Syllabus for Ph. D. (Sci.) in Mathematics Entrance Test

Calculus of single and multi variable, linear algebra, real analysis, group theory, metric space, topology, complex analysis, differential equation (o.d.e, p.d.e), interpolaton, solution of non-linear equations using various numerical methods, numerical differentiation and integration, numerical solution of initial initial and boundary value problems by using initial value integration method: such as Taylor series method, Euler's method, R.K. method etc.