

CE8611 HIGHWAY ENGINEERING LABORATORY

DETAILED SYLLABUS

OBJECTIVE:

- To learn the principles and procedures of testing of highway materials

EXERCISES:

I TEST ON AGGREGATES

- a) Specific Gravity
- b) Los Angeles Abrasion Test
- c) Water Absorption of Aggregates

II TEST ON BITUMEN

- a) Specific Gravity of Bitumen
- b) Penetration Test
- c) Viscosity Test
- d) Softening Point Test
- e) Ductility Test

III TESTS ON BITUMINOUS MIXES

- a) Stripping Test
- b) Determination of Binder Content
- c) Marshall Stability and Flow Values

REFERENCES:

1. Highway Materials and Pavement Testing, Nem Chand and Bros., Roorkee, Revised Fifth Edition, 2009
2. Methods for testing tar and bituminous materials, IS 1201–1978 to IS 1220– 1978, Bureau of Indian Standards
3. Methods of test for aggregates, IS 2386 – 1978, Bureau of Indian Standards
4. Mix Design Methods Asphalt Institute Manual Series No. 2, Sixth Edition, 1997, Lexington, KY, USA