MATH 111   ELEMENTARY MATHEMATICS   **Credit   hours (2+0=2)**

Theory:

Differential Calculus: Definition of function, limit and continuity, Simple problems on limit, Simple problems on continuity, Differentiation of x^n , e^x , sin x & cos x from first principle, Derivatives of sum, difference, product and quotient of two functions, Differentiation of functions of functions (Simple problem based on it), Logarithmic differentiation (Simple problem based on it), Maxima and Minima of the functions of the form y=f (x) (Simple problems based on it).

Integral Calculus: Integration of simple functions, Integration of Product of two functions, Definite Integral (simple problems based on it), Area under simple well-known curves (simple problems based on it)

Matrices and Determinants: Definition of Matrices, Addition, Subtraction, Multiplication, Transpose and Inverse up to 3rd order, Properties of determinants up to 3rd order and their evaluation