

LESSON PLAN

B.Sc 1st Sem (NEP)

From 22nd July to 31st August

I - ϵ - δ definition of limit and continuity of a real valued function, Basic properties of limits. Types of discontinuities and differentiability of functions. Application of L' Hospital rule to indeterminate forms, successive differentiation, Leibnitz theorem, Taylor's and Maclaurin's series expansion with different forms of remainder.

From 1st Sep. to 30 sep.

II - Asymptotes: Horizontal, vertical and oblique asymptote for algebraic curves, Asymptote for polar curves. Intersection of a curve and its asymptotes, Curvature and radius of curvature of curves (Cartesian, parametric, polar & intrinsic forms). Newton's method, Centre of curvature and circle of curvature.

1st October to 31st October

III - Multiple points, Node, cusp, conjugate point. Tests for concavity and convexity, Points of Inflection, Tracing of curves, ~~Reduction~~ Reduction formulae.

From November

IV Rectification, intrinsic equation of a curve, Quadrature, Area bounded by closed curves, Volumes and surface of solids of revolution.

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