5CE122 Transportation Engineering - I Lab

L-T-P-Cr: 0-0-3-1 Objective: To conduct the major test on road aggregates & bitumen, and minor test in field.

Practical: 1. Tests on Road Aggregates a. Aggregate Crushing Value Test b. Los Angeles Abrasion Test c. Aggregate Impact Test d. Specific Gravity and Water absorption Test e. Shape Test (Elongation and Flakiness) f. Stripping value of road aggregate 2. Tests on Bitumen a. Penetration test b. Softening point test

c. Specific gravity test d. Viscosity test e. Ductility test 3. Field test: Traffic survey, Axle load survey, Pavement Condition survey

Scheme of Examination:

Class performance : 15Marks

Lab Record : 15Marks

Internal Via-Voce : 10Marks

External Viva-Voce : 60 Marks

Text Books: 1. Khanna, S. K. and Justo, C. E. G., Highway Material Testing, Nemchand Bros., Roorkee 2. Latest relevant IS and IRC Codes Expected Outcome: The students would be aware about the physical test performed on the aggregate and bitumen generally conducted in the practice. Also exposure has been given about the field test like traffic survey (volume, density & speed), axle load determination and pavement condition evaluation.