

**MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY, JAIPUR**

**CIVIL ENGINEERING DEPARTMENT**

**Pre PhD-Test - Transportation Engineering**

**Syllabus**

Geometric design of highways - cross-sectional elements, sight distances, horizontal and vertical alignments. highway materials and construction - desirable properties and tests; desirable properties of bituminous paving mixes; design factors for flexible and rigid pavements; design of flexible and rigid pavement using IRC codes, pavement analysis & design; transportation planning and traffic engineering: traffic studies on flow and speed, peak hour factor, accident study, statistical analysis of traffic data; traffic flow, fundamental relationships; traffic signs; signal design by webster's method; intersection analysis and design; highway capacity and pavement maintenance management system.