as limits, continuity, average, instantaneous quantities, differentiation, the plot of a function, probability, etc., in an extended form.
- This course introduces the idea of calculus, such as first, second-order, and partial differentiation, etc., which plays a very important role in thermal physics, electrodynamics, nuclear physics, quantum mechanics, etc.
- It provides an elaborated idea about vectors, vector calculus, curvilinear coordinates, etc., knowledge of which is very much necessary to understand the entire course of physics.
- It provides a new idea of the Dirac Delta function

(Practical)

- This course imparts the basic knowledge of C/ C++ programming, writing the flow chart, algorithm, and program in C language.
- Handling the various mathematical tools such as power series, matrix, solving linear equations, etc. with the C/ C++ program.
- Knowledge of numerical analysis to solve differential equations, integration, roots of equations, etc.