M-203 : Differential and Integral Calculus

Group No 3910, Time : 11--12 (room 1A30)

Contents :

Infinite Series, convergence and divergence of infinite series, integral test, ratio test, root test, and comparison tests. Conditional and absolute convergence, alternating series test. Power series, Taylor and Maclaurin series. Double integral and its applications to area, volume, moments and centre of mass. Double integrals in polar coordinates. Triple integrals in rectangular, cylindrical and spherical coordinates and applications to volume, moment and centre of mass. Vector fields, line integrals, surface integrals, Green's theorem, the divergence theorem, Stoke' theorem