II. BITUMINOUS MATERIALS:

- 1. Penetration Test.
- 2. Ductility Test.
- 3. Softening Point Test.
- 4. Flash and fire point tests.
- 5. Stripping Test
- 6. Viscosity Test.

III. BITUMINOUS MIX:

1. Marshall Stability test.

IV. TRAFFIC SURVEYS:

- 1. Traffic volume study at mid blocks.
- 2. Traffic Volume Studies (Turning Movements) at intersection.
- 3. Spot speed studies.
- 4. Parking study.

V. DESIGN & DRAWING:

- 1. Earthwork calculations for road works.
- 2. Drawing of road cross sections.
- 3. Rotors intersection design.

LIST OF EQUIPMENT:

- 1. Apparatus for aggregate crushing test.
- Aggregate Impact testing machine
- 3. Pycnometers.
- 4. Los angles Abrasion test machine
- 5. Deval's Attrition test machine
- 6. Length and elongation gauges
- 7. Bitumen penetration test setup.
- 8. Bitumen Ductility test setup.
- 9. Ring and ball apparatus
- 10. Viscometer.
- 11. Marshal Mix design apparatus.
- 12. Enoscope for spot speed measurement.
- 13. Stop Watches

TEXT BOOKS:

1. 'Highway Material Testing Manual' by S.K. Khanna, C.E.G Justo and A.Veeraraghavan, Neam Chan Brothers New Chand Publications, New Delhi.

REFERENCE BOOKS:

- 1. IRC Codes of Practice
- 2. Asphalt Institute of America Manuals
- 3. Code of Practice of B.I.S.
